Oracle® Fusion Applications

Installation Guide

11*g* Release 7 (11.1.7)

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Documentation for installers that describes Oracle Fusion
Applications provisioning and discusses how its inter-related
components orchestrate the installation, configuration, and
deployment of Oracle Fusion Applications product offerings
and the Oracle Fusion Middleware technology stack.

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Oracle Fusion Applications Installation Guide, 11*g* Release 7 (11.1.7)

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Preface

The *Oracle Fusion Applications Installation Guide* provides information about setting up Oracle Fusion Applications Provisioning and using it to install and provision a new Oracle Fusion Applications environment. It includes specific instructions for installing prerequisite components; installing, configuring, and deploying applications product offerings; and deinstalling an environment.

Audience

This document is intended for users who are provisioning an Oracle Fusion Applications environment and installing product offerings for the first time and who are comfortable with system administration tasks such as installing Oracle Fusion Identity Management, setting up and configuring Oracle Database 11*g* (11.2.0.3), and applying patches on the computer where the product offerings will be installed. Users installing on a UNIX system need `root` access to run some of the scripts.

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Related Documents

For more information, see the following documents:

- *Oracle Fusion Applications Administrator and Implementor Roadmap*

- *Oracle Fusion Applications Concepts Guide*

- *Oracle Fusion Applications Administrator's Guide*

- *Oracle Fusion Middleware Administrator's Guide*

- *Oracle Fusion Applications Customer Relationship Management Enterprise Deployment Guide*

- *Oracle Fusion Middleware Enterprise Deployment Guide for Oracle Identity Management (Oracle Fusion Applications Edition)*
- *Oracle Fusion Middleware Installation and Configuration Guide for Oracle Business Intelligence Applications*
- *Oracle Database Installation Guide* for your platform
- *Oracle Fusion Applications Common Implementation Guide*
- *Oracle Fusion Applications Patching Guide*
- *Oracle Fusion Applications Upgrade Guide*

Conventions

The following text conventions are used in this document:

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

What's New in This Guide

This preface introduces the new and changed installation features of Oracle Fusion Applications that are described in this guide, and provides pointers to additional information.

New and Changed Features for 11*g* Release 7 (11.1.7)

Oracle Fusion Applications 11*g* Release 7 (11.1.7) includes the following new and changed features for this document.

- Deleted Chapter 7 "Installing Desktop Applications" as the link will no longer be available in the Oracle Fusion Applications Navigator menu. For more information, see "Setting up Oracle ADF Desktop Integration", "Setting Up Financial Reporting Center", and "Installing Smart View" in the *Oracle Fusion Applications Post-Installation Guide*.

- Updated information related to installing Oracle Identity Management components. See Section 2.1.4.

- Update note and commands for performing a manual backup. See Section 5.1.5.

- Deleted information related to OAM Security Mode field from Section 4.3.14 and Appendix D.28.

- Updated information related to the IDM properties file name and file location. See Section 2.1.4.3, Table 4–2, Section 4.3.12, and Appendix D.26.

- Updated information related to components selected by default when installing Oracle Database Enterprise Edition manually. See Section 3.3.1 and Section 3.5.1.

- Added note regarding Oracle Label Security. See Section 3.3.1 and Section 3.5.1.1.

- Added note regarding the applications available for different domains. See Appendix D.5.

- Added new section for information related to 32 bit libraries for SUSE Linux Enterprise Server 11. See Section 2.2.23 and Section 5.3.

- Added new section for information related to verifying the available swap space on Unix. See Section 2.2.6.

- Added new section for information related to setting the time zone. See Section 2.2.24.

- Added new section for information related to creating the `hwrepo` directory. See Section 2.2.25.

- Added new section for information related to minimum recommended disk space. See Section 2.2.26.

- Added new section for information related to recommended memory requirement for HCM Workforce Reputation Management Product. See Section 2.2.27.

- Added new section for information related to verifying the correct UCB ps version on Solaris. See Section 2.2.28.

- Added information related to Provisioning Wizard command-line options. See Section 4.3.1.

- Added new schema owners for "Audit", "Oracle Social Network", and Functional Setup Manager (FUSION_SETUP) in Oracle Fusion Applications. See Table 3–4.

- Added information related to different types of topologies. See Table 4–2, Section 4.3.5, and Appendix D.12.

- Added new section related to Preverify Phase Prerequisite Condition Failed on Red Hat Enterprise 6. See Section 5.5.4.1.

- Added information related to Preverify Phase warning. See Section 5.5.4.4.

- Added new section for troubleshooting configure phase errors. See Section 5.5.6.

- Added new section for troubleshooting install phase errors. See Section 5.5.5.2.

- Added new section for troubleshooting validate phase errors. See Section 5.5.7.2.

Other Significant Changes in this Document for 11*g* Release 7 (11.1.7)

For 11*g* Release 7 (11.1.7), this guide has been updated in several ways. Following are the sections that have been added or changed.

- Updated information related to mandatory Oracle database patches. See Table 3–2.

- Added note related to error and warning messages in the Provisioning Wizard. See Section 3.4.2, Section 4.3.2, Section 5.4.2, and Section 6.3.2.

- Added note related to step execution conditions. See Section 5.6.2 and Section 5.6.3.

- Updated steps for running cleanup and restore options. See Section 5.5.3.2.

- Added two notes to the section "For IBM AIX on POWER Systems (64-Bit)". See Section 2.2.6.

- Updated Step 4 related to information about creating a folder on a shared disk. See Section 2.2.10.

1

Overview

This chapter introduces Oracle Fusion Applications Provisioning and discusses how its interrelated components orchestrate the installation, configuration, and deployment of Oracle Fusion Applications database, product offerings and their middleware dependencies.

It includes the following sections:

- What Is Provisioning?
- Provisioning Features
- Provisioning Roadmap
- Applications Topology: Oracle WebLogic Server Domains
- Oracle Fusion Applications Directory Structure
- Installation Guidelines
- What to Do Next

For general information about Oracle Fusion Applications, Oracle Database, and Oracle Fusion Middleware, see:

- *Oracle Fusion Applications Administrator and Implementor Roadmap*
- *Oracle Fusion Applications Concepts Guide*
- *Oracle Fusion Applications Customer Relationship Management Enterprise Deployment Guide*
- *Oracle Fusion Middleware Enterprise Deployment Guide for Oracle Identity Management (Oracle Fusion Applications Edition)*
- *Oracle Fusion Applications Administrator's Guide*
- *Oracle Fusion Middleware Administrator's Guide*
- *Oracle Database Installation Guide* for your platform
- *Oracle Fusion Middleware Installation and Configuration Guide for Oracle Business Intelligence Applications*

1.1 What Is Provisioning?

With the growing complexity of modern enterprise applications, and the necessity of integrating those applications with other core enterprise components, many organizations find that setting up an applications environment unassisted challenges even the most seasoned system administrator. To meet this challenge, Oracle provides Oracle Fusion Applications Provisioning.

This section presents some background for understanding the provisioning process, and discusses the major components provisioned in a new Oracle Fusion Applications environment.

1.1.1 Terms and Definitions

Oracle Fusion Applications is a deployment of application product offerings built on Oracle Fusion Middleware technology stack components and connected to Oracle Database. A successful installation draws on a combination of the application and the middleware components, the database, as well as the installers, scripts, and utilities required to set up and configure them.

Oracle Fusion Applications Provisioning orchestrates the installation, configuration, and deployment of Oracle Fusion Applications product offerings. Its framework of installers, build files, and other utilities accesses configuration details from your customized response file and performs these actions:

- **Installation**: Lays down all the components needed to create an Oracle Fusion Applications environment.

- **Configuration**: Tailors components based on the applications topology, creates Managed Server instances and cluster members, and updates endpoints and virtual hosts.

- **Deployment**: Starts the Managed Servers and clusters and facilitates the actual use of product offerings.

The **provisioning repository** contains all the installers required to provision a new Oracle Fusion Applications environment. You download the repository from the Oracle Fusion Applications Product Media Package and extract the files to a location of your choice, for example `repository_location`/`installers`. The repository must be located on a networked drive or a shared hard disk so that it is accessible to all the hosts in your new environment.

The **Oracle Fusion Applications Provisioning installer** creates the provisioning framework in a location of your choice, for example `framework_`
`location`/`provisioning`. The location must be on a networked drive or a shared hard disk. The installer (`faprov`) is included among the other installers in the **provisioning repository**.

The **Oracle Fusion Applications Provisioning framework** contains the ANT utilities, binaries, libraries, templates, and other utilities required to orchestrate the provisioning process. For example, it delivers the Provisioning Wizard.

The **Provisioning Wizard** is an interview process that collects information used to guide the various actions associated with provisioning a new applications environment.

The **response file** is a collection of configuration details you specify about installation locations, product offerings and middleware (technology stack) dependencies. In addition, you enter connection parameters for the database and identity management components that you set up as prerequisites. You use the Provisioning Wizard interview to create and execute the response file.

The **provisioning summary file** contains details that describe the installation. It is automatically created by provisioning after the installation is complete and includes a link to the Oracle Fusion Applications home page.

1.1.2 Provisioning Configuration

An installation of Oracle Fusion Applications is logically broken up into groups of features known as **product offerings**, which represent the highest-level collection of functionality that you can license and implement. A **provisioning configuration** is a collection of one or more product offerings.

Product offerings have interdependencies on companion applications (for example, Oracle Fusion Human Capital Management relies on Oracle Fusion Financials for payroll functionality), as well as middleware dependencies (for example, Oracle SOA Suite), required for runtime execution. Provisioning "knows" about all companion applications and middleware dependencies and displays them for you automatically during the response file creation. You specify configuration details (at the domain level) associated with offerings, companion applications, and middleware dependencies in the response file.

See Section 4.1.2 for details about provisioning configurations. See also "Introduction to Oracle Fusion Applications for Systems Administrators" in the *Oracle Fusion Applications Administrator's Guide* for more information.

1.1.3 Oracle Fusion Middleware

Each Oracle Fusion Applications product family is deployed to an Oracle **WebLogic Server Domain** in the Oracle Fusion Middleware technology stack. For information about the Oracle Fusion Middleware components that support that deployment, see "Oracle Fusion Middleware Components" in *Oracle Fusion Applications Concepts Guide*.

1.1.4 Oracle Database

An Oracle Fusion Applications environment requires a transaction database. You can install a single-instance Oracle Database Enterprise Edition by using the Provisioning Wizard, or you can install Oracle Real Application Clusters (Oracle RAC) by using the standard installation instructions. The database templates shipped with Oracle Fusion Applications describe the structure and features of the database, but do not contain any data.

For details about installing Oracle Database with the Provisioning Wizard, see Section 3.4. For instructions about installing a database manually, see Section 3.5.

After you have installed a database, use the Oracle Fusion Applications Repository Creation Utility (Oracle Fusion Applications RCU) to create a repository of tablespaces and applications and middleware schemas, and load seed data and other required packages. For information about using this utility, see Section 3.7.

1.1.5 Oracle Identity Management

Oracle Identity Management is a core component and prerequisite for provisioning an Oracle Fusion Applications environment. It enables enterprises to manage the end-to-end lifecycle of user identities across all enterprise resources — both within and beyond the firewall. An installation of Oracle Fusion Applications relies on Oracle Identity Management components to provide Web Single-Signon capability and to act as the policy, credential, and identity store. Although the majority of these components fall within the prerequisite environment, the resource WebGate that acts as the proxy for user authentication must be provisioned along with the applications.

The Oracle Identity Management components required to be present in an Oracle Fusion Applications environment are:

- Oracle Access Manager (OAM): Provides identity administration and security functions, including Web Single-Signon, user self-service and self-registration, policy management, and delegated administration.

- Oracle Identity Manager (OIM): Coordinates the management activities and business processes for creating, modifying, and deleting user access rights.

- Oracle Virtual Directory (OVD): An LDAP-enabled service that provides a virtualized abstraction of one or more enterprise data sources in a single directory view.

- Oracle Internet Directory (OID): A general-purpose directory service that enables fast retrieval and centralized management of information about dispersed users and network resources.

See *Oracle Fusion Middleware Enterprise Deployment Guide for Oracle Identity Management (Oracle Fusion Applications Edition)* for more information.

1.1.6 Oracle Business Intelligence

Oracle Business Intelligence is a portfolio of technology and applications comprising an integrated toolset (for querying, reporting, analysis, alerts, mobile analytics, data integration and management, and desktop integration), as well as financial performance management, applications, operational business intelligence applications, and data warehousing.

Typically, Oracle Business Intelligence products are integrated with, and accessible from, other operational applications, such as Oracle Fusion Applications. This integration provides business metrics in the context of an organization's business function and industry.

The Oracle Business Intelligence products integrated with Oracle Fusion Applications include:

- Oracle Business Intelligence Enterprise Edition (Oracle BI EE): A suite of business intelligence tools that delivers a full range of analytic and reporting capabilities.

  Oracle Business Intelligence Enterprise Edition is installed and provisioned as part of the Oracle Fusion Applications installation and provisioning process. The BI Provisioning step creates a WebLogic domain, the BI Web application (J2EE) components, and the BI Server and BI Presentation Services, which are deployed on the computer that hosts the domain. The resulting environment is referred to as the "Business Intelligence domain" or "BI Domain."

  For more information, see *Oracle Fusion Middleware System Administrator's Guide for Oracle Business Intelligence Enterprise Edition*.

- Oracle Business Intelligence Applications: Uses Oracle Business Analytics Warehouse, a unified data repository for all customer-centric data that supports the analytical requirements of Oracle Business Intelligence Applications. Oracle Business Intelligence Applications supplies the warehouse database schema, as well as the logic that extracts data from the Oracle Fusion Applications transactional database and loads it to the warehouse.

  The Oracle Fusion Applications installation and provisioning process installs the Oracle BI Applications software components in the Business Intelligence Oracle Home but does no further setup. To finish setting up Oracle BI Applications, you must follow the instructions in the "Setting Up Oracle Business Intelligence Applications" chapter of the *Oracle Fusion Middleware Installation and Configuration Guide for Oracle Business Intelligence Applications*.

- Oracle Transactional Business Intelligence: An ad hoc query and self-service reporting solution offered to all Oracle Fusion Applications customers. Paired with Oracle BI EE, it provides business users with an easy-to-use interface for performing current state analysis of their business applications. Constructed queries and reports are executed in real time against the transactional schema supported by a layer of view objects. This product is configured and deployed during provisioning.

- Oracle Essbase: An online analytical processing (OLAP) server that provides an environment for deploying prepackaged applications or developing custom analytic and enterprise performance management applications.

- Oracle Business Intelligence Publisher: An enterprise reporting solution for authoring, managing, and delivering customer facing reports from multiple data sources in multiple formats via multiple channels.

  For more information, see the "Managing Report Delivery Servers" chapter of *Oracle Fusion Applications Administrator's Guide*.

- Oracle Real-Time Decisions: A platform that combines both rules and predictive analytics to apply real-time business intelligence at the point of contact. It optimizes all interactions with your customers by infusing analytical decisions into each transaction.

  For more information, see *Oracle Fusion Middleware Administrator's Guide for Oracle Real-Time Decisions*.

1.2 Provisioning Features

Oracle Fusion Applications Provisioning is a full-featured process that provides all the tools you need to set up a repository of installers and installation-related processes, present product configurations that you can install in your environment, provide a means to collect configuration details about those offerings, and run the installation phases necessary to perform configuration and deployment tasks.

1.2.1 Oracle Fusion Applications Provisioning Repository

The Oracle Fusion Applications software provides a repository of installers, each called silently when needed to perform application-specific tasks during the provisioning of your new environment. During the creation of your response file, you indicate the location of the repository in the Provisioning Wizard interview.

The provisioning repository must be on a network drive that is visible to all hosts that you will associate with your Oracle Fusion Applications environment. See Section 2.3 for details.

1.2.2 Oracle Fusion Applications Provisioning Framework

The provisioning installer (`faprov`) creates the Oracle Fusion Applications Provisioning framework. It includes the following components:

- **Provisioning Wizard**: A question-and-answer interview that guides you through the process of installing a database, creating or updating a response file, and installing or deinstalling the components of an Oracle Fusion Applications environment. You can only use Provisioning Wizard on the database host to install a single instance database, or on the primordial host (refer to Section 1.6.2.1) for the other provisioning options such as creating a response file, updating a

response file, provisioning an applications environment and deinstalling an applications environment.

- **Provisioning Command-line Interface (CLI)**: Used for starting the provisioning wizard and running installation phases on the primary, secondary, and DMZ hosts (when present). You can also use provisioning CLI on the primordial host for manual **cleanup** and **restore**, and for running provisioning phases as needed.

- **Provisioning-related files and utilities**: Repository of ANT utilities, binary files, library files, templates, locations of saved response files and provisioning build scripts, and other provisioning utilities required for performing provisioning tasks. These utilities are installed in a location you choose, for example, *framework_location*/provisioning.

See Section 2.4 for details.

1.2.3 Provisioning Wizard

The Provisioning Wizard steps you through all provisioning-related tasks. Using the wizard, you can install a transaction database, create or update a response file, provision a new environment, and deinstall an applications environment.

1.2.3.1 Install an Applications Transaction Database

You must install a database to hold transactional data *before* you create a response file. Then, you enter the database configuration values set up during the database installation in your response file. The provisioning process uses those values to connect your database to the new applications environment.

Select the **Install an Applications Transaction Database** option from the list of Provisioning Wizard options to create an empty, single-instance Oracle Database Enterprise Edition (11.2.0.3). Alternatively, you can create Oracle Database or Oracle Real Application Clusters (Oracle RAC) manually using the standard database creation instructions.

Regardless of the way you create the database, you must complete the process by running Oracle Fusion Applications RCU to create schemas and tablespaces, load seed data, and perform other database configuration tasks. See Chapter 3 for more information.

1.2.3.2 Create a New Applications Environment Response File

By responding to the questions in this interview, you specify a provisioning configuration to install in a new environment. You save the configuration details for that environment in a response file, including information about credentials, applications and middleware hosts, and port values. You specify the location of this response file when you are ready to provision your new environment.

If you do not have all the information that you require to complete a response file, or you want to create a partial response file, you can stop at any time during the creation process and save the response file. When you are ready to continue, choose the **Update an Existing Response File** option, page through the screens until you reach the place where you left off, and continue.

Note that the wizard does not recognize a partial response file as complete and ready to execute until you click **Finish** on the Summary interview screen. See Chapter 4 for more information.

1.2.3.3 Update an Existing Response File

Select this option to add or change the details in a partially completed response file or to update a completed response file that has not yet been used to provision an applications environment. If you already used a response file to provision an applications environment but need to update the response file, then you may be required to manually delete the application configuration directory before you can update the response file. You can create a partial response file by clicking **Save** in the wizard, or by selecting **Cancel** and following the prompts to save a partial response file. When you want to continue, select the response file and page through the screens to the place where you stopped in any previous session. Complete the remaining interview screens. See Chapter 4 for more information.

1.2.3.4 Provision an Applications Environment

Select this option and specify the location of a response file as the first step in initiating the installation, configuration, and deployment of your product offerings. In a multiple-host environment, the installation is run on each host individually, in phase order, using a combination of provisioning wizard and provisioning CLI. See Section 1.6.2.3 for more information about phases. See Chapter 5 for details about the installation process.

1.2.3.5 Deinstall an Applications Environment

By selecting this option, you indicate that you want to remove all the components installed using the wizard in an existing applications environment. You must run this process on all hosts.

During the deinstallation process, components that were installed using the Provisioning Wizard are removed. The database and the LDAP are *not* removed. You cannot partially deinstall an environment by selecting individual components. See Chapter 6 for more information.

1.2.4 Response File

With the Provisioning Wizard question-and-answer interview tool, you specify one or more provisioning configurations and collect details associated with the product offerings in those configurations. These responses are the basis for creating a **response file**. This response file contains the structural outline of the applications environment topology that you are implementing. When you are ready to provision your environment, specify the location of the response file and initiate the installation process.

The wizard interview questions fall into the following general areas:

- Global and contextual

- Database configuration and application dependency

- Shared middleware services

Global and Contextual Questions

These questions set the context and define the focus of the questions to be asked later in the interview. The approach is to progressively refine the scope of the questions, starting with the most generic and narrowing down to a specific path based on the selected provisioning configurations. For example, the **Installation Location** screen captures global information about the location of installation and configuration directories, and the **Database Configuration** screen records information about the transactional database.

Database Configuration and Application Dependency Questions

The interview is tied directly to the provisioning of one or more product configurations. With the product configuration chosen, the interview guides you through the questions related to the product offerings and their dependencies. Dependencies include application and middleware products required by Oracle Fusion Applications, as well as details about your transaction database. For example, the **Domain Topology Configuration** screen collects information about the hosts where domains are to be deployed.

Shared Middleware Questions

At the conclusion of the application interview, you move to interview questions about middleware services that are shared across domains, for example, the **Web Tier Configuration**, **Load Balancer Configuration**, **Web Proxy Configuration**, **Identity Management Configuration**, and **IDM Database Configuration** screens.

1.2.5 Provisioning Configurations

During the creation of a response file, you select one or more offerings in any of the provisioning configurations listed in the wizard interview. During the actual provisioning process, all application and middleware products (components) associated with your selections are installed, configured, and deployed. However, only the Managed Servers for the product offerings that you selected are started.

Later, to start using an offering that was part of your initial provisioning configuration but has not yet been enabled, navigate to the Oracle Fusion Applications Setup Manager and start the Managed Servers for that offering.

For example, in the Oracle Fusion Customer Relationship Management configuration, there are two product offerings: Oracle Sales and Oracle Marketing. If you select only Oracle Sales, the Managed Servers for that offering are started when you provision your new environment. If you later decide to enable Oracle Marketing, you use the Oracle Fusion Applications Functional Setup Manager to do so. There is no need to run provisioning a second time.

See Section 4.1.2 for more information about provisioning configurations.

1.3 Provisioning Roadmap

Table 1–1 lists the high-level tasks included in the end-to-end provisioning processing flow.

Table 1–1   Provisioning Process Flow

Task	Description	Documentation
1. Verify system requirements and set up prerequisite components.	To provision a new environment, you must ensure that your system meets certain requirements and can connect to the prerequisite Oracle Identity Management components and the machine that runs the database.	See Section 2.1.
2. Prepare your environment.	You may need to set some specific parameters to prepare your environment.	See Section 2.2.
3. Download the Oracle Fusion Applications repository.	You must obtain the Product Media Pack from Oracle Software Delivery Cloud or the Oracle Store. Unzip the provisioning repository to a location of your choice. The repository contains all the installers required for provisioning, including the provisioning framework installer (`faprov`).	See Section 2.3.

Table 1–1   (Cont.) Provisioning Process Flow

Task	Description	Documentation
4. Install the provisioning framework.	Run `faprov` from the directory where you created the provisioning repository. The installer creates a directory for the framework components, for example, `framework_location`/`provisioning`.	See Section 2.4.
5. Install a transaction database.	Your new environment must connect to a previously installed database. You can install the database using the Provisioning Wizard, or you can install it manually.	Chapter 3.
6. Create a response file.	Start the Provisioning Wizard and respond to the questions in the interview to create a response file. You specify the product offerings to be installed and provide configuration details such as credentials, hosts, and ports.	Chapter 4.
7. Provision a new environment.	Specify the location of the response file and start the installation, configuration, and deployment of the product offerings and their middleware dependencies. You use both the Provisioning Wizard and the command-line interface to perform an installation in a multiple-host environment.	Chapter 5.
8. Complete the required postinstallation tasks.	The result of a successful installation is a fully operational applications environment. However, you may be asked to complete some manual tasks before you perform any product-specific functional setup tasks.	Section 5.6 and Section 5.7.

1.4 Applications Topology: Oracle WebLogic Server Domains

The topology for an applications environment centers around a set of predefined Oracle WebLogic Server domains. The provisioning process creates these domains during the physical installation. It then deploys the product offerings that you select for installation in the associated product family domain. It also deploys common applications for use by all product offerings and their dependent middleware components.

After provisioning is complete, you can scale out middleware components, such as Oracle HTTP Server and Oracle SOA Suite, and product domains, such as Oracle Fusion Customer Relationship Management domain, Oracle Fusion Common domain, Oracle Fusion Human Capital Management domain, and so on. For more information about the enterprise deployment of domains and instructions about scale out, see the *Oracle Fusion Applications Customer Relationship Management Enterprise Deployment Guide*.

A **WebLogic Server Domain** is a logically related group of Oracle WebLogic Server resources that is managed as a unit. It consists of an Administration Server and one or more Managed Servers. A **Managed Server** hosts components and associated resources that constitute each product configuration. The domains are predefined to ensure that product offerings and their dependencies are always stored in a standardized arrangement.

In each domain, every Managed Server belongs to a **cluster**. A **cluster** is a group of Oracle WebLogic Servers that work together to provide scalability and high availability for applications. A cluster appears as a single Oracle WebLogic Server instance. The Managed Server instances that constitute a cluster can run on the same host or be located on different hosts. Applications are deployed to the cluster, which implies deployment to every Managed Server within the cluster.

See "Oracle WebLogic Server Domains Configuration" in *Oracle Fusion Applications Administrator's Guide* for more information.

1.5 Oracle Fusion Applications Directory Structure

In a discussion of Oracle Fusion Applications directory structures, unless stated otherwise, the term **home directory** refers to a directory that contains one or more Oracle Fusion Middleware homes or Oracle Fusion Applications homes. This directory has no functional significance other than as a grouping of related Oracle product offerings.

> **Note:** Oracle Fusion Middleware Oracle homes and Oracle Fusion Applications Oracle home are read only and customers are not expected to update or install any components manually to these home directories. These home directories can be updated only by Oracle Fusion Applications lifecycle tools, such as Provisioning, RUP Installer, and Patch Manager.

For a more information, see "Provisioned Oracle Fusion Applications Home Directories" in *Oracle Fusion Applications Administrator's Guide*.

1.5.1 Applications Base Directory

When an environment consists of multiple hosts, a central, shared provisioning installation directory is required so that the location is visible to all provisioned hosts. To achieve this setup, the use of full host names is required. Alias names are not recommended.

The top-level directory for the Oracle Fusion Applications binaries is the **applications base**. You specify a name for this directory at the time of provisioning. This directory includes two mount points: */net/mount1/appbase* (`APPLICATIONS_BASE`) for components that remain read-only after provisioning, and */net/mount2* (`APPLICATIONS_CONFIG`) to contain instances that are configurable after provisioning. This structure aids performance issues and accommodates a "lock-down" of binaries after provisioning. It ensures that the configurable components remain available.

The applications base directory must not be set to the system root directory or set to the root directory of a logical drive. Some lifecycle management tools compute directory names by backing up one directory level from the applications base directory and then appending the appropriate subdirectory name. These tools will fail if the applications base directory is set to the system root directory or set to the root directory of a logical drive because it is not possible to back up one directory level from the system root directory or from the root directory of a logical drive.

1.5.2 Oracle Fusion Applications Oracle Home Directory

The Oracle Fusion Applications Oracle home directory (`FA_ORACLE_HOME`) is located under the `APPLICATIONS_BASE`/fusionapps directory (*net/mount1/appbase*/fusionapps). The /fusionapps directory is an Oracle Fusion Applications Middleware home (`FA_MW_HOME`). Figure 1–1 shows this directory structure.

Figure 1–1 Oracle Fusion Applications Oracle Home
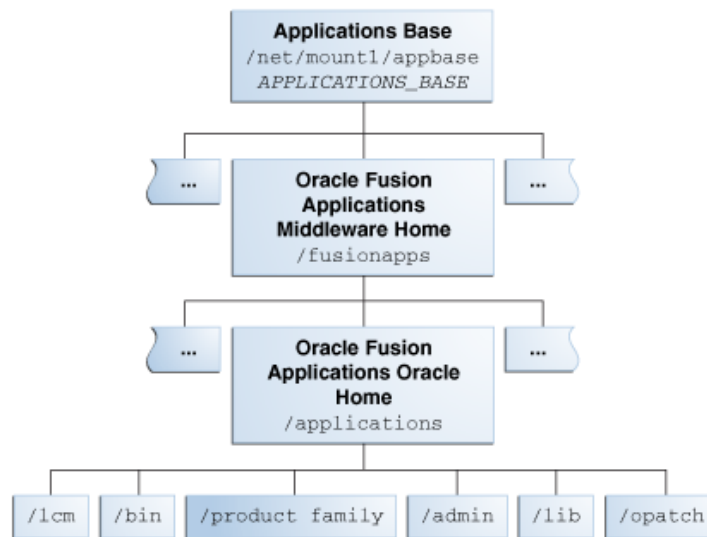
The Oracle home contains the following subdirectories:

- **/fusionapps/applications/lcm**: The life cycle management directory. Contains the patching framework artifacts in the following subdirectories:

  - **../ad/bin**: Patching framework software and executables, including C artifacts and configuration scripts, that set the environment and start the corresponding utility.

  - **../ad/java**: Java artifacts.

  - **../ad/db/sql**: Database artifacts and SQL files.

  - **../ad/lib**: Application libraries.

  - **../ad/template**: Configuration files or templates delivered and used by the patching framework during configuration activities.

- **/fusionapps/applications/bin**: Executables called by Enterprise Scheduler Service jobs.

- **/fusionapps/applications/*product_family***: Container directory for artifacts specific to a product configuration, for example, `/ORACLE/fusionapps/fin`.

- **/fusionapps/applications/admin**: Patching framework environment properties file (*FUSION_env*.properties), Oracle Fusion Applications AutoPatch, and the patching logs, reports, and administration files. These files are required by Oracle Fusion Applications Patch Manager.

- **/fusionapps/applications/lib**: Applications-specific libraries.

- **/fusionapps/applications/OPatch**: Contains the OPatch utility called by Oracle Fusion Applications Patch Manager when patching middleware artifacts.

For complete information about patching your applications environment, see the *Oracle Fusion Applications Patching Guide*.

1.5.3 Oracle Fusion Applications Product Family Directory

The Oracle Fusion Applications `.../product_family` directory is located under the FA_ORACLE_HOME directory. This structure exists for each of the product

configurations (product families) deployed in the Oracle Fusion Applications environment during provisioning. Figure 1–2 shows this directory structure.

Figure 1–2   Oracle Fusion Applications Product Family Directory
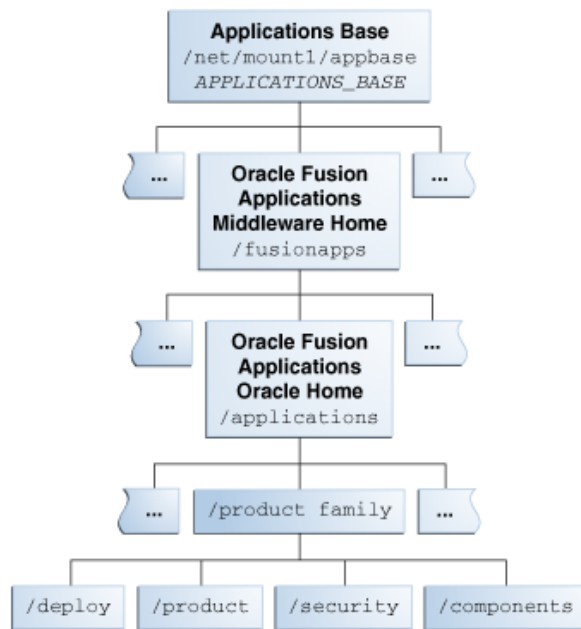
The following subdirectories are located under the `.../product_family` directory:

- **/fusionapps/applications/*product_family*/*product***: Product grouping within a product family. For example, `/fusionapps/applications/fin/ar` represents the Account Receivables product in the Financials product family.

    - **/db/plsql/**: PL/SQL packages and bodies for a given product, for example, `.../fin/ar/db/plsql/arp_process_line.pkh`.

    - **/db/sql/**: SQL scripts for a given product. For example, `.../fin/ar/db/sql/ar_ar_rev_rec_typ_type.sql`.

    - **/db/data/*lba*/US/**: Product-specific seed data files, striped by Logical Business Area (LBA). Note that sub-directories could exist in the top-level seed data directory because some LBAs can have sub-LBAs. For example, `.../fin/ar/db/data/FinArCustomers/US/ArlookupTypeSD.xlf`.

- **/fusionapps/applications/*product_family*/deploy**: Container directory for deployable artifacts, composites, Java EE applications (such as Oracle Application Development Framework and Oracle Enterprise Scheduler Service).

- **/fusionapps/applications/*product_family*/security/**: Product family directory containing security-related files.

1.6 Installation Guidelines

To install an applications environment efficiently, it helps to know certain general characteristics of an applications installation and configuration. Planning which product offerings to choose, and what your topology will look like is the first step. This section suggests the information you may need in the planning phase, and presents an overview of an installation based on multiple hosts.

1.6.1 Planning for Provisioning

Before you create a response file for your new Oracle Fusion Applications environment, you should decide what your topology will look like, including what product offerings you want to install, port allocations, and the type and number of hosts that you will configure in the domains created for the product offerings. For example, Oracle recommends that you choose a separate host for each domain that will be installed. However, even in that scenario, some large product configurations must be split across multiple hosts.

For more information about the enterprise deployment of Oracle Fusion Applications product configurations, see the *Oracle Fusion Applications Customer Relationship Management Enterprise Deployment Guide*.

You must determine the necessary system requirements to complete the provisioning of a new environment, based on how you will use the environment. For example, if you are installing a single-instance database for use as a test system, the requirements will differ from the installation of a multi-instance database to use for your production environment. You must also determine the access privileges for the database administrator (DBA) or system administrator who will perform the provisioning tasks.

You must supply directory locations, user names, and passwords associated with the prerequisite installations of Oracle Database and Oracle Identity Management components. These installations must be completed before you can create a response file.

For specific details about the information that you will need to complete a response file and successfully provision a new environment, review these sections before you begin:

- Chapter 2. Note specifically the information about prerequisites, system requirements, and setting up a host in a demilitarized zone (DMZ).

- Section 3.4 – Section 3.7

- Section 4.3

- Section 5.4

1.6.2 Introduction to Multiple-Host Installations

Oracle Fusion Applications must be provisioned on multiple hosts for a production deployment and installed from a shared drive that is accessible to all hosts. To properly install all the necessary components for an applications environment on multiple hosts, you must run the physical installation in phases across all hosts.

1.6.2.1 Types of Hosts in a Multiple-Host Environment

The way hosts are classified in a multiple-host environment determines the order in which you run the installation. Note the following definitions of the various types of hosts.

Primordial host: Location of the Common domain (specifically the Administration Server of the Common domain). Only one primordial host exists in each environment. There is only one and only one primordial host in each provisioned environment where the Administration Server of the Common domain will be.
Primary host: Location where the Administration Server for a domain runs. Only one primary host exists in a domain.
Secondary host: Location where the Managed Servers for any application reside when they are not on the same host as the Administration Server of the same domain. Typically used when a domain spans two physical servers.

DMZ host: A host that cannot access the shared storage behind the firewall is said to be in a demilitarized zone (DMZ). Typically used to install Oracle HTTP Server so that restrictions on communication with components behind the firewall can be enforced.

1.6.2.2 Example of a Runtime Environment

One configuration for an Oracle Fusion Applications runtime environment is to use three hosts, all of which have access to a shared drive. In this arrangement, the components on each host might look like this:

- Host A, for Common and Oracle Fusion Customer Relationship Management.

- Host B, for Oracle Fusion Financials, Oracle Fusion Human Capital Management, and Oracle Business Intelligence.

- Host C, for Oracle Database.

- Shared Drive.

An Oracle Identity Management environment is installed on two servers and distributed as follows:

- Host 1, for Oracle Internet Directory and Oracle Virtual Directory.

- Host 2, for Oracle Identity Manager, Oracle Access Manager, Oracle SOA Suite.

See *Oracle Fusion Middleware Enterprise Deployment Guide for Oracle Identity Management (Oracle Fusion Applications Edition)* for more information.

1.6.2.3 Installation Phases

Installation actions are completed in phases, across all hosts, in a prescribed phase order. Each phase must be completed on all the hosts before you can run the next phase. For example, you must complete the preverify phase on hosts A, B, and C successfully before you run the install phase on any other host. Any one phase can run simultaneously on multiple hosts. For example, you can run the install phase on hosts A, B, and C simultaneously. Oracle recommends that you start the installation on the primordial host.

The provisioning installation phases are as follows (listed in phase order). See Section 5.1.2 for complete details.

- **Preverify**: Checks to see that the prerequisites for an installation are met.

- **Install**: Installs middleware and applications components and applies database patches shipped with provisioning (for databases created with the wizard).

- **Preconfigure**: Updates the Oracle Application Development Framework (Oracle ADF) configuration.

- **Configure**: Creates domains, Managed Servers, and clusters. Configures data sources and performs Node Manager registration of servers on the primordial and primary hosts.

- **Configure-secondary**: Performs the configuration actions on a primary or secondary host (or both), registers Managed Servers with the Node Manager on secondary hosts, and creates a web tier instance. If there are no primary or secondary hosts, or if there are only primary hosts, this phase runs, but takes no action.

- **Postconfigure**: Configures Oracle SOA Suite composite deployment and Oracle HTTP Server, and populates policies and grants. Configures middleware and applications that require servers to be online.

- **Startup**: Starts the Administration Server and Managed Servers on the current host. Performs online configuration, including global unique identifier (GUID) reconciliation and Financial/IPM configuration.

- **Validate**: Validates the deployment configuration and starts the Managed Servers.

1.7 What to Do Next

Before you can begin, you must prepare your environment for provisioning, download the provisioning repository, install the Oracle Fusion Applications Provisioning framework, and install and configure the prerequisite Oracle Database and Oracle Identity Management components. Go to Chapter 2 to get started.

2

Preparing for an Installation

This chapter describes the prerequisites for provisioning a new applications environment.

This chapter includes the following sections:

- Provisioning Prerequisites
- Preparing Your Applications Environment
- Creating the Provisioning Repository
- Installing the Provisioning Framework
- Setting Up a Demilitarized Zone (DMZ) for the Web Tier
- Deinstalling the Provisioning Framework
- What to Do Next

2.1 Provisioning Prerequisites

To provision a new Oracle Fusion Applications environment, you must ensure that your system meets certain requirements and that you perform the necessary prerequisite tasks in preparation for an installation of Oracle Fusion Applications **product offerings**.

Review the following prerequisites:

- System Requirements
- Supported Platforms
- Installing Oracle Database
- Installing Oracle Identity Management Components
- Recommended Installation for Security
- Known Issues

2.1.1 System Requirements

This release of Oracle Fusion Applications relies on supported platforms documentation for Oracle Fusion Applications to supply certified versions of Oracle components. This documentation provides details about hardware and software, minimum disk space and memory requirements, required system libraries, packages, or patches, and minimum database requirements. Consult an Oracle Fusion Applications sizing-certified representative to obtain specific, customized system hardware requirements.

> **Note:** The self-signed certificate is set to three years when provisioning is complete.

2.1.1.1 Download Instructions

If you are downloading Oracle Fusion Applications 11g Media Pack for the following platforms, then use the following versions of the 64-bit UnZip utility to extract the Oracle software. UnZip is freeware that is available at: `http://www.info-zip.org`.

- IBM AIX on POWER Systems (64-bit) - Info-ZIP unzip version 6.10
- Oracle Solaris on SPARC (64-bit) - Info-ZIP unzip version 6.0
- Oracle Solaris on x86-64 (64-bit) - Info-ZIP unzip version 6.0

If you are downloading Oracle Fusion Applications 11g Media Pack for the **Microsoft Windows x64 (64-Bit)** platform, then use 7zip v9.20 to extract the Oracle software.

2.1.2 Supported Platforms

Oracle Fusion Applications is supported on the following platforms:

- Linux x86-64
- Oracle Solaris
- IBM AIX on POWER Systems (64-Bit)
- Microsoft Windows x64 (64-Bit)

As the Oracle Fusion Applications 11g Media Pack is specific for a platform, you must install Oracle Fusion Applications on the same platform. This includes the Oracle Database, Oracle Identity Management, and Oracle Fusion Applications.

2.1.3 Installing Oracle Database

Oracle Fusion Applications supports only Oracle Database 11.2.0.3 for storing transactional data. You can install either a single-instance Oracle Enterprise Edition Database or Oracle Real Application Clusters. See Chapter 3 for more information about database installations.

2.1.4 Installing Oracle Identity Management Components

Review this section to learn about Oracle Identity Management components required for Oracle Fusion Applications, review references to documentation about installing those components, and read about how to create an IDM properties file that can supply default configuration parameters in your response file.

> **Note:** You **must** install Oracle Identity Management and Oracle Fusion Applications on different hosts. Installing Oracle Identity Management and Oracle Fusion Applications on the same host is not a supported topology.
>
> You **should not** share the same database instance for Oracle Identity Management and Oracle Fusion Applications. Oracle Fusion Applications should have a separate database instance.

2.1.4.1 Oracle Identity Management Overview

The following sections provide an overview of the Oracle Identity Management required components, IDM properties file, and patches for Oracle Fusion Applications 11*g* Release 7 (11.1.7).

2.1.4.2 Required Components

These components must be installed and configured specifically for use with Oracle Fusion Applications.

- One instance of Oracle Database 11.2.0.3 where the Identity Store and the Policy Store are in the same OID in a dedicated setup.

- Oracle Internet Directory 11g (OID)

- Oracle Virtual Directory 11g (OVD)

- Oracle Identity Manager 11g (OIM)

- Oracle Access Manager 11g (OAM)

Follow the instructions in *Oracle Fusion Middleware Identity Management Provisioning Guide (Oracle Fusion Applications Edition)* to install and configure these components. Keep a record of the configuration details. You must supply them to the Oracle Fusion Applications Provisioning Wizard when you create your response file.

Apply all mandatory Oracle Identity Management patches, as listed in the "Oracle Identity Management Patches for the FA Domain" section of *Oracle Fusion Applications release notes*.

See Section 4.1, "Introduction to Response Files" for information about the configuration details required by provisioning. For specific information about how provisioning links the Oracle Identity Management components and your new applications environment, see Section 4.1.3, "Wizard Actions for Oracle Identity Management Components" and Section 5.1.3, "Installation Phase Actions for Oracle Identity Management Components".

2.1.4.3 Using the IDM Properties File

A properties file, `idmsetup.properties`, is automatically generated during the provisioning of an Oracle Identity Management enviroment. This file includes some of the configuration values that you must supply to the **Provisioning Wizard** when you create a response file. These values must be included in your response file to integrate Oracle Identity Management components with an Oracle Fusion Applications environment.

Example 2–1   Sample idmsetup.properties file

```
#OIM Domain information
WLSHOST: <adminserver_virtualhostname>
WLSPORT: 7001
WLSADMIN: weblogic_idm

#OAM Domain information
OAM11G_WLS_ADMIN_PORT: 7001
OAM11G_WLS_ADMIN_USER: weblogic_idm
OAM11G_WLS_ADMIN_HOST: <adminserver_virtualhostname>

# Access server information
OAM11G_OIM_INTEGRATION_REQ: true
ACCESS_SERVER_PORT: 5575
```

```
OAM11G_ACCESS_SERVER_HOST: <identity_host_name>
OAM11G_ACCESS_SERVER_PORT: 5575
OAM11G_SSO_ONLY_FLAG: true
ACCESS_SERVER_HOST: <identity_host_name>
OAM11G_IDSTORE_ROLE_SECURITY_ADMIN: OAMAdministrators
OAM11G_OIM_OHS_URL: https://<sso_lbr_endpoint>:443
OAM_MNGSERVER_PORT : 14100

#policy store
POLICYSTORE_CONTAINER: cn=jpsroot
POLICYSTORE_HOST: <oid_lbr_endpoint>
POLICYSTORE_PORT: 3060
POLICYSTORE_READONLYUSER : cn=IDMPolicyROUser,cn=Users,dc=us,dc=oracle,dc=com
POLICYSTORE_READWRITE_USERNAME :
cn=IDMPolicyRWUser,cn=Users,dc=us,dc=oracle,dc=com
FA_POLICYSTORE_CONTAINER: cn=FAPolicies
FA_POLICYSTORE_READONLYUSER : cn=PolicyROUser,cn=Users,dc=us,dc=oracle,dc=com
FA_POLICYSTORE_READWRITE_USERNAME :
cn=PolicyRWUser,cn=Users,dc=us,dc=oracle,dc=com

#idstore -oid info
IDSTORE_HOST : <ovd_lbr_endpoint>
IDSTORE_PORT : 6501
IDSTORE_READONLYUSER : cn=IDROUser,cn=Users,dc=us,dc=oracle,dc=com
IDSTORE_READWRITEUSER : cn=IDRWUser,cn=Users,dc=us,dc=oracle,dc=com
IDSTORE_USERSEARCHBASE : cn=Users,dc=us,dc=oracle,dc=com
IDSTORE_GROUPSEARCHBASE : cn=Groups,dc=us,dc=oracle,dc=com
IDSTORE_SUPERUSER : cn=orcladmin
IDSTORE_LOGINATTRIBUTE : uid
IDSTORE_USERNAMEATTRIBUTE : uid
#pstore -oid info
PSTORE_HOST : <oid_lbr_endpoint>
PSTORE_PORT : 3060
PSTORE_USERSEARCHBASE : cn=Users,dc=us,dc=oracle,dc=com
PSTORE_GROUPSEARCHBASE : cn=Groups,dc=us,dc=oracle,dc=com
PSTORE_SUPERUSER : cn=orcladmin

#OIM server information
OIM_FRONT_END_HOST : <sso_lbr_endpoint>
OIM_FRONT_END_PORT : 443
OIM_T3_HOST : <identity_host_name>
OIM_T3_PORT : 14000
OIM_HTTP_INTERNAL_URL : http://<idminternal_lbr_endpoint>:80
OIM_HTTPS_URL : https://<sso_lbr_endpoint>:443
OIM_ADMIN_USER_DN : cn=oimAdminUser,cn=systemids,dc=us,dc=oracle,dc=com

#Extra parameters for automation
OID_SSL_PORT : 7501
IDM_KEYSTORE_FILE_LOC : <shared_config_location>/fa/idmcerts.jks
IDM_DB_HOST : <idmdb_host_name>
IDM_DB_PORT : 5521
IDM_DB_SERVICE : <idmdb_service_name>
IDM_DB_USERNAME : FA_MDS
OAM_ACCESS_SERVER_ID : wls_oam1
OAM_ADMIN_USER : oamAdminUser
OAM11G_OAM_ADMIN_USER : oamAdminUser
POLICY_STORE_SSL_PORT : 3131
OHS_HOST : <webtier_host_name>
OHS_PORT : 7777
OHS_SSL_PORT : 4443
```

```
OHS_INSTANCE_HOME : /u02/local/oracle/config/instances/ohs1
ADMIN_DN : cn=IDM Administrators,cn=Groups,dc=us,dc=oracle,dc=com
IDM_DB_OH_HOME :
IDM_OID_OH_HOME : /u01/oracle/idmtop/products/dir
IDM_OHS_OH_HOME : /u01/oracle/idmtop/products/ohs
IDM_OIM_OH_HOME : /u01/oracle/idmtop/products/app
IDM_OIM_SERVER : /u01/oracle/idmtop/products/app/iam/server
IDM_DB_TYPE : enterprise
OIM_MDS_RACDB_PARAMS :
OIM_ADMIN_USERNAME : xelsysadm
OIM_DOMAIN_HOME : /u01/oracle/config/domains/IDMDomain
OIM_PROTOCOL : http
OIM_EM_URL : http://<webtier_host_name>:7777/em
POLICY_STORE_ADMINUSER : cn=orcladmin
OVD_HOST : <ovd_lbr_endpoint>
OVD_PORT : 6501
IDM_OIM_HOME_NFS_PATH : <shared_idmtop_location>/products/app/iam
OAM_POLICYSTORE_USER : cn=oamSoftwareUser,cn=systemids,dc=us,dc=oracle,dc=com
SUPER_USER_NAME : FAAdmin
SSL_ENABLED : false
POLICYSTORE_OID_SEARCH_DN : dc=us,dc=oracle,dc=com
EM_URL : http://<admin_lbr_endpoint>:80/em
IDM_OIM_SERVER_DIR : /u01/oracle/idmtop/products/app/iam/server
IDM_OIM_DC_HOME : /u01/oracle/idmtop/products/app/iam/designconsole
IDM_APPSERVER_HOME : /u01/oracle/idmtop/products/app/wlserver_10.3
IDM_SOA_HOME : /u01/oracle/idmtop/products/app/soa
IDM_SOA_HOST : <identity_host_name>
IDM_SOA_PORT : 8001
IDM_DB_ORASDPM_USERNAME : FA_ORASDPM
IDM_IDSTORE_INSTANCE_HOME : /u02/local/oracle/config/instances/oid1
IDM_OHS_ORACLE_HOME : /u01/oracle/idmtop/products/ohs/ohs
RESERVE_BASE_DN : cn=reserve,dc=us,dc=oracle,dc=com
OIF_HOST : <identity_host_name>
OIF_PORT : 7499
```

Select the **Load IDM Configuration from IDM Properties file** option available on the **IDM Properties File** screen of the Oracle Fusion Applications Provisioning Wizard, if you want the values on the **Identity Management Configuration** screen and the **Access and Policy Management Configuration** screen to default to the values in the IDM properties file. You must however review these screens to ensure that all values are accurate before proceeding to the next screen.

The properties file is created in:

SHARED_CONFIG_DIR/fa/idmsetup.properties, where *SHARED_CONFIG_DIR* is the shared configuration location that you selected in the **Install Location Configuration** page of the Oracle Identity Management Provisioning Wizard.

For more information about the IDM properties file, see "Pass Configuration Properties File to Oracle Fusion Applications" in the *Oracle Fusion Middleware Identity Management Provisioning Guide (Oracle Fusion Applications Edition)*.

2.1.4.4 Oracle Identity Management Patches for the IDM Domain

For details about the Oracle Identity Management Patches for the IDM Domain, see "Chapter 6, Patching Oracle Identity Management Artifacts" in the *Oracle Fusion Applications Patching Guide*.

2.1.4.4.1 Additional Mandatory Patches for the IDM Domain

Follow the steps detailed in "Additional Mandatory Patches for the IDM Domain" in the *Oracle Fusion Applications release notes*.

2.1.5 Recommended Installation for Security

Consider installing Oracle Enterprise Governance, Risk and Compliance (GRC) with Oracle Fusion Applications. Although not required, GRC can serve as part of the user provisioning flow to ensure that proper controls for security exist. For more information, see "Security Components: How They Fit Together" in the *Oracle Fusion Applications Security Guide* and the *Oracle Application Access Controls Governer Implementation Guide*.

2.1.6 Known Issues

This section describes the platform specific known issues and their resolution.

2.1.6.1 Xcopy Utility Should Not Be Used To Copy Fusion Application Repositories and Appltop on Microsoft Windows

The Microsoft Windows utility Xcopy does not copy long path names. Therefore, do not use Xcopy to copy Fusion Applications repositories and APPLTOP.

Resolution: Use Robocopy instead of Xcopy.

2.1.6.2 ODI Offline Pre-Verification Fails on Microsoft Windows

On Microsoft Windows, if Oracle WebCenter Content Management is not installed properly, ODI Offline Preverification fails in Oracle Fusion Applications Release Update Patches (RUP) Installer.

Oracle WebCenter Content Management install fails with the following error:

```
[C\AT\fusionapps\ecm\ucm\Distribution\Kofax\Autorun.inf  (Access
is denied)]
```

 Resolution:

1. Disable Prevent remote creation of autorun files from McAfee ePolicy Orchestrator (ePO) in the FusionApp Windows boxes before starting the RUP Installer.

2. When the install is done, enable it again.

2.2 Preparing Your Applications Environment

Before creating your new environment, review the following actions in this section to help ensure a smooth installation.

- Tune the Socket Buffer Size (AIX Only)

- Set the SKIP_SLIBCLEAN Variable (AIX Only)

- Add Variable for SKIP_ROOTPRE to Command Line (AIX Only)

- Improve Provisioning Performance (AIX Only)

- Check for the Required Solaris Patch (Solaris Only)

- Increase the Open Files Limit

- Verify Swap Space (Unix)

- Edit Host Names (Unix)

- Increase Entropy Values (Linux)

- Set Up the Server and the Shared Area Permissions (Windows x64)

- Update Virtual Memory setting to Custom Size (Windows Only)

- Microsoft Windows Resource Locking (Windows Only)

- Define the Local Port Range

- Synchronize the System Clocks

- Support for File Locking (UNIX)

- Synchronize Date Time Stamp

- Set the Kernel Parameter Value

- Unset LIBPATH Variable

- Monitor Disk Space Available for /tmp (UNIX)

- Default Shell (UNIX)

- Install en_US.UTF-8 Locale (Unix)

- 32 bit Libraries (SUSE Linux Enterprise Server 11)

- Set the System Time Zone

- Create the hwrepo directory

- Recommended Minimum Disk Space

- Recommended Memory Requirement for HCM Workforce Reputation Management Product

- Verify UCB ps Version (Solaris Only)

2.2.1 Tune the Socket Buffer Size (AIX Only)

For IBM AIX on POWER Systems (64-Bit) platforms, run the following commands as the `root` user:

```
no -o rfc1323=1
no -o sb_max = 4194304
```

2.2.2 Set the SKIP_SLIBCLEAN Variable (AIX Only)

For IBM AIX on POWER Systems (64-Bit) platforms, the provisioning install phase installs the Oracle Database client and a database patch update. To prepare your environment for this action, set the SKIP_SLIBCLEAN environment variable as follows:

```
SKIP_SLIBCLEAN = TRUE;export SKIP_SLIBCLEAN;
```

Run `/usr/sbin/slibclean` as `root` and ensure that the value `TRUE` is in uppercase as this value is case sensitive.

2.2.3 Add Variable for SKIP_ROOTPRE to Command Line (AIX Only)

When installing a transaction database with the Provisioning Wizard on IBM AIX on POWER Systems (64-bit), you must add the following variable to the command line syntax used to start the wizard:

```
export SKIP_ROOTPRE=TRUE
```

2.2.4 Improve Provisioning Performance (AIX Only)

On IBM AIX on POWER Systems (64-Bit) systems, the provisioning performance slows down or times out when the Oracle Fusion Applications Provisioning host, the Oracle Database host, and the Oracle Identity Management host are located in different subnets or when these hosts are situated at a distance of more than four network hops.

For provisioning, use the hosts that are located in the same subnet or the hosts that are within a distance of four network hops.

2.2.5 Check for the Required Solaris Patch (Solaris Only)

For Oracle Solaris platforms, ensure that the Solaris Operating System patch 144540-01 is installed on the servers. Do this for both Oracle Solaris on SPARC (64-Bit) and Oracle Solaris on x86-64 (64-Bit) platforms. The Solaris OS patch 144540-01 can be obtained from My Oracle Support.

2.2.6 Increase the Open Files Limit

Increase the limit of open files to 16384 or higher for the operating system.

For Linux x86-64:

Modify `/etc/security/limits.conf` to read as follows:

- *FUSION_USER_ACCOUNT* `soft nofile 327679`

- *FUSION_USER_ACCOUNT* `hard nofile 327679`

Edit `/etc/ssh/sshd_config` as follows:

1. Set `UsePAM` to `Yes`.

2. Restart `sshd`.

3. Logout (or reboot) and log in again.

Increase the maximum open files limit.

Edit `/proc/sys/fs/file-max` and set it to 6553600. The change becomes effective immediately but does not persist after a reboot. To make the change permanent edit `/etc/sysctl.conf` and set `fs.file-max = 6553600`. This change will not be effective until the `sysctl` command is run or the server is rebooted.

For Oracle Solaris on SPARC (64-Bit):

Edit `/etc/system` and set as follows:

```
set rlim_fd_cur=327679

set rlim_fd_max=327679
```

For IBM AIX on POWER Systems (64-Bit):

Modify `/etc/security/limits` defaults to read as follows:

```
fsize = -1

core = 2097151

cpu = -1

data = 1024000

rss = 512000

stack = -1
```

```
stack_hard = -1

nofiles = 327679

nofiles_hard = 327679
```

> **Note:** Do not set `nofiles` and `nofiles_hard` parameters to -1 on IBM AIX platforms. Use the recommended values specified in this section. Setting the parameters to -1 (unlimited) will cause the postconfigure phase to fail with an error message: `Too many open files`, when the provisioning process tries to start up managed servers, such as the HelpPortalServer.

> **Note:** If you select any Supply Chain Management offerings, then the host where the Global Order Promising (GOP) server is located has a different requirement for the data segment (data) setting. The data segment for the host running the GOP server should be set to a minimum of 2 GB (2097152) or higher.
>
> This means instead of setting `data = 1024000` in the `/etc/security/limits` file on the host where the GOP server is located, you should set `data = 2097152` (or a larger number).

For All Platforms:

Typically, you would have max user processes set to 16384:

```
$ulimit -u
16384
```

2.2.7 Verify Swap Space (Unix)

For Unix platforms, ensure that the provisioning hosts have a miminum of 1 GB of swap space. During the provisioning of an Oracle Fusion Applications environment, a validation test is performed in the preverify phase. An error message is displayed if the provisioning hosts do not have at least 1 GB of swap space. This error must be resolved by increasing the swap space before you can proceed with provisioning the environment.

You will receive a warning if there is at least 1 GB of swap space but less than the larger of 2 GB and 10% of memory allocated to the host. This means if a host has less than 20 GB of memory, then the swap space must be at least 2 GB. If a host has more than 20 GB of memory, then the swap space must be at least 10% of the memory.

The decision on whether to set swap space higher than 10% of the memory is a performance tuning exercise that you can make at a later time. Under certain conditions in some platforms, you may need to increase swap space to 30% of the memory in order to complete provisioning an environment.

2.2.8 Edit Host Names (Unix)

For Unix platforms, confirm that the host names are correctly formatted in `/etc/hosts`, for each host that is participating in provisioning. Review `/etc/hosts` for each participating host and edit any host entries that do not meet the following recommendations:

1. The format for each host entry should follow this format:

```
IP_address canonical_hostname [aliases]
```

The `canonical_hostname` should be the same as the fully qualified host name. Errors can occur if a short version, or alias, of the host name is specified first in `/etc/hosts`. The usage of aliases is optional and can be left empty. Examples of correct and incorrect entries follow:

```
(Correct) 141.80.151.100 myMachine.company.com  myMachine
(Incorrect) 141.80.151.100  myMachine  myMachine.company.com
```

2. If the machine name is a logical host name and is different from the physical host name specified in `/etc/sysconfig/network`, then the entry for the logical machine should be listed before the entry of the physical host name in `/etc/hosts`. If the machine is always accessed using its logical host name, there is no need to have an entry for the physical host name in /etc/hosts. Examples of entries in the correct order follow:

```
141.80.151.100 myLogicalMachine.company.com  myLogicalMachine
141.80.151.100 myPhysicalMachine.company.com  myPhysicalMachine
```

If the order of host names is reversed from what is shown in the example, then there may be errors in retrieving the logical host name.

> **Note:** Do not enter multiple host aliases into a single line in the `/etc/hosts` file. There are some software components which do not process a line with more than 700 characters. You may encounter error messages during provisioning phases, such as "UNABLE TO OPEN CREDENTIAL STOREFAILED TO ADUTPSINITIALIZE" caused by incorrect resolution of the host names. If you have a host that has many aliases, then limit the line to 700 characters and break it down into separate lines. Ensure that each line begins with the IP_address and canonical_hostname, then the aliases.

2.2.9 Increase Entropy Values (Linux)

Make sure the hosts have enough entropy values in the provisioning hosts. If this value is less than 1000, increase it to a value to a greater value using the `rngd` command. Run these commands as the root user for the current session:

To check the entropy value:

```
cat /proc/sys/kernel/random/entropy_avail
```

To increase the entropy value:

```
rngd -r /dev/urandom -o /dev/random
```

To set the `rngd` service to start automatically after rebooting the host, enter the following text into a script, such as, `start.rngd`, and run the script as root user:

```
#! /usr/bin/perl -w
.
# minimum required bytes to be happy with the device
my $want_bytes = 8192;
.
# list of commands to check
my clist = qw(/sbin/rngd /usr/sbin/rngd); S
.
```

```
# list of device names to check
my slist = qw(
  /dev/hwrandom /dev/hw_random /dev/hwrng /dev/intel_rng /dev/i810_rng
  /dev/urandom
);
.
.
use Fcntl qw(O_RDONLY);
.
# find the rngd binary
my $command;
.
foreach (clist) {
  -x && ($command = $_) && last;
}
.
# stop if rngd isn't installed
defined $command || die "$0 error: rngd is not installed\n";
.
.
# look for a hw random device
my $source;
my $continue = 1;
$SIG{'ALRM'} = sub { $continue = 0 };
.
foreach my $test (slist) {
  -e $test || next;
.
  alarm 2;
  $continue = 1;
.
  my $bytes = 0;
.
  sysopen FILE, $test, O_RDONLY or next;
  while ($continue) {
    sysread FILE, $_, 4096 or last;
    $bytes += length $_;
  }
  close FILE;
.
  if ($bytes > $want_bytes) {
    $source = $test;
    last;
  }
}
.
.
# use the select command and source
print "starting $command with $source... ";
system "$command -r $source";
print "done.\n";
.
exit 0;
```

2.2.10 Set Up the Server and the Shared Area Permissions (Windows x64)

For Microsoft Windows x64 (64-Bit) platforms, complete these steps on each provisioning host:

1. Create a domain\user that is part of the Administrators group.

2. Log in as the user that you created.

3. Run `secpol.msc` (security policy) and add the `domain\user` that you created to "Log on as service" under the Local Policies, User Rights Assignment option.

4. Create a folder on a shared disk which will be the Oracle Fusion Applications Home (denote this location as `APPLICATIONS_BASE`). The folder must be accessible to all hosts in the provisioned environment. The name of the folder must not exceed eight characters. For example, create a folder called `appbase` under `\ComputerName` and refer to the folder as `\ComputerName\appbase`. Next, you must share this folder with the Windows domain user who will be provisioning the Oracle Fusion Applications environment and give that user read/write permissions to the shared folder as follows:

    1. In Windows Explorer, right click on the `appbase` folder and select **Properties** from the context menu.

    2. In the **Properties** window, click the **Sharing** tab, then click **Share**.

    3. In the **File Sharing** window enter the domain user name using the format `DomainName\userid`.

    4. Click **Add**. This adds the given domain user name to the list of users whom the folder is shared with.

    5. Select the domain user name that has been added and change the permission level to **Read/Write**.

    6. Click **Share** and then click **Done** to save and close the **File Sharing** window.

    7. Click **Close** to close the **Properties** window.

5. Create a symbolic link to the folder that you created in Step 4. Perform this step on all hosts to be provisioned. For example, at the MS-DOS prompt, type the following:

   `C:\>mklink /d C:\falink \ComputerName\appbase`

   Make note of the location and the name of the symbolic link. Later when you create the provisioning response file, enter C:\falink in the Oracle Fusion Applications Home field.

   > **Note:** For non-Windows platforms, you must enter the full file path in the Provisioning Wizard UI when prompted (for example, Oracle Fusion Applications Home, Applications Configuration Directory, and so on). Using symbolic link paths will cause provisioning failure in the later phases.

6. Confirm that a file or folder can be created through the symbolic link from all hosts in the provisioned environment.

7. If you choose not to use the default location, *APPLICATIONS_BASE*\instance, as the Applications Configuration Directory, then repeat Steps 5 and 6 to create another symbolic link to the location of your choice. Later when you create the provisioning response file, enter the newly created symbolic link in the Applications Configuration Directory field. If you choose to use the default location, for example, then enter `C:\falink\instance` in the Applications Configuration Directory field.

2.2.11 Update Virtual Memory setting to Custom Size (Windows Only)

Before provisioning, change the Virtual Memory setting to Custom Size in the Advanced System Settings of the Microsoft Windows operation system. The recommended Initial Size is one and one-half times the physical RAM and Maximum Size is three times the physical RAM.

2.2.12 Microsoft Windows Resource Locking (Windows Only)

Ensure that no other windows or sessions are open while running provisioning. Do not access any of the files or directories under APPLICATIONS_BASE/instance/, which can create locking of the resources and cause failure.

2.2.13 Define the Local Port Range

You must define your local port range to ensure that it does not overlap with the ports used by the Java Virtual Machines (JVMs) and other servers. This action avoids port conflicts during server startup. To view and modify `localRange`:

For Linux x86-64:

To view:

`$cat /proc/sys/net/ipv4/ip_local_port_range`

To modify:

`$echo "32768 61000" > /proc/sys/net/ipv4/ip_local_port_range`

To make the local port range permanent after server restart, add (or update)

the following line in `/etc/sysctl.conf`:

`net.ipv4.ip_local_port_range = 32768 61000`

For Oracle Solaris

To view:

`#/usr/sbin/ndd /dev/tcp tcp_smallest_anon_port tcp_largest_anon_port`

To modify:

`#/usr/sbin/ndd -set /dev/tcp tcp_smallest_anon_port 32768`

`#/usr/sbin/ndd -set /dev/tcp tcp_largest_anon_port 61000`

For IBM AIX on POWER Systems (64-Bit):

To view:

`#/usr/sbin/no -a | fgrep ephemeral`

To modify:

`#/usr/sbin/no -o tcp_ephemeral_low=32768 -o tcp_ephemeral_high=61000`

Typically, the port range settings would be as follows:

```
$ /usr/sbin/no -a | fgrep ephemeral
    tcp_ephemeral_high = 61000
    tcp_ephemeral_low = 32768
    udp_ephemeral_high = 61000
    udp_ephemeral_low = 32768
```

For more information about setting port values, see "Viewing and Changing Ports for Components" in *Oracle Fusion Applications Administrator's Guide*.

2.2.14 Synchronize the System Clocks

All engine and data tier servers (including SIP) must accurately synchronize their system clocks to a common time source, to within one or two milliseconds. Large differences in system clocks can cause severe problems.

2.2.15 Support for File Locking (UNIX)

The shared drive such as, Network File System (NFS) or Common Internet File System (CIFS) must support file locking. For NFS Version 3 and NFS Version 4 , the advisory locking must be configured for the NFS mount. This applies to all UNIX platforms.

2.2.16 Synchronize Date Time Stamp

Before provisioning, ensure that the provisioning server and the computer hosting Oracle Access Server have the same date and time stamp settings. The WebGate installation fails with an Oracle Access Manager certificate error if the date and time settings on the provisioning server are different from the Oracle Access Server.

2.2.17 Set the Kernel Parameter Value

Before you install the Oracle Database using the Provisioning Wizard, ensure that the value of the kernel parameter shmmax on the database host is greater than the value of the System Global Area (SGA) Memory.

The value of SGA Memory (sga_target) is 9 GB in the default Database Configuration Assistant (DBCA) template for the Starter database. If you are running DBCA using the production DBCA template packaged with Oracle Fusion Applications Provisioning, the value of the SGA Memory is 18 GB. Ensure that shmmax > (shmall * shmmni) > SGA Memory, where shmmax, shmall, shmmni are kernel parameters.

For example, to retrieve the values of these kernel parameters on Linux, use the following command:

```
user@host> /sbin/sysctl -a | grep shm
kernel.shmmni = 4096
kernel.shmall = 3145728
kernel.shmmax = 12884901888
```

To set the value of a kernel parameter:

```
user@host> /sbin/sysctl -w sys.kernel.shmmax=value
```

2.2.18 Unset LIBPATH Variable

Before provisioning an Oracle Fusion Applications environment make sure the LIBPATH variable is not set. See Section 5.4.1 for details.

For Unix:

- Use *env* or *echo $LIBPATH* to check if the variable is set.
- Use *unsetenv LIBPATH* to unset the variable.

2.2.19 Monitor Disk Space Available for /tmp (UNIX)

For each provisioning host, ensure that there is atleast 4 GB free space available for /tmp before installing Oracle Fusion Applications on the provisioning hosts. If the disk space for /tmp is low, you will encounter performance issues. In this case, you should make disk space available or restart the hosts to clean up /tmp.

2.2.20 Default Shell (UNIX)

Oracle Fusion Applications provisioning uses "Bash" as the default shell on Unix platforms. Make sure /bin/bash shell is installed on the hosts before provisioning an Oracle Fusion Applications environment.

2.2.21 Install en_US.UTF-8 Locale (Unix)

If you are provisioning on Unix platforms, ensure that the en_US.UTF-8 locale is installed on the operating system of the provisioning hosts. Oracle Business Intelligence expects the en_US.UTF-8 locale in the operating system before provisioning the Oracle Fusion Applications environment. If the en-US.UTF-8 locale is not installed, you will encounter an error during the provisioning configure phase. The runProvisioning-bi-configure.log displays the following error message:

```
FAILED:Distributing Repository

Error:

<APPLICATIONS_
BASE>/fusionapps/bi/bifoundation/provision/scripts/bidomain/bi-i
nstall.xml:274: exec returned: 1.
```

Inspecting the oraInventory logs, it indicates that the EN_US.UTF-8 locale must be installed on the provisioning host for Oracle Business Intelligence. The error message is:

```
Executing Task: Distributing Repository

[CONFIG]:Distributing Repository

ReEncrypting RPD: [nQSError: 46116] The locale EN_US.UTF-8 needs
to be installed on the machine for the Oracle BI locale setting
english-usa specified in
NQSConfig.INI.javax.management.RuntimeMBeanException:javax.manag
ement.RuntimeMBeanException: Repository File '<APPLICATIONS_
CONFIG>/BIInstance/tmp/OracleBIApps.rpd' does not exist or is
not accessible.
```

If you encounter this error during the configure phase, install the missing locale and then retry the configure phase to complete the task.

2.2.22 Using SCIM with VNC (Linux)

This step is applicable ONLY on Oracle Linux and Red Hat Enterprise Linux when Smart Common Input Method (SCIM) is used along with Virtual Network Computing (VNC) to perform tasks on a remote system.

If you are using Oracle Linux or Red Hat Enterprise Linux, you may have Smart Common Input Method (SCIM) installed and running. SCIM may prevent you from entering a password in the Provisioning Wizard when you use Virtual Network Computing (VNC).

You can resolve this issue by implementing either one of the following steps:

- Edit the `~/.scim/config` file:

  - Either add entry `"/FrontEnd/X11/Dynamic = true"` to `~/.scim/config` or if entry `"/FrontEnd/X11/Dynamic"` exists in `~/.scim/config` edit its value to **"true"**.

  - Kill any already running vncserver processes

    * `ps -ef | grep -i vncserver`

    * `vncserver -kill:<display_number>`

  - Restart vncserver

    * `vncserver`

OR

- Remove the SCIM packages completely from the computer.

2.2.23 32 bit Libraries (SUSE Linux Enterprise Server 11)

For SUSE Linux Enterprise Server 11 (Linux x86-64 SLES 11), you must ensure the following 32 bit libraries are available before provisioning a new environment. Otherwise, the user will encounter an error during installation:

- `glibc-devel-32bit-2.9-13.2`

- `libgcc43-4.3.3_20081022`

- `libstdc++43-4.3.3_20081022-11.18`

- `gcc-32bit-4.3`

- `libaio-32bit-0.3.104`

- `libaio-devel-32bit-0.3.104`

- `libstdc++43-32bit-4.3.3_20081022`

- `libstdc++43-devel-32bit-4.3.3_20081022`

2.2.24 Set the System Time Zone

All server machines must have the same time zone settings as described in the following paragraph:

- The time zone should be the standard time zone for the instance.

- Set the `TZ` environment variable on Linux or an equivalent on other operating systems to have a valid time zone ID. On Windows, double click on the clock in the corner of the desktop, then navigate to time zone to set it.

- Check the time zone setting using the command: `echo $TZ`. The tzselect tool may be handy if you need to change the setting.

- Oracle WebLogic Server and Oracle Database will then derive the default VM and database time zones from the system, respectively, unless otherwise configured. JVMs and the database need to be running in the same time zone.

2.2.25 Create the hwrepo directory

If you are provisioning the Human Capital Management (HCM) application offerings, namely Workforce Development and Workforce Deployment, you need to:

1. Create a directory named /mnt/hwrrepo (Windows: C:\mnt\hwrrepo) for the provisioning hosts.

2. Mount a shared disk as needed by the Workforce Reputation (HWR) application.

3. Grant directory permission to the user/group who owns the Oracle Fusion Applications WLS domain(s).This user can start or shut down the Oracle Fusion Applications environment.

   (UNIX) Run this shell command as root and replace <user id>:<group id> with appropriate user and group identifiers:

   ```
   chown <user id>:<group id> /mnt/hwrrepo
   ```

4. Change read/write permission for the directory /mnt/hwrrepo to be globally readable/writable.

   (UNIX) Run this shell command as root:

   ```
   chmod 750 /mnt/hwrrepo
   ```

If the directory is not setup, you will see a warning message in the provisioning log during the preverify phase when you select the Workforce Development and Workforce Deployment offerings for provisioning.

You can proceed with provisioning the environment and mount the shared disk after provisioning is complete and before you start using the Workforce Reputation application.

2.2.26 Recommended Minimum Disk Space

It is recommended that you maintain the minimum amount of free disk space specified in Table 2–1 to accommodate the initial installation, and a reasonable number of incremental backups, daily or weekly thereafter, and subsequent upgrade activities for future releases. If your environment does not meet the minimum requirements, a warning message will be recorded in the provisioning log. You can continue with the installation but may encounter insufficient disk space issues.

In Table 2–1, the Installation/Upgrade Storage column represents the free disk space required for installation and upgrade. The Base Storage column is free disk space required to maintain a working application environment.

Table 2–1   Recommended Minimum Disk Space

Host	Installation/Upgrade Storage (GB)	Base Storage (GB)
Web Tier Host	50	50
Provisioning Host	300	500
Database Host	200	600

2.2.27 Recommended Memory Requirement for HCM Workforce Reputation Management Product

This section is only applicable if you plan to use the Human Capital Management (HCM) Workforce Reputation Management product packaged with the Workforce Deployment, or Workforce Development product offerings. To provision an environment with these two product offerings, see Section 4.1.2, "Selecting Product Offerings".

The physical machine hosting HCM Workforce Reputation Management (WorkforceReputationServer_1) managed server must have a minimum of 24 GB of memory. You need to allocate 8 GB of memory to the HCM Workforce Reputation Management (WorkforceReputationServer_1) managed server. The HCM Workforce Reputation Management externalization process may use up to 16 GB of memory.

To specify memory allocation for HCM Workforce Reputation Management (WorkforceReputationServer_1) managed server:

1. Edit the `fusionapps_start_params.properties` file located under `APPLICATIONS_CONFIG`/domains/<host>/HCMDomain/config.

2. Locate the `# HCMDomain: Main Settings` section in the file. Replace the line:

   `fusion.HCMDomain.WorkforceReputationCluster.default.minmaxmemory.main=-Xms512m -Xmx2048`

   with

   `fusion.HCMDomain.WorkforceReputationCluster.default.minmaxmemory.main=-Xms4096m -Xmx8192m`

3. Save the `fusionapps_start_params.properties` file.

4. Restart HCM Workforce Reputation Management (WorkforceReputationServer_1) managed server either from the WebLogic console or Enterprise Management for the HCM domain. For more information, see "Chapter 4, Performing Routine Administrative Tasks" in the *Oracle Fusion Applications Administrator's Guide*.

2.2.28 Verify UCB ps Version (Solaris Only)

Before you start provisioning an Oracle Fusion Applications environment, you need to ensure that the correct version of the UCB `ps` command is available on Solaris (Sparc and Solx86) platform. If the correct version of the `ps` command is not available, you will encounter an error in the Configure phase and the provisioning will not continue unless it is resolved. To verify and resolve the issue, complete the following steps before provisioning on Solaris 10 and Solaris 11.

For Solaris 10

1. Search whether `/usr/ucb/ps` is already installed using the command `pkg search -r /usr/ucb/ps`.

2. If the command returns the package information, confirm whether the package version is 0.5.11.

3. If the command returns an error or does not return the package information, install the `compatibility/ucb` pkg downloaded from http://pkg.oracle.com/solaris/release/en/index.shtml.

For Solaris 11

1. Check whether package for `/usr/ucb/ps` is already installed using the command `/usr/sbin/pkgchk -l -p /usr/ucb/ps`.

2. If the command returns the status as installed for package `SUNWscpu`, then `/usr/ucb/ps` is available.

3. If the command returns an error or does not return the package information, install the `SUNWscpu` package downloaded from the CD image or ISO.

2.3 Creating the Provisioning Repository

The provisioning repository contains all the installers required to provision a new Oracle Fusion Applications environment. You download the repository from the Oracle Fusion Applications Product Media Package to a location of your choice (*repository_location*).

> **Note:** If you want to set up a demilitarized zone (DMZ) for the web tier in your new environment, see Section 2.5 before you create the repository.

2.3.1 Obtaining the Software

Oracle groups its software releases by product area. A **Product Media Pack** refers to those groupings. Each media pack may also include a zipped file containing electronic documentation files or "Quick Install" files, which facilitate the initial installation of the software.

> **Note:** For installations of Oracle Fusion Applications, you must have available the complete set of software contained in the product media pack. You cannot install from individual pieces. Therefore, if you need to install from media that is no longer available on Oracle Software Delivery Cloud, contact My Oracle Support to obtain the complete media pack.

After you have completed the software licensing agreements, you can obtain the Oracle Fusion Applications software using one of these two methods:

- **Oracle Software Delivery Cloud Portal**: Provides you with a readme document that helps you to determine which media you need to fulfill the license you have purchased. You download only the media you need. This is the default delivery method.

- **Oracle Store**: Provides a complete set of the software in DVD format. You use only the DVDs covered by your software licensing agreement.

Using either method, you can obtain the Oracle Fusion Applications Provisioning repository and gain access to the Oracle Fusion Applications documentation library.

If you are downloading Oracle Fusion Applications 11g Media Pack for the following platforms, then use the following versions of the 64-bit UnZip utility to extract the Oracle software. UnZip is freeware and available at `http://www.info-zip.org`.

- IBM AIX on POWER Systems (64-bit) - Info-ZIP unzip version 6.10

- Oracle Solaris on SPARC (64-bit) - Info-ZIP unzip version 6.0

- Oracle Solaris on x86-64 (64-bit) - Info-ZIP unzip version 6.0

If you are downloading Oracle Fusion Applications 11g Media Pack for the Microsoft Windows x64 (64-Bit) platform, then use 7zip v9.20 to extract the Oracle software.

2.3.2 Downloading from the Oracle Software Delivery Cloud Portal

Go to `http://edelivery.oracle.com/` and follow these instructions:

1. Complete the Export Validation process by entering basic identification information using the online form.

2. On the Media Pack Search page, specify the product pack and platform to identify the media pack you want to download. If you do not know the name of the product pack, you can search for it using the license list.

3. Choose the appropriate media pack from the search results and download the provisioning repository (in zipped format). You can download the repository to a location of your choice.

4. Extract the contents of all the zipped files to the same target directory. The directory must be on a networked drive or shared disk so that it will be accessible to all the hosts in your new environment. By default, the unzip process places the installers in *repository_location*/installers.

> **Note:** Create the repository location name so that unzipping the files does not run into the Windows MAX_PATH limitation.

> **Note:** Do not unzip different versions of Oracle Fusion Applications Media Packs into the same location. This will cause errors when you try to provision Oracle Fusion Applications files.

2.3.3 Obtaining DVDs from Oracle Store

To order the Oracle Fusion Applications DVDs from the Oracle Store, go to http://oracle.com. Navigate to the Products and Services page. Click Oracle Applications and then Oracle Fusion Applications.

1. Log in as the operating system user with sufficient privileges to mount, unmount, and eject a DVD.

2. Each DVD in the media pack is assigned a unique name and typically contains only one zipped file. Insert the first DVD in the Oracle Fusion Applications Media Pack.

3. Extract the contents of the first DVD, and each of the remaining DVDs one by one to the same target directory. The directory must be on a networked drive or shared disk so that it is accessible and writable to all hosts in your environment. By default, the unzip process places the installers in *repository_location/installers*.

> **Note:** Be sure to create the repository location name so that unzipping the files does not run into the Windows MAX_PATH limitation.

> **Note:** Do not mix or unzip different versions of Oracle Fusion Applications Media Packs into the same location. This will cause errors when you try to provision Oracle Fusion Applications files.

2.3.4 Verify Required Operating System Packages and Libraries

Oracle Fusion Applications require specific operating system packages and libraries in the hosts where the software is installed. During the preverify phase of provisioning an Oracle Fusion Applications environment as detailed in Chapter 5, the Provisioning Wizard and the provisioning command line verifies if the hosts have the required

packages, libraries, and other requirements such as swap space, free space, and kernel parameters. Any issues during the check are reported in the provisioning log. If you want to perform the manual checks ahead of time, follow these steps after you create the provisioning repository.

For Database Host

1. Navigate to *REPOSITORY_LOCATION*`/installer/database/Disk1`.

2. Run the command:

   (Unix) `./runInstaller -executePrereqs -silent`

   (Windows) `setup.exe -executePrereqs -silent -jreLoc REPOSITORY_LOCATION\jdk6`

3. Review the output located at:
   `oraInventory/logs/installAction<timestamp>.log`. For example,
   `oraInventory/logs/installAction2013-04-09_09-26-04PM.log`.

Other Oracle Fusion Applications Hosts

1. Navigate to *REPOSITORY_LOCATION*`/installer/<product>/Disk1`.
   where <product> represents:

   - atgf

   - biappsshiphome

   - bishiphome

   - dbclient

   - ecm_bucket2

   - fusionapps

   - odi

   - soa

   - wc

   - webgate

   - webtier

   Optionally, you can also include the following products:

   - bhd

   - gop

2. Run the command:

   (Unix) `./runInstaller -sv -jreLoc REPOSITORY_LOCATION/jdk6`

   (Windows) `setup.exe -sv -jreLoc REPOSITORY_LOCATION\jdk6`

3. Review the output located at:
   `oraInventory/logs/install<timestamp>.out`. For example,
   `oraInventory/logs/install2013-06-25_10-33-04AM.out`.

4. Repeat Step 1 to Step 3 for all products listed in Step 1.

Example 2–2 Sample Output

```
$$$$$DEBUG>>>>Packages
Checking for binutils-2.17.50.0.6; found binutils-2.17.50.0.6-20.el5_8.3-x86_64.
```

```
Passed
Checking for compat-libstdc++-33-3.2.3-x86_64; found
compat-libstdc++-33-3.2.3-61-x86_64.    Passed
Checking for compat-libstdc++-33-3.2.3-i386; found
compat-libstdc++-33-3.2.3-61-i386.    Passed
Checking for elfutils-libelf-0.125; found elfutils-libelf-0.137-3.el5-x86_64.
Passed
Checking for elfutils-libelf-devel-0.125; found
elfutils-libelf-devel-0.137-3.el5-x86_64.    Passed
Checking for gcc-4.1.1; found gcc-4.1.2-54.el5-x86_64.    Passed
Checking for gcc-c++-4.1.1; found gcc-c++-4.1.2-54.el5-x86_64.    Passed
Checking for glibc-2.5-12-x86_64; found glibc-2.5-107.el5_9.5-x86_64.    Passed
Checking for glibc-2.5-12-i686; found glibc-2.5-107.el5_9.5-i686.    Passed
Checking for glibc-common-2.5; found glibc-common-2.5-107.el5_9.5-x86_64.
Passed
Checking for glibc-devel-2.5-x86_64; found glibc-devel-2.5-107.el5_9.5-x86_64.
Passed
Checking for glibc-devel-2.5-12-i386; Not found.    Failed <<<<
Checking for libaio-0.3.106-x86_64; found libaio-0.3.106-5-x86_64.    Passed
Checking for libaio-0.3.106-i386; found libaio-0.3.106-5-i386.    Passed
Checking for libaio-devel-0.3.106; found libaio-devel-0.3.106-5-i386.    Passed
Checking for libgcc-4.1.1-x86_64; found libgcc-4.1.2-54.el5-x86_64.    Passed
Checking for libgcc-4.1.1-i386; found libgcc-4.1.2-54.el5-i386.    Passed
Checking for libstdc++-4.1.1-x86_64; found libstdc++-4.1.2-54.el5-x86_64.
Passed
Checking for libstdc++-4.1.1-i386; found libstdc++-4.1.2-54.el5-i386.    Passed
Checking for libstdc++-devel-4.1.1; found libstdc++-devel-4.1.2-54.el5-x86_64.
Passed
Checking for make-3.81; found make-1:3.81-3.el5-x86_64.    Passed
Checking for sysstat-7.0.0; found sysstat-7.0.2-12.0.1.el5-x86_64.    Passed
Check complete. The overall result of this check is: Failed <<<<

Check Name:Kernel
Check Description:This is a prerequisite condition to test whether the minimum
required kernel parameters are configured.
Checking for VERSION=2.6.18; found VERSION=2.6.18-348.4.1.0.1.el5.    Passed
Checking for hardnofiles=4096; found hardnofiles=327679.    Passed
Checking for softnofiles=4096; found softnofiles=327679.    Passed
Check complete. The overall result of this check is: Passed
Kernel Check: Success.
Checking for VERSION=2.6.18; found VERSION=2.6.18-348.4.1.0.1.el5.    Passed
Checking for hardnofiles=4096; found hardnofiles=327679.    Passed
Checking for softnofiles=4096; found softnofiles=327679.    Passed
Check complete. The overall result of this check is: Passed

Check Name:GLIBC
Check Description:This is a prerequisite condition to check whether the
recommended glibc version is available on the system
Expected result: ATLEAST=2.5-12
Actual Result: 2.5-107.el5_9.5
Check complete. The overall result of this check is: Passed
GLIBC Check: Success.
Expected result: ATLEAST=2.5-12
Actual Result: 2.5-107.el5_9.5
Check complete. The overall result of this check is: Passed
```

If any of the stated library (or package) is not found, you should obtain and install the library (or package) in order to continue after the preverify phase of the provisioning process.

2.4 Installing the Provisioning Framework

The Oracle Fusion Applications Provisioning installer (`faprov`) is delivered with the other installers in the provisioning repository. The purpose of `faprov` is to create the Oracle Fusion Applications Provisioning framework, which contains the following components:

- **Provisioning Wizard**: A question-and-answer interview that guides you through the process of installing a database, creating or updating a response file, and provisioning or deinstalling an Oracle Fusion Applications environment.

  > **Note:**
  >
  > - Run the Provisioning Wizard on the primordial host to create a provisioning response file. If you run the Provisioning Wizard on a non-primordial host to create a provisioning response file, the validation assumes that the host is the primordial host. Ensure that you interpret the validation errors correctly as they may not be applicable to the non-primordial host.
  >
  > - When provisioning a new environment, you should only run the Provisioning Wizard on the primordial host and the Provisioning Command-line Interface on non-primordial hosts.

- **Provisioning Command-line Interface (CLI)**: Used for starting the wizard and running installation phases on the **Primary host**, **Secondary host**, and **DMZ host** (when present).

- **Provisioning-related files and utilities**: The ANT utilities, binary files, library files, templates, locations of saved response files and provisioning build scripts, and other provisioning utilities required for performing provisioning tasks.

Because the provisioning installer is a customized version of the Oracle Universal Installer (OUI), its behavior closely resembles that of the OUI.

2.4.1 Run the Provisioning Framework Installer

To install the provisioning framework, locate the directory `repository_location/installers/faprov/Disk1` and run the script, `runInstaller` or `setup.exe`, depending on your hardware platform. Note that `repository_location` is the directory where you created the provisioning repository.

> **Note:** You should not run the scripts, `runInstaller` or `setup.exe`, located in `repository_location/installers/fusionapps/Disk1`. These scripts are used and run by the Provisioning Wizard and Provisioning Command-line Interface when needed. They are not meant for installing the provisioning framework.

1. Use this command to start OUI from the command line to install the Provisioning Wizard. Ensure that you replace `repository_location` with the full file path to the provisioning repository :

   (UNIX) `runInstaller -jreLoc repository_location/jdk6`

> **Note:** If you did not specify `-jreLoc repository_location/jdk6` in the
> command line, you can enter the file path on the command prompt.

(Windows) `setup.exe -jreLoc repository_location\jdk6`

> **Note:** Ensure you are using the 8-character file path format for `repository_location`.

2.4.2 Provisioning Installer Screens and Instructions

Table 2–2 lists the steps for running the provisioning framework installer. For
examples of the interview screens, see Appendix A.

Table 2–2   Provisioning Framework Installation Screen Flow

Screen	Description and Action Required
Specify Inventory Directory (UNIX)	If this is your first Oracle installation on this host, you must specify the location of the **Central Inventory Directory**. It is used by the installer to keep track of all Oracle products installed on this host. The default location for this file varies by platform.
	In the **Operating System Group Name** field, select the group whose members will be granted access to the inventory directory. All members of this group can install products on this host. Click **OK** to continue.
	The **Inventory Location Confirmation** dialog prompts you to run the *inventory_directory*/`createCentralInventory.sh` script as `root` to create the `/etc/oraInst.loc` file. This file is a pointer to the central inventory and must be present for silent installations. It contains two lines:
	`inventory_loc=`*path_to_central_inventory*
	`inst_group=`*install_group*
	The standard location for this file is `/etc/oraInst.loc`, but it can be created anywhere. Note that the default for Linux and AIX platforms is `/etc/oraInst.loc` and for Solaris and HP, it is `/var/opt/oracle/oraInst.loc`. If you create it in a directory other than `/etc`, you must include the `-invPtrLoc` argument and enter the location of the inventory when you run the `provisioningWizard` or the `runProvisioning` script.
	If you do not have `root` access on this host but want to continue with the installation, select **Continue installation with local inventory**.
	Click **OK** to continue.
Welcome	No action is necessary on this read-only screen.
	Click **Next** to continue.
Prerequisite Checks	Analyzes the host computer to ensure that specific operating system prerequisites have been met. If any prerequisite check fails, the screen displays a short error message at the bottom. Fix the issue that caused the error and click **Retry**.
	To ignore the error or warning message, click **Continue**. Click **Abort** to stop the prerequisite check process for all components.
	Click **Next** to continue.
Specify Installation Location	In the **Location** field, specify where you want to install the provisioning framework. This is the location where the Provisioning Wizard and the start command for provisioning are installed. This location is denoted as *framework_location*. You can choose any location if it is on a shared disk in a location that is accessible to all hosts in your new environment.
	The installation process creates a logical directory called the Oracle home. This location is where software binaries will be stored. No runtime process can write to this directory. The directory must initially be empty.
	If you are performing the installation on a Windows operating system, ensure that the directory paths are valid and do not contain a double backslash (`\\`).
	Click **Next** to continue.

Table 2–2 (Cont.) Provisioning Framework Installation Screen Flow

Screen	Description and Action Required
Installation Summary	Summarizes the selections that you have made during this installation session. To change this configuration before installing, select one of the screens from the left navigation pane or click **Back** to return to a previous screen. When you are satisfied with the details, click **Save** to create a text file (response file) to use if you choose to perform the same installation later.
	Click **Install** to begin installing this configuration.
Installation Progress	The progress indicator shows the percentage of the installation that is complete, and indicates the location of the installation log file.
	Click **Next** when the progress indicator shows 100 percent.
Installation Complete	Summarizes the installation just completed. To save the details to a text file, click **Save** and indicate a directory where you want to save the file.
	Click **Finish** to dismiss the screen and exit the installer.

2.4.3 Provisioning Framework Components

Table 2–3 shows the components in the *framework_location*/provisioning directory.

Table 2–3 Contents of the Provisioning Framework

Component Type	Component Name	General Use
ANT	ant	Java processes for installing binaries, configuring domains and subsystems (JDBD and SOA composites), deploying applications, and domain startup
Binary files	bin	Executable files, compiled programs, system files, spreadsheets, compressed files, and graphic (image) files
Library files	lib	Previously defined functions that have related functionality or are commonly used, stored in object code format
Location of saved response files	provisioning-response file	Location for completed or partially completed response files
Location of provisioning build scripts	provisioning-build	Location for build scripts that are available when called for during the provisioning of an environment
Location of templates	template	Start parameters, single sign-on configuration, and database templates
Location of utility files	util	Other provisioning utilities

2.5 Setting Up a Demilitarized Zone (DMZ) for the Web Tier

The web tier contains Oracle HTTP Server, which can be installed on the same shared file system (inside the firewall) as the other components, or exist on a host in a DMZ. If you install the web tier in a DMZ, the web tier host cannot be the same as any other host deployed, regardless of domain.

Installing the web tier in a DMZ enables you to impose more restrictions on communication within the portion of the system that is within the firewall, including the following:

- The **DMZ host** cannot access the shared storage that is accessible by the hosts within the firewall (in the *APPLICATIONS_BASE* area where the middleware homes are installed or the shared area).

- The DMZ host may not be able to communicate with the CommonDomain AdminServer through the firewall. If this is the case, web tier running on the DMZ is **non-managed**; that is, it is not associated with the CommonDomain running inside the firewall.

However, the *APPLICATIONS_BASE* file path and the directory structure under it remain the same on the DMZ host as for the other hosts that exist inside the firewall.

During the provisioning process, phase guard files are generated automatically to determine when a specific phase has been completed on a specific host. For systems that do not use a DMZ, these phase guard files are generated automatically under the shared *APPLICATIONS_CONFIG* area on the hosts inside the firewall.

To set up and configure your web tier on a DMZ host, go to http://edelivery.oracle.com/ and follow these directions:

> **Note:** On a DMZ host, you should not have any symlink or mount points that point to a repository or *APPLICATIONS_BASE* residing inside the firewall, that is, the repository and *APPLICATIONS_BASE* should be accessible from the DMZ host.

1. Copy the provisioning repository zipped files to a location on the web tier host to be designated as a demilitarized zone. Follow the instructions in Section 2.3.

2. Run the provisioning framework installer (`faprov`), as described in Section 2.4. You can create the framework in any location, or you can create it on the DMZ host.

3. Copy the provisioning framework (*framework_location*/`provisioning`) from the location where you installed it to the DMZ host. If you installed it initially on the DMZ host, no action is required.

4. When you create the response file for this environment, indicate this web tier configuration when prompted. See Section 4.3 for details.

5. When the preverify phase is successful on the primordial host, place a copy of the response file and the generated provisioning plan (*<APPLICATIONS_BASE>*/`provisioning/plan/provisioning.plan`) on the DMZ host.

2.6 Deinstalling the Provisioning Framework

Deinstalling Oracle Fusion Applications involves removing the Oracle Fusion Applications Provisioning Oracle home. The deinstaller attempts to remove the Oracle home from which it was started, and removes only the software in the Oracle home.

Before you remove the Oracle Fusion Applications Provisioning Oracle home, ensure that it is not in use. After you remove the software, you will no longer be able to provision a new Oracle Fusion Applications environment.

2.6.1 Run the Provisioning Framework Deinstaller

To start the deinstaller, navigate to (UNIX) *framework_location*/`oui/bin` or (Windows) *framework_location*\`oui\bin` and use this command:

(Unix) `runInstaller -deinstall -jreLoc repository_location/jdk6`

(Windows) `setup.exe -deinstall -jreLoc repository_location\jdk6`

On Windows operating systems, you can also start the deinstaller from the Start menu by selecting **Programs**, then **Oracle Fusion Applications Provisioning 11g-Home1**, and finally **Uninstall**.

The **Uninstall** menu is a Windows shortcut to the setup.exe -deinstall command. Note that you should not use the Start -> All Programs -> Oracle - OHnnnn -> Oracle Installation Products -> Uninstall menu option on Windows operating systems, where nnnn is a number. This **Uninstall** menu is also a shortcut to the setup.exe program but does not have the -deinstall command line option. Therefore, it will not deinstall the provisioning framework.

The deinstaller described in this section removes the provisioning framework that you can use to provision the Oracle Fusion Applications environment. It does not deinstall the Oracle Fusion Applications environment. If you want to deinstall an Oracle Fusion Applications environment, refer to Chapter 6 before removing the provisioning wizard from your system.

For Windows operating systems, after removing provisioning wizard, you can delete the Oracle - OHnnnn folder located in the ProgramData -> Microsoft -> Windows -> Start Menu -> Programs folder.

2.6.2 Deinstaller Screens and Instructions

Table 2–4 contains instructions for deinstalling the provisioning framework. For help with any of the interview screens, see Appendix A.2 or click **Help** on any interview screen.

Table 2–4 Provisioning Deinstaller Screen Flow

Screen	Description and Action Required
Welcome	No action is required on this read-only screen.
	Click **Next** to continue.
Deinstall Oracle Home	Verify that the directory path is correct. Click **Save** to create a text file with the details of the configuration you are deinstalling. Click **Deinstall** to continue.
	On the **Warning** screen, select whether you want the deinstaller to remove the Oracle **home directory** in addition to removing the software. Click **Yes** to remove the software files and the provisioning Oracle **home directory**. Click **No** to remove only the software files, or click **Cancel** to return to the previous screen.
	If you clicked **No**, remove the framework software files manually. For example, you would use this syntax if the directory is /d1/oracle/provisioning:
	(Unix)cd /d1/oracle/provisioning
	(Windows) rm -rf provisioning
	If the Oracle home directory is C:\Oracle\Provisioning, use a file manager window and navigate to the C:\Oracle directory. Right-click the Provisioning folder and select **Delete**.
Deinstallation Progress	Monitor the progress of the deinstallation. Click **Cancel** to stop the process. Click **Next** to continue.
Deinstallation Complete	Click **Finish** to dismiss the screen.

2.7 What to Do Next

You must install a transaction database before you create a response file. See Chapter 3 for complete information.

3

Installing a Transaction Database

This chapter describes how to install and configure a transaction database for use with an Oracle Fusion Applications environment. It also describes the Oracle Fusion Applications Repository Creation Utility (Oracle Fusion Applications RCU), which creates a repository for applications schemas and tablespaces and loads seed data into the database.

This chapter includes the following sections:

- Introduction to Transaction Databases
- Before You Begin
- Database Installation Requirements
- Installing Oracle Database Enterprise Edition with the Wizard
- Manually Installing Oracle Database Enterprise Edition or Oracle RAC
- Oracle Fusion Applications Repository Creation Utility
- Running the Oracle Fusion Applications Repository Creation Utility
- Using the Command-Line Interface
- Troubleshooting for Database Installations
- What to Do Next

3.1 Introduction to Transaction Databases

A **transaction database** holds the business transactions generated as you use your Oracle Fusion Applications products offerings. This chapter includes overview information related to installing Oracle Database. ProvisioningWizard installs 11.2.0.3 database. If you manually install the database, you must install Oracle Database 11.2.0.3.

> **Note:** You **should not** share the same database instance for Oracle Identity Management and Oracle Fusion Applications. Oracle Fusion Applications should have a separate database instance.

3.1.1 Process Overview

You must install Oracle Database Enterprise Edition before you create a **response file**. The database must be created using the database template that is shipped with Oracle Fusion Applications software. The template contains the database structure and features, but is not seeded. It is generic for use across platforms.

For a small-scale, single-node database, you can use the **Install an Applications Transaction Database** option in the **Provisioning Wizard** to install a single-node instance of Oracle Database Enterprise Edition. Or, you can install the database manually (interactively) if you are creating a production-scale, multiple-node database. Oracle Fusion Applications also supports Oracle Real Application Clusters (Oracle RAC).

To finish any database installation, you must use the Oracle Fusion Applications RCU to perform the following actions:

- Create Oracle Fusion Middleware schema and tablespace users and define the tables, views, and other artifacts that the schema user owns.

- Create empty tablespaces for Oracle Fusion Applications components and the schema owners. The owners do not own any tables or data initially.

- Import default seed data values for the schema users using Oracle Data Pump files.

See Section 3.6 for details about running the Oracle Fusion Applications RCU.

3.1.2 Oracle Data Pump

Oracle Data Pump provides high-speed, parallel, bulk data and metadata movement of Oracle Database contents. The Data Pump dump files (.dmp) that contain the table definitions are delivered as part of the provisioning framework installation to make them available to the Oracle Fusion Applications RCU.

When using Oracle Data Pump to import data and metadata for an Oracle RAC installation, note that the directory that holds the dump files must be accessible from all Oracle RAC nodes. In addition, keep the following considerations in mind:

- To use Data Pump or external tables in an Oracle RAC configuration, you must ensure that the directory object path is on a cluster-wide file system.

  The directory object must point to shared physical storage that is visible to, and accessible from, all instances where Data Pump and/or external table processes may run.

- The default Data Pump behavior is that worker processes can run on any instance in an Oracle RAC configuration. Therefore, workers on those Oracle RAC instances must have physical access to the location defined by the directory object, such as shared storage media.

- Under certain circumstances, Data Pump uses parallel query slaves to load or unload data. In an Oracle RAC environment, Data Pump does not control where these slaves run, and they may run on other instances in the Oracle RAC, regardless of what is specified for CLUSTER and SERVICE_NAME for the Data Pump job. Controls for parallel query operations are independent of Data Pump. When parallel query slaves run on other instances as part of a Data Pump job, they also require access to the physical storage of the dump file set.

3.1.3 Single-Node Databases

A single-node instance of Oracle Database Enterprise Edition is typically used for medium-sized installations, or for training and demonstrations. The Provisioning Wizard database installation interview collects details such as the database listener port and the location of the database home, the database software, the database files, the database password, and the global name of the database. The wizard performs

prerequisite validation checks, reports the status of the checks, and summarizes the actions to be performed during the database installation.

3.1.3.1 Using the Provisioning Wizard Database Option

The wizard invokes the database build script and performs the following tasks:

- Installs database software.

- Generates an Oracle Universal Installer (OUI) response file based on the configuration that you specify.

- Accesses the **provisioning repository** and invokes the database installer in silent mode. If the applications environment does not meet the database installation requirements, the wizard terminates the process.

- Requests a copy of the nonseeded database template.

- Creates an instance of Oracle Database 11.2.0.3 using the configuration settings that you entered in the wizard interview, and the database template.

3.1.3.2 Database Installation Phases

The wizard performs the database installation in phases and reports progress during the installation:

- **Installation**: Runs the database installer to install the software and the Tech Patch Utility (TPU).

- **Preconfigure**: The preconfigure phase consists of the following steps:

  1. Configure Oracle Configuration Manager (OCM).

  2. Configure Tech Patch Utility (TPU).

  3. Run TPU to patch the following components from the following directories in `repository_location/installers/database`.

     - OPatch: Upgrade OPatch to the latest version.

     - PSU: Run OPatch to apply PSU.

     - Patches: Run OPatch to apply all patches.

- **Configure**: Creates services used to connect to the database and applies the database template to set system parameters as well as starts the listener and database instance.

- **Postconfigure**: Performs any necessary postconfiguration steps.

- **Startup**: Starts any installed components that are not already started.

- **Validation**: Connects to the database to verify the integrity of the installation.

3.1.4 Multiple-Node Databases

Oracle Real Application Clusters (Oracle RAC) enables multiple database instances, linked by an interconnect, to share access to Oracle Database. This configuration enables you to increase the scale of your applications environment. This type of database is typically used for production environments.

For information about Oracle RAC, see "Oracle RAC Database Configuration for Oracle Fusion Applications Repositories" in *Oracle Fusion Applications Administrator's Guide*.

3.2 Before You Begin

You must read and understand the information in the following sources and perform any tasks outlined there before you begin a database installation:

- Chapter 1
- Chapter 2
- Section 3.3

The expectation is that the installation is performed by the database administrator (DBA) on the database host, and that these requirements are met:

- The person who installs the database must have `root` or `sudo` user privileges. However, Oracle Database should not be installed as `root` user.

- You must have created the provisioning repository, see Section 2.3, and installed the provisioning framework, see Section 2.4. Provisioning relies on the database installer to determine whether the system is adequate for the base database software.

> **Note:** It is a good practice to install only one database server on a given host. Each server can manage multiple database instances.

3.3 Database Installation Requirements

For more information about database installation requirements, see the "Certification" section in the Oracle Fusion Applications release notes. The Provisioning Wizard performs prerequisite validation checks to ensure that those requirements are met.

> **Note:** Before you install Oracle Database using the Provisioning Wizard, you must shut down all Oracle and Oracle-related services on the database host. Failure to do so will result in database installation errors.

3.3.1 Minimum Installation Requirements

Oracle Fusion Applications requires Oracle Database Enterprise Edition or Oracle Real Application Clusters Database. If you are installing Oracle Database Enterprise Edition installer manually (not using the provisioning Wizard), the installation requires the enabling of specific components, several of which are selected by default:

- Oracle Partitioning (default)
- Oracle Data Mining RDBMS Files (default)

To verify that your system meets all minimum requirements associated with the database, see *Oracle Database Installation Guide* for your platform for details.

Oracle Label Security

Oracle Label Security is required for running the Oracle Fusion Applications RCU. After the Oracle Fusion Applications provisioning is completed, you can disable Oracle Label Security.

If you are installing the Oracle Database using the Oracle Fusion Applications Provisioning Wizard, Oracle Label Security is installed. You can disable Oracle Label Security after the Oracle Fusion Applications environment provisioning is complete. If you are installing the Oracle Database (Enterprise Edition or RAC), you need to enable

Oracle Label Security for running the Oracle Fusion Applications RCU. You can disable Oracle Label Security after after the Oracle Fusion Applications environment provisioning is complete.

Use the following steps to disable Oracle Label Security.

1. Stop the database.

2. Set the environment variables `ORACLE_SID` and `ORACLE_HOME` on the database host.

3. Run the command: `cd $ORACLE_HOME/bin`.

4. Run the command: `./chopt disable lbac`.

5. Start the database.

3.3.2 Minimum Configuration Parameters for Oracle Database

Table 3–1 shows the commonly recommended initialization parameters.

Table 3–1   Recommended Initialization Parameters

Expected Database Size	Parameter Name	DB Default Value	Recommended Value for Oracle Fusion Applications
Small and large	`audit_trail`	DB	NONE
	plsql_code_type	INTERPRETED	NATIVE
	nls_sort	Derived from NLS_ LANGUAGE	BINARY
	`open_cursors`	50	500
	`session_cached_cursors`	50	500
	`_b_tree_bitmap_plans`	TRUE	FALSE
	db_securefile	PERMITTED	ALWAYS
	disk_asynch_io	TRUE	TRUE
	filesystemio_options	Platform Dependent ("none" for Linux)	Use default value ("none" for Linux)

Table 3–1   (Cont.) Recommended Initialization Parameters

Expected Database Size	Parameter Name	DB Default Value	Recommended Value for Oracle Fusion Applications
	Note: When you use the Provisioning Wizard to install the database using the dbca template, the default values for the disk_asynch_io and filesystemio_options parameters are as follows: disk_asynch_io is set to TRUE filesystemio_options will be set to the default value based on the platform where the database is installed. It could be either "none", "setall", "asynch", or "diskio". To verify that the filesystemio_options parameter is using the default value, run the following query: `"select isdefault from v$parameter where name='filesystemio_options"`. If it returns TRUE, the default value is set. If you change the parameter value from the original default value to another value and then change it back to the original default value, the default value will still remain FALSE. The following Warning messages will be displayed based on the values set: If disk_asynch_io is set to FALSE and filesystemio_options is set to the default value, a Warning message will be displayed recommending setting the value for disk_asynch_io to TRUE. If disk_asynch_io is set to FALSE and filesystemio_options is not set to the default value, a Warning message will be displayed recommending setting the value for disk_asynch_io to TRUE for the best performance optimization.		
	SYSTEM	1900	1900
	SYSAUX	1100	1100
Starter - Single-node, small	sga_target	0	9 GB
	pga_aggregate_target	0	4 GB
	_fix_control	5483301:ON,6708183:OFF	5483301:OFF,6708183:ON
	processes	100	5000
	undo tablespace	0	6 GB; autoextend ON
	temp tablespace	0	6 GB; autoextend ON
	redo log	0	Three 2 GB Groups
	SYSTEM	1900	1900
	SYSAUX	1100	1100
Single-node, large	sga_target	0	18 GB
	pga_aggregate_target	0	8 GB
	_fix_control	5483301:ON,6708183:OFF	5483301:OFF,6708183:ON
	processes	100	5000
	undo tablespace	0	12 GB; autoextend ON
	temp tablespace	0	9 GB; autoextend ON
	redo log	0	Three 2 GB Groups
	SYSTEM	1900	1900
	SYSAUX	1100	1100
2-node Oracle RAC, large	sga_target	0	18 GB
	pga_aggregate_target	0	8 GB

Table 3–1   (Cont.) Recommended Initialization Parameters

Expected Database Size	Parameter Name	DB Default Value	Recommended Value for Oracle Fusion Applications
	_fix_control	5483301:ON,6708183:OFF	5483301:OFF,6708183:ON
	processes	100	5000
	undo tablespace	0	12 GB; autoextend ON
	temp tablespace	0	9 GB; autoextend ON
	redo log	0	Three 2 GB Groups per instance
	SYSTEM	1900	1900
	SYSAUX	1100	1100

For more information about setting the kernel parameter value, see Section 2.2.17.

3.3.3 Mandatory Oracle Database Patches

Table 3–2 lists the mandatory Oracle Database (Enterprise Edition and RAC) patches required for Oracle Fusion Applications. The list is organized by operating system platforms. Patches listed as **generic** are required for all operating system platforms. For each platform, there is one patch for Opatch, one patch for Patch Set Updates (PSU), and zero or many one-off patches.

- If you install Oracle Database using the Provisioning Wizard, these patches are automatically applied.

- If you install Oracle Database manually, you must apply the mandatory database patches by following the instructions detailed in Section 3.5.5.

Note: For both scenarios described above, ensure that you complete the following steps before running the Oracle Fusion Applications RCU:

- Complete the manual postinstallation tasks detailed in the patch readme file (Section 3.4.5).

- Refer to Oracle Database patch details listed in the "Additional Patches for the Tech Stack" section of the latest Oracle Fusion Applications release notes for any additional patches required for the current release.

Table 3–2   Mandatory Oracle Database Patches

Operating System	Patches
generic	One-off patches:
	p12317925_112030_Generic.zip
	p13508115_112030_Generic.zip
	p14013094_112030_Generic.zip
	p14698700_112030_Generic.zip

Table 3–2   (Cont.) Mandatory Oracle Database Patches

Operating System	Patches
aix	Opatch: p6880880_112000_AIX64-5L.zip
	DBPSU4: p14275605_112030_AIX64-5L.zip
	One-off patches:
	p10263668_112030_AIX64-5L.zip
	p11837095_112030_AIX64-5L.zip
	p12312133_112030_AIX64-5L.zip
	p12646746_112030_AIX64-5L.zip
	p12772404_112034_AIX64-5L.zip
	p12889054_112030_AIX64-5L.zip
	p12977501_112030_AIX64-5L.zip
	p12985184_112030_AIX64-5L.zip
	p13014128_112030_AIX64-5L.zip
	p13078786_112030_AIX64-5L.zip
	p13365700_112030_AIX64-5L.zip
	p13404129_112030_AIX64-5L.zip
	p13454210_112034_AIX64-5L.zip
	p13615767_112030_AIX64-5L.zip
	p13632653_112030_AIX64-5L.zip
	p13743987_112030_AIX64-5L.zip
	p13787482_112030_AIX64-5L.zip
	p13790109_112030_AIX64-5L.zip
	p13902963_112030_AIX64-5L.zip
	p13918644_112030_AIX64-5L.zip
	p14029429_112030_AIX64-5L.zip
	p14058884_112030_AIX64-5L.zip
	p14110275_112034_AIX64-5L.zip
	p14143796_112030_AIX64-5L.zip
	p14164849_112030_AIX64-5L.zip
	p14207317_112030_AIX64-5L.zip
	p14226599_112030_AIX64-5L.zip
	p14499293_112030_AIX64-5L.zip
	p14555370_112034_AIX64-5L.zip
	p14653598_112034_AIX64-5L.zip
	p14679292_112030_AIX64-5L.zip
	p14725518_112030_AIX64-5L.zip
	p14743385_112034_AIX64-5L.zip
	p14808639_112034_AIX64-5L.zip
	p15832953_112034_AIX64-5L.zip
	p15885799_112034_AIX64-5L.zip
	p16070519_112030_AIX64-5L.zip
	p16250008_112034_AIX64-5L.zip
	p16369429_112030_AIX64-5L.zip
	p14153464_112030_AIX64-5L.zip

Table 3–2   (Cont.) Mandatory Oracle Database Patches

Operating System	Patches
linux64	OPatch: p6880880_112000_Linux-x86-64.zip
	DBPSU4: p14275605_112030_Linux-x86-64.zip
	One-off patches:
	p10263668_112030_Linux-x86-64.zip
	p11837095_112030_Linux-x86-64.zip
	p12312133_112030_Linux-x86-64.zip
	p12646746_112030_Linux-x86-64.zip
	p12772404_112034_Linux-x86-64.zip
	p12889054_112030_Linux-x86-64.zip
	p12977501_112030_Linux-x86-64.zip
	p12985184_112030_Linux-x86-64.zip
	p13014128_112030_Linux-x86-64.zip
	p13078786_112030_Linux-x86-64.zip
	p13365700_112030_Linux-x86-64.zip
	p13404129_112030_Linux-x86-64.zip
	p13454210_112034_Linux-x86-64.zip
	p13615767_112030_Linux-x86-64.zip
	p13632653_112030_Linux-x86-64.zip
	p13743987_112030_Linux-x86-64.zip
	p13787482_112030_Linux-x86-64.zip
	p13790109_112030_Linux-x86-64.zip
	p13902963_112030_Linux-x86-64.zip
	p13918644_112030_Linux-x86-64.zip
	p14029429_112030_Linux-x86-64.zip
	p14058884_112030_Linux-x86-64.zip
	p14110275_112034_Linux-x86-64.zip
	p14143796_112030_Linux-x86-64.zip
	p14164849_112030_Linux-x86-64.zip
	p14207317_112030_Linux-x86-64.zip
	p14226599_112030_Linux-x86-64.zip
	p14499293_112030_Linux-x86-64.zip
	p14555370_112034_Linux-x86-64.zip
	p14653598_112034_Linux-x86-64.zip
	p14679292_112030_Linux-x86-64.zip
	p14725518_112030_Linux-x86-64.zip
	p14743385_112034_Linux-x86-64.zip
	p14808639_112034_Linux-x86-64.zip
	p15832953_112034_Linux-x86-64.zip
	p15885799_112034_Linux-x86-64.zip
	p16070519_112030_Linux-x86-64.zip
	p16250008_112034_Linux-x86-64.zip
	p16369429_112030_Linux-x86-64.zip
	p14153464_112030_Linux-x86-64.zip

Table 3–2   (Cont.) Mandatory Oracle Database Patches

Operating System	Patches
solaris64	OPatch: p6880880_112000_Solaris86-64.zip
	DBPSU4: p14275605_112030_Solaris86-64.zip
	One-off patches:
	p10263668_112030_Solaris86-64.zip
	p11837095_112030_Solaris86-64.zip
	p12312133_112030_Solaris86-64.zip
	p12646746_112030_Solaris86-64.zip
	p12772404_112034_Solaris86-64.zip
	p12889054_112030_Solaris86-64.zip
	p12977501_112030_Solaris86-64.zip
	p12985184_112030_Solaris86-64.zip
	p13014128_112030_Solaris86-64.zip
	p13078786_112030_Solaris86-64.zip
	p13365700_112030_Solaris86-64.zip
	p13404129_112030_Solaris86-64.zip
	p13454210_112034_Solaris86-64.zip
	p13615767_112030_Solaris86-64.zip
	p13632653_112030_Solaris86-64.zip
	p13743987_112030_Solaris86-64.zip
	p13787482_112030_Solaris86-64.zip
	p13790109_112030_Solaris86-64.zip
	p13902963_112030_Solaris86-64.zip
	p13918644_112030_Solaris86-64.zip
	p14029429_112030_Solaris86-64.zip
	p14058884_112030_Solaris86-64.zip
	p14110275_112034_Solaris86-64.zip
	p14143796_112030_Solaris86-64.zip
	p14164849_112030_Solaris86-64.zip
	p14207317_112030_Solaris86-64.zip
	p14226599_112030_Solaris86-64.zip
	p14499293_112030_Solaris86-64.zip
	p14555370_112034_Solaris86-64.zip
	p14653598_112034_Solaris86-64.zip
	p14679292_112030_Solaris86-64.zip
	p14725518_112030_Solaris86-64.zip
	p14743385_112034_Solaris86-64.zip
	p14808639_112034_Solaris86-64.zip
	p15832953_112034_Solaris86-64.zip
	p15885799_112034_Solaris86-64.zip
	p16070519_112030_Solaris86-64.zip
	p16250008_112034_Solaris86-64.zip
	p16369429_112030_Solaris86-64.zip
	p14153464_112030_Solaris86-64.zip

Table 3–2   (Cont.) Mandatory Oracle Database Patches

Operating System	Patches
solaris_sparc64	OPatch: p6880880_112000_SOLARIS64.zip
	DBPSU4: p14275605_112030_SOLARIS64.zip
	One-off patches:
	p10263668_112030_SOLARIS64.zip
	p11837095_112030_SOLARIS64.zip
	p12312133_112030_SOLARIS64.zip
	p12646746_112030_SOLARIS64.zip
	p12772404_112034_SOLARIS64.zip
	p12889054_112030_SOLARIS64.zip
	p12977501_112030_SOLARIS64.zip
	p12985184_112030_SOLARIS64.zip
	p13014128_112030_SOLARIS64.zip
	p13078786_112030_SOLARIS64.zip
	p13365700_112030_SOLARIS64.zip
	p13404129_112030_SOLARIS64.zip
	p13454210_112034_SOLARIS64.zip
	p13615767_112030_SOLARIS64.zip
	p13632653_112030_SOLARIS64.zip
	p13743987_112030_SOLARIS64.zip
	p13787482_112030_SOLARIS64.zip
	p13790109_112030_SOLARIS64.zip
	p13902963_112030_SOLARIS64.zip
	p13918644_112030_SOLARIS64.zip
	p14029429_112030_SOLARIS64.zip
	p14058884_112030_SOLARIS64.zip
	p14110275_112034_SOLARIS64.zip
	p14143796_112030_SOLARIS64.zip
	p14164849_112030_SOLARIS64.zip
	p14207317_112030_SOLARIS64.zip
	p14226599_112030_SOLARIS64.zip
	p14499293_112030_SOLARIS64.zip
	p14555370_112034_SOLARIS64.zip
	p14653598_112034_SOLARIS64.zip
	p14679292_112030_SOLARIS64.zip
	p14725518_112030_SOLARIS64.zip
	p14743385_112034_SOLARIS64.zip
	p14808639_112034_SOLARIS64.zip
	p15832953_112034_SOLARIS64.zip
	p15885799_112034_SOLARIS64.zip
	p16070519_112030_SOLARIS64.zip
	p16250008_112034_SOLARIS64.zip
	p16369429_112030_SOLARIS64.zip
	p14153464_112030_SOLARIS64.zip

Table 3–2   (Cont.) Mandatory Oracle Database Patches

Operating System	Patches
windows64	OPatch: p6880880_112000_MSWIN-x86-64.zip
	windows64 BP21 (under psu/ directory): p16803769_112030_ MSWIN-x86-64.zip

3.3.4 Prerequisite and Validation Checks

As a part of the provisioning process, the Provisioning Wizard performs prerequisite and validation checks. These validations must pass before you create a response file.

User Input Validations

The Provisioning Wizard:

- Validates the service name or global database name.

- Validates the installer location. In the **Preverify** phase, validates that the database is present.

- Validates that the database password value and the password confirmation match.

- Performs specific user ID and password validations for all Oracle Fusion Middleware schema owners.

Preinstallation Validations

The Provisioning Wizard:

- Checks to see if the specified database file location has sufficient disk space for the initial database provisioning and performs an Oracle home space check.

- Performs a port availability check.

- Performs a platform check. There is no validation that specific platform packages have been installed.

Postinstallation Validations

The Provisioning Wizard ensures that a JDBC connection can be established.

3.4 Installing Oracle Database Enterprise Edition with the Wizard

You can install a single-node instance of Oracle Database Enterprise Edition using the Provisioning Wizard. The wizard uses the database template delivered with your software. The database is initially empty. After the installation is complete, the Provisioning Wizard has applied the required database patches for Fusion Applications automatically, however, you must run any manual postinstallation tasks that are required by the database patches as described in the patch's readme files, then run the Oracle Fusion Applications RCU to create schemas and tablespaces. For more information about manual postinstallation tasks, see Section 3.4.5, "Completing Database Patch Postinstallation Tasks".

3.4.1 Start the Provisioning Wizard

Note the following requirement when installing a transaction database on a Unix platform:

- Verify that the length of the PATH environment variable is less than 900 characters. Use this command to check the character count:

```
env | grep ^PATH= | wc -m
```

To start the Provisioning Wizard, do the following:

1. Set the *JAVA_HOME* environment variable to point to the JDK location in the provisioning repository, for example:

   (UNIX)

   ```
   export JAVA_HOME=repository_location/jdk6
   ```

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

   (AIX)

   ```
   export JAVA_HOME=repository_location/jdk6
   ```

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

   ```
   export SKIP_ROOTPRE=TRUE
   ```

   ```
   export SKIP_SLIBCLEAN=TRUE
   ```

   (Windows)

   ```
   set JAVA_HOME=repository_location\jdk6
   ```

   ```
   set PATH=%JAVA_HOME%\bin;%PATH%
   ```

2. Verify that the LIBPATH value is null.

3. Run the following command on the machine where you want the database to reside:

   (UNIX)

   ```
   cd framework_location/provisioning/bin
   ```

   ```
   ./provisioningWizard.sh
   ```

   On Solaris, use `bash provisioningWizard.sh` instead of `./provisioningWizard.sh`.

   (Windows)

   ```
   framework_location\provisioning\bin
   ```

   ```
   provisioningWizard.bat
   ```

   > **Note:** Ensure that provisioning on Microsoft Windows platforms is performed from a Run as Administrator console. By default, the command prompt has the necessary privilege set. If not, you can run the Run as Administrator option by right clicking the Command Prompt from the Start menu.

3.4.2 Wizard Interview Screens and Instructions

Table 3–3 shows the steps necessary to install a transaction database. For help with any of the interview screens, see Appendix B or click **Help** on any interview screen.

> **Note:** If you do not input the correct values required, the error and warning messages are displayed at the bottom of the screen.

Table 3–3 Interview Flow for Database Installation

Screen	Description and Action Required
Welcome	No action is required on this read-only screen. Click **Next** to continue.
Specify Central Inventory Directory	This screen displays only if one or more of the following conditions are not met: - The `-invPtrLoc` option is used to specify the central inventory location on non-Windows platforms, so the default value for your platform is not used. Note that the default for Linux and AIX platforms is `/etc/oraInst.loc` and for Solaris, it is `/var/opt/oracle/oraInst.loc`. - The Central Inventory Pointer File is readable. - The Central Inventory Pointer File contains a value for `inventory_loc`. - The `inventory_loc` directory is writable. - The `inventory_loc` directory has at least 150K of space. - `inventory_loc` is not a file. Specify the location of the **Central Inventory Directory** that meets the previous criteria. The `inventory_loc` directory can be created by the `createCentralInventory.sh` script and does not have to exist at the time you specify its location. If you are provisioning an environment on multiple hosts, you should select a **Central Inventory Directory** that can be accessed and updated by all of the provisioning hosts to be specified in the provisioning response file. For more details about the provisioning response file, see Chapter 4, "Creating a Response File". For non-Windows platforms, in the **Operating System Group ID** field, select or enter the group whose members will be granted access to the inventory directory. All members of this group can install products on this host. Click **OK** to continue. The **Inventory Location Confirmation** dialog prompts you to run the `inventory_directory/createCentralInventory.sh` script as root, to confirm that all conditions are met and to create the default inventory location file, such as `/etc/oraInst.loc`. After this script runs successfully, return to the interview and click **OK** to proceed with the installation. If you do not have root access on this host but want to continue with the installation, select **Continue installation with local inventory** and click **OK** to proceed with the installation. For Windows platforms, this screen displays if the inventory directory does not meet requirements. For more information about inventory location files, see "Oracle Universal Installer Inventory" in the *Oracle Universal Installer and OPatch User's Guide*. Click **Next** to continue.
Installation Options	Presents the list of valid installation actions that you can perform using the wizard. Select **Install an Applications Transaction Database**. Click **Next** to continue.

Specify Security Updates	Set up a notification preference for security-related updates and installation-related information from My Oracle Support.
	
	- **Email**: Enter your email address to have updates sent by this method.
	- **I wish to receive security updates via My Oracle Support**: Select this option to have updates sent directly to your My Oracle Support account. You must enter your **My Oracle Support Password** if you select this option.
	
	  Note: If you provide invalid My Oracle Support (MOS) credentials, a dialog box is displayed informing that you will be anonymously registered. You must complete the following steps before you continue with provisioning the new environment:
	
	  1. Cancel and exit the Provisioning Wizard.
	
	  2. Obtain the correct MOS credentials.
	
	  3. Restart the Provisioning Wizard to update the provisioning response file with the correct MOS credentials or uncheck the check box next to **I wish to receive security updates via My Oracle Support**. Save the provisioning response file and then exit the Provisioning Wizard.
	
	  4. Restart the Provisioning Wizard to provision the Oracle Fusion Applications environment.
	
	Click **Next** to continue.

Table 3–3   (Cont.) Interview Flow for Database Installation

Screen	Description and Action Required
Database Install Configuration	Specify the configuration details for the database that you want to install. See Section 3.4.3 for details. Click **Next** to continue.
Prerequisite Checks	The **Prerequisite Checks** list shows each prerequisite check performed, and its status: ■　**Block**: Processing has not yet started on this host for the named phase. ■　**Clock**: Performing the build for a phase. ■　**Check mark**: The build was completed successfully. ■　**x** mark: The build has failed for this phase. You must correct the errors before you can continue. ■　**Restricted** symbol: The validation process has stopped due to a failure within another process. Click an **x** or a **Restricted** symbol to display information about failures. Click the **Log** file for details about the validation. Fix any issues reported. Click **Retry** to run the prerequisite checks again. If recovery is necessary, see Section 3.9 for details. When prerequisite checking has finished with no errors, click **Next** to continue.
Summary	Click **Save** to create and save a text file to use as a record of this configuration. Click **Install** to start the installation. **Note**: Record the name and location of the file. You must supply these details when you create a response file.
Database Installation Progress	The progress of the installation phases is listed. See Section 3.1.3.2 for a description of the phases. A message appears after the installation phase is complete directing you to run `root.sh`. Follow this instruction and click **OK** to continue the installation. The central log file location is displayed below the **Progress** bar. Click a Log icon to view phase log files. Click **Retry** if a failure occurs. If recovery is necessary, see Section 3.9 for details. Click **Next** to continue.
Installation Complete	Summarizes the actions and validations that were performed for this installation. Click **Save** to record the database summary information in a text file. **Note**: Be sure to make a note of the name and location of this file. You must supply these details when you create a response file. Your system administrator may also need this information as they perform maintenance tasks. Click **Close** to dismiss the screen and exit the wizard.

3.4.3 Database Installation Parameters

On the **Database Install Configuration** interview screen, specify values for these database configuration parameters.

- **Database Listener Port**: The port number designated for the database server. The default port for Oracle Database is 1521.

- **Installers Directory Location**: Enter the path to the *repository_location* directory you created when you downloaded the provisioning repository. For Windows, the location must be a symbolically linked directory. See Section 2.2.10 for additional details. Note that the symbolic link is not necessary if the repository and the database are on the same node.

- **Oracle Base**: Enter the top-level directory for Oracle software installations. You can change the path based on your requirements.

- **Software Location**: Accept the default value or enter the Oracle **home directory** path that points to where you want the data files to reside. The directory path must not contain spaces.

- **Database File Location**: Accept the default value or enter the path to the .dbf, .dtl, and .log files.

- **OSDBA Group**: The UNIX operating system group that the database administrator is a member of. Displayed only if the platform detected by the installer is UNIX.

- **Global Database Name**: Enter a name to distinguish this database instance from other Oracle Database instances running on the same host. The name can be written as *database name* or *database name.domain name*. This is the database service name.

- **Administrative Password**: Specify a valid password. Retype the password to **Confirm**.

3.4.4 Validating the catbundle.sql Script

After the database installation, review the following log file to validate that the `catbundle.sql` script has completed successfully: `<ORACLE_HOME>/tpu/DB_YYYY-MM-DD_HH-MM-SS/db_server_bundle/techpatch/fatechpatch_YYYY-MM-DD_HH-MM-SS[AM|PM].log`.

See "Ignorable Errors Reported by catbundle.sql" in the *Oracle Fusion Applications Upgrade Guide* for a list of ignorable errors from the `catbundle.sql` script.

3.4.5 Completing Database Patch Postinstallation Tasks

After the database installation, the required database patches are automatically applied and the database is started. However, you must check the patch readme files to determine whether you need to perform postinstallation tasks manually as required by the database patches. Go to the `repository_location/installers/database/patch` directory to find the readme files. Any manual steps associated with the patches are typically located in a section called "Post-Install Instructions" or "Postinstallation."

You can aggregate all the readme files by running this script, depending on which database version you installed.

```
find repository_location/installers/database/patch/ -name "README.txt" | xargs cat
>> repository_location/PATCHES_README_ALL.txt
```

Use a text editor of your choice to view `PATCHES_README_ALL.txt`.

3.5 Manually Installing Oracle Database Enterprise Edition or Oracle RAC

Though Oracle Fusion Applications Provisioning automates the installation and configuration of a transaction database for use with Oracle Fusion Applications environments, you can manually install a single-node instance of Oracle Database or Oracle Real Application Clusters to meet your specific requirements.

To manually install and configure a transaction database, you must complete the following steps:

1. Installing Oracle Database or Oracle RAC

2. Configuring OCM

3. Configuring and Starting the Database Listener for Oracle Database (NETCA)

4. Creating a Transaction Database Instance using Oracle Database Configuration Assistant (DBCA)

5. Running RUP Lite for RDBMS

6. Completing Database Patch Postinstallation Tasks

3.5.1 Installing Oracle Database or Oracle RAC

The first step in creating a custom transaction database instance is to install the database software.

3.5.1.1 How to Install Oracle Database

If you are installing Oracle Database manually (interactively) instead of using the Provisioning Wizard, see *Oracle Database Installation Guide* for your platform for instructions.

When performing the installation, ensure that the following components are enabled:

- Oracle Partitioning (default)
- Oracle Data Mining RDBMS Files (default)

If these components are not enabled, application functionality will not work.

When performing the installation, choose the **Software Only** option. You will manually create the database instance and configure the database.

To verify that your system meets all minimum requirements associated with the database, see *Oracle Database Installation Guide* for your platform for details.

Oracle Label Security

Oracle Label Security is required for running the Oracle Fusion Applications RCU. After the Oracle Fusion Applications provisioning is completed, you can disable Oracle Label Security.

If you are installing the Oracle Database using the Oracle Fusion Applications Provisioning Wizard, Oracle Label Security is installed. You can disable Oracle Label Security after the Oracle Fusion Applications environment provisioning is complete.

If you are installing the Oracle Database (Enterprise Edition or RAC), you need to enable Oracle Label Security for running the Oracle Fusion Applications RCU. You can disable Oracle Label Security after after the Oracle Fusion Applications environment provisioning is complete.

Use the following steps to disable Oracle Label Security.

1. Stop the database.

2. Set the environment variables `ORACLE_SID` and `ORACLE_HOME` on the database host.

3. Run the command: `cd $ORACLE_HOME/bin`.

4. Run the command: `./chopt disable lbac`.

5. Start the database.

3.5.1.2 How to Install Oracle RAC

For complete information about installing and configuring Oracle RAC, see *Oracle Database Installation Guide* for your platform for instructions. This library contains installation guides for Oracle RAC, as well as Oracle Database installations for all platforms.

> **Note:** For a RAC database, the passwords for all schemas must be the same across all RAC instances.

When you install Oracle RAC, note that by default the database listener creates a log file in the grid ORACLE_HOME, that is, GRID_HOME. If the GRID_HOME and database instance owners are different, and if the database listener is started by the database instance operating system user from the GRID_HOME, then you **must** set diagnostic destination for the listener in the listener.ora file to avoid any core dump issues in the webtier host by adding the following line:

```
 ADR_BASE_<name of the LISTENER>=<a file path / location where
the database instance owner has the read/write permission>
```

3.5.2 Configuring OCM

For more information about configuring OCM, see the *Oracle Configuration Manager Installation and Administration Guide for OCM*.

3.5.3 Configuring and Starting the Database Listener for Oracle Database (NETCA)

- You must configure the database listener as described in the Oracle 11*g* Release 2 Documentation Library.

- After you complete the configuration, start the database listener.

3.5.4 Creating a Transaction Database Instance using Oracle Database Configuration Assistant (DBCA)

You can use the Oracle Database Configuration Assistant (DBCA) to create the transaction database from the database template that is shipped with Oracle Fusion Applications software. This template contains the database structure and features, but is not seeded. It is generic for use across platforms.

Instructions on database installation and configuration can be found in the Oracle 11*g* Release 2 Documentation Library.

If you choose to not use the database template, you must ensure that your database configuration parameters are aligned with the values specified in Section 3.3.2.

3.5.4.1 How to Create a Single-Node Oracle Database Instance from the Template

You use DBCA to manually create an instance of Oracle Database from the nonseeded database template that is shipped with Oracle Fusion Applications software.

To create a single-node Oracle Database instance:

1. Review and edit the nonseeded database template at *framework_location*/provisioning/template/dbca/empty_database_11.2.dbt or empty_database_11.2.large.dbt (for a large database instance).

2. Navigate to the database *ORACLE_HOME*/bin directory and execute the following command. Make appropriate changes based on the selected database template.

```
dbca -silent -createDatabase -templateName\
framework_location/provisioning/template/dbca/empty_database_11.2.large.dbt  \
-gdbName "ORACLE_SID" \
-sid "ORACLE_SID" \
```

```
-sysPassword "SYS_PASSWORD" \
-systemPassword "SYSTEM_PASSWORD" \
-emConfiguration "NONE" \
-characterSet "AL32UTF8" - \
-nationalCharacterSet "AL16UTF16" \
-variables ORACLE_BASE=ORACLE_BASE, ORACLE_HOME=ORACLE_HOME \
-initParams audit_trail=NONE \
-datafileDestination DATAFILE_LOC
```

Replace the following variables with the appropriate values:

- *FRAMEWORK_LOCATION*: Home of Fusion Applications Provisioning framework.

- *ORACLE_SID*: Global database name of the Oracle Fusion Applications database.

- *SYS_PASSWORD*: Password for the SYS user. The SYS schema is the location of base tables and views.

- *SYSTEM_PASSWORD*: User SYSTEM password. The user can create additional tables and views.

- *ORACLE_BASE*: Top-level directory for the database installation.

- *ORACLE_HOME*: Oracle home of the database installation.

- *DATAFILE_LOC*: Physical location of the files that store the data of all logical structures in the database.

3.5.4.2 How to Create an Oracle RAC Database Instance from the Template

You use DBCA to manually create a database instance for each Oracle RAC node using the nonseeded database template that is shipped with Oracle Fusion Applications software.

To create an Oracle RAC database instance:

1. Review and edit the nonseeded database template at `framework_location`/provisioning/template/dbca/empty_database_11.2.dbt or empty_database_11.2.large.dbt (for a large database instance).

2. For each RAC node, navigate to the database *ORACLE_HOME*/bin directory of the RAC node and execute the following command. Make appropriate changes based on the selected database template.

```
dbca -silent -createDatabase \
-templateName  framework_location/provisioning/template/dbca/empty_database_
11.2.dbt  \
-gdbName "ORACLE_SID" \
-sid "ORACLE_SID" \
-sysPassword "SYS_PASSWORD" \
-systemPassword "SYSTEM_PASSWORD" \
-emConfiguration "NONE" \
-characterSet "AL32UTF8" - \
-nationalCharacterSet "AL16UTF16" \
-variables ORACLE_BASE=ORACLE_BASE, ORACLE_HOME=ORACLE_HOME \
-initParams audit_trail=NONE \
-datafileDestination DATAFILE_LOC \
-nodeinfo node1,node2
```

Replace the following variables with the appropriate values:

- *FRAMEWORK_LOCATION*: Home of Fusion Applications Provisioning framework.

- *ORACLE_SID*: Global database name of the Oracle Fusion Applications database.

- *SYS_PASSWORD*: Password for the SYS user. The SYS schema is the location of base tables and views.

- *SYSTEM_PASSWORD*: User SYSTEM password. The user can create additional tables and views.

- *ORACLE_BASE*: Top-level directory for the database installation.

- *ORACLE_HOME*: Oracle home of the database installation.

- *DATAFILE_LOC*: Physical location of the files that store the data of all logical structures in the database.

Note: In the nonseeded database template, the following common attributes required by the Oracle Fusion Applications RCU must be set as follows:

```
<option name="OMS" value="true"/>

<option name="JSERVER" value="true"/>

<option name="SPATIAL" value="true"/>

<option name="IMEDIA" value="true"/>

<option name="XDB_PROTOCOLS" value="true">

<tablespace id="SYSAUX"/>

</option>

<option name="ORACLE_TEXT" value="true">

<tablespace id="SYSAUX"/>

</option>

<option name="SAMPLE_SCHEMA" value="false"/>

<option name="CWMLITE" value="false">

<tablespace id="SYSAUX"/>

</option>

<option name="EM_REPOSITORY" value="true">

<tablespace id="SYSAUX"/>

</option>

<option name="APEX" value="false"/>

<option name="OWB" value="false"/>

<option name="DV" value="false"/>
```

3.5.5 Running RUP Lite for RDBMS

Run the RUP Lite for RDBMS utility to ensure your transaction database is at the correct patch level required for this release of Oracle Fusion Applications. For more

information, see "Run RUP Lite for RDBMS" in the *Oracle Fusion Applications Upgrade Guide*.

3.5.6 Completing Database Patch Postinstallation Tasks

For more information, see Section 3.4.5.

3.6 Oracle Fusion Applications Repository Creation Utility

The Oracle Fusion Applications Repository Creation Utility (Oracle Fusion Applications RCU) is a self-sufficient tool that runs from a graphical interface or from the command line. It creates applications-specific schemas and tablespaces for Oracle Database Enterprise Edition or Oracle Real Application Clusters.

3.6.1 Key Features

The Oracle Fusion Applications RCU components are included in the zipped Oracle Fusion Applications RCU file delivered in the provisioning framework. The Oracle Fusion Applications RCU offers these features:

- Integrates Oracle Fusion Middleware and Oracle Fusion Applications schema and storage definitions using declarative XML.

- Runs locally or remotely as a standalone tool.

- Lets you modify or use custom tablespaces for the default Oracle Fusion Applications schemas.

- Performs checks against both global and component-level prerequisites at runtime. If a prerequisite is not met, the Oracle Fusion Applications RCU may issue a warning and allow the procedure to continue (soft stop), or it may notify you that a prerequisite must be met (hard stop).

- Creates a resource plan, called `FUSIONAPPS_PLAN`, to manage Oracle Fusion Applications queries. For more information, see "How to Configure the Database Resource Manager" in *Oracle Fusion Applications Performance and Tuning Guide*.

3.6.2 Functional Design

The Oracle Fusion Applications Repository Creation Utility ships with predefined schemas, tablespaces, index tablespaces, temporary tablespaces, and a recommended configuration. It is built with a standard Bali JEWT-based graphical interface, compiled using existing Oracle installers. It is supported on Linux x86-64 and Microsoft Windows x64 (64-Bit) platforms. If the database is installed on other platforms, you must start the Oracle Fusion Applications RCU from the supported Linux x86-64 and Microsoft Windows x64 (64-Bit) platforms to connect to your database.

The Oracle Fusion Applications RCU is designed to:

- Be completely self-contained. It has all the technical components necessary to perform the operations required (Oracle Client, binaries, scripts, data, and PL/SQL packages).

- Support Oracle Database 11.2.0.3 and database configurations such as ASM and Oracle RAC.

- Perform a silent execution.

- Operate on remote databases.

- Connect to an existing database, read existing tablespace definitions, and create schema owners and new tablespaces.

Some limitations of the Oracle Fusion Applications RCU are as follows:

- The database that you run it on must be empty. If applications-related schemas already exist, the option to modify them is grayed out.

- The Oracle Fusion Applications RCU does not provision delta schemas and does not perform database upgrades.

- The Oracle Fusion Applications RCU supports the import of full schemas only.

- The Oracle Fusion Applications RCU does not support the dropping of a component schema. You can, however, drop the entire instance directly through the database, if required.

3.6.3 How Does the Oracle Fusion Applications RCU Work?

You use the Oracle Fusion Applications RCU to create a repository of applications-specific schemas and tablespaces for Oracle Database.

Internally, the Oracle Fusion Applications RCU performs actions related to Oracle Fusion Middleware components and Oracle Fusion Applications components. In addition, the utility takes appropriate action to see that the tables are enabled to store repository resources.

Oracle Fusion Middleware Components

The Oracle Fusion Applications RCU loops through all the middleware components in the component definition file and applies the relevant ones to the database. For each component, the Fusion Applications RCU creates the appropriate middleware tablespace and schema user. After creating the schema user, it defines the tables, views, and other artifacts that the schema owner owns.

Oracle Fusion Applications Components

The Oracle Fusion Applications RCU creates empty tablespaces for the Oracle Fusion Applications components. It then creates the schema owners (for example, FUSION and FUSION_RUNTIME). These schema owners are initially empty — they do not own any tables or data.

The Oracle Fusion Applications RCU employs Oracle Data Pump to import the seed data and the dump files containing tables, views, and other artifact definitions that belong to the schema users it has created. All dump files are packaged with the Oracle Fusion Applications RCU.

XML Schema Registration

When tables are created as part of an XML schema registration, by default the tables are enabled for hierarchy; that is, repository resources can be stored in the tables. Several triggers are created for this purpose. If resources are created, updated, or deleted based on the registered XML schema, the corresponding `XMLtype` rows in the tables are inserted, updated, or deleted.

Tables are disabled for the hierarchy before they are exported in dumpfile mode because some of the special features that make these tables store resources may not be meaningful in the target database. Disabling the hierarchy drops some triggers so that they do not show up in the target database after import of the dump files.

3.6.4 Schema Owners

Table 3–4 lists all schema owners for Oracle Fusion Middleware and Oracle Fusion Applications.

Table 3–4   Oracle Fusion Middleware and Oracle Fusion Applications Schema Owners

Component	Schema Owners
Oracle Fusion Applications	FUSION
	FUSION_DYNAMIC
	FUSION_RUNTIME
	FUSION_APM
	FUSION_AQ
	FUSION_BI
	FUSION_DQ
	FUSION_ODI_STAGE
	FUSION_SETUP
AS Common Schemas ■ Enterprise Scheduler Service ■ Metadata Services	Includes: ■ FUSION_ORA_ESS ■ CRM_FUSION_MDS_SOA ■ FIN_FUSION_MDS_SOA ■ HCM_FUSION_MDS_SOA ■ OIC_FUSION_MDS_SOA ■ PRC_FUSION_MDS_SOA ■ PRJ_FUSION_MDS_SOA ■ SCM_FUSION_MDS_SOA ■ SETUP_FUSION_MDS_SOA ■ FUSION_MDS ■ FUSION_MDS_ESS ■ FUSION_MDS_SPACES
Secure Enterprise Search	SEARCHSYS
Oracle Data Integrator ■ Master and Work Repository	FUSION_ODI
Enterprise Content Management ■ Oracle Content Server 11*g* - Complete ■ Oracle Imaging and Process Management	Includes: ■ FUSION_OCSERVER11G ■ FUSION_IPM
Oracle Business Intelligence (Platform)	FUSION_BIPLATFORM
Oracle BI Applications Schemas ■ Oracle Transactional BI	Includes: ■ FUSION_OTBI
WebLogic Server Communication Services ■ SIP Infrastructure Location Service ■ Presence ■ SIP Infrastructure Subscriber Data Service	Includes: ■ FUSION_ORASDPLS ■ FUSION_ORASDPXDMS ■ FUSION_ORASDPSDS

Table 3–4   (Cont.) Oracle Fusion Middleware and Oracle Fusion Applications Schema

Component	Schema Owners
SOA and BPM Infrastructure	Includes:
■ User Messaging Service	■ FUSION_ORASDPM
■ SOA Infrastructure	■ CRM_FUSION_SOAINFRA
■ SOA Infrastructure	■ FIN_FUSION_SOAINFRA
■ SOA Infrastructure	■ HCM_FUSION_SOAINFRA
■ SOA Infrastructure	■ OIC_FUSION_SOAINFRA
■ SOA Infrastructure	■ PRC_FUSION_SOAINFRA
■ SOA Infrastructure	■ PRJ_FUSION_SOAINFRA
■ SOA Infrastructure	■ SCM_FUSION_SOAINFRA
■ SOA Infrastructure	■ SETUP_FUSION_SOAINFRA
WebCenter Suite	Includes:
■ WebCenter Spaces	■ FUSION_WEBCENTER
■ Portlet Producers	■ FUSION_PORTLET
■ Activity Graph and Analytics	■ FUSION_ACTIVITIES
■ Discussions	■ FUSION_DISCUSSIONS
	■ FUSION_DISCUSSIONS_CRAWLER
Audit	Includes:
	■ FUSION_IAU
	■ FUSION_IAU_APPEND
	■ FUSION_IAU_VIEWER
Oracle Social Network	Includes:
	■ FUSION_SOCIAL
	■ FUSION_SOCIAL_VIEWS
	■ FUSION_SOCIAL_CEF

3.7 Running the Oracle Fusion Applications Repository Creation Utility

Use the information in this section to prepare to run the Oracle Fusion Applications RCU and complete the wizard screens necessary to create schemas and tablespaces.

> **Note:** The Oracle Fusion Applications RCU is available only on Windows and Linux platforms. For other platforms, such as Solaris and AIX, you must install and run the Oracle Fusion Applications RCU from a Windows or Linux machine.
>
> If you experience a failure in the Oracle Fusion Applications RCU, see Section 3.9.1, "General Troubleshooting Tips" to confirm if you can restart the Oracle Fusion Applications RCU. In some cases, you must start from the beginning by installing an empty database or using the Database Configuration Assistant and then running the Oracle Fusion Applications RCU.

3.7.1 Getting Ready

In order for the Oracle Fusion Applications RCU to work properly, you must locate three files and place their contents in specific locations:

- rcuHome_fusionapps_linux.zip – contains the Oracle Fusion Applications RCU components needed to run the utility. For Windows, the file name is cuHome_fusionapps_win.zip.

- export_fusionapps_dbinstall.zip – contains the applications data files that the Oracle Fusion Applications RCU supplies to the database.

- otbi.dmp – contains the Business Intelligence (BI) data that the Oracle Fusion Applications RCU supplies to the database.

To prepare these files, complete these steps:

1. If you installed the database manually, apply all the patches located in the *repository_location*/installers/database/patch directory. See Section 3.5.5, "Running RUP Lite for RDBMS" and *Oracle Universal Installer and OPatch User's Guide* for instructions for applying patches to your database and make sure to complete the tasks described in Section 3.4.5, "Completing Database Patch Postinstallation Tasks" before proceeding to step 2.

   If you installed the database using the Provisioning Wizard, the database patches were applied during the installation. Then make sure to complete the tasks described in Section 3.4.5, "Completing Database Patch Postinstallation Tasks" before proceeding to step 2.

2. Ensure that you have enough disk space to complete the tablespace creation. See the *Oracle Database Installation Guide* for your platform for details.

3. Decide on three locations and create directories on the database server for storing Oracle Enterprise Scheduler Service (ESS) log files, Oracle Fusion Applications PL/SLQ log files, and OBIEE dump files. Make a note of these directories. You will need to enter the locations when you specify the values for APPLCP_FILE_DIR, APPLLOG_DIR, and the OBIEE Backup Directory in Section 3.7.5, "Managing Custom Variables."

4. Locate the appropriate Oracle Fusion Applications RCU software for your platform. For Linux, go to *repository_location*/installers/apps_rcu/linux to find the rcuHome_fusionapps_linux.zip file. For Windows, go to *repository_location*/installers/apps_rcu/windows and locate the rcuHome_fusionapps_win.zip file. These files were staged when you created the installer repository.

5. Extract the contents of rcuHome_fusionapps_linux.zip (or rcuHome_fusionapps_win.zip) to a directory (APPS_RCU_HOME) on a Windows or Linux machine where you run the Oracle Fusion Applications RCU. All dependent components that the Oracle Fusion Applications RCU needs are included in this zipped file.

6. Create a temporary directory on the database server. Make a note of the location. You will need to enter this location when you specify a value for FUSIONAPPS_DBINSTALL_DP_DIR in Section 3.7.5, "Managing Custom Variables."

7. Locate and copy APPS_RCU_HOME/rcu/integration/fusionapps/export_fusionapps_dbinstall.zip to the directory you specified for FUSIONAPPS_DBINSTALL_DP_DIR.

8. Unzip export_fusionapps_dbinstall.zip to FUSIONAPPS_DBINSTALL_DP_DIR.

9. Go to APPS_RCU_HOME/rcu/integration/biapps/schema and locate the otbi.dmp file.

10. Copy otbi.dmp to FUSIONAPPS_DBINSTALL_DP_DIR (where you unzipped the contents of export_fusionapps_dbinstall.zip).

3.7.2 Starting the Oracle Fusion Applications RCU

After you have completed the steps in the Getting Ready section, run the Oracle Fusion Applications RCU from (UNIX) *APPS_RCU_HOME*/bin or (Windows) *APPS_RCU_HOME*\bin with the following command:

(UNIX) `./rcu`

(Windows) `rcu.bat`

> **Note:**   The Oracle Fusion Applications RCU is available only on Linux and Windows platforms. On Windows systems, do not extract the rcuHome_fusionapps_win.zip file to a directory whose name contains spaces.

3.7.3 Wizard Screens and Instructions

Table 3–5 lists the steps for running the Oracle Fusion Applications RCU. For help with any of the screens, see Appendix C or click **Help** on any screen.

Table 3–5   Running the Oracle Fusion Applications Repository Creation Utility

Screen	Description and Action Required
Welcome	No action is necessary on this read-only screen. Click **Skip this Page Next Time** if you do not want to see it the next time you log in to the Oracle Fusion Applications RCU.
	Click **Next** to continue.
Create Repository	Select **Create** to create and load component schemas into the database. See Section 3.7.2 for a list of schemas.
	Click **Next** to continue.
Database Connection Details	Specify the database connection details. See Section 3.7.4 for specifics.
	Click **Next** to continue.

Table 3–5   (Cont.) Running the Oracle Fusion Applications Repository Creation Utility

Screen	Description and Action Required
Select Components	The Oracle Fusion Applications RCU retrieves the names of the Oracle Fusion Middleware and the Oracle Fusion Applications components. You cannot change the schema owner names. By default, all components are checked so that they are included in the prerequisite check process. Click **Next** to begin the process.
	When the progress bar reports 100 percent complete and all prerequisites report a check mark, click **OK**.
	Click **Next** to continue.
	When you use the Provisioning Wizard to install the database using the dbca template, the default values for the disk_asynch_io and filesystemio_options parameters are as follows:
	disk_asynch_io is set to TRUE
	filesystemio_options will be set to the default value based on the platform where the database is installed. It could be either "none", "setall", "asynch", or "diskio". To verify that the filesystemio_options parameter is using the default value, run the following query: "select isdefault from v$parameter where name='filesystemio_options'". If it returns TRUE, the default value is set.
	If you change the parameter value from the original default value to another value and then change it back to the original default value, the default value will still remain FALSE.
	The following Warning messages will be displayed based on the values set:
	If disk_asynch_io is set to FALSE and filesystemio_options is set to the default value, a Warning message will be displayed recommending setting the value for disk_asynch_io to TRUE.
	If disk_asynch_io is set to FALSE and filesystemio_options is not set to the default value, a Warning message will be displayed recommending setting the value for disk_asynch_io to TRUE for the best performance optimization.
Schema Passwords	Specify the passwords for main and additional (auxiliary) schemas. Passwords must have a minimum length of eight characters and contain alphabetic characters combined with numbers or special characters.
	■ **Use same passwords for all schemas**: Specify a single password for both schemas. Retype to **Confirm**.
	■ **Use main schema passwords for auxiliary schemas**: Specify a different password to use for each main schema and for the associated auxiliary schema. Only the main schemas are visible. Retype the password to **Confirm**.
	■ **Specify different passwords for all schemas**: Specify a unique password for each main schema and its auxiliary schema. All schemas are visible. Retype to **Confirm**.
	Note the passwords you enter. You must supply them when you create a response file.
	Click **Next** to continue.
Custom Variables	Each Oracle Database directory object has a value represented by a physical directory on the database server. Custom variables are pre-defined, platform-specific directory objects that the Oracle Fusion Applications RCU creates. In the **Value** column, you specify a pre-existing physical directory (located on the database server) for each custom variable. See Section 3.7.5 for a list of variables.
	Click **Next** to continue.

Table 3–5   (Cont.) Running the Oracle Fusion Applications Repository Creation Utility

Screen	Description and Action Required
Map Tablespaces	If you want to start the tablespace create process without making any changes, click **Next** on this screen. A message informs you that any tablespaces that do not already exist will be created. Click **OK** to continue. The **Creating Tablespaces** progress screen appears. Click **OK** when the operation is completed.
	Or, view default tablespace mappings, change default and temporary tablespaces, view and change additional tablespaces, and manage tablespaces and datafiles (add, modify, or remove) before they are created. See Section 3.7.6.
	If you make changes, click **Next** when you are finished, then click **OK** to create the tablespaces. Click **OK** when the operation is complete.
Summary	Review the information and click **Create**. While the schemas are being created, the utility displays the **Repository Creation Utility – Create** screen, showing the creation progress.
	Typically, it takes 1 to 10 minutes to create each schema; however, the process may run for an additional half hour or more.
	To stop creating the schemas, click **Stop**.
Completion Summary	The Logfile column lists log file names. For more information, see Section 3.9.3.
	If errors are encountered during the Create operation, or if a Create operation fails for any component, the **Cleanup for failed components** check box appears on this page and is selected by default. If the check box is selected, the Oracle Fusion Applications RCU will perform **cleanup** operations for the components that failed. Click **Close** to dismiss the screen.

3.7.4 Specifying Database Connection Details

Specify information about the hosts and ports that you want to use for your database.

- **Database Type**: Select the database type.

- **Host Name**: Enter the name of the node on which the database resides, for example, `myhost.mydomain.com`. For Oracle RAC, specify the VIP name or one of the node names as the host name.

- **Port**: Specify the listener port number for the database. The default port number is 1521.

- **Service Name**: This is the global database name. If you do not know it, see the `SERVICE_NAMES` parameter in the database initialization file. If it is not there, use the global name in `DB_NAME` and `DB_DOMAIN`. For Oracle RAC, specify the service name of one of the nodes, for example, `examplehost.exampledomain.com`.

- **User Name**: Supply the name of the user with DBA or SYSDBA privileges. The default user name with SYSDBA privileges is `SYS`.

- **Password**: Enter the password for the database user.

- **Role**: Select Normal or SYSDBA. All schemas installed for Oracle Database require the `SYSDBA` role. For Oracle Internet Directory (OID) database schemas, use `SYS` and `SYSDBA`.

3.7.5 Managing Custom Variables

Enter a pre-existing physical directory on the database server where the custom variables for each component should be created.

- **FUSIONAPPS_DBINSTALL_DP_DIR**: The directory on the database server where you unzipped `export_fusionapps_dbinstall.zip` and copied the `otbi.dmp` file.

- **APPLCP_FILE_DIR**: Used by Oracle Enterprise Scheduler to store the log and output files. Must be valid on the database server with read-write permissions to

the database owner. For Oracle RAC, must point to a location that is shared across all nodes.

- **APPLLOG_DIR**: Location of the PL/SQL log files from Oracle Fusion Applications PL/SQL procedures on the database server. Ensure that the database owner has read-write privileges.

- **OBIEE Backup Directory**: Location of the Oracle Business Intelligence Enterprise Edition dump files. These files are used for enabling a restart action.

> **Note:** You must manually create the directories on the database server and enter the full file path to the directories as the corresponding custom variable.

Secure Enterprise Search

- **Do you have Advanced Compression Option (ACO) License? Yes (Y) or No (N)**: Default is No.

- **Do you have Oracle Partitioning option License? Yes (Y) or No (N)**: Default is No.

Master and Work Repository

Note: The default values are the **only** valid values. If you change any of these values, the ODI-related provisioning process will not work.

- **Master Repository ID**: Default = 501

- **Supervisor Password**: Enter and confirm your ODI supervisor password.

- **Work Repository Type**: (D) Development or (R). Default = D

- **Work Repository ID**: Default = 501

- **Work Repository Name**: Default = FUSIONAPPS_WREP

- **Work Repository Password**: Enter and confirm your Work Repository supervisor.

Oracle Transactional BI

- Directory on the database server where Oracle Transactional Business Intelligence import and export files are stored.

Activity Graph and Analytics

- **Install Analytics with Partitioning (Y/N)**: Default is N.

3.7.6 Mapping Tablespaces

You can perform several operations from the **Map Tablespaces** screen including view, add, modify, or remove tablespaces. These actions are also available for additional tablespaces or datafiles.

3.7.6.1 Default Tablespace Mappings

In the Default Tablespace and Temp tablespace columns, click a cell to select from a list of available additional tablespace names. The default tablespaces are as follows:

- FUSION_TEMP: For temporary tables.

- FUSION_DYN_TS: For dynamically generated PL/SQL statements.

- FUSION_IAS_ORASDPM_AQ: For advanced queuing JMS data and indexes.

- `FUSION_TS_AQ`: For advanced queuing JMS data and indexes.

- `FUSION_TS_DQ`: For data quality data and indexes.

- `FUSION_TS_TOOLS`: Associated with Oracle Fusion Middleware data and indexes.

- `FUSION_TS_QUEUES`: For advanced queuing and dependent tables and indexes.

- `FUSION_TS_TX_DATA`: For transactional data.

- `FUSION_TS_TX_IDX`: Indexes for transactional data.

- `FUSION_TS_SEED`: For seed or reference data and indexes.

- `FUSION_TS_INTERFACE`: For temporary or interface data and indexes.

- `FUSION_TS_SUMMARY`: For summary management objects.

- `FUSION_TS_NOLOGGING`: For materialized views and other temporary or scratch pad objects.

- `FUSION_TS_ARCHIVE`: For tables and objects that are no longer used.

- `FUSION_TS_MEDIA`: Contains multimedia objects such as text, video, and graphics.

For tablespaces that need to be created, the datafile defaults to %DATAFILE_ LOCATION%\%sid%\%tablespace_name%.dbf. You can select from existing tablespaces if they are already defined in the database.

3.7.6.2 Setting the Size of Tablespace Datafiles

The default out-of-the-box Oracle Fusion Applications tablespace sizes are optimal. If you want to use different tablespace sizes, you can update the sizes of the tablespace (datafiles) on the **Manage Tablespaces** screen, accessed from the **Map Tablespaces** screen in the Oracle Fusion Applications RCU interface.

> **Note:** Due to a limitation in the framework used by Oracle Fusion Applications RCU, you cannot update the size for the tablespaces FUSION_TS_TX_DATA and FUSION_TS_TX_IDX from Oracle Fusion Applications RCU because their respective datafile names exceed 29 characters. You will need to manually change the datafile size using SQL. For example, if you want to resize the datafile to 2000 MB, use:
> `ALTER DATABASE DATAFILE '<full file path and file name of the datafile (file.dbf)>' RESIZE 2000M;`

Table 3–6 lists the sizes of the optimal and out-of-the-box tablespaces. You must make changes during the running of Oracle Fusion Applications RCU.

Table 3–6   Tablespace Optimal and OOTB Sizes

Tablespace Name	# of data files	Name of datafile	Size (MB) per datafile	Optimal/ out-of- the- box size (MB)
`FUSION_DYN_TS`	1	fusion_dyn_01.dbf	20	20
`FUSION_IAS_ORASDPM_AQ`	1	fusion_ias_sdpmqa_01.dbf	20	20
`FUSION_TS_AQ`	1	fusion_aq_01.dbf	200	200
`FUSION_TS_ARCHIVE`	1	fusion_archive_01.dbf	20	20

Table 3–6   (Cont.) Tablespace Optimal and OOTB Sizes

Tablespace Name	# of data files	Name of datafile	Size (MB) per datafile	Optimal/ out-of- the- box size (MB)
FUSION_TS_DQ	1	fusion_dq_01.dbf	20	20
FUSION_TS_INTERFACE	1	fusion_interface_01.dbf	750	750
FUSION_TS_MEDIA	1	fusion_media_01.dbf	20	20
FUSION_TS_NOLOGGING	1	fusion_nologging_01.dbf	20	20
FUSION_TS_QUEUES	1	fusion_queues_01.dbf	20	20
FUSION_TS_SEED	2	fusion_seed_01.dbf and fusion_seed_02.dbf	2048 and 1152	3200
FUSION_TS_SUMMARY	1	fusion_summary_01.dbf	20	20
FUSION_TS_TOOLS	4	fusion_tools_01.dbf - fusion_tools_04.dbf	2048, 2048, 2048, 1556	7700
FUSION_TS_TX_DATA	3	fusion_transaction_table_01.dbf - fusion_transaction_table_03.dbf	2048, 2048, 354	4450
FUSION_TS_TX_IDX	2	fusion_transaction_index_01.dbf and fusion_transaction_index_02.dbf	2048 and 1352	3400

3.7.6.3 Changing Default and Temporary Tablespace Names

To change the default tablespace name for a component, select the name in the Default Tablespace column, and then select the name that you want to use from the list. You can have your components use any number of tablespaces to suit your configuration.

Follow the same procedure to change a temporary tablespace for a component by selecting a tablespace name from the Temp Tablespace list.

3.7.6.4 Viewing and Changing Additional Tablespaces

Some components have additional tablespaces associated with their schemas. If so, the **Additional Tablespaces** button is active. Click it to view or modify additional tablespaces. Click the Tablespace Name column to select a tablespace.

Click **OK** when you are finished.

3.7.6.5 Managing Tablespaces and Datafiles

Click **Manage Tablespaces** to add, modify, or remove tablespaces. Only tablespaces that have not yet been created can be modified or removed. Existing tablespaces are visible, but cannot be modified or removed.

Only tablespaces used by a component are created. You can specify a new tablespace, but unless it is used by a component, it will not be created.

To edit a tablespace, select it from the navigation tree. Complete the following:

- **Name**: Specify a new name for the tablespace.

- **Type**: Indicate whether this tablespace is temporary or permanent.

- **Block Size**: The block size (in kilobytes) to be used for data retrieval.

- **Storage Type**: Select **Use Bigfile Tablespace** if you have single large files. Select **Use Automatic Segment Space Management** to use bitmaps to manage free space within segments.

To **Add** a tablespace, specify the same details as for modifying one. Select a tablespace from the navigation tree and click **Remove** to prevent it from being created.

Manage Datafiles

Click the **Plus** (**+**) icon and complete the **Add Datafile** details:

- **File Name**: The name of the datafile.

- **File Directory**: The location where the datafile will reside.

- **Size**: The initial size of the datafile.

- **Automatically extend datafile when full (AUTOEXTEND)**: Select this option to extend the datafile size automatically when it becomes full. In the **Increment** field, select the size by which the datafile should be increased.

- To limit maximum size, specify a value in the **Maximum Size** field.

Select a datafile and click the **pencil** icon. Modify the information on the **Edit Datafile** screen. Select a datafile and click the **X** icon to delete the file.

Edit the Size of a Datafile

To change the size of a tablespace:

1. Click a tablespace name to select it.

2. Click the **pencil** icon to bring up the **Edit Datafile** screen.

3. In the **Size** field, enter a new file size. For tablespaces with multiple data files, such as FUSION_TS_TX_DATA, you may delete the additional data files using the Remove Data File icon (**X**).

4. Click **OK** when you have configured all the tablespaces to return to the Map Tablespaces screen.

Click **OK** to dismiss the screen.

3.8 Using the Command-Line Interface

You can run the Oracle Fusion Applications RCU from the command line instead of using the graphical interface. This section includes instructions for using command-line operations.

3.8.1 Command-Line Operations

The syntax for the Oracle Fusion Applications RCU command-line interface is as follows:

(UNIX) `rcu [-silent|-interactive]` *command options*

(Windows) `rcu.bat [-silent|-interactive]` *command options*

Table 3–7 lists and describes the command-line options.

Table 3–7   Oracle Fusion Applications RCU Command-Line Interface Syntax

Option	Description
-createRepository	Use this command to create a repository.
-compInfoXMLLocation	Location of the ComponentInfo.xmlfile.
	The default location is *APP_RCU_HOME*/rcu/config (UNIX) or *APP_RCU_HOME*\rcu\config (Windows).

Table 3–7 (Cont.) Oracle Fusion Applications RCU Command-Line Interface Syntax

Option	Description
-storageXMLLocation	Location of the StorageInfo.xmlfile.
	The default location is *APP_RCU_HOME*/rcu/config (UNIX) or *APP_RCU_HOME*\rcu\config (Windows).
-databaseType	Type of database to which you are connecting. Oracle is the only valid option.
-connectString	Credentials for connecting to the database.
	For Oracle Database, the syntax is *host:port:sid*.
-dbuser	Database user name, for example, SYS.
-dbrole	Database user role, for example, SYSDBA for the SYS user.
-unicodeSupport	Options are: Yes|No. Default is Yes. Applicable only for the SQLServer database type.
-skipCleanupOnFailure	Skip the clean up of files if the creation of a component fails.
-useSamePasswordForAllSchemaUsers	Options are true|false. Default is false.
-selectDependentsForComponents	Options are true|false. Default is false.
-variables	Comma-separated list in variablename=*value* format. Should be specified before -component.
-schemaPrefix	Prefix to be used for the schema. Not used for Oracle Fusion Applications schemas.
-component	IDs of the components that you want to add. To specify a single component, use the format:
	-component *component_ID*
	For example: -component CRM_FUSION_MDS_SOA.
	To specify multiple components, add the components separated by a space.
-tablespace *component_name*	Use only if a tablespace already exists.
-tempTablespace *component_name*	Use only if a temp tablespace already exists.

Table 3–8 lists the variables picked up by the Oracle Fusion Applications RCU from the environment. If an environment variable is not set, it uses the default value.

Table 3–8 Oracle Fusion Applications RCU Environment Variables

Variable	Description
RCU_LOG_LOCATION	Location of the Oracle Fusion Applications RCU log file.
	Default: *ORACLE_HOME*/rcu/log
RCU_TIMESTAMP_LOG_DIR	Create a timestamped directory. Options are: true|false. Use the format logdir.yyyy-MM-dd_HH-MM.
	Default: true
RCU_LOG_NAME	Name of the Oracle Fusion Applications RCU log file.
	Default: rcu.log

Table 3–8   (Cont.) Oracle Fusion Applications RCU Environment Variables

Variable	Description
RCU_LOG_LEVEL	Determines the level of the log. Options are: SEVERE|ERROR|NOTIFICATION|TRACE.
	Default: ERROR

3.8.2 Creating Schemas and Tablespaces from the Command Line

An example of the full syntax for creating schemas and tablespaces from the command line is as follows. It uses UNIX command-line syntax.

```
$rcu -silent -createRepository -connectString "host:port:sid" -dbUser sys -dbRole
sysdba -skipcleanUpOnFailure Yes
-component CRM_FUSION_MDS_SOA -component CRM_FUSION_ORABAM
-component CRM_FUSION_SOAINFRA -component FIN_FUSION_MDS_SOA
-component FIN_FUSION_SOAINFRA -component FSCM_FUSION_ORABAM
-component FUSION_ACTIVITIES -component FUSION_BIPLATFORM
-component FUSION_DISCUSSIONS -component FUSION_IPM -component FUSION_MDS
-component FUSION_MDS_ESS -component FUSION_MDS_SPACES
-component FUSION_OCSERVER11G -component FUSION_ORASDPLS -component FUSION_ORASDPM
-component FUSION_ORASDPSDS -component FUSION_ORASDPXDMS -component FUSION_ORA_ESS
-component FUSION_OTBI -component FUSION_PORTLET -component FUSION_WEBCENTER
-component HCM_FUSION_MDS_SOA -component HCM_FUSION_ORABAM
-component HCM_FUSION_SOAINFRA -component OIC_FUSION_MDS_SOA
-component OIC_FUSION_SOAINFRA -component PRC_FUSION_MDS_SOA
-component PRC_FUSION_SOAINFRA -component PRJ_FUSION_MDS_SOA
-component PRJ_FUSION_SOAINFRA -component SCM_FUSION_MDS_SOA
-component SCM_FUSION_SOAINFRA -component SETUP_FUSION_MDS_SOA
-component SETUP_FUSION_SOAINFRA -component SEARCHSYS
-component FUSIONAPPS -component FUSION_IAU
-component FUSION_SOCIAL -component FUSION_SOCIAL_VIEWS
-component FUSION_SOCIAL_CEF
```

3.9 Troubleshooting for Database Installations

This section contains troubleshooting tips for database installation and the Oracle Fusion Applications RCU operations. It is divided into sections for general tips and sections about log files and cleanup features.

3.9.1 General Troubleshooting Tips

If you encounter an error during the creation of applications schemas and tablespaces, take note of the following:

- Oracle Fusion Applications release notes may contain additional information about this release, such as mandatory Oracle Database server and client patches that must be applied to your environment.

- This release of Oracle Fusion Applications relies on specific system requirements that are explained in the "Certification" section of Oracle Fusion Applications release notes.

- If you encounter abnormal program termination and the error log displays: Java Exception: java.lang.StackOverflowError occurred while installing Oracle database, then see document id 1056200.1 at My Oracle Support.

- Ensure that your database is up and running.

- If you experience a failure in the Oracle Fusion Applications RCU during the creation of the tablespaces and loading of the Fusion schemas, you must start from the beginning by installing an empty database or using the Database Configuration Assistant. There is no drop option.

- Clean up these areas before you redo the installation:

  - /tmp

  - old log file directories

  - /oraInventory folder contents

  - ORACLE_HOME (or remove the ORACLE_HOME if you need to re-use the directory

- If you entered incorrect information on one of the Oracle Fusion Applications RCU screens, use the navigation pane on the left side of the graphical interface to return to that screen.

- If an error occurred while the Oracle Fusion Applications RCU was running:

  1. Note the error and review the Oracle Fusion Applications RCU log files.

  2. Correct the issue that caused the error. Depending on the type of error, you can either continue with your operation or restart the Oracle Fusion Applications RCU.

  3. Continue or restart the Oracle Fusion Applications RCU to complete the desired operation.

3.9.2 Database Installation Log Files

The database installation log file reports what happened during each of the phases in a database installation. Click a log file symbol on the **Database Installation Progress** screen in the Provisioning Wizard to view the log file for that phase. Log files are located in *tmp_directory*/dbInstall_*time_stamp_*provtop/logs/provisioning/*host*. An example on a Linux platform is /tmp/dbInstall_20120216092937_provtop/logs/provisioning/host123. The tmp directory may differ depending on what is considered to be the temporary directory for various platforms. The location of the plan file for the database flow is to tmp_directory/dbInstall_time_stamp_provtop/dbInstall_time_stamp.plan.

3.9.3 Oracle Fusion Applications RCU Log Files

Log files describe what happened during the schema and tablespace creation process, including any failures that occurred. The main Oracle Fusion Applications RCU log file (rcu.log) is written to (Linux) *APP_RCU_HOME*/rcu/log/logdir.*date_timestamp* or (Windows) *APP_RCU_HOME*\rcu\log\logdir.*date_timestamp*. For example, the log file on a Linux operating system is:

APP_RCU_HOME/rcu/log/logdir.2010-01-02_03-00/rcu.log

The custom_comp_create_tbs.log file lists the PL/SQL statements that created the tablespaces.

In the fusionapps schema, three types of log files are created:

- **fusionapps.log**: Lists the PL/SQL that was run.

- **fusionapps_runimport.log**: The Oracle Data Pump import log file.

- **fusionapps_verify.log**: Lists verification errors if objects created are not what was expected.

In addition to the general log files, each component writes a log file of its own. The file name is in the form of *component_name*.log. For example, the log file for the BIAPPS_ OTBI_RUNIMPORT component is biapps_otbi_runimport.log. All component log files are written to the same directory as the main log file.

Table 3–9 lists the log files in alphabetical order, by component name.

Table 3–9   Oracle Fusion Applications RCU Log File Names

Component Log File Name
biapps_otbi_runimport.log
crm_fusion_mds_soa.log
crm_fusion_orabam.log
crm_fusion_soainfra.log
fin_fusion_mds_soa.log
fin_fusion_soainfra.log
fscm_fusion_orabam.log
fusion_activities.log
fusionapps.log
fusion_biplatform.log
fusion_discussions.log
fusion_ipm.log
fusion_ocserver11g.log
fusion_ora_ess.log
fusion_orasdpls.log
fusion_orasdpm.log
fusion_orasdpsds.log
fusion_orasdpxdms.log
fusion_otbi.log
fusion_mds.log
fusion_mds_ess.log
fusion_mds_spaces.log
fusion_portlet.log
fusion_webcenter.log
hcm_fusion_mds_soa.log
hcm_fusion_orabam.log
hcm_fusion_soainfra.log
oic_fusion_mds_soa.log
oic_fusion_soainfra.log
prc_fusion_mds_soa.log
prc_fusion_soainfra.log
prj_fusion_mds_soa.log
prj_fusion_soainfra.log
scm_fusion_soainfra.log
scm_fusion_mds_soa.log

Table 3–9   (Cont.) Oracle Fusion Applications RCU Log File Names

Component Log File Name

```
searchsys.log

setup_fusion_mds_soa.log

setup_fusion_soainfra.log
```

3.9.4 Preverification Warning Messages

You may encounter the following warning message during the preverification phase of the Oracle Fusion Applications RCU:

```
pga_aggregate_target should be >= 4GB or pga_aggregate_target
should be >=8GB
```

This indicates that the database initialization parameter, `pga_aggregate_target` does not meet the minimum recommendation as listed in Table 3–1. You can continue running the Oracle Fusion Applications RCU, but ensure that you configure the initial parameters to meet the minimum recommendation before users start accessing the Oracle Fusion Applications environment.

3.9.5 Preverification and Preconfigure Failures (Windows)

You may encounter the following errors while running the preverification phase on Windows systems:

```
"C:\repository_location/installers/database/Disk1/setup.exe":
CreateProcess error=740, The requested operation requires
elevation at
java.lang.ProcessBuilder.start(ProcessBuilder.java:460)
```

If you receive this error, disable User Account Control (UAC) or log in as a Local Administrator to the machine where the Provisioning Wizard is not functioning properly.

If you receive this error when running the preconfigure phase, close the Provisioning Wizard and restart. Select another Oracle Home location.

```
OPatch failed with error code = 73
```

```
UtilSession failed: Prerequisite check "CheckActiveFilesAnd
Executables" failed
```

See http://technet.microsoft.com for more information about UAC.

3.9.6 Preverification Failure (Solaris)

During provisioning, the preverify phase (target) may display a message that some of the Solaris operating system patches are missing. On Solaris x86-64, the following preverify failures may be reported:

```
WARNING: Check:Patches failed.
Checking for 127111-02; Not found.  Failed <<<<
Checking for 137111-04; Not found.  Failed <<<<
```

These failure messages can be ignored.

3.9.7 Using the Cleanup Feature

If there is a failure in creation of the tablespaces or schemas for any component, the **Cleanup for failed components** check box appears on the **Completion Summary** screen. Select this option to clean up tablespaces and schemas for the failed components.

If an environment (such as the database server) is running out of space, correct it and rerun the software. Any components that are not applied successfully are still enabled (not grayed out) in the interface. Rerun the Oracle Fusion Applications RCU as described in Section 3.7.

3.10 What to Do Next

When you have completed the database installation and the schema and tablespace creation, you are ready to create a response file for your new applications environment.

Follow the instructions in Chapter 4. You must create a response file and be ready to supply its location before you can provision an environment.

4

Creating a Response File

This chapter describes the process of creating a **response file** for a new Oracle Fusion Applications environment using the **Provisioning Wizard** interview process.

This chapter includes the following sections:

- Introduction to Response Files
- Before You Begin
- Creating a Response File
- Updating an Existing Response File
- What to Do Next

4.1 Introduction to Response Files

Oracle Fusion Applications Provisioning orchestrates the physical installation and configuration of the product offerings that you choose and deploys those offerings and their dependent middleware components to a predetermined Oracle **WebLogic Server Domain**. To perform the installation tasks, Provisioning requires the **provisioning repository** of installers, the provisioning framework, and a response file.

When you create a response file, you choose provisioning configurations and specify the configuration details for the **product offerings** and their dependent middleware components. You save the response file and specify its location when you are ready to use it to provision a new environment.

4.1.1 How Does the Response File Work?

You must have downloaded the provisioning repository, installed the provisioning framework, and installed a database and the identity management components before you can create a response file. See Section 2.1. for provisioning prerequisites.

After the prerequisite setup is complete, you run the Provisioning Wizard and select the **Create a New Applications Environment Response File** option. During the interview process, you choose product offerings to install. The wizard "knows" which middleware dependencies must be installed for each product offering, and which host must be provisioned first. It detects common products that each offering relies on, as well as the presence of the transaction database and identity-related components, and prompts for the appropriate configuration parameters.

Using a question and answer interview format, the wizard collects information about:

- Provisioning configurations (product offerings)
- Node Manager credentials and installation and configuration directories

- Database connections and schema passwords

- Host names and ports for the offerings and their middleware dependencies

- Common configuration details for components, such as web tier, virtual hosts, email, and identity management

After you complete the response file, save it. Then, when you are ready to perform the physical installation, choose the **Provision a New Environment** option from the Provisioning Wizard and indicate the location of the response file. The wizard uses the details in the response file as a guide to what must be retrieved from the provisioning repository.

4.1.2 Selecting Product Offerings

An installation of Oracle Fusion Applications is logically broken up into groups of features known as **product offerings**, which represent the highest-level collection of functionality that you can license and implement. A **provisioning configuration** is a collection of one or more product offerings.

Product offerings have interdependencies on companion applications (for example Oracle Fusion Human Capital Management relies on Oracle Financials payroll), as well as middleware dependencies (for example, Oracle SOA Suite) required for runtime execution. The wizard prompts for applications and middleware configuration details at the domain level during Domain Topology Configuration.

When you select individual product offerings within a configuration instead of selecting all offerings within the configuration, the wizard starts the Managed Servers *only for the offerings that you selected*. However, because the interdependent details for the entire configuration are included in the response file, you can activate additional functionality later by using the Oracle Fusion Applications Functional Setup Manager to start the other Managed Servers. See *Oracle Fusion Functional Setup Manager User's Guide*.

The provisioning configurations are as follows:

- Oracle Fusion Customer Relationship Management (Sales and Marketing)

- Oracle Fusion Financials (Financials, Oracle Fusion Procurement, and Oracle Fusion Projects)

- Oracle Fusion Human Capital Management (Workforce Deployment, Workforce Development, and Compensation Management)

- Oracle Fusion Supply Chain Management (Product Management, Order Orchestration, Material Management and Logistics)

You can also choose several standalone product offerings. For this group of offerings, only the direct dependencies are installed, configured, and deployed:

- Customer Data Hub

- Enterprise Contracts

- Oracle Fusion Accounting Hub

- Oracle Fusion Incentive Compensation

4.1.3 Wizard Actions for Oracle Identity Management Components

During the Provisioning Wizard interview process, the wizard collects information that is necessary to connect to the Oracle Identity Management components you have previously installed and configured. This information includes:

- The user designated as the Super User. By default the Super User name created by Oracle Identity Management Provisioning is called `FAAdmin`. You should enter this Super User name in the **Identity Management Configuration** screen.This user must already exist in the policy store.

- The existence of the system administrators group. This information determines if the group was created during the Oracle Identity Management component installation and configuration process, or if it must be created during provisioning.

- The distinguished name (DN) of the system administrators group (if it exists).

- The authenticator that will serve as the LDAP identity store: Oracle Internet Directory (OIDAuthenticator) or Oracle Virtual Directory (OVDAuthenticator).

4.1.4 Creating Installation-Specific Response Files

There are numerous scenarios for the environments you can create — from a small demonstration system, to a full production system provisioned on multiple hosts. The Provisioning Wizard can accommodate the creation of response files for specific environments so that you can create a separate response file for each type of environment. Note that all occurrences of a `hostname` should use the same name in the response file.

4.1.5 Updating a Response File

Frequently, details for a response file are not final, and so cannot be specified during a single pass through the Provisioning Wizard interview. Or, a completed response file has not been implemented, and requires changes before it is. The wizard options include the choice to save a partially completed response file and update it later. Note that a response file is not complete or available for provisioning until you click **Finish** on the **Summary** screen.

However, after you select product offerings and save them in a response file, regardless of whether it is partially or fully complete, you cannot update or change the product offerings in that response file. To add or change the mix of offerings, you must create a new response file and specify the new or additional offerings.

4.2 Before You Begin

Before you create a response file, you must have completed the following tasks:

1. Read and understand the concepts in Chapter 1.

2. Perform the prerequisite tasks outlined in Chapter 2.

3. Install a transaction database as described in Chapter 3.

4.3 Creating a Response File

Complete the wizard interview screens and save the response file in a location that is accessible to the various installers. Record the location, as you must supply it when you provision the environment. Note that you should create your response file on the **Primordial host**, which is the host that contains the Administration Server of the Common domain.

> **Note:** The wizard warns if it cannot connect to the database or any of the hosts specified in the response file and if any of the passwords are not valid. If this warning represents an exception, you can ignore it and continue creating the response file. However, you *must* fix all issues flagged in the warnings before you start to provision an environment. You cannot successfully run provisioning until all validations have passed.

4.3.1 Start the Provisioning Wizard

The Provisioning Wizard supports the following command line options:

Table 4–1   Provisioning Wizard Command Line Options

Command Line Option	Description	Default Value
-invPtrLoc [inventory pointer file name]	Location of the `oraInst.loc` file.	/etc/oraInst.loc
-ignoreSysPrereqs [true|false]	Disables validation for database, schema and hosts. Most validation errors will be ignored.	false
	Note: `-ignoreSysPrereqs true` is the same as `-ignoreSysPrereqs` with no value specified.	
-help	Displays help text.	
	Note: The `-multitenant` option is displayed when you use the `-help` option. This option is not available for 11*g* Release 7 (11.1.7) and is reserved for future use.	

Usage:

```
provisioningWizard.sh -invPtrLoc <inventory pointer location
file>

-ignoreSysPrereqs {true|false}

-help
```

Example 4–1

```
provisioningWizard.sh -invPtrLoc /oracle/oraInst.loc
-ignoreSysPrereqs
```

To start the Provisioning Wizard, do the following on the primordial host:

1. Set the *JAVA_HOME* environment variable to point to the JDK location in the provisioning repository, for example:

   (UNIX)

   `export JAVA_HOME=repository_location/jdk6`

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

   (AIX)

   `export JAVA_HOME=repository_location/jdk6`

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

   `export SKIP_ROOTPRE=TRUE`

> **Note:** This environment variable is not required while creating a response file. However, it is required for provisioning an environment. See Section 5.4.1 for details.

(Windows)

```
set JAVA_HOME=repository_location\jdk6

set PATH=%JAVA_HOME%\bin;%PATH%
```

2. Verify that the `LIBPATH` value is null.

3. Run the following command on the primordial host. For more information, see Section 1.6.2.1.

(UNIX)

```
cd framework_location/provisioning/bin

./provisioningWizard.sh
```

On Solaris, use `bash provisioningWizard.sh` instead of `./provisioningWizard.sh`.

(Windows)

```
cd framework_location\provisioning\bin

provisioningWizard.bat
```

> **Note:** Ensure that provisioning on Microsoft Windows platforms is performed from a **Run as Administrator** console. By default, the command prompt has the necessary privilege set. If not, you can run the Run as Administrator option by right clicking the Command Prompt from the Start menu.

4.3.2 Wizard Interview Screens and Instructions

Table 4–2 shows the steps necessary to create a response file using the Provisioning Wizard. For help with any of the interviews, see Appendix D or click **Help** on any Provisioning Wizard interview screen.

> **Note:** If you do not input the correct values required, the error and warning messages are displayed at the bottom of the screen.

Table 4–2   Creating a Response File

Screen	Description and Action Required
Welcome	No action is required on this read-only screen.
	Click **Next** to continue.
Specify Central Inventory Directory	This screen displays only if one or more of the following conditions are not met:
	■ The `-invPtrLoc` option is used to specify the central inventory location on non-Windows platforms, so the default value for your platform is not used. Note that the default for Linux and AIX platforms is `/etc/oraInst.loc` and for Solaris and HP, it is `/var/opt/oracle/oraInst.loc`.
	■ The Central Inventory Pointer File is readable.
	■ The Central Inventory Pointer File contains a value for `inventory_loc`.
	■ The `inventory_loc` directory is writable.
	■ The `inventory_loc` directory has at least 150K of space.
	■ `inventory_loc` is not a file.
	Specify the location of the **Central Inventory Directory** that meets the previous criteria. The `inventory_loc` directory can be created by the `createCentralInventory.sh` script and does not have to exist at the time you specify its location.
	For non-Windows platforms, in the **Operating System Group ID** field, select or enter the group whose members will be granted access to the inventory directory. All members of this group can install products on this host. Click **OK** to continue.
	The **Inventory Location Confirmation** dialog prompts you to run the *inventory_directory*/`createCentralInventory.sh` script as root, to confirm that all conditions are met and to create the default inventory location file, such as `/etc/oraInst.loc`. After this script runs successfully, return to the interview and click **OK** to proceed with the installation.
	If you do not have root access on this host but want to continue with the installation, select **Continue installation with local inventory** and click **OK** to proceed with the installation.
	For Windows platforms, this screen displays if the inventory directory does not meet requirements.
	For more information about inventory location files, see "Oracle Universal Installer Inventory" in the *Oracle Universal Installer and OPatch User's Guide*.
	Click **Next** to continue.
Installation Options	Presents the list of valid installation actions that you can perform using the wizard. Select **Create a New Applications Environment Response File**.
	Click **Next** to continue.

Table 4–2   (Cont.) Creating a Response File

Screen	Description and Action Required
Specify Security Updates	Set up a notification preference for security-related updates and installation-related information from My Oracle Support. You can receive the notifications in two ways:
	■ **Email**: Enter your email address to have updates sent by email.
	■ **I wish to receive security updates via My Oracle Support**: Select this option to have updates sent directly to your My Oracle Support account. You must enter your **My Oracle Support Password** if you select this option.
	Note: If you provide invalid My Oracle Support (MOS) credentials, a dialog box is displayed informing that you will be anonymously registered. You must complete the following steps before you continue with provisioning the new environment:
	1. Cancel and exit the Provisioning Wizard.
	2. Obtain the correct MOS credentials.
	3. Restart the Provisioning Wizard to update the provisioning response file with the correct MOS credentials or uncheck the check box next to **I wish to receive security updates via My Oracle Support**. Save the provisioning response file and then exit the Provisioning Wizard.
	4. Restart the Provisioning Wizard to provision the Oracle Fusion Applications environment.
	Click **Next** to continue.
Provisioning Configurations	Select one or more offerings, either within a configuration, or from the list of standalone product offerings.
	See Section 4.1.2 for details.
	Click **Details** in the message pane to see a breakdown of servers for each offering.
	After you click **Next**, you cannot change the selections on this screen. To make changes, click **Cancel**, open a new wizard session, and create a new response file.
Response File Description	Enter information to describe this response file. This description is not associated in any way with the executable plan file, or the summary file, that you save when you finish creating this response file.
	■ **Response File Name**: Specify a name to identify this response file.
	■ **Response File Version**: Assign a version number to this response file. The version is intended for documentation only.
	■ **Created By**: Defaults to the operating system user who invoked the wizard. Set when the response file is initially created and cannot be modified for the current response file.
	■ **Created Date**: Defaults to the date that the response file was initially created and saved. Set when the response file was initially created and cannot be modified for the current response file.
	■ **Response File Description**: Provide a description of this response file.
	To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.
	Click **Next** to continue.
Installation Location	Specify credentials for the Node Manager and supply the location of the various directories required for installation and configuration actions.
	See Section 4.3.3 for the list of parameters.
	To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.
	Click **Next** to continue.

Table 4–2   (Cont.) Creating a Response File

Screen	Description and Action Required
System Port Allocation	Accept the default values or set a custom value for the **Applications Base Port**. The application domain port ranges are derived from this value. If you change the base port value, the domain port ranges adjust accordingly. Ranges must not overlap and must be set in ascending order.
	Ports listed under **Other Ports** are not derived from the **Applications Base Port** value. These "individual" ports can be defined using custom port values.
	To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.
	Click **Next** to continue.
Database Configuration	Enter the database parameters that you established when you installed Oracle Database. The wizard validates whether the database you installed is a single instance of Oracle Database or Oracle Real Application Clusters (Oracle RAC). If a **Single Instance Database**, enter:
	■ **User Name (SYSDBA Role)**: The user name of the sysdba role. This user name is used to upgrade schemas during the configuration phase. Note that the sysdba fields are not validated, so ensure that you enter the correct values.
	■ **Password**: The password of the sysdba role.
	■ **Host Name**: The name of the host where the database is installed.
	■ **Port**: The listening port for the database.
	■ **Service Name:** The global database name for the database that you installed. Used to distinguish this database instance from other instances of Oracle Database running on the same host.
	If you have installed Oracle RAC, select **Real Application Clusters Database** and enter the **Service Name** that you specified when you installed this database.
	Click **Add** to create a new row in the table for each instance. Select a row and click **Remove** to delete it. Enter the following values for the previously installed database:
	■ **User Name (SYSDBA Role)**: The user name of the sysdba role. This user name is used to upgrade schemas during the configuration phase. Note that the sysdba fields are not validated, so ensure that you enter the correct values.
	■ **Password**: The password of the sysdba role.
	■ **Host Name**: The name of the host for each Oracle RAC instance.
	■ **Port**: The listening port of the database.
	■ **Instance Name**: The name of the Oracle RAC instance used to manage this database. Currently, you can enter up to three RAC instances and provision an environment. However, due to a size limit between the software components, the provisioning configure phase will fail if you enter four or more RAC instances.
	To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.
	Click **Next** to continue.

Table 4–2 (Cont.) Creating a Response File

Screen	Description and Action Required
Schema Passwords	The database that you installed contains preloaded schemas required for runtime execution. Select one of the following options and enter the database schema passwords set up when you ran the Oracle Fusion Applications Repository Creation Utility. For more information, see Table 3–5, " Running the Oracle Fusion Applications Repository Creation Utility".
	■ **Use the same password for all accounts**: Select this option if you set up a single password for all accounts. Enter the value in the **Password** field. This option is the default.
	■ **Use a different password for each account**: Select this option if you set up individual passwords for each **Account**. Password values were set up for Fusion Applications and AS Common Schemas. Enter those values in the **Password** field.
	To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.
	Click **Next** to continue.
ODI Password Configuration	Enter and confirm your ODI Supervisor **Password**. The ODI Supervisor Password is the Supervisor Password that you entered on the **Custom Variables** page during execution of Applications RCU under the Master and Work Repository component.
	To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.
	Click **Next** to continue.
Domain Topology Configuration	To determine the flow for the remaining wizard interview screens, choose one of the options.
	The types of possible topologies are:
	■ **Basic Topology**: One host for all domains
	■ **Medium Topology**: One host per domain
	■ **Advanced Topology**: One host per application and middleware component
	Note that all hosts must use the same operating system; that is, you cannot install "domain1" on Windows and "domain2" on Linux. Note that you should **not use** any of the IDM hosts as the host in the Domain Topology Configuration because installing Oracle Identity Management and Oracle Fusion Applications on the same host is not a supported topology.
	See Section 4.3.5 for details.
	To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.
	Click **Next** to continue.

Table 4–2 (Cont.) Creating a Response File

Screen	Description and Action Required
Common Domain	**Note**: Individual domain screens appear only if you selected the **One host per application and middleware component** option on the **Domain Topology Configuration** screen.
	Specify values for this domain and its middleware dependencies. All hosts must use the same operating system and share a common mount point for network storage. The host specified for the Admin Server is the default for all servers. You can change the default.
	▪ **Host Name**: Specify the host where you want to install and configure the Managed Servers for this domain. Note that this host cannot be the same IDM host.
	▪ **Port**: Port for internal communications only. The wizard assigns values based on values on the **System Port Allocation** screen. You can edit port values. However, they must be unique within the domain and fall within the range previously specified. For example, in a range of 7401 to 7800, a value of 8444 generates an error.
	▪ **UCM Intradoc Server Port**: Port where the Universal Content Management Server listens.
	▪ **InBound Refinery Server Port**: Used for calling top-level services.
	To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.
	Click **Next** to continue.
Product Family Domains	**Note**: Individual domain screens appear based on which options you select on the **Domain Topology Configuration** screen. For example, the **Incentive Compensation Domain** screen does not appear unless you selected that product offering for installation. All product family domain screens prompt for the same types of values.
	Specify values for this domain and its middleware dependencies. All hosts must use the same operating system and share a common mount point for network storage. The host specified for the Admin Server is the default for all servers. You can change the default.
	▪ **Host Name**: Specify the host where you want to install and configure the Managed Servers for this domain. Note that this host cannot be the same IDM host.
	▪ **Port**: Port for internal communications only. The wizard assigns values based on values on the **System Port Allocation** screen. You can edit port values. However, they must be unique within the domain and fall within the range previously specified. For example, in a range of 7401 to 7800, a value of 8444 generates an error.
	Note: See Section 4.3.6 for Oracle Business Intelligence configuration requirements.
	To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.
	Click **Next** to continue.
Web Tier Configuration	Use this screen to configure Oracle HTTP Server and choose a virtual host type. You can deploy the web tier to a host inside the firewall, or outside the firewall (demilitarized zone, known as DMZ).
	See Section 4.3.7 for the list of parameters.
	To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.
	Click **Next** to continue.

Table 4–2   (Cont.) Creating a Response File

Screen	Description and Action Required
Virtual Hosts Configuration	Provisioning determines the application domains to be deployed based on your product offering choices and lists them on this screen. Specify domain-specific values for the type of virtual host mode that you selected on the **Web Tier Configuration** screen.
	See Section 4.3.8 for the list of parameters.
	To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.
	Click **Next** to continue.
Load Balancer Configuration	Load balancing enables you to distribute a workload evenly across two or more hosts, network links, CPUs, hard drives, or other resources. Check **Load Balancing Enabled** to take advantage of this feature, and specify:
	■ **Internal Load Balancer Configuration**: The host and port for the internal Virtual IP (VIP).
	■ **External Load Balancer Configuration**: The host and port for external Virtual IP (VIP). It must have a publicly available address to be usable.
	To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.
	Click **Next** to continue.
Web Proxy Configuration	Create **Proxy Settings** to enable users who want to use a proxy server to connect to the Internet. See Section 4.3.10 for details. Take note of the special instructions for Oracle Customer Relationship Management customers.
	To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.
	Click **Next** to continue.
IDM Properties File	When you are creating a response file or updating an incomplete response file without updates to this page, you will be able to select the IDM properties file to load IDM configuration data. After you select the file, you can review the content and decide if you want to proceed with this file.
	WARNING: You can review the file and select a different file if required on this screen. You cannot select an IDM properties file after you click **Next**, as the screen will display read-only fields.
	Do not load IDM Configuration from IDM Properties file: Select this option if you do not want to load the IDM configuration data from the IDM properties file.
	Load IDM Configuration from IDM Properties file: Select this option if you want the values on the Identity Management Configuration screen and the Access and Policy Management Configuration screen to default to the values in the IDM properties file (for example, `idmsetup.properties`). For more information about the IDM properties file, see "Pass Configuration Properties File to Oracle Fusion Applications" in the *Oracle Fusion Middleware Enterprise Deployment Guide for Oracle Identity Management (Oracle Fusion Applications Edition)*.
	IDM Properties file: Enter the location of the file, for example, *SHARED_CONFIG_DIR*/`fa/idmsetup.properties`, where *SHARED_CONFIG_DIR* is the shared configuration location that you selected in the Install Location Configuration page of the Oracle Identity Management Provisioning Wizard.
	IDM Properties file contents: If you have selected a valid IDM properties file, the contents will be displayed. This field is read-only and cannot be modified.
	Click **Next** to continue.

Table 4–2 (Cont.) Creating a Response File

Screen	Description and Action Required
Identity Management Configuration	Provisioning loads roles, policies, and application IDs that you created during the prerequisite Oracle Identity Management installation. To share the identity management environment across multiple Oracle Fusion Applications installations, and make the policies and roles accessible to all environments, you must populate identity management configuration details during the first installation.
	See Section 4.3.13 for the list of parameters. See also Section 4.3.11 for information about Distinguished Names conventions.
	To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.
	Click **Next** to continue.
Access and Policy Management Configuration	Configure Oracle Fusion Applications for integration with existing Oracle Access Manager components.
	See Section 4.3.14 for the list of parameters.
	To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.
	Click **Next** to continue.
IDM Database Configuration	Enter the configuration details that you specified when you installed the database for Oracle Identity Manager.
	See Section 4.3.15 for the list of parameters.
	To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.
	Click **Next** to continue.
Summary	Displays the applications and middleware components that will be installed when you perform a physical installation using this response file. Includes details such as required disk space and the installation locations.
	See Section 4.3.16 for a description of the parameters.
	Click **Finish** to save the response file. The response file is complete and can be used as the basis for provisioning of a new environment.

4.3.3 WebLogic Server Node Manager Credentials and Installation Locations

Specify credentials for the Node Manager and supply the location of the various directories required for installation and configuration actions on the **Installation Location** screen. The credentials provided will be used to configure the NodeManager, secure WebLogic Server and OWSM keystores and wallets on the file system.

Ensure that you use the specified user name and password to connect to the NodeManager for starting and stopping servers.

Node Manager Credentials

- **User Name**: Specify a user name for the Node Manager role.

- **Password**: Specify a password for the Node Manager and retype it in the **Confirm Password** field.

Installation and Configuration

Provide locations of various directories that the administrator needs access to. For non-Windows platforms, you must enter the full file path in the Provisioning Wizard UI when asked to provide any file path, such as Oracle Fusion Applications Home, Applications Configuration Directory, and so on. Using symbolic link paths will cause provisioning to fail in later phases.

- **Installers Directory Location**: Enter the path to the *repository_location* directory you created when you downloaded the provisioning repository. For Windows, the location must be a symbolically linked directory. See Section 2.2.10 for additional details. Note that a symbolic link is not necessary if the repository and the database are on the same node.

- **Applications Base**: Enter the directory path to the applications base directory. The top-level directory for the Oracle Fusion Applications binaries is the **applications base** and is referred to as the *APPLICATIONS_BASE* directory (`net/mount1/appbase`). See Section 1.5.2 for additional details.

  The applications base directory must not be set to the system root directory or set to the root directory of a logical drive. Some lifecycle management tools compute directory names by backing up one directory level from the applications base directory and then appending the appropriate subdirectory name. These tools will fail if the applications base directory is set to the system root directory or set to the root directory of a logical drive because it is not possible to back up one directory level from the system root directory or from the root directory of a logical drive.

  During creation of a provisioning plan in a Unix environment, ensure that the absolute file path of the *APPLICATIONS_BASE* directory does not exceed 59 characters before provisioning a new application environment.

  In a Windows environment, this name cannot exceed eight characters, and must be a symbolically linked directory. See Section 2.2.10 for additional details.

- **Applications Configuration**: This directory is automatically populated based on the value you specify in the **Applications Base** field. It is the path to the directory where the configuration files for the domain will be written. You can specify a different location of your choice instead of using the location automatically populated by the UI. For Windows, the location must be a symbolically linked directory. See Section 2.2.10 for additional details.

- **Enable Local Applications Configuration**: Select this check box to run the Managed Servers from a non-networked (local) disk on the host, visible only to the processes running on that host. If you enable this option, the wizard copies the domain configuration from the shared location and places it on the local disk you specify. This configures all Managed Servers to run from the non-networked location.

- **Local Applications Configuration**: Specify the location for the local domain directory you want to set up. This field is required if you selected **Enable Local Applications Configuration**. The specified directory must exist and initially be empty on every host that participates in the domain topology. You must ensure the directory has sufficient disk space. During the **Preverify** phase, Provisioning displays an error if the local configuration directory does not have sufficient disk space.

Middleware Dependencies

- **Font Directory**: Appears only if you have selected Oracle Sales, Oracle Marketing, or Oracle Financials offerings. Enter the directory where the TrueType fonts are installed. The location varies on different operating systems, but is typically found here:

  - **Microsoft Windows x64 (64-Bit)**: `C:\WINDOWS\Fonts`

  - **Linux x86-64**: `/usr/X11R6/lib/X11/fonts/TTF`

  - **Oracle Solaris**: `/usr/X11R6/lib/X11/fonts/TrueType`

- **IBM AIX on POWER Systems (64-Bit)**:
  `/usr/X11R6/lib/X11/fonts/TrueType`

Some systems may not have TrueType fonts installed. If you cannot locate the fonts on your system, verify that they have been installed. In addition, you can use the fonts directory shipped as part of the JRE installed in the repository. Regardless of which path you specify, you must have access to .ttf (.TTF) files.

Oracle Business Intelligence Repository Password

RPD Password: Specify and **Confirm** a password to allow access to the metadata repository (RPD) for both Oracle Business Intelligence Applications and Oracle Transactional Business Intelligence. The password must be between 8 and 30 characters and contain at least one digit. It can include letters, numbers, pound sign (#), dollar sign ($), or underscore (_). If you want to include two consecutive dollar signs ($$) in the RPD password, enter one additional dollar sign ($) as the escape character before the second dollar sign in the password. This means you need to enter three dollar signs ($$$) for this field in the Provisioning Wizard to indicate two consecutive dollar signs. Provisioning sets up this password, but does *not* actually access the repository.

If the environment created is Windows-based, the wizard prompts for these values:

- *Windows Domain\Windows User Name*: Specify a user name to use for running provisioning.

- *Windows Domain* **Password**: Specify a password for running provisioning. Retype the password to **Confirm** it.

4.3.4 System Port Allocation

Accept the default values or set a custom value for the Applications Base Port. The application domain port ranges are derived from this value. If you change the base port value, the domain port ranges adjust accordingly. Ranges must not overlap and must be set in ascending order.

Ports listed under **Other Ports** are not derived from the Applications Base Port value. These "individual" ports can be defined using custom port values.

To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.

Click **Next** to continue.

If you have other software running on the provisioning hosts, ensure that the system port allocation value in the provisioning response file is not a port already used by other software. The system port allocation cannot be changed after you start provisioning a new Oracle Fusion Applications environment. If a port conflict is detected during provisioning phases, you have to restart provisioning from the beginning with a correct set of system port allocation. See Section 5.1.2 for more information.

To display a list of network connections including the port numbers and process identifier holding the ports, run these commands:

`(UNIX) netstat -anp`

`(Windows) netstat`

4.3.5 Domain Topology Configuration

To determine the flow for the remaining wizard interview screens, choose one of the following options. Note that all occurrences of a `hostname` should use the same name in the response file. A machine name could be a logical or virtual host name. It can either be in fully qualified form, `mymachine.mycompany.com`, or short form, `myMachine`, if it is consistent throughout the response file. For more information, see Section 2.2.8, "Edit Host Names (Unix)".

The types of possible topologies are:

- **Basic Topology**: One host for all domains

- **Medium Topology**: One host per domain

- **Advanced Topology**: One host per application and middleware component

> **Note:** You must install Oracle Identity Management and Oracle Fusion Applications on different hosts. Installing Oracle Identity Management and Oracle Fusion Applications on the same host is not a supported topology.

- **One host for all domains**: Select this option to specify the **Host Name** to provision all applications domains and their middleware dependencies on a single host. The wizard continues the interview at the **Web Tier Configuration** screen when you click **Next**.

- **One host per domain**: Select this option and then select a **Host Name** for each domain to be created. Provisioning installs and configures the Managed Servers for each **Application Domain** and the middleware dependencies on the host that you specify. The wizard continues the interview at the **Web Tier Configuration** screen when you click **Next**.

- **One host per application and middleware component**: Select this option to specify the host for each application and middleware component individually. The wizard displays the **Common Domain** screen when you click **Next**, and includes all domain-specific screens in the interview.

If you select the last option, you cannot change the selections on this screen after you click **Next**. You must click **Cancel**, open a new wizard session, and create a new response file to change the configuration domain topology later.

4.3.6 Oracle Business Intelligence Configuration

Oracle Business Intelligence products are integrated with, and accessible from, Oracle Fusion Applications. Products include:

- Oracle Business Intelligence Enterprise Edition

- Oracle Business Intelligence Applications

- Oracle Transactional Business Intelligence

- Oracle Essbase

- Oracle Business Intelligence Publisher

- Oracle Real-Time Decisions

Enter the **Host** where you want Oracle Business Intelligence products to be installed. You specified an **RPD** password on the **Installation Location** screen. Provisioning

creates this password and makes it available so that Oracle Business Intelligence Applications and Oracle Transactional Business Intelligence can access the metadata repository in your new environment.

> **Note:** The Oracle Fusion Applications installation and provisioning process installs the Oracle BI Applications software components in the Business Intelligence Oracle home but does no further setup. To finish setting up Oracle BI Applications, you must follow the instructions in the "Setting Up Oracle Business Intelligence Applications" chapter of the *Oracle Fusion Middleware Installation and Configuration Guide for Oracle Business Intelligence Applications.*

4.3.7 Web Tier Configuration

You can create virtual hosts on a single web tier. There are three options (IP-based, name-based, and port-based) for each domain that is created during installation. The values assigned during installation are derived from the default HTTP port that you name on this screen. Note that all occurrences of a `hostname` should use the same name in the response file. A machine name could be a logical or virtual host name. It can either be in fully qualified form, `mymachine.mycompany.com`, or short form, `myMachine`, if it is consistent throughout the response file. For more information, see Section 2.2.8, "Edit Host Names (Unix)".

Web Tier

- **Install Web Tier in DMZ**: Select this option if you set up a separate host for web tier installation as a demilitarized zone (DMZ). This host does not have access to the shared file system. It cannot be used for any other host deployed, regardless of domain. See Section 2.5.

- **Host**: Enter the name of the host where Oracle HTTP Server will be installed and configured.

- **Virtual Host Mode**: Select one of the following:

    - **IP Based**: Created on the basis of an IP or IP:host combination (the default).

    - **Name Based**: Create new DNS entries, such as `fin.example.com` and `crm.example.com` to use as virtual hosts.

    - **Port Based**: Created based on the internal and external port for each domain.

- **Domain Name**: Specify a domain name (using the format *my.example.com*) to configure the domain in which Oracle Fusion Applications will receive requests. This value is also used as the default domain name for name-based virtual hosts.

- **HTTP Port**: The default port for the web tier. (Unix) Do not specify a port that requires operating system administrator privileges.

- **HTTPS (SSL) Port**: Secure port for the web tier. (Unix) Do not specify a port that requires operating system administrator privileges.

> **Note:** On Unix platforms, using a port below 1024 requires root privileges and Provisioning is not run as root user, so you should not specify a HTTP/HTTPS port below 1024. For more information, see "Changing the Oracle HTTP Server Listen Ports" in the *Oracle Fusion Middleware Administrator's Guide*.

SMTP Server

- **Host**: Specify the host for email marketing. This field appears only if you selected the Oracle Fusion Customer Relationship Management offering.

- **Port**: Default port for the SMTP server.

4.3.8 Virtual Hosts Configuration

Specify the configuration parameters for the domains to be installed on the virtual hosts that you selected on the **Web Tier Configuration** screen. Note that all occurrences of a `hostname` should use the same name in the response file. A machine name could be a logical or virtual host name. It can either be in fully qualified form, `mymachine.mycompany.com`, or short form, `myMachine`, if it is consistent throughout the response file.

If you selected **IP Based**, specify the following information for each application domain listed:

- **Internal Name**: The host name where the web tier listens on the internal virtual host for this domain. The host name can consist of letters A through Z (upper or lower case), digits 0 through 9, minus sign (-) and period (.). The first character must be an alphabet and the last character must not be a minus sign or a period.

- **Internal Port**: The port for this internal virtual host. Visible only from inside the firewall.

- **External Name**: The host name for the external virtual host for this domain or middleware dependency. The host name can consist of letters A through Z (upper or lower case), digits 0 through 9, minus sign (-) and period (.). The first character must be an alphabet and the last character must not be a minus sign or a period. The host:port should be visible from outside the firewall.

- **External Port**: The port to be used for this external virtual host. The `host:port` should be visible from outside the firewall.

If you selected **Name Based**, specify the following information for each domain listed:

- **Internal.Name**: The DNS name for this internal virtual host. For example, for Oracle Fusion Financials, the name might be `fin-internal`.

- **External.Name**: The DNS name for this external virtual host. For example, for Oracle Fusion Financials, the name might be `fin`.

If you selected **Port Based**, specify the following information for each domain listed:

- **Internal Port**: The port that is visible only from inside the firewall for this domain.

- **External Port**: The port that is visible from outside the firewall for this domain.

4.3.9 Load Balancer Configuration

Load balancing enables you to distribute a workload evenly across two or more hosts, network links, CPUs, hard drives, or other resources.

Load Balancing Enabled: This check box is selected by default. Keep it checked if you use load balancer in front of the Oracle Fusion Applications environment and specify:

- **Internal Load Balancer Configuration**: The host and port for the internal Virtual IP (VIP).

- **External Load Balancer Configuration**: The host and port for external Virtual IP (VIP). It must have a publicly available address to be usable.

To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.

Click **Next** to continue.

4.3.10 Web Proxy Configuration

Create **Proxy Settings** to enable users who want to use a proxy server to connect to the Internet.

- **Enable Web Proxy**: Select to enable proxy-related values to set up access to the Internet. **Note**: If you are a CRM customer and have a web proxy for external HTTP(S) traffic, you must select **Enable Web Proxy** on this screen and specify your web proxy configuration.

- **Web Proxy Host**: Enter the name of the host where the proxy server is installed.

- **Web Proxy Port**: The listening port assigned to the proxy server.

- **Enable Secure Web Proxy**: Select to have the proxy server SSL-enabled. If you select this check box, the **Secure Web Proxy Host** and **Secure Web Proxy Port** fields are enabled and become mandatory.

- **Secure Web Proxy Host**: Enter the SSL host used for secure communications.

- **Secure Web Proxy Port**: Enter the SSL port used for internal communications.

- **No Proxy Hosts**: Defaults to hosts that are connected directly. If there are multiple hosts, they are listed and separated by a vertical bar (|). You can use a wildcard character (*) to specify hosts that should be bypassed. For example, `*.example.com` would bypass all hosts whose name ends with `.example.com`.

- **Proxy Server Requires Authentication**: To enable authentication for the proxy server, select this option.

- **User Name**: Enter the user name that you set up for accessing the proxy server.

- **Password**: Enter the password that you set up for accessing the proxy server.

4.3.11 Distinguished Names

A Distinguished Name (DN) identifies an entry in a Lightweight Directory Access Protocol (LDAP) directory. Because directories are hierarchical, DNs identify the entry by its location as a path in a hierarchical tree (much as a path in a file system identifies a file). Generally, a DN begins with a specific common name, and proceeds with increasingly broader areas of identification until the country name is specified.

Table 4–3 provides definitions for distinguished name components (defined in the X.520 standard).

Table 4–3   Distinguished Name Components

Component	Definition
Common Name (CN)	Identifies the person or object defined by the entry. For example, `cn=John Doe`. Or `cn=corpDirectory.example.com`.
Organizational Unit (OU)	Identifies a unit within the organization. For example, `ou=scm`.
Organization (O)	Identifies the organization where the entry resides. For example, `o=My Corporation`.

Table 4–3   (Cont.) Distinguished Name Components

Component	Definition
Locality (L)	Identities the place where the entry resides. The locality can be a city, county, township, or any other geographic region. For example, `l=Your City`.
State of Province Name (ST)	Identifies the state or province in which the entry resides. For example, `st=Your State`.
Country (C)	Identifies the name of the country where the entry resides. For example, `c=US`
Domain Component (DC)	Identifies the components of a domain. For example, if the domain is `example.com`, the domain components would be: `dc=example, dc=com`.

4.3.12 IDM Properties File

When you are creating a response file or updating an incomplete response file without updates to this page, you will be able to select the IDM properties file to load IDM configuration data. After you select the file, you can review the content and decide if you want to proceed with this file.

> **WARNING:**   **You can review the file and select a different file if required on this screen. You cannot select an IDM properties file after you click Next, as the screen will display read-only fields.**

- **Do not load IDM Configuration from IDM Properties file**: Select this option if you do not want to load the IDM configuration data from the IDM properties file.

- **Load IDM Configuration from IDM Properties file:** Select this option if you want the values on the Identity Management Configuration screen and the Access and Policy Management Configuration screen to default to the values in the IDM properties file (for example, `idmsetup.properties`). For more information about the IDM properties file, see "Pass Configuration Properties File to Oracle Fusion Applications" in the *Oracle Fusion Middleware Enterprise Deployment Guide for Oracle Identity Management (Oracle Fusion Applications Edition)*.

- **IDM Properties file:** Enter the location of the file, for example, *SHARED_CONFIG_ DIR*/fa/idmsetup.properties, where *SHARED_CONFIG_DIR* is the shared configuration location that you selected in the **Install Location Configuration** page of the Oracle Identity Management Provisioning Wizard.

- **IDM Properties file contents:** If you have selected a valid IDM properties file, the contents will be displayed. This field is read-only and cannot be modified.

If you choose to load an existing IDM Properties file, you MUST still verify and enter values for the following fields or select the check boxes which appear in the subsequent screens as described.

Section 4.3.13, "Identity Management Configuration"

- Select the **Create Administrators Group**, **Create Monitors Group**, and **Create Operators Group** check box.

- Select the identity store server type from the **Identity Store Server Type** drop-down list.

- Specify the password values for all the relevant fields.

Section 4.3.14, "Access and Policy Management Configuration"

- Select or deselect the **Enable Second Primary Oracle Access Manager** check box.

- Select or deselect the **Default to Identity Store** check box.

  Section 4.3.15, "IDM Database Configuration"

- Specify the values corresponding to the Oracle Identity Management database fields in the IDM Properties file for the **Host Name**, **Port** and **Service Name** fields.

4.3.13 Identity Management Configuration

For more information about using Oracle Identity Management in an applications environment, see Section 2.1.4.

4.3.13.1 Wizard Interview Flow

Enter the parameters necessary to integrate applications with a previously installed Oracle Identity Management infrastructure. If you chose to use the values in the IDM properties file (`for example,idmsetup.properties`) on the **IDM Properties File** screen, they appear as defaults in the corresponding fields. You can replace the default values if your original configuration has changed. See Section 2.1.4.

- **Super User Name**: Enter the name of an existing user who should be granted administrator and functional setup privileges. By default Oracle Identity Management Provisioning creates a user named `FAAdmin`. If you do not have a Super User, you can enter `FAAdmin` in this field.

- **Create Administrators Group**: Indicate whether you created an "Administrators" group, whose members have specialized privileges for all Oracle Fusion Middleware components. If you do not already have this group present in the identity store, this box should be checked.

- **Create Monitors Group**: Indicate whether you created a "Monitors" group, whose members have read-only administrative privileges to Oracle WebLogic Server domains. If you do not already have this group present in the identity store, this box should be checked.

- **Create Operators Group**: Indicate whether you created an "Operators" group, whose members have Monitors privileges to Oracle WebLogic Server domains. If you do not already have this group present in the identity store, this box should be checked.

- **Identity Store Server Type**: Indicate the type of identity store that you set up during Oracle Identity Management provisioning. The available options are OID (Oracle Internet Directory) or OVD (Oracle Virtual Directory). If you select the OVD product during Oracle Identity Management provisioning, then you must select the OVD option for this field. Otherwise, you can select the OID option. You will not be able to complete provisioning an environment if you choose an incorrect option that does not match what you have selected during Oracle Identity Management provisioning.

  If you select OVD, then the **Default to Identity Store** check box in Oracle Platform Security Services Configuration must be unchecked and the policy store cannot be the same instance as the identity store. Using OVD for policy store is not currently supported.

  Note: If the Oracle Identity Management deployment is an EDG deployment, then the **Identity Store Server Type** should be selected as **OVD**.

- **Use SSL to Communicate With Identity Store**: This feature is not enabled in this release.

- **Identity Store Host**: Enter the host or DNS name for your identity store LDAP service. This can be the host name of the identity server or the host name for the load balancer endpoint load balancing multiple identity servers.

- **Identity Store Port**: The port assigned to the identity store. This can be the port of the identity server or the port for the load balancer endpoint load balancing multiple identity servers.

- **Identity Store Secure Port**: The SSL port assigned to the identity store. This feature is not enabled for this release. This can be the secure port of the identity server or the secure port for the load balancer endpoint load balancing multiple identity servers.

- **Identity Store User DN**: Enter the Distinguished Name of the user that you set up with read-write access to the LDAP.

- **Identity Store Password**: Enter the password that you set up for the user with read-write access to the LDAP.

- **Identity Store Read-only User DN**: Enter the Distinguished Name (DN) of the user that you set up with read-only access to the Identity Store LDAP.

- **Identity Store Read-only Password**: Enter the password that you set up for the identity store read-only user.

- **Identity Store User Name Attribute**: Choose the type of user name attribute that you configured in the identity store. Valid values are: user ID (uid), common name (CN), or email address.

- **Identity Store User Base DN**: Enter the root Distinguished Name assigned to the upload of applications user data. This is the root for all the user data in your identity store.

- **Identity Store Group Base DN**: Enter the root Distinguished Name for all the group data in your identity store.

- **OIM Admin Server Host**: Enter the name of the host where the OIM Administration Server is installed.

- **OIM Admin Server Port**: The port where the Oracle Identity Management Administration Server listens.

- **OIM Administrator User Name**: Enter the name you set up as the Oracle Identity Management Domain administrator.

- **OIM Administrator Password**: Enter the password you set up for the Oracle Identity Management Domain administrator.

- **OIM Managed Server Host**: Enter the virtual or real host name of the Oracle Identity Manager Managed Server where SPML callback and other OIM services are running.

- **OIM Managed Server Port**: Enter the virtual or real port where the Oracle Identity Manager Managed Server listens.

- **OIM HTTP Internal Endpoint URL**: The internal access point on the Oracle HTTP Server for Oracle Identity Manager services in an Oracle Identity Management enterprise deployment, or the Oracle Identity Manager Managed Server access point for a non-enterprise deployment. This URL is used for HTTP communication between Oracle Fusion Applications and Oracle Identity Manager.

Enter the HTTP termination address of Oracle Identity Manager, using the following format: `http://host:port`. It terminates at either a load balancer or the Oracle HTTP Server or the Oracle Identity Manager Managed Server.

- **OIM HTTP(S) External Endpoint URL**: The access point to use for accessing the Oracle Identity Manager application using a browser. Note that a non-secure URL is used unless you provide an HTTPS URL.

  Enter the HTTP(S) termination address of Oracle Identity Manager, using the following format: `http(s)://host:port`. It terminates at either a load balancer or the Oracle HTTP Server or the Oracle Identity Management Managed Server.

Note: The wizard warns if the Identity Store credentials are not valid and do not allow a connection to the database. If this warning represents an exception, you can ignore it and continue creating the response file. However, you *must* fix all issues before you start to provision an environment. You cannot successfully run provisioning until all validations have passed.

4.3.14 Access and Policy Management Configuration

Enter the parameters necessary to integrate applications with a previously installed Oracle Identity Management infrastructure. If you chose to use the values in the IDM properties file (for example, `idmsetup.properties`) on the **IDM Properties File** screen, they appear as defaults in the corresponding fields. You can replace the default values if your original configuration has changed. See Section 2.1.4.

Oracle Access Manager Configuration

- **OAM Admin Server Host:** Enter the name of the host where the Administration Server for Oracle Access Manager exists.

- **OAM Admin Server Port:** Enter the port number for the Oracle Access Manager Administration Server.

- **OAM Administrator User Name**: Enter the name you assigned this user when you installed Oracle Access Manager.

- **OAM Administrator Password**: Enter the password you assigned this user when you installed Oracle Access Manager.

- **OAM AAA Server Host:** Enter the name of the proxy host where the Oracle Access Manager is installed.

- **OAM AAA Server Port:** The port number for the Oracle Access Manager listener on the OAM proxy host.

- **Access Server Identifier:** Name used to identify the Oracle Access Server.

- **Enable Second Primary Oracle Access Manager**: Select this check box to name a second Primary Oracle Access Manager for high availability.

- **Second Access Server Identifier**: This defaults to `aaa2`, the name of the second Primary Oracle Access Manager Server.

- **Webgate Password**: Specify a password for the Resource WebGate. It must contain at least eight alphanumeric characters and at least one digit or punctuation mark. Retype to **Confirm** the password. If seeding of security data is disabled, the password must be the existing WebGate password.

Oracle Platform Security Services Configuration

- **Default to Identity Store:** The default values of this section depend on whether this field is enabled. If the check box is unchecked, which is the default, the **OPSS**

Policy Store Host, **OPSS Policy Store Read-Write User Name** and **OPSS Policy Store Password** fields are empty by default and do not inherit values from your identity store. **OPSS Policy Store Port** defaults to 3060 and **OPSS Policy Store Secure Port** defaults to 3131.

> **Note:** If you check this check box, the Identity Store Server Type cannot be OVD and must be OID. Using OVD for policy store is currently not supported.

If you check this check box, the following fields inherit values from your identity store: **OPSS Policy Store Host**, **OPSS Policy Store Port**, and **OPSS Policy Store Secure Port**.

A description of related fields follows:

– **Use SSL to communicate with OPSS Policy Store**: This feature is not enabled in this release.

– **OPSS Policy Store Host**: Enter the host name for the OID where Oracle Platform Security Services (OPSS) policies are to be seeded if **Default to Identity Store** is unchecked. If **Default to Identity Store** is checked, this value defaults from your identity store. This can be the host name of the policy server or the host name for the load balancer endpoint load balancing multiple policy servers.

– **OPSS Policy Store Port**: The number of the OID port for the OPSS policy store defaults to 3060 if **Default to Identity Store** is unchecked. If **Default to Identity Store** is checked, this value defaults from your identity store. This can be the port of the policy server or the port for the load balancer endpoint load balancing multiple policy servers.

– **OPSS Policy Store Secure Port**: The number of the secure port for OID defaults to 3131 if **Default to Identity Store** is unchecked. If **Default to Identity Store** is checked, this value defaults from your identity store. This feature is not enabled for this release. This can be the secure port of the policy server or the secure port for the load balancer endpoint load balancing multiple policy servers.

■ **OPSS Policy Store Read-Write User Name**: Enter the Distinguished Name of the user that you set up with write privileges to the OPSS policy store. Check if the common name, `cn=PolicyRWUser`, has already been seeded into Identity Management. If so, enter 'cn=PolicyRWUser,*replace_your_choice_of_identity_store_user_base_distinguish_name_here*'.

> **Note:** If you are using the `idmsetup.properties` file, ensure that you update the OPSS Policy Store Read-Write User Name from `cn=IDMPolicyRWUser,your_choice_of_identity_store_user_base_distinguish_name_here` to `cn=PolicyRWUser,your_choice_of_identity_store_user_base_distinguish_name_here` before proceeding to the next step.

■ **OPSS Policy Store Password**: Enter the password that you set up for the OPSS policy store user with read-write privileges.

■ **OPSS Policy Store JPS Root Node**: This is the Distinguished Name of the node to be used as the OPSS policy root for Oracle Fusion Applications.

- **Create OPSS Policy Store JPS Root Node**: Select this option to create the OPSS JPS Root Node. For this release, this option must be enabled.

Identity Management Keystore Configuration

The IDM Keystore file and password value fields are enabled if either the Identity Store, the OPSS Store, or the OIM endpoint is SSL-enabled. These fields are populated by the values from the IDM properties file (`for example,idmsetup.properties`), if you have this file that contains these values. You can also edit these values if the fields are enabled.

- **IDM Keystore File**: Enter the location of the JKS keystore containing the certificates for the Oracle Identity Management components.

- **IDM Keystore Password**: Enter the password that you set up for the IDM Keystore File.

Note: The wizard warns if the OPSS Policy Store LDAP connection and the Keystore connection information is not valid and does not allow a connection to the database. If this warning represents an exception, you can ignore it and continue creating the response file. However, you *must* fix all issues before you start to provision an environment. You cannot successfully run provisioning until all validations have passed.

4.3.15 IDM Database Configuration

Enter the database parameters you established when you installed Oracle Database for the Oracle Identity Manager (OIM). The wizard validates whether the database you installed is a single instance of Oracle Database or Oracle Real Application Clusters (Oracle RAC). For a **Single Instance Database**, enter:

- **Host Name**: The name of the host where the OIM database is installed.

- **Port**: The listening port for the database.

- **Service Name**: A unique Oracle Fusion Applications name for the OIM database.

If you have installed Oracle RAC, select **Real Application Clusters Database** and enter the **Service Name** that you specified when you installed this database.

Click **Add** to create a new row for each instance. Select a row and click **Remove** to delete the row. Enter the following information for each instance:

- **Host Name**: The name of the host for each Oracle RAC instance.

- **Port**: The listening port of the database.

- **Instance Name**: The name of the Oracle RAC instance used to manage this database.

Enter the database schema owner and password that you set up to store the Oracle Metadata Services (MDS) Repository data for the Oracle Web Services Policy Manager.

- **Schema Owner**: The owner of the MDS schema in the OIM database that is to be used by the Oracle Web Services Policy Manager.

- **Schema Owner Password**: The password for the MDS schema.

For more information about using Oracle Identity Management in an applications environment, see Section 2.1.4.

4.3.16 Summary

Verify that the installation represented on this screen is what you expect. Click **Back** to return to the interview screens that require changes. If you are satisfied with the details presented here, complete the following information:

- **Response File Name**: Specify a unique file name for this response file. This is the executable file that you supply to the wizard when prompted.

- **Provisioning Summary**: Specify a unique name for the summary details file. You cannot use this file to execute the response file.

- **Directory**: Enter the directory where you want to save this response file and the summary file. Choose a location that is visible to all servers accessing shared storage. Ensure that the location is not read-only.

Record the name of the response file and its location. You may want to supply it to your system administrator to use when performing system maintenance tasks.

4.4 Updating an Existing Response File

During the response file creation process, you can create a **partial response file**, which contains an incomplete set of configuration details. To create a partial response file, click **Save** at any point during the interview. When you are ready to continue with the creation of the response file, start the wizard and select **Update an Existing Response File** from the **Installation Options** screen. Page through the screens and continue where you left off.

Clicking **Cancel** is another way to create a partial response file, or, alternatively, exit the wizard without saving any response file details:

1. Start the Provisioning Wizard and choose **Create a New Applications Environment Response File** from the **Installation Options** screen.

2. Begin the interview process and continue to the point where you want to end the session. Click **Cancel**.

3. Choose one of the following options:

   - **Save and Exit**: Save the details that you have created for this response file. Creates a partial response file.

   - **Exit**: Exits the wizard without saving any details. Does not create a partial response file.

   - **Cancel**: Does not exit the wizard and keeps you on the page that you are. You can continue with the interview by returning to the **Welcome** screen in the wizard interview. Does not save the details that you entered and does not create a partial response file.

4. Choose **Save and Exit**. The partial response file is saved in the directory where you started the wizard.

5. When you are ready to add more details to the response file, start the Provisioning Wizard and choose **Update an Existing Response File**. Specify the **Response File** location, or click **Browse** to navigate to the partial response file.

6. Page through the interview screens until you come to the point where you stopped the last session and move through the rest of the interview as described in Table 4–2 until you finish the process.

You can save a partial response file and return to the wizard as many times as necessary to complete it. The wizard does not recognize a response file as being complete or valid until you have clicked **Finish** on the **Summary** screen.

You can also update a completed response file if it has not been implemented. Note that after you select product offerings for a partial or completed response file, you cannot change the mix by updating the response file. You must start a new wizard session and create a new response file.

4.5 What to Do Next

After you have saved the response file, you can return to the **Installation Options** screen and select the **Provision an Applications Environment** option to perform the physical installation. Or, you can create another response file to use for another type of installation, for example, to create a test or demonstration environment.

- To create another response file, repeat the tasks in Section 4.3. Save the new response file.

- To use a response file to provision a new environment, go to Chapter 5.

5

Provisioning a New Applications Environment

This chapter describes in detail the tasks necessary to perform a physical installation, configuration, and deployment of the **product offerings** that you specified in your **response file**.

This chapter includes the following sections:

- Introduction to the Applications Installation Process
- Using the Command-Line Interface
- Before You Begin
- Performing the Installation
- Troubleshooting the Provisioning Process
- Postinstallation Tasks
- What to Do Next

5.1 Introduction to the Applications Installation Process

In the response file that you created, you specified the configuration details necessary to run a physical installation of Oracle Fusion Applications product offerings. For full-scale environments, typically the offerings must be provisioned on multiple hosts, and the installation must be run from a shared drive that is accessible to all hosts.

The installation process is run in phases, in an assigned order. You must complete each phase, in order, on each host, before you move to the next phase. All phases must be completed successfully on all the hosts in your environment to create a fully operational applications environment.

5.1.1 Types of Hosts in a Multiple-Host Environment

The number of hosts and their purpose determines the order in which you provision the applications environment.

Primordial host: Location of the Common domain (specifically the Administration Server of the Common domain). Only one primordial host exists in each environment.
Primary host: Location where the Administration Server for a domain runs. Only one primary host exists in a domain.
Secondary host: Location where the Managed Servers for any application reside when they are not on the same host as the Administration Server of the same domain. The term, secondary host, is meaningful when a domain spans across more than one

physical server. The server(s) that does not have the administration server is(are) called secondary host(s).

DMZ host: A host that cannot access the shared storage within the firewall is said to be in a demilitarized zone (DMZ). Typically used to install Oracle HTTP Server so that restrictions on communication with components within the firewall can be enforced. See Section 2.5 for more information.

5.1.2 Installation Phases

Provisioning provides scripts that read from the response file and take action for each installation **phase** (target). As each phase is run, its progress is tracked on a related screen in the **Provisioning Wizard** user interface.

> **Note:**
>
> - Run the Provisioning Wizard on the primordial host to create a provisioning response file. If you run the Provisioning Wizard on a non-primordial host to create a provisioning response file, the validation assumes that the host is the primordial host. Ensure that you interpret the validation errors correctly as they may not be applicable to the non-primordial host.
>
> - When provisioning a new environment, you should only run the Provisioning Wizard on the primordial host and the Provisioning Command-line Interface on non-primordial hosts.

Installation phases and the names of the tracking screens are as follows:

- **Preverify**: Checks to see that all prerequisites are present. Tracked on the **Prerequisite Checks** screen.

- **Install**: Installs applications, middleware, and database components. Creates the applications Oracle **home directory**. Tracked on the **Installation** screen.

  > **Note:**   The Install phase must be run sequentially starting with the primordial host then one by one on the other provisioning hosts. A file locking error is displayed if you run the Install phase in parallel from the provisioning hosts because `oraInventory` is shared by the provisioning hosts.

- **Preconfigure**: Prepares application and middleware components for deployment and creates `appid` users and groups. Modifies the Oracle Application Development Framework (ADF) configuration file to use the database, based on Oracle Metadata Services (MDS) in the applications enterprise archive (EAR) files. Also updates the connections.xml file in all applications EAR files with endpoint information. Tracked on the **Preconfigure** screen.

- **Configure**: Creates and configures Oracle WebLogic Server domains, Managed Servers, and clusters; applies templates; creates and configures data sources, queues, and topics; configures middleware (wiring); and deploys applications product offerings to domains. Tracked on the **Configure** screen.

- **Configure-secondary**: Performs the configure actions on a primary or secondary host or both. If there is no primary or secondary host, or if there is only a primary host, this phase runs, but takes no action. Tracked on the **Configure Primary/Secondary** screen.

- **Postconfigure**: Performs online tasks, such as configuring the Node Manager, deploying the service-oriented architecture (SOA) composite, establishing Oracle HTTP Server wiring, seeding policies, and setting up postdeployment security configuration. Tracked on the **Postconfigure** screen.

- **Startup**: Starts the Administration Server and Managed Servers for each domain on the host where you are running this phase. Tracked on the **Startup** screen.

- **Validate**: Performs a variety of postprovisioning validations, such as server and application availability, successful loading of identity credentials, and validation of data source. Tracked on the **Validation** screen.

> **Note:** Actions related to Oracle Identity Management components are performed only in specific phases. See Section 5.1.3 for details.

A **cleanup** and **restore** phase runs automatically if a failure occurs:

Cleanup: Shuts down processes started during a failed phase and performs the necessary cleanup actions. If the automated cleanup fails, you must manually stop all processes except the Node Manager on all hosts including OPMN and Java EE processes before you can run the restore action. Note, however, that you must stop *all* processes if you are running the cleanup action on the configure phase.

Restore: The necessary restore actions required for a given provisioning phase. This action deletes and restores the instance directory, and, if necessary (and available), restarts the Common domain Administration Server and Oracle HTTP Server.

See Section 5.5.3 for more information about cleanup and restore actions.

5.1.3 Installation Phase Actions for Oracle Identity Management Components

During installation, the Provisioning Wizard performs actions that are associated with the Oracle Identity Management components you installed previously. This section contains a summary of those actions, arranged by the installation phase where the action is performed.

Provisioning phases

The wizard performs the following actions:

- Preverify phase

  Verifies the existence of the system administrators group (if it was declared as existing during the wizard interview) and the existence of the designated super user in the identity store.

- Preconfigure phase

  Prepares the Oracle Identity Management components for configuring as follows:

  – Uploads the LDIF files to the identity store. These files contain entries that represent the application administrator groups used to update the identity store.

  – Creates the system administrator group (according to what is indicated in the interview).

  – Makes the super user a member of the administrators group and all the application family directory groups.

- – Seeds the bootstrap of `AppID` and gives it membership in the system administrator group.

■ Configure phase

Configures the Oracle Identity Management components as follows:

- – Creates the Oracle Fusion Applications domains using the default Oracle WebLogic Server template, with the bootstrap `AppID` as an administrator.

- – Disables the default authenticator and enables the LDAP authenticator.

- – Starts the Oracle WebLogic Server domain using the bootstrap `AppID`.

■ Postconfigure phase

Following configuration, the system administrator groups are assigned the appropriate enterprise roles at the product family level. Therefore, the super user has:

- – Administrator privileges for all Oracle WebLogic Server domains and all middleware

- – Functional setup privileges for all Oracle Fusion Applications offerings

- – Administration privileges to Oracle Fusion Applications offerings, excluding transactional privileges

5.1.4 Provisioning a New Environment on Multiple Hosts

To provision a new environment, you start the Provisioning Wizard on the primordial host, make a selection from the options menu, and indicate the location of the response file. The wizard presents a review of the details in the response file on a series of interview screens.

You can make changes to most of the response file details on the interview screens. However, you cannot make any changes to the product offerings. You must create a new response file to change the offering mix.

After you have completed the preverify phase successfully on all the hosts in your environment, and clicked **Next** to start the install phase on the primordial host, you can no longer modify any sections of the response file.

Run the phases *in order*, and complete *each* phase on *all* hosts in your environment before you begin the next phase. The Provisioning Wizard enables you to monitor the progress and success of each phase across all hosts.

> **Note:** If you set up a separate DMZ host for your web tier, you must open a separate terminal session for that host and run all provisioning phases (except the preverify phase). To ignore preverify phase errors, use the command line argument `-ignoreSysPrereqs true` in the `runProvisioning` command. You cannot view the build processes on the DMZ host on the primordial host interface because the DMZ host does not have access to the shared network drive.

For example, if you have three hosts — Host A (primordial host), Host B (primary host) and Host C (secondary host) — the process of provisioning those hosts works like this:

1. Open a terminal session on Host A, Host B, and Host C. Log in to each host.

2. Start the Provisioning Wizard on Host A, select **Provision an Applications Environment**, and specify the location of the response file.

3. Page through the wizard screens and make any necessary changes to the response file details displayed. If you selected to view individual domain details on the **Provisioning Configuration** screen, those screens are also added to the interview. Review the summary of installation actions that will be taken for this response file.

4. When you click **Next** on the **Summary** screen, the wizard initiates the preverify phase on Host A and displays the **Prerequisite Checks** screen. You can track the progress of this phase on this screen.

5. From the command line on the Host B and Host C terminal sessions, enter the syntax to run the preverify phase. (You do not have to wait for a phase to run to completion on the primordial host before you start the same phase on any of the other hosts.)

6. View the results of the preverify phase for all hosts on the **Prerequisite Checks** screen. The **Next** button will not be enabled until the preverify phase has been completed successfully on all hosts. Click **Back** to navigate through previous screens to fix errors. You must resolve all errors before you can continue.

> **Note:** After you click **Next** to move to the **Installation** screen (the **install** phase), you can no longer go back to previous screens.

7. When there are no errors, click **Next** to initiate the install phase on Host A.

8. From the command line on the Host B and Host C terminal sessions, enter the syntax to run the install phase.

9. View the results on the **Installation** screen on Host A. When the phase has been completed successfully on all hosts, click **Next** on the Installation screen to initiate the next phase and display the next tracking screen. The phases are listed in Section 5.1.2.

10. Repeat this process for the remaining phases until all have been completed successfully.

> **Note:** A full backup of the provisioning and configuration state is performed automatically at the end of each successfully completed phase. The backup is saved in *APPLICATIONS_ BASE*/provisioning/restart/.

5.1.5 Performing a Manual Backup

You may want to perform a manual backup, for example, if the automated backup after a phase should fail.

Note: Run these commands for each phase, preverify through postconfigure, and for each host in the environment. Ensure that you verify the location of the `tar` and `pax` shell commands. The command paths detailed in this section indicate where the shell commands are normally located but they may change based on how you configure the hosts.

For Linux x86-64:

```
/bin/tar -C $APPLICATIONS_CONFIG/instance -cf APPLICATIONS_
BASE/provisioning/restart/backup_phase_name/instance.tar .
```

If local configuration is enabled, also run these commands for each host:

```
/bin/tar -C $LOCAL_CONFIG/domains -cf APPLICATIONS_BASE/provisioning/restart
/backup_local_phase_name/hostname/domains/localdomains.tar .

/bin/tar -C $LOCAL_CONFIG/applications -cf APPLICATIONS_BASE/provisioning/restart
/backup_local_phase_name/hosthame/applications/localapplications.tar .

/bin/tar -C $LOCAL_CONFIG/biinst -cf APPLICATIONS_BASE/provisioning/restart
/backup_local_phase_name/hostname/biinst/BIInstance.tar .
```

For Microsoft Windows x64 (64-Bit):

```
cd $APPLICATIONS_CONFIG/instance
$REPOSITORY\provisioning\util\zip.exe -r APPLICATIONS_BASE/provisioning/restart
\backup_phase_name\instance.zip .
```

If local configuration is enabled, also run these commands for each host:

```
cd $APPLICATIONS_CONFIG\domains\
$REPOSITORY\provisioning\util\zip.exe -r APPLICATIONS_BASE/provisioning/restart
\backup_local_phase_name\hostname\domains\localdomains.zip .

cd $APPLICATIONS_CONFIG/applications\
$REPOSITORY\provisioning\util\zip.exe -r APPLICATIONS_BASE/provisioning/restart
\backup_local_phase_name\hostname\applications\localapplications.zip .

cd $APPLICATIONS_CONFIG/biinst\
$REPOSITORY\provisioning\util\zip.exe -r APPLICATIONS_BASE/provisioning/restart
\backup_local_phase_name\hostname\biinst\BIInstance.zip .
```

For Oracle Solaris:

```
/bin/tar -cEf APPLICATIONS_BASE/provisioning/restart
/backup_phase_name/instance.tar -C $APPLICATIONS_CONFIG/instance .
```

If local configuration is enabled, also run these commands for each host:

```
/bin/tar -cEf APPLICATIONS_BASE/provisioning/restart
/backup_local_phase_name/hostname/domains/localdomains.tar -C $LOCAL_
CONFIG/domains .

/bin/tar -cEf APPLICATIONS_BASE/provisioning/restart
/backup_local_phase_name/hostname/applications/localapplications.tar -C $LOCAL_
CONFIG/applications .

/bin/tar -cEf APPLICATIONS_BASE/provisioning/restart
/backup_local_phase_name/hostname/biinst/BIInstance.tar -C $LOCAL_CONFIG/biinst .
```

For IBM AIX on POWER Systems (64-Bit):

```
cd $APPLICATIONS_CONFIG
/usr/bin/pax -wEf APPLICATIONS_BASE/provisioning/restart
/backup_phase_name/instance.pax -x pax $APPLICATIONS_CONFIG/instance .
```

If local configuration is enabled, also run these commands for each host:

```
/usr/bin/pax -wEf APPLICATIONS_BASE/provisioning/restart
/backup_local_phase_name/hostname/domains/localdomains.pax $LOCAL_CONFIG/domains .

/usr/bin/pax -wEf APPLICATIONS_BASE/provisioning/restart
/backup_local_phase_name/hostname/applications/localapplications.pax $LOCAL_
```

```
CONFIG/applications .

/usr/bin/pax -wEf APPLICATIONS_BASE/provisioning/restart
/backup_local_phase_name/hostname/biinst/BIInstance.pax $LOCAL_CONFIG/biinst .
```

5.2 Using the Command-Line Interface

The installation phases on the primary and secondary hosts are run from the command line, using specific arguments to further define the necessary actions.

5.2.1 Adding Arguments to Phase Commands

Table 5–1 shows valid arguments used when running installation phases.

Table 5–1   Command-Line Syntax for Phase Arguments

Syntax	Description
path_to_script	Directory path to the location of the build scripts. This directory was set up when you installed the provisioning framework, for example *framework_ location*/provisioning.
-responseFile	You must provide the location of a previously saved response file. Input is: *response_file_location*
-target	Indicates that the script should run a specific installation phase (target). Any *phase_name* is a valid argument, for example, -target perverify.
-ignoreSysPrereqs	Options: true|false
	Default: false. -ignoreSysPrereqs true is the same as -ignoreSysPrereqs with no value.
	Adding this argument disables validation for database, schema, and hosts, and enables you to progress to the **install** phase without having to fix failure issues. Checks continue to be performed, but failures are ignored.
	Can be used as an argument with both the provisioningWizard and the runprovisioning commands. If specified with runprovisioning -target install, the Oracle Universal Installer exceptions are ignored.
	If you specify this argument for the **preverify** phase, you must specify it for all the remaining phases (**install**, **preconfigure**, **configure**, **configure-secondary**, **postconfigure**, **startup**, and **validate**). If it is not specified for the remaining phases, a phase guard exception will be raised.
-invPtrLoc	Specifies the location of the Oracle Inventory directory, which is used by the installers to keep track of which Oracle products are installed on a host. See Section 2.4.2.
	For example, the runProvisioning command with this argument would be:
	(UNIX) *path_to_script*/runProvisioning.sh -invPtrLoc /home/oracle/oraInst.loc or (Windows) *path_to_ script*\runProvisioning.bat -invPtrLoc \home\oracle\oraInst.loc.

Note that the `-plan` argument in previous releases was replaced by the `-responseFile` argument.

5.2.2 Running the Installation Phases

Table 5–2 shows the command-line syntax for running the various installation phases. Ensure that provisioning on Microsoft Windows platforms is performed from a Run as Administrator console. By default, the command prompt has the necessary privilege set. If not, you can run the Run as Administrator option by right-clicking the Command Prompt from the Start menu.

> **Note:** In the command syntax, ensure that `path_to_script` is a local drive and not an UNC path.

Table 5–2   Installation Phase Syntax

Phase (Target)	Command Syntax
Preverify	(UNIX) *path_to_script*/runProvisioning.sh -responseFile *provisioning_response_file_location* -target preverify
	(Windows) *path_to_script*\runProvisioning.bat -responseFile *provisioning_response_file_location* -target preverify
Install	(UNIX) *path_to_script*/runProvisioning.sh -responseFile *provisioning_response_file_location* -target install
	(Windows) *path_to_script*\runProvisioning.bat -responseFile *provisioning_response_file_location* -target install
Preconfigure	(UNIX) *path_to_script*/runProvisioning.sh -responseFile *provisioning_response_file_location* -target preconfigure
	(Windows) *path_to_script*\runProvisioning.bat -responseFile *provisioning_response_file_location* -target preconfigure
Configure	(UNIX) *path_to_script*/runProvisioning.sh -responseFile *provisioning_response_file_location* -target configure
	(Windows) *path_to_script*\runProvisioning.bat -responseFile *provisioning_response_file_location* -target configure
Configure-secondary	(UNIX) *path_to_script*/runProvisioning.sh -responseFile *provisioning_response_file_location* -target configure-secondary
	(Windows) *path_to_script*\runProvisioning.bat -responseFile *provisioning_response_file_location* -target configure-secondary
Postconfigure	(UNIX) *path_to_script*/runProvisioning.sh -responseFile *provisioning_response_file_location* -target postconfigure
	(Windows) *path_to_script*\runProvisioning.bat -responseFile *provisioning_response_file_location* -target postconfigure
Startup	(UNIX) *path_to_script*/runProvisioning.sh -responseFile *provisioning_response_file_location* -target startup
	(Windows) *path_to_script*\runProvisioning.bat -responseFile *provisioning_response_file_location* -target startup
Validate	(UNIX) *path_to_script*/runProvisioning.sh -responseFile *provisioning_response_file_location* -target validate
	(Windows) *path_to_script*\runProvisioning.bat -responseFile *provisioning_response_file_location* -target validate

Table 5–2   (Cont.) Installation Phase Syntax

Phase (Target)	Command Syntax
Cleanup-*phase_name*	(UNIX) *path_to_script*/runProvisioning.sh -responseFile *provisioning_response_file_location* -target cleanup-*phase_name*
	(Windows) *path_to_script*\runProvisioning.bat -responseFile *provisioning_response_file_location* -target cleanup-*phase_name*
	Note: Substitute *phase_name* with the appropriate provisioning phase (install, preconfigure, configure, configure-secondary, or postconfigure) to perform a cleanup action.
Restore-*phase_name*	(UNIX) *path_to_script*/runProvisioning.sh -responseFile *provisioning_response_file_location* -target restore-*phase_name*
	(Windows) *path_to_script*\runProvisioning.bat -responseFile *provisioning_response_file_location* -target restore-*phase_name*
	Note: Substitute *phase_name* with the appropriate provisioning phase (install, preconfigure, configure, configure-secondary, or postconfigure) to perform a restore action.

5.3 Before You Begin

Before you begin the physical installation, ensure that you have completed:

- All setup details as described in Chapter 2

- All installation tasks associated with your transaction database as described in Chapter 3

- A response file with the required configuration details as described in Chapter 4

- (For Linux and Solaris platforms only)

  Copy the required GCC library for your hardware platform to the *repository_ location*/installer/webgate directory. Follow the instructions in "Installing Third-Party GCC Libraries (Linux and Solaris Operating Systems Only)" in the *Oracle Fusion Middleware Installation Guide for Oracle Identity Management 11g Release 1 (11.1.1)*.

  For SUSE Linux Enterprise Server 11 (Linux x86-64 SLES 11), you must ensure the following 32 bit libraries are available before provisioning a new environment. Otherwise, the user will encounter an error during installation:

  - glibc-devel-32bit-2.9-13.2

  - libgcc43-4.3.3_20081022

  - libstdc++43-4.3.3_20081022-11.18

  - gcc-32bit-4.3

  - libaio-32bit-0.3.104

  - libaio-devel-32bit-0.3.104

  - libstdc++43-32bit-4.3.3_20081022

  - libstdc++43-devel-32bit-4.3.3_20081022

In addition, you must be able to employ enough terminal sessions to enable you to move between running each phase on the primordial host (using the Provisioning Wizard) and running the phases on the primary and secondary hosts (using the command line).

5.4 Performing the Installation

To provision your environment, you start the Provisioning Wizard and page through the installation screens to initiate each phase and monitor the build processes. Note that Oracle Fusion Middleware Oracle homes and Oracle Fusion Applications Oracle home are read only and customers are not expected to update or install any components manually to these home directories. These home directories can be updated only by Oracle Fusion Applications lifecycle tools, such as Provisioning, RUP Installer, and Patch Manager.

> **Note:** If you ignored any warnings during the creation of the response file, you must fix all issues stated in the warnings before you can successfully provision an environment. You can make those changes in this installation interview. The wizard saves the changes to your original response file and proceeds with the new instructions. All validations must pass before you can run the **install** phase.

5.4.1 Start the Wizard and Prepare to Install

Ensure that you created the inventory pointer file (oraInst.loc) when you installed the provisioning framework. If you created the file in /etc, you can ignore the -invPtrLoc command line argument. If you created the file in another location, you must add the -invPtrLoc argument to the command line syntax and indicate the location of the inventory. See Section 2.4.2 and Section 5.2.

To start provisioning your new environment:

1. Open a terminal session and log in to the primordial host.

2. Open a terminal session and log in to each of the other hosts in your environment, including the DMZ host (if present).

3. Set the *JAVA_HOME* environment variable to point to the JDK location in the **provisioning repository**. For example:

(UNIX)

```
export JAVA_HOME=repository_location/jdk6
export PATH=$JAVA_HOME/bin:$PATH
```

(AIX)

```
export JAVA_HOME=repository_location/jdk6
export PATH=$JAVA_HOME/bin:$PATH
export SKIP_ROOTPRE=TRUE
export SKIP_SLIBCLEAN=TRUE
```

(Windows)

```
set JAVA_HOME=repository_location\jdk6
set PATH=%JAVA_HOME%\bin;%PATH%
```

> **Note:** Verify the system path (PATH) to ensure the reference to the directory "Program Files (x86)" is replaced with its corresponding short path name so that the required tools pick it up properly. If there are references to "Program Files (x86)" (due to the extra space), the Provisioning Configure phase will fail on Microsoft Windows 7 and Windows 2008 Server R2.

4. Verify that the LIBPATH value is null.

5. Run the following command on the primordial host:

   (UNIX)

   ```
   cd framework_location/provisioning/bin
   ```

   ```
   ./provisioningWizard.sh
   ```

   On Solaris, use `bash provisioningWizard.sh` instead of `./provisioningWizard.sh`.

   (Windows)

   ```
   cd framework_location\provisioning\bin
   ```

   ```
   provisioningWizard.bat
   ```

   > **Note:** Ensure that provisioning on Microsoft Windows platforms is performed from a Run as Administrator console. By default, the command prompt has the necessary privilege set. If not, you can run the Run as Administrator option by right-clicking the Command Prompt from the Start menu.

   > **Note:** For Microsoft Windows platforms, ensure that the Provisioning Wizard is started from the following location: *framework_location*\provisioning\bin. If the Provisioning Wizard is not run from this location, you will encounter errors for backup operations initiated during the provisioning process.

5.4.2 Installation Process Flow

Table 5–3 illustrates the steps required to provision a new environment on multiple hosts. Notice that after you run the first phase (preverify) on all hosts, the steps to run the remaining phases are the same. Move to each subsequent phase, in the assigned order.

> **Note:** In the table, UI denotes a step performed in the Provisioning Wizard, and CLI denotes a step performed on the command line.

For help with any of the Provisioning Wizard screens, see Appendix E or click **Help** on any Provisioning Wizard interview screen.

> **Note:** When you are running the Provisioning Wizard to provision an applications environment and any issue occurs during provisioning, the error and warning messages are displayed at the bottom of the screen.

> **Note:** Ensure that provisioning on Microsoft Windows platforms is performed from a Run as Administrator console. By default, the command prompt has the necessary privilege set. If not, you can run the Run as Administrator option by right-clicking the Command Prompt from the Start menu.

Table 5–3   Provisioning a New Applications Environment

Interface (UI or CLI)	Action Required
UI: Welcome Screen	No action is required on this read-only screen.
	Click **Next** to continue.
UI: Specify Central Inventory Location	This screen displays only if one or more of the following conditions are not met:
	■ The `-invPtrLoc` option is used to specify the central inventory location on non-Windows platforms, so the default value for your platform is not used. Note that the default for Linux and AIX platforms is `/etc/oraInst.loc` and for Solaris and HP, it is `/var/opt/oracle/oraInst.loc`.
	■ The Central Inventory Pointer File is readable.
	■ The Central Inventory Pointer File contains a value for `inventory_loc`.
	■ The `inventory_loc` directory is writable.
	■ The `inventory_loc` directory has at least 150K of space.
	■ `inventory_loc` is not a file.
	Specify the location of the **Central Inventory Directory** that meets the previous criteria. The `inventory_loc` directory can be created by the `createCentralInventory.sh` script and does not have to exist at the time you specify its location.
	For non-Windows platforms, in the **Operating System Group ID** field, select or enter the group whose members will be granted access to the inventory directory. All members of this group can install products on this host. Click **OK** to continue.
	The **Inventory Location Confirmation** dialog prompts you to run the `inventory_directory`/`createCentralInventory.sh` script as root, to confirm that all conditions are met and to create the default inventory location file, such as `/etc/oraInst.loc`. After this script runs successfully, return to the interview and click **OK** to proceed with the installation.
	If you do not have root access on this host but want to continue with the installation, select **Continue installation with local inventory** and click **OK** to proceed with the installation.
	For Windows platforms, this screen displays if the inventory directory does not meet requirements.
	For more information about inventory location files, see "Oracle Universal Installer Inventory" in the *Oracle Universal Installer and OPatch User's Guide*.
	Click **Next** to continue.
UI: Installation Options Screen	Presents the list of valid installation options that you can perform using the Provisioning Wizard. Select **Provision an Applications Environment**.
	Enter the path in the **Response File** field to the response file you want to use to provision the environment. Or click **Browse** to navigate to the response file location.
	Click **Next** to continue.

Table 5–3   (Cont.) Provisioning a New Applications Environment

Interface (UI or CLI)	Action Required
UI: Response File Description Screen	This is the information you entered when you initially created the response file. It is not associated in any way with the executable plan file, or the summary file, that you saved when you finished creating this response file. You can change the response file name, version, and description before you run provisioning, if you like. ■ **Response File Name**: Specify a name to identify this response file. ■ **Response File Version**: Assign a version to this response file. Version numbers are intended only for documentation purposes. ■ **Created By**: Defaults to the operating system user who invoked the wizard. Set when the response file is initially created and cannot be modified for the current response file. ■ **Created Date**: Defaults to the date that the response file was initially created and saved. Set when the response file was initially created and cannot be modified for the current response file. ■ **Response File Description**: Provide a description of this response file. Click **Next** to continue.
UI: Installation Location Screen	Displays the credentials for the Node Manager and the directory locations you entered in the response file. If these values have changed, make corrections on this screen. See Section 5.4.3 for details. Click **Next** to continue.
UI: Review Provisioning Configuration Screen	Lists the wizard interview screens where you originally specified domain-specific parameters for this response file. You can make changes to this information if necessary. **Note**: If you ignored any warnings during the creation of this response file, you must fix all issues stated in the warnings before you can successfully provision an environment. Select any of the screens displayed here to make changes for a product domains with warnings. All validations must pass before you can run the **install** phase. You cannot add or delete product offerings to this response file. To change product offerings, you must create a new response file. Select one or more options from the list. When you click **Next**, the screens you select are added to the flow. Note that if you return to this screen after running the preverification checks, those verification checks are invalidated. You must run the preverify phase again. Click **Next** to continue.
UI: Summary Screen	Review the information displayed to ensure that the installation details are what you intend. To make changes, click **Back** to return to previous screens in the interview. Click **Next** to initiate the **preverify** phase on the primordial host. The wizard displays the **Prerequisite Checks** screen. It also creates a current copy of this response file and saves it in the directory indicated in the message pane. Click **Next** to continue.

Table 5–3   (Cont.) Provisioning a New Applications Environment

Interface (UI or CLI)	Action Required
UI: Prerequisite Checks Screen	The **preverify** phase performs prerequisite checks for Oracle Fusion Applications provisioning on the primordial host. The host is marked with a **Home** symbol in the **Host** column. The **Domains** column lists the domains that are being deployed.
	After you initiate this phase on the primary and secondary hosts (from the command line), the build processes for those hosts are also shown. The **Status** column indicates the progress of each phase for each host:
	■ **Block**: Processing has not yet started on this host for the named phase.
	■ **Clock**: Performing the build for a phase.
	■ **Check mark**: The build was completed successfully.
	■ **x mark**: The build has failed for this phase. You must correct the errors before you can continue.
	■ **Restricted** symbol: The validation process has stopped due to a failure within another process.
	Click an **x** or a **Restricted** symbol to display messages about failures. Click the host-level **Log** file for details about this phase. Click a build **Log** file to see details specific to that build.
	You can make changes to the interview screens and rerun the **preverify** phase as many times as it is necessary. Note that when you make changes to the response file and rerun **preverify**, Oracle Fusion Applications Provisioning requires that the application configuration directory be empty.
	Click **Retry** to rerun this phase if errors are reported. You must fix all errors before you continue. See Section 5.5.3 for details.
CLI and UI: Run the preverify phase on primary and secondary hosts from the command line and monitor progress in the UI.	In the terminal session for the primary and secondary host, run the **preverify** phase with this command:
	(UNIX) *path_to_script*/runProvisioning.sh -responseFile *provisioning_response_file_location* -target preverify
	(Windows) *path_to_script*\runProvisioning.bat -responseFile *provisioning_response_file_location* -target preverify
	Note: The same provisioning phase(s) can be run in parallel on all hosts simultaneously, except for the Install phase, if the provisioning process has been started on the primordial host first.
	However, each new provisioning phase must be run in the specific order listed in section Section 5.1.2, "Installation Phases"; that is, you cannot start a new phase until the previous one has been completed successfully on all the hosts in your environment.
	Monitor the progress of the preverify phase using the **Prerequisite Checks** screen on the primordial host. Click **Retry** to rerun this phase if errors are reported. See Section 5.5.3 for details.
	When this phase is complete with no errors on all hosts, click **Next**. The wizard starts the install phase on the primordial host and displays the Installation screen.
	When the preverify phase is successful on the primordial host, place a copy of the response file and the generated provisioning plan (<APPLICATIONS_BASE>/provisioning/plan/provisioning.plan) on the DMZ host.
	Note: After you click **Next**, you can no longer modify the response file.
UI: Installation Screen	Displays the progress of the **install** phase on the primordial host. Build messages and **Log** icons track the progress for all phases in the same manner as described for the preverify phase.
CLI and UI: Run the install phase on the primary, secondary, and DMZ (if present) hosts and monitor the progress in the UI.	In the terminal session, run the **install** phase on the primary, secondary, and the DMZ host (if present) with this command:
	(UNIX) *path_to_script*/runProvisioning.sh -responseFile *provisioning_response_file_location* -target install
	(Windows) *path_to_script*\runProvisioning.bat -responseFile *provisioning_response_file_location* -target install
	Monitor the progress on the Installation screen on the primordial host.

Table 5–3   (Cont.) Provisioning a New Applications Environment

Interface (UI or CLI)	Action Required
CLI and UI: Copy the webtier_dmz_ artifacts.zip file to the DMZ host (if present).	After the **install** phase response files complete, copy the webtier_dmz_artifacts.zip file from *APPLICATIONS_BASE/* directory on the non-DMZ host to *APPLICATIONS_ BASE/* directory on the DMZ host (if present).
	Click **Next** to initiate the **preconfigure** phase on the primordial host. The wizard displays the **Preconfigure** screen.
UI: Preconfigure Screen	Displays the progress of the **preconfigure** phase on the primordial host.
CLI and UI: Run the preconfigure phase on the primary, secondary, and DMZ (if present) hosts and monitor the progress in the UI.	In the terminal session, run the **preconfigure** phase on the primary, secondary, and the DMZ host (if present) with this command:
	(UNIX) *path_to_script*/runProvisioning.sh -responseFile *provisioning_response_file_location* -target preconfigure
	(Windows) *path_to_script*\runProvisioning.bat -responseFile *provisioning_response_file_location* -target preconfigure
	Monitor the progress on the **Preconfiguration** screen on the primordial host.
UI and CLI: Initiate the remaining phases (in order) on the primordial, primary, secondary, and DMZ (if present) hosts.	After the **preconfigure** phase reports a successful completion on each host in your environment, return to the primordial host and click **Next** to initiate the next phase. As each new phase is started on the primordial host, on the command line, enter the command to run that phase on the primary, secondary, and DMZ host (if present) on the command line. See Table 5–2 for a list of all the phases, and the command-line syntax.
	The associated screens, in phase order, are as follows:
	■ **Configure** (**configure** phase)
	■ **Configure Primary/Secondary** (**configure-secondary** phase)
	■ **Postconfigure** (**postconfigure** phase)
	■ **Startup** (**startup** phase)
	After the phases are complete with no errors, click **Next** on the **Startup** screen to initiate the **validate** phase and then start this phase on the other hosts.
UI: Validation	When the validate phase is complete with no errors on all hosts, click **Next**.
UI: Installation Complete	This screen displays the configuration of the new environment.
	Click **Finish**. The wizard automatically saves a summary file that describes this installation. The file is saved to the response file directory as follows:
	framework_ location/provisioning/provisioning-responseFile/*provisioning_ response_file_name-timedate*.summary.

Note that if you are provisioning a new environment on a single host, you can ignore the steps that run from the command line. Each phase starts automatically on the primordial host when you click **Next**.

5.4.3 Installation Location Details

The wizard displays the Node Manager credentials and the locations of the various directories you entered when you created this response file. You can change these values, if necessary.

Node Manager Credentials

■ **User Name**: Specify a user name for the Node Manager role.

■ **Password**: Specify a password for the Node Manager and retype it in the **Confirm Password** field.

Provide locations of various directories that the administrator needs access to.

Installation and Configuration

■ **Installers Directory Location**: Enter the path to the *repository_location* directory you created when you downloaded the provisioning repository. For

Windows, the location must be a symbolically linked directory. See Section 2.2.10 for additional details. Note that a symbolic link is not necessary if the repository and the database are on the same node.

- **Applications Base**: Enter the directory path to the Oracle home that you specified when you installed the provisioning framework. This is the Fusion Applications Oracle home. It is the `root` directory for all Oracle Fusion Applications and Oracle Fusion Middleware products.

  The applications base directory must not be set to the system root directory or set to the root directory of a logical drive. Some lifecycle management tools compute directory names by backing up one directory level from the applications base directory and then appending the appropriate subdirectory name. These tools will fail if the applications base directory is set to the system root directory or set to the root directory of a logical drive because it is not possible to back up one directory level from the system root directory or from the root directory of a logical drive.

  In a Unix environment, this name cannot exceed 59 characters.

  In a Windows environment, this name cannot exceed eight characters, and must be a symbolically linked directory. See Section 2.2.10 for additional details.

- **Applications Configuration**: This directory is automatically populated based on the value you specify in the **Applications Base** field. It is the path to the directory where the configuration files for the domain will be written. For Windows, the location must be a symbolically linked directory. See Section 2.2.10 for additional details.

- **Enable Local Applications Configuration**: Select this check box to run the Managed Servers from a non-networked (local) disk on the host, visible only to the processes running on that host. If you enable this option, the wizard copies the domain configuration from the shared location and places it on the local disk you specify. This configures all Managed Servers to run from the non-networked location.

- **Local Applications Configuration**: Specify the location for the local domain directory you want to set up. This field is required if you selected **Enable Local Applications Configuration**. The specified directory must initially be empty.

Middleware Dependencies

- **Font Directory**: Appears only if you have selected Oracle Sales, Oracle Marketing, or Oracle Financials offerings. Enter the directory where the TrueType fonts are installed. The location varies on different operating systems, but is typically found here:

  - **Microsoft Windows x64 (64-Bit)**: `C:\WINDOWS\Fonts`

  - **Linux x86-64**: `/usr/X11R6/lib/X11/fonts/TTF`

  - **Oracle Solaris**: `/usr/X11R6/lib/X11/fonts/TrueType`

  - **IBM AIX on POWER Systems (64-Bit)**: `/usr/X11R6/lib/X11/fonts/TrueType`

  Some systems may not have TrueType fonts installed. If you cannot locate the fonts on your system, verify that they have been installed. In addition, you can use the fonts directory shipped as part of the JRE installed in the repository. Regardless of which path you specify, you must have access to .ttf (.TTF) files.

Oracle Business Intelligence Repository Password

RPD Password: Specify and **Confirm** a password to allow access to the metadata repository (RPD) for both Oracle Business Intelligence Applications and Oracle Transactional Business Intelligence. The password must be between 8 and 30 characters and contain at least one digit. It can include letters, numbers, pound sign (#), dollar sign ($), or underscore (_). If you want to include two consecutive dollar signs ($$) in the RPD password, enter one additional dollar sign ($) as the escape character before the second dollar sign in the password. This means you need to enter three dollar signs ($$$) for this field in the Provisioning Wizard to indicate two consecutive dollar signs. Provisioning sets up this password, but does *not* actually access the repository.

If the environment created is Windows-based, the wizard prompts for these values:

- *Windows Domain\Windows User Name*: Specify a user name to use for running provisioning.

- *Windows Domain* **Password**: Specify a password for running provisioning. Retype the password to **Confirm** it.

5.5 Troubleshooting the Provisioning Process

There are various resources available to help with errors that occur during the provisioning of a new Oracle Fusion Applications environment.

5.5.1 General Troubleshooting Tips

If you encounter an error during the creation of applications schemas and tablespaces:

- Oracle Fusion Applications release notes may contain additional information about the latest updates.

- This release of Oracle Fusion Applications relies on certified versions of supported platforms documentation for Oracle Fusion Applications for details about hardware and software, minimum disk space and memory requirements, required system libraries, packages, or patches, and minimum database requirements.

- If you entered incorrect information on one of the installation screens, return to that screen by clicking **Back** until you see the screen.

- When you provision an environment, provisioning writes debug information to the debug directory (APPLICATIONS_BASE/provisioning/debug).

  - Do not delete any files from this directory.

  - You can troubleshoot errors using the files in this directory.

5.5.2 Provisioning Log Files

Log files contain information about both normal and problematic events. They can help you diagnose and address some problems yourself. For example, log messages that state that a service cannot be reached might indicate a hardware failure.

If you discover a more complex issue, My Oracle Support personnel may use log files to trace the execution code paths of relevant requests as part of diagnosing the problem. Log files are particularly helpful if your Oracle Fusion Applications environment contains custom code that needs debugging, especially when using a debugger is not feasible (such as on a production system).

During each provisioning phase, the Provisioning Wizard writes the actions of the build processes to a log file created for each domain. Click the **Log** file icon to see

details and error messages. In the log file, you can search for a specific text string, or move forward and backward through the content. The wrap feature enables text to be easily printed, or even forwarded by email.

Provisioning writes log files to the following location:

(UNIX)

APPLICATIONS_BASE/logs/provisioning/*host_name*

(Windows)

APPLICATIONS_BASE\logs\provisioning*host_name*

This shared location is accessible from all hosts, and contains the following log files:

- runProvisioning-default-main.log: The main log file.

- runProvisioning-*phase_name*.log: The main log file for a given phase, containing the output and error streams. These logs are used by the wizard to keep track of internal information. For example, for runProvisioning-preverify.log, each provisioning thread then writes its own log to runProvisioning-*product_family-phase_name*.log.

- runProvisioning-*product_family-phase_name*.log: Displayed in the Provisioning Wizard as a **Log** icon for preconfigure, configure, configure-secondary, postconfigure, and startup phases. The files contain detailed information about the phase. For example, runProvisioning-fin-preverify.log contains information about the preverify actions taken while creating the Oracle Fusion Financials domain.

> **Note:** Because all reference roles must be provided in each product log file, you should expect to see duplicate reference role entries.

Provisioning also relies on the Oracle Universal Installer (OUI), which writes log files as follows:

(UNIX)

Oracle_Inventory_Location/logs

(Windows)

C:\Program Files\Oracle\Inventory\logs.

If you do not know the location of the Oracle Inventory directory, you can find it at /etc/oraInst.loc (UNIX) or (Windows) C:\Program Files\Oracle\Inventory\logs. For Windows, if the Oracle folder is not present in the program files, the inventory log files are generated under the Oracle Home for the database that is started.

Note that *APPLICATIONS_BASE* is the root directory under which the provisioned environment resides. Except for the web tier host, this physical location must be on a shared drive.

In addition to log file locations discussed in this section, note these log file locations associated only with the preconfigure, configure, configure-secondary, postconfigure, and startup phases:

- Oracle WebLogic Server:

  (UNIX) *app.config.dir*/domains/*host_name/domain_name*/servers/*server_name*/logs

(Windows) *app.config.dir*\domains*host_name**domain_name*\servers*server_name*\logs

■ Oracle WebLogic Server Node Manager:

(UNIX) *APPLICATIONS_BASE*/fusionapps/wlserver_
10.3/common/nodemanager/*host_name*/

(UNIX) *APPLICATIONS_BASE*\fusionapps\wlserver_
10.3\common\nodemanager*host_name*\

5.5.2.1 Modifying the default log level

The default log level for provisioning is TRACE:1 and NOTIFICATION:1 for messages written to provisioning log files and console, respectively. The definition of loggers controlling the log level for provisioning log files and console are described as:

```
<logger name="runProvisioning-default-main" level="TRACE:1">

  <handler name="default-main"></handler>

 </logger>


 <logger name="runProvisioning-console" level="NOTIFICATION:1">

  <handler name="prov-cons-handler"></handler></logger>

</loggers>
```

To change the log level, modify the corresponding logger definition in the *framework_location*/provisioning/bin/prov-logging-config.xml file.

For more information about log level attributes, see "Setting the Level of Information Written to Log Files" in the *Oracle Fusion Middleware Administrator's Guide*.

5.5.2.2 Default Log Level for Managed Servers

The default log level for standard out, that is, output to the command line console, for managed servers is set to NOTIFICATION to provide additional information when investigating issues, particularly around start up for managed servers.

5.5.3 Recovery After Failure

The wizard performs automated cleanup and recovery actions. If those processes cannot clean up and restore your session, you can perform the actions manually.

See "Starting and Stopping Components in the Oracle Fusion Applications Environment" in *Oracle Fusion Applications Administrator's Guide* for complete instructions for stopping and starting components.

5.5.3.1 Automated Cleanup and Recovery

Recovery is intended to be systemwide. If a failure occurs on one server, cleanup and recovery steps must be performed on all servers, including the hosts on which the phase completed successfully. During the installation, errors may occur during the running of any of the installation phases. If you must use the abort feature, you may need to perform some cleanup tasks as well.

A **Retry** button is available on each provisioning phase interview screen to initiate cleanup on the primordial host for that phase, or on a non-primordial host if that is where you started provisioning. Initiating the retry operation affects the full phase, beginning with the primordial host or the host from which you started provisioning.

The Retry UI explicitly tells you on which hosts you should execute cleanup, and specifies the command to use to run cleanup. A message displays that tells you which host the cleanup target is being run on. If additional cleanup is required on other hosts, those host names are specified after the cleanup target completes. The wizard indicates what cleanup tasks are required, enables the **Continue** button, and waits for you to click **Continue** after you complete the additional cleanup. Clicking the **Continue** button initiates a process to confirm whether the cleanup is complete. If no additional cleanup is required, the **Continue** button remains disabled, and the wizard starts executing the restore action.

When the restore completes on the current host, a message again displays that tells you which hosts you must execute restore, along with the command to run. The **OK** button is enabled when the restore is done on the current host. When you click **OK**, a process checks again to confirm whether the restore is complete and an error message displays if the restore is not complete. When the restore is done, the phase restarts on the current host if needed. If the phase does not need to run, the retry window closes and the information from the previous run of the phase displays. In the hosts table at the top of the screen, all hosts that were either in a failed or aborted state before you started the retry, will be reset when the retry window closes. Then you must restart the phase from the command line for all hosts with a reset status.

The wizard detects hosts that require cleanup and displays a message informing you of the host names. You must perform the cleanup action from the command line on these hosts before you can initiate any restore action. Command-line syntax for the cleanup action takes the following form:

(UNIX) *path_to_script*/runProvisioning.sh -responseFile *provisioning_response_file_location* -target cleanup-*phase_name*

(Windows) *path_to_script*\runProvisioning.bat -responseFile *provisioning_response_file_location* -target cleanup-*phase_name*

The command-line syntax for the restore action takes the following form:

(UNIX) *path_to_script*/runProvisioning.sh -responseFile *provisioning_response_file_location* -target restore-*phase_name*

(Windows) *path_to_script*\runProvisioning.bat -responseFile *provisioning_response_file_location* -target restore-*phase_name*

These actions are available for the preverify, install, preconfigure, configure-secondary, postconfigure, startup, and validate phases. They are also available for shutdown and deinstall actions.

5.5.3.2 Running Cleanup and Restore

When a failure occurs during one of the provisioning phases, you must fix the cause of the error and then retry the provisioning phase on the hosts that previously failed using the Provisioning Wizard and the provisioning command-line interface if the failed hosts are primary or secondary hosts.

To retry a provisioning phase, you initiate it starting with the primordial host by clicking the **Retry** button on the Provisioning Wizard. The wizard starts the cleanup phase on the primordial host.

- When prompted, you must execute a cleanup phase from the command line on each of the other provisioning hosts. You can do so simultaneously on all hosts.

- After the cleanup phase completes successfully on all hosts, continue with the restore phase followed by a retry of the provisioning phase. You must start the restore phase first from the primordial host through the Provisioning Wizard, and

run the restore phase from the command line on the other hosts from the terminal session. You can do so simultaneously on all hosts.

■ After the restore phase is successful on all hosts, you can rerun the failed provisioning phase.

When a failure occurs during one of the provisioning phases, do the following:

1. Click **Retry** to run the cleanup action on the primordial host (Common domain host).

2. If your environment contains additional hosts, the wizard displays a message giving you the names of the other hosts.

3. Run the cleanup action from the command line on the other hosts in the terminal session. This can be done in parallel.

   (UNIX) *path_to_script*/runProvisioning.sh -responseFile *provisioning_response_file_location* -target cleanup-*phase_name*

   (Windows) *path_to_script*\runProvisioning.bat -responseFile *provisioning_response_file_location* -target cleanup-*phase_name*

4. Click **Continue**. If all cleanup steps are completed on *all* hosts where required, the wizard starts the restore action on the primordial host or prompts you to complete steps that have not been completed. Click **Continue** again when finished to start the restore action on the primordial host.

5. If your environment contains other hosts, the wizard displays a message giving you the names of the other hosts.

   > **Note:** On Windows, do not open files in the top-level provisioning directory or any of its descendent directories before you run the restore action.

6. Run the restore action from the command line on the other hosts from the terminal session for each host. This action can run in parallel.

   (UNIX) *path_to_script*/runProvisioning.sh -responseFile *provisioning_response_file_location* -target restore-*phase_name*

   (Windows) *path_to_script*\runProvisioning.bat -responseFile *provisioning_response_file_location* -target restore-*phase_name*

7. Click **OK** on the primordial host to start the next phase. The wizard displays the same messages as described in Step 4 if all additional hosts have not been restored.

5.5.3.3 Handling Cleanup Failures

The automated cleanup and restore actions cannot handle every type of failure. Sometimes manual steps are needed. This is true, for example, when the configure phase fails and any of the following situations exists:

■ Node Manager is not yet configured

■ Node Manager is configured with an invalid trust key

■ Administration Server is not yet registered with the Node Manager

■ Administration Server is not running

Under any of these circumstances, the Node Manager will not be able to shut down the Administration Server and the Managed Servers during cleanup-*phase_name*.

You must manually shut down all servers before you continue with the
restore-*phase_name*.

1. Shut down web tier processes, if any, with this command: (UNIX) `WT_`
   `CONFIG`/bin/opmnctl shutdown. To remove the Windows Service, run `C:\sc`
   `delete OracleProcessManager_CommonDomain_webtier`.

   Note: Applies to `cleanup-configure`, `cleanup-configure-secondary`,
   and `cleanup-postconfigure`.

2. Shut down BI processes, if any, by running (UNIX) `BI_CONFIG_`
   `HOME`/bin/opmnctl shutdown. To remove the Windows Service, run `C:\sc`
   `delete OracleProcessManager_BIInstance`. See "Using the OPMN
   Command Line to Start, Stop, Restart, and View the Status of System
   Components" in *Oracle Fusion Middleware System Administrator's Guide for Oracle
   Business Intelligence Enterprise Edition* for more information.

   Note: This applies to `cleanup-configure`, `cleanup-configure-secondary`,
   and `cleanup-postconfigure`.

3. Shut down Global Order Promising (GOP) (if provisioned) with this command:
   (UNIX) `gop_instance_base`/bin/opmnctl shutdown. To remove Windows
   service, run: (Windows) `sc delete GlobalOrderPromisingServer1`.

   Note: This applies to `cleanup-postconfigure`.

4. Shut down Informatica Identity Resolution (IIR) processes, if any, by running these
   two scripts *in the order listed*:

   a. `APPLICATIONS_BASE`/informaticaIR/bin/idsdown

   b. `APPLICATIONS_BASE`/informaticaIR/bin/lidown

   Note: This applies to `cleanup-postconfigure`, if IIR is provisioned.

5. Shut down Java EE processes using the method recommended for the Oracle
   WebLogic Server. See "Starting and Stopping Java EE Applications Using WLST"
   in *Oracle Fusion Applications Administrator's Guide* for details.

   Note: This applies to `cleanup-configure`, `cleanup-configure-secondary`,
   and `cleanup-postconfigure`.

6. You do not have to shut down the Node Manager unless it was not configured
   properly.

Errors during cleanup of a target produce messages that inform you of the error and
display the contents of the associated log file. If you scroll through a message, you can
view additional messages, including the manual steps that you should take to fix the
problem.

Note that failures during `cleanup-install` require specific cleanup tasks as follows:

1. Run the Oracle Universal Installer deinstall process for each component against
   the same `oraInventory` that provisioning uses. See the *Oracle Universal Installer
   and OPatch User's Guide* for information.

2. Delete the install phase guards. You can find them under `APPLICATIONS_`
   `CONFIG`/provisioning/phaseguards/.

3. (Windows) Delete the following key from the Windows registry before re-running
   provisioning:

   `HKEY_LOCAL_`
   `MACHINE/SOFTWARE\Wow6432Node\oblix\oblixNetPoint\10.1.4\`
   `WebGate\`*install_directory*

If this step is not completed, WebGate will not be installed properly and will generate the following error during the configure-secondary phase:

```
webgate-build.xml:928: The directory
appbase\webgate\access\oblix\apps\common\bin does not exist.
```

5.5.3.4 Handling Remnant Processes

Provisioning cannot reliably stop all grandchild processes associated with failures during the running of a phase. Occasionally, remnant processes are present after a failure. Oracle recommends that you manually check and stop all remnant processes that start from the *APPLICATIONS_BASE* and the *framework_location*/provisioning folder, except for Node Manager and the Provisioning Wizard.

Take this action after you complete the cleanup action for any phase, and before you run a restore action for that phase. Without this additional cleanup action, you may experience unwanted interference with the restore action and subsequent rerun logic. This is especially true for long-running child processes such as LDAP policy migration.

You can identify remnant processes in the *APPLICATIONS_BASE* as follows:

(Linux) `ps -ef | grep APPLICATIONS_BASE/folder_name`

(Windows) `wmic process get Processid,Commandline,Description | find APPLICATIONS_BASE/folder_name`

You can identify remnant processes in the *framework_location*/provisioning folder as follows:

(Linux) `ps -ef | grep framework_location/provisioning/folder_name`

(Windows) `wmic process get Processid,Commandline,Description | find framework_location/provisioning/folder_name`

Remember, do *not* stop the Node Manager and UI processes.

5.5.3.5 Handling Restore Failures

If the automated restore operation fails, you must complete these manual steps for all phases, except as noted:

1. Delete the restart phase guard (*phase_name*.grd) file associated with the failure. It is located under *APPLICATIONS_BASE*/provisioning/restart/.

2. You must restore the `instance/` directory from the backup, located as follows:

   (UNIX) *APPLICATIONS_BASE*/provisioning/restart/backup_*phase_name*/instance.tar

   (Windows) *APPLICATIONS_BASE* \provisioning\restart\backup_*phase_name*\instance.zip

   (IBM AIX on POWER Systems (64-Bit) *APPLICATIONS_BASE*/provisioning/restart/backup_*phase_name*/instance.pax

   Follow these steps to restore the `instance/` directory:

   (UNIX)

   `rm -rf CONFIG_HOME`

   `mkdir CONFIG_HOME`

   `tar -xfv path_to_instance.tar/instance.tar -C CONFIG_HOME`

(Windows)

```
rm -rf CONFIG_HOME
```

```
mkdir CONFIG_HOME
```

```
cd CONFIG_HOME
```

```
framework_location\provisioning\util\unzip.exe path_to_
instance.zip\instance.zip -d .
```

(IBM AIX on POWER Systems 64-Bit)

```
rm -rf CONFIG_HOME
```

```
mkdir CONFIG_HOME
```

```
cd $CONFIG_HOME
```

```
pax -rEf path_to_instance.pax/instance.pax -x pax -p e
```

3. When a local application configuration has been enabled, you must manually restore the `localdomains` and `localapplications` configuration directories on every `local_application_config_host`:

(UNIX) `APPLICATIONS_BASE`/provisioning/restart/backup_`phase_name/local_application_config_host`/localdomains.tar and...

(UNIX) `APPLICATIONS_BASE`/provisioning/restart/backup_`phase_name/local_application_config_host`/localapplications.tar

(Windows) `APPLICATIONS_BASE`\provisioning\restart\backup_`phase_name\local_application_config_host`\localdomains.zip and...

(Windows) `APPLICATIONS_BASE`\provisioning\restart/backup_`phase_name\local_application_config_host`\localapplications.zip

(IBM AIX on POWER Systems 64-Bit) `APPLICATIONS_BASE`/provisioning/restart/backup_`phase_name/local_application_config_host`/localdomains.pax and...

(IBM AIX on POWER Systems 64-Bit) `APPLICATIONS_BASE`/provisioning/restart/backup_`phase_name/local_application_config_host`/localapplications.pax

In addition, restore the following file related to Oracle Business Intelligence:

(UNIX) `APPLICATIONS_BASE`/provisioning/restart/backup_`phase_name/local application_config_host`/biinst/BIInstance.tar

(Windows) `APPLICATIONS_BASE`\provisioning\restart\backup_`phase_name\local application_config_host`\biinst\BIInstance.zip

(IBM AIX on POWER Systems 64-Bit) `APPLICATIONS_BASE`/provisioning/restart/backup_`phase_name/local application_config_host`/biinst/BIInstance.pax

4. For `restore-configure-secondary` and `restore-postconfigure` only, start the CommonDomain Administration Server. See "Starting an Administration Server Using WLST and Node Manager" in Table 4-1 of *Oracle Fusion Applications Administrator's Guide* for complete instructions for stopping and starting components.

5. For `restore-postconfigure` only, start Oracle HTTP Server by running `WT_CONFIG_HOME`/bin/opmnctl startall. Oracle HTTP Server must be started from the host where it is installed. It cannot be started from any other host.

6. For `restore-configure` and `restore-postconfigure`, check the restore logs to see if the BI schema restore operation is complete. Perform the restore operation for the database contents first.

7. To restore the BI schema from backup, perform the following actions:

   a. Drop all tables in `FUSION_BIPLATFORM`, if you have not done so already. Drop only the tables — not the schema user.

   b. Run the following stored procedure as the `FUSION_BIPLATFORM` user. For `restore-configure`, use biplatform-preconfigure.dmp as the *v_dump_file_name*. For `restore-postconfigure`, use biplatform-configure-sec.dmp:

```
DECLARE
v_schema_name VARCHAR2(30) := 'FUSION_BIPLATFORM';
v_directory VARCHAR2(30) := 'FUSIONAPPS_PROV_RECOVERY_DIR';
v_dump_file_name VARCHAR2(30) := <biplatform-preconfigure.dmp or
biplatform-configure-sec.dmp>;
v_unique_job_name VARCHAR2(50) := <unique identifying job name e.g. Manual
BI
Schema Restore>;
v_temp_schema_name VARCHAR2(40) := 'IN (''' || v_schema_name || ''')';
v_handle NUMBER;
v_job_state VARCHAR2(30);
BEGIN
v_handle :=
DBMS_DATAPUMP.open('IMPORT','TABLE',NULL,v_unique_job_name,'COMPATIBLE');
DBMS_DATAPUMP.add_file(v_handle,v_dump_file_name,v_directory);
DBMS_DATAPUMP.metadata_filter(v_handle,'SCHEMA_EXPR',v_temp_schema_name);
DBMS_DATAPUMP.start_job(v_handle);
DBMS_DATAPUMP.wait_for_job(v_handle,v_job_state);
DBMS_DATAPUMP.detach(v_handle);
END;
```

5.5.4 Troubleshooting Preverify Phase Errors

You may encounter some errors during the preverify phase. This section details troubleshooting information for the preverify phase errors.

5.5.4.1 Preverify Phase Prerequisite Condition Failed on Red Hat Enterprise 6

The following error message is displayed during the preverify phase if you install Oracle Fusion Applications on the Red Hat Enterprise 6 platform:

```
[2013-03-22T12:13:01.241+05:30] [runProvisioning-preverify]
[NOTIFICATION] [] [runProvisioning-preverify] [tid: 10]
[ecid:0000JqGpNU12JRbptGc9yX1HIzpD000000,0]
[validateInstallersPrerequisite] Check Name:CertifiedVersions

[2013-03-22T12:13:01.243+05:30] [runProvisioning-preverify]
[NOTIFICATION] [] [runProvisioning-preverify] [tid: 10]
[ecid:0000JqGpNU12JRbptGc9yX1HIzpD000000,0]
[validateInstallersPrerequisite] Check Description:This is a
prerequisite condition to test whether the Oracle software is
certified on the current O/S or not.

[2013-03-22T12:13:03.175+05:30] [runProvisioning-preverify]
[NOTIFICATION] [] [runProvisioning-preverify] [tid: 10]
[ecid:0000JqGpNU12JRbptGc9yX1HIzpD000000,0]
```

```
[validateInstallersPrerequisite] Expected result: One of
oracle-6,oracle-5.6,enterprise-5.4,enterprise-4,enterprise-5,red
hat-5.4,redhat-4,redhat-5,SuSE-10,SuSE-11

[2013-03-22T12:13:03.178+05:30] [runProvisioning-preverify]
[NOTIFICATION] [] [runProvisioning-preverify] [tid: 10]
[ecid:0000JqGpNU12JRbptGc9yX1HIzpD000000,0]
[validateInstallersPrerequisite] Actual Result: redhat-Red

[2013-03-22T12:13:03.180+05:30] [runProvisioning-preverify]
[NOTIFICATION] [] [runProvisioning-preverify] [tid: 10]
[ecid:0000JqGpNU12JRbptGc9yX1HIzpD000000,0]
[validateInstallersPrerequisite] Check complete. The overall
result of this check is: Failed <<<<

[2013-03-22T12:13:16.718+05:30] [runProvisioning-preverify]
[NOTIFICATION] [] [runProvisioning-preverify] [tid: 10]
[ecid:0000JqGpNU12JRbptGc9yX1HIzpD000000,0] [logStatus]
STATE=BUILD_ERROR!TIMESTAMP=2013-03-22 12:13:16
IST!TARGET=private-preverify-installers-prerequisite!CATEGORY=BU
ILD_
ERROR!DOMAIN=NONE!HOSTNAME=in-mum-orafus02.corp.capgemini.com!PR
ODUCTFAMILY=orchestration!PRODUCT=orchestration!TASK=validateIns
tallersPrerequisite!TASKID=orchestration.orchestration.BUILD_
ERROR.private-preverify-installers-prerequisite.validateInstalle
rsPrerequisite!MESSAGE=The OUI installer prerequisite check
failed:: Product : webtier Product : wc Product : soa Product :
ecm_bucket2 Product: atgpf Product : odi Product : fusionapps
Product : gop !DETAIL=The OUI installer prerequisite check
failed :: Product : webtier|Product : wc|Product: soa|Product :
ecm_bucket2|Product : atgpf|Product : odi|Product :
fusionapps|Product :
gop|!BUILDFILE=/u04/prov/provisioning/provisioning-build/common-
preverify-build.xml!LINENUMBER=1354!

[2013-03-22T12:13:16.793+05:30] [runProvisioning-preverify]
[ERROR] [FAPROV-01045] [runProvisioning-preverify] [tid: 10]
[ecid:0000JqGpNU12JRbptGc9yX1HIzpD000000,0] *** Validation
Error! ***[[]]

[2013-03-22T12:13:16.797+05:30] [runProvisioning-preverify]
[ERROR] [] [runProvisioning-preverify] [tid: 10]
[ecid:0000JqGpNU12JRbptGc9yX1HIzpD000000,0] The OUI installer
prerequisite check failed :: Product : webtier[[Product : wc

Product : soa

Product : ecm_bucket2

Product : atgpf

Product : odi

Product : fusionapps

Product : gop

]]
```

This is caused by an error in the Operating System validation. Follow these
instructions to workaround this issue.

1. Locate the file `common-preverify-build.xml` in provisioning framework location, *FRAMEWORK_LOCATION*/provisioning/provisioning-build/common-preverify-build.xml.

2. Comment out the following block by changing from:

```
<if>

<isfalse
value="${provisioning.setup.common.core.disable.preverify.pre
requisite}"/>

<then>

<logStatus state="BUILD_STARTED" category="installers"
task="validateInstallersPrerequisite"/>


<!-- bug fix 12771983 -->

<if>

<os family="windows"/>

<then>

<antcall target="private-preverify-installers-prerequisite"/>

</then>

<else>

<trycatch property="error-message">

<try>

<envAntCall
target="private-preverify-installers-prerequisite"
AdditionalAntOpts="-d64" RunWlstEnvScript="false"/>

</try>

<catch>

<simulateValidationError message="${error-message}"/>

</catch>

</trycatch>

</else>

</if>


<logStatus state="BUILD_COMPLETE" category="installers"
task="validateInstallersPrerequisite"/>

</then>

</if>
```

TO:

```
<!-- comment out per workaround

<if>
```

```
<isfalse value="${provisioning.setup.common.core.
disable.preverify.prerequisite}"/>

<then>

<logStatus state="BUILD_STARTED" category="installers"
task="validateInstallersPrerequisite"/>


<!-- bug fix 12771983 -->

<!-- comment out per workaround

<if>

<os family="windows"/>

<then>

<antcall target="private-preverify-installers-prerequisite"/>

</then>

<else>

<trycatch property="error-message">

<try>

<envAntCall
target="private-preverify-installers-prerequisite"
AdditionalAntOpts="-d64" RunWlstEnvScript="false"/>

</try>

<catch>

<simulateValidationError message="${error-message}"/>

</catch>

</trycatch>

</else>

</if>


<logStatus state="BUILD_COMPLETE" category="installers"
task="validateInstallersPrerequisite"/>

</then>

</if>

-->
```

3. Save the file and retry the preverify phase.

5.5.4.2 Preverify Phase Not Displaying All Validation Errors on non-Primordial Hosts

When there is a build error in the preverify phase in the primordial host, not all validation errors in the non-primordial hosts may be accounted for in the Provisioning Wizard. This is because a build error, a much more severe error than validation, occurs in the primordial host before the logic to count validation errors. After fixing the issue

causing the build error and rerunning preverify phase, the validation errors are counted and displayed correctly. This is normal and expected.

Resolve the issue causing the build error in the primordial host first and rerun preverify phase to find out if there are other validation errors among the hosts. Fix the validation errors where appropriate until validation errors are resolved before proceeding to the next phase.

5.5.4.3 Preverify Phase Required Free Space is Higher than Actually Provisioned

During the preverify phase, you may see an error saying provisioning requires more free space for the local application configuration directory in the current host like the log below:

```
[2012-02-03T23:11:27.659-08:00] [runProvisioning-preverify]
[NOTIFICATION] [] [runProvisioning-preverify] [tid: 12]
[ecid: 0000JL7CzeGBDCAnv^n3F11FBDbj000003,0]
[logStatus] STATE=BUILD_ERROR!TIMESTAMP=2012-02-
03 23:11:27PST!TARGET=private-preverify-filesystem-Free-space!CATEGORY=BUILD_
ERROR!DOMAIN=NONE!HOSTNAME=adcdk16!PRODUCTFAMILY=orchestration!PRODUCT=orchestrati
on!TASK=validateFileSystem!TASKID=orchestration.orchestration.BUILD_
ERROR.private-preverify-filesystem-free-space.validateFileSystem!MESSAGE=The file
system /scratch/aime/rc4 only has 44271 MB, but 76800 MB is needed!
DETAIL=The file system /scratch/aime/rc4 only has 44271 MB, but 76800 MB is
needed!BUILDFILE=/net/adcgei13/scratch/aime/rc4/FAINTEG_MAIN_PLATFORMS_
120131.1600/provisioning/provisioning-build/common-preverify-build.xml!LINENUMBER=
1392!
[2012-02-03T23:11:27.698-08:00] [runProvisioning-preverify] [ERROR] [FAPROV-01045]
[runProvisioning-preverify] [tid: 12] [ecid: 0000JL7CzeGBDCAnv^n3F11FBDbj000003,0]
*** Validation Error! ***[[ ]]
```

After provisioning is complete, it is possible that only a fraction of the required file system is being used. This is normal as the 77 GB free space is the Oracle recommended value derived from the performance benchmark. It includes projection of disks required for storing diagnostic logs and other information in the local domain over a long period.

5.5.4.4 Preverify Phase Warning

If you are provisioning the Human Capital Management (HCM) application offerings, namely Workforce Development and Workforce Deployment, and the `/mnt/hwrrepo` directory (for Windows: `C:\mnt\hwrrepo`) does not exist, a warning message will be displayed.

- You can continue with the provisioning process if you do not need the Workforce Reputation (HWR) application.

- If the HWR application is required, you need to follow the instructions in Section 2.2.25 to prepare the shared mount. You can complete provisioning the environment first then prepare the shared mount before you start using the HWR application.

5.5.4.5 Preverify Phase Errors (AIX 7.1)

During the Install phase on IBM AIX 7.1 POWER systems (64 bit), the following warning from installation of WebGate appears in the provisioning log even if the provisioning host already meets the supported AIX platform requirement.

```
Copyright (c) 1999, 2011, Oracle and/or its affiliates. All rights reserved.
Reading response file.. Expected result: One of 5300.08,6100.02 Actual Result:
```

```
7100.00 Check complete. The overall result of this check is: Failed <<<< Problem:
This Oracle software is not certified on the current operating system.
Recommendation: Make sure you are installing the software on the correct platform.
Warning: Check:CertifiedVersions failed.
```

You can ignore the warning and continue with provisioning process.

5.5.4.6 Preverify Phase Errors (Windows)

You may encounter the following error while running the preverification phase on Windows systems:

```
"C:\repository_location/installers/database/Disk1/setup.exe": CreateProcess
error=740, The requested operation requires elevation at
java.lang.ProcessBuilder.start(ProcessBuilder.java:460)
```

If you receive this error, disable User Access Control (UAC) or log in as a Local Administrator to the machine where the Provisioning Wizard is not functioning properly.

See http://technet.microsoft.com/en-us/library/dd759070.aspx for information about disabling UAC.

5.5.4.7 OAM Validation Errors

During the provisioning of a new Oracle Fusion Applications environment, you may encounter the following errors in the provisioning log:

- OAM_Validation: Cannot perform OAM Validation as null

- OAM11G_OAM_ADMIN_USER : Could not validate OAM Admin user

For example, the error log will be displayed as follows:

```
[2012-04-23T10:36:36.040-07:00] [runProvisioning-preverify] [ERROR] [FAPROV-01045]
[runProvisioning-preverify] [tid: 13] [ecid: 0000JRWHGNRFk3A5JbWByf1F_P9m000004,0]
*** Validation Error! ***[[  ]]

[2012-04-23T10:36:36.040-07:00] [runProvisioning-preverify] [ERROR] []
[runProvisioning-preverify] [tid: 13] [ecid: 0000JRWHGNRFk3A5JbWByf1F_P9m000004,0]
List of failed Validation in OIM[[1. OAM_Validation : Cannot perform OAM
Validation as null]]

[logStatus] STATE=BUILD_ERROR!TIMESTAMP=2012-07-02 10:32:09
PDT!TARGET=common-preverify-security!CATEGORY=BUILD_ERROR!DOMAIN=CommonDomain!
HOSTNAME=<host>!PRODUCTFAMILY=fs!PRODUCT=Functional-Setup!TASK=validateOam!TASKID=
fs.Functional-Setup.BUILD_
ERROR.common-preverify-security.validateOam!MESSAGE=Error 1 : OAM11G_OAM_ADMIN_
USER :  Could not validate OAM Admin user. !DETAIL=Error 1 : OAM11G_OAM_ADMIN_USER
:  Could not validate OAM Admin user
```

Workaround:

1. Exit the current Provisioning Wizard.

2. To restart the Provisioning Wizard, add the -ignoreSysPrereqs true option to the provisioningWizard.sh command. This enables you to proceed to the next provisioning phase after you have resolved all other errors identified by the preverify phase.

If you also see this error on the non-primordial hosts, add the
`-ignoreSysPrereqs true` option before running the runProvisioning.sh
command.

3. For all subsequent provisioning phases, you must use the `-ignoreSysPrereqs true` option in the `provisioningWizard.sh` and `runProvisioning.sh`
commands.

5.5.5 Troubleshooting Install Phase Errors

The following section describes the troubleshooting steps for install phase errors:

5.5.5.1 Cancelling an Installation in Progress

You can interrupt the installation process while it is in progress by clicking **Cancel**, or
by clicking the x icon next to a build that has failed. If you click **Cancel**, all processes
running in the background are terminated and put in a **Failed** status.

You can start the wizard again after you initiate a **Cancel** action. The wizard detects
that the installation has been partially completed, and presents you with two options:

- Resume from where you left off. The wizard asks if you want to resume. Click **Yes**.

  The wizard takes you to the screen where you clicked **Cancel** and created the
  failure. Restart the installation at that point by clicking the **Retry** button. The
  wizard performs cleanup and recovery actions for you.

- Clean up the errors manually and rerun the **Provision a New Applications
  Environment** option for the response file from the beginning.

5.5.5.2 Install Phase Failed with INST-07221: Specified connect string is not in a valid format Error

When you create a provisioning response file using the Oracle Fusion Applications
Provisioning Wizard, if you provide only one RAC node information for the Fusion
Applications database, then you will get the following error during the install phase in
the runProvisioning-install.log. The error is generated from the Oracle Data Integrator
(ODI) installer that it expects you to provide at least two RAC nodes.

```
[2012-08-21T10:40:21.365-04:00] [runProvisioning-install]
[NOTIFICATION] [] [runProvisioning-install] [tid: 31] [ecid:
0000J_9c8_p7U8lCgvq2So1GCtIP00000M,0] Starting Oracle Universal
Installer...[[

Checking if CPU speed is above 300 MHz. Actual 1600 MHz Passed

Checking Temp space: must be greater than 300 MB. Actual 7107 MB
Passed

Checking swap space: must be greater than 512 MB. Actual 14527
MB Passed

Preparing to launch Oracle Universal Installer from
/tmp/OraInstall2012-08-21_10-40-14AM. Please wait ...Log:
/u01/app/oraInventory/logs/install2012-08-21_10-40-14AM.log

Copyright (c) 1999, 2011, Oracle and/or its affiliates. All
rights reserved.

Reading response file..

Verifying data......
```

```
[VALIDATION] [ERROR]:INST-07221: Specified connect string is not
in a valid format
```

```
[VALIDATION] [SUGGESTION]:Provide the value in the following
format. Format: hostname:port:servicename , For Real Application
Cluster Database hostname1:port1^hostname2:port2@servicename
```

```
installation Failed. Exiting installation due to data validation
failure.]]
```

```
[2012-08-21T10:40:21.387-04:00] [runProvisioning-install]
[NOTIFICATION] [] [runProvisioning-install] [tid: 10] [ecid:
0000J_9V7RD7U8lCgvq2So1GCtIP000000,0] [logStatus] STATE=BUILD_
ERROR!TIMESTAMP=2012-08-21 10:40:21
EDT!TARGET=install!CATEGORY=none!DOMAIN=NONE!HOSTNAME=<host.com>
!PRODUCTFAMILY=orchestration!PRODUCT=orchestration!TASK=none!TAS
KID=orchestration.orchestration.NONE.install.NONE!MESSAGE=An
Error Occured: !DETAIL=The following error occurred while
executing this line:|<FRAMEWORK_
LOCATION>/provisioning/provisioning-build/orchestration-build.xm
l:3132: The following error occurred while executing this
line:|<FRAMEWORK_
LOCATION>/provisioning/provisioning-build/common-misc-build.xml:
109: An Error Occured: The following error occurred while
executing this line:
```

```
|<FRAMEWORK_LOCATION>/provisioning/provisioning-build/
base-product-family-build.xml:85: The following error occurred
while executing this line:|<FRAMEWORK_
LOCATION>/provisioning/provisioning-build/fs-build.xml:281: The
following error occurred while executing this line:|<FRAMEWORK_
LOCATION>provisioning/provisioning-build/fs-build.xml:1448: The
following error occurred while executing this line:|<FRAMEWORK_
LOCATION>/provisioning/provisioning-build/base-techstack-build.x
ml:62: The following error occurred while executing this
line:|<FRAMEWORK_LOCATION>/provisioning/provisioning-build/
odi-build.xml:326: OUI installer failed: <REPOSITORY_
LOCATION>/installers/odi/Disk1/runInstaller!
BUILDFILE=<FRAMEWORK_LOCATION>/provisioning/provisioning-build/
common-misc-build.xml!LINENUMBER=107!
```

Resolution

You must provide the information for at least two RAC nodes on the **Database Configuration** page of the Provisioning Wizard, save the response file, and then restart the provisioning process to deploy a new Oracle Fusion Applications environment as detailed in the following steps:

1. If the Provisioning Wizard is still active, close the window and exit.

2. Delete the entire contents of the APPLICATIONS_CONFIG folder including the folder. This is the location for Oracle Fusion Applications Home displayed on the **Installation Location** page of the Provisioning Wizard. If you enable Local Applications Configuration, ensure that the Local Applications Configuration directory and its contents are deleted.

3. Start the Provisioning Wizard and select the **Update an Existing Provisioning Response file** option. Select the existing Provisioning Response file.

4. Navigate to the **Database Configuration** page.

5. If you decide to use a single node RAC database, select **Single-Instance Database** and enter the database host, port and service name. If you decide to use a multi-node RAC database, ensure that the RAC nodes are available and enter the database host, port and service name. If you select **Real Application Clusters Database**, you must enter at least two rows in the table.

6. Complete the remaining steps to finish creating a response file.

7. Follow the instructions to begin provisioning a new Oracle Fusion Applications environment starting with the preverify phase. Note that you do not need to restore the Oracle Fusion Applications database instances or the Oracle Identity Management databases from backup because the provisioning framework does not update the databases at this time.

5.5.6 Troubleshooting Configure Phase Errors

During the Configure phase on the BI host, you may encounter the following error messages in the BI provisioning log (`runProvisioning-bi-configure.log`):

```
[2013-01-08T12:53:42.693-08:00] [runProvisioning-bi-configure]
[NOTIFICATION] [] [runProvisioning-bi-configure] [tid: 19]
[ecid:0000JkRaUlRFg4G_Ixg8yf1Gv74D00000A,0] <Jan 8, 2013
12:53:41 PM PST> <Notice>
```

```
<Security> <BEA-090078> <User oraclesystemuser in security realm
myrealm has had 5 invalid login attempts, locking account for 30
minutes.> [[<Jan 8, 2013 12:53:42 PM PST> <Error>
<oracle.wsm.resources.policymanager> <WSM-02062> <Unable to
retrieve credentials for the specified csf-key FUSION_APPS_WSM_
APPID-KEY oracle.wsm.policymanager.PolicyManagerException:
WSM-02062 : Unable to retrieve credentials for the specified
csf-key FUSION_APPS_WSM_APPID-KEY
```

```
at oracle.wsm.policymanager.BeanFactory.
getConfigFromCSF(BeanFactory.java:634)
at oracle.wsm.policymanager.BeanFactory.
populateProperties(BeanFactory.java:1035)
```

This is an incorrect error message which may be displayed intermittently. To continue, you should rerun the configure phase after completing the cleanup-configure phase followed by the restore-configure phase successfully.

5.5.7 Troubleshooting Validate Phase Errors

The following section describes the steps to troubleshoot validate phase errors.

5.5.7.1 Validate Phase WebGate Validation Errors

During the Validate phase, you will encounter WebGate validation errors and the error messages in the provisioning log are as follows:

```
[2012-11-18T19:06:13.323-08:00] [runProvisioning-validate]
[NOTIFICATION] [] [runProvisioning-validate] [tid: 11] [ecid:
0000JgMcCTD9lZOLIih8if1GeQ7k000002,0]  [logStatus] STATE=BUILD_
ERROR!TIMESTAMP=2012-11-18 19:06:13
PST!TARGET=private-validate!CATEGORY=BUILD_
ERROR!DOMAIN=CommonDomain!HOSTNAME=<host>!PRODUCTFAMILY=fs!PRODU
CT=WebGate!TASK=validate WebPageStatus!TASKID=fs.WebGate.BUILD_
ERROR.private-validate.validate WebPageStatus!MESSAGE=The HTTP
```

```
request to http://<host>:<port>/oberr.cgi?progid=1 returned
status: 404.!DETAIL=The HTTP request to
http://<host>:<port>/oberr.cgi?progid=1 returned status:
404.!BUILDFILE=<framework_
location>/provisioning/provisioning-build/webgate-build.xml!LINE
NUMBER=992!
```

```
[2012-11-18T19:06:52.116-08:00] [runProvisioning-validate]
[NOTIFICATION] [] [runProvisioning-validate] [tid: 11] [ecid:
0000JgMcCTD9lZOLIih8if1GeQ7k000002,0]  [logStatus] STATE=BUILD_
ERROR!TIMESTAMP=2012-11-18 19:06:51
PST!TARGET=private-validate!CATEGORY=BUILD_
ERROR!DOMAIN=FinancialDomain!HOSTNAME=<host>!PRODUCTFAMILY=fin!P
RODUCT=WebGate!TASK=validateWebPageStatus!TASKID=fin.WebGate.BUI
LD_ERROR.private-validate.validateWebPageStatus!MESSAGE=The HTTP
request to http://<host>:<port>/oberr.cgi?progid=1 returned
status: 404.!DETAIL=The HTTP request to
http://<host>:<port>/oberr.cgi?progid=1 returned status:
404.!BUILDFILE=<framework_
location>/provisioning/provisioning-build/webgate-build.xml!LINE
NUMBER=992!
```

These WebGate web page validation errors can be ignored. If there are any other
validation errors you must resolve them before proceeding to the Summary phase.
After resolving all validation errors, if the **Next** button on the Provisioning Wizard is
not enabled, perform these steps from the command line to enable it:

1. `cd <APPLICATIONS_CONFIG>/provisioning/phaseguards`.

2. `rm validate-<host>-FAILED.grd`.

3. `touch validate-<host>-COMPLETED.grd`. **Note:** Use the same host name as
   specified in Step 2.

4. The **Next** button should be enabled on the Provisioning Wizard.

> **WARNING:**   Deleting and creating files in the phase guard directory
> is necessary as a workaround to resolve validation phase issues
> ONLY if none of the other options work. In any other case, you
> should never modify or make changes to the phase guard files.

5.5.7.2 Validate Phase Topology Manager Service Endpoint Invocation Error

During the Validate phase, you may encounter the following errors:

```
INFO: WSM-09004 Component auditing cannot be initialized error
```
and

```
SEVERE: Error while invoking endpoint
"http://<host>:<7004>/topologyManagerService/ProvisionConfigurat
ionService" from client.
```

The log messages in the `runProvisioning-fs-postconfigure.log` files are as
follows:

```
[2012-12-11T01:24:08.130-08:00]
[runProvisioning-fs-postconfigure] [TRACE] []
[runProvisioning-fs-postconfigure] [tid: 402] [ecid:
0000Ji9Ho1B3r2GLIyT4if1GljTr000069,0] [SRC_CLASS:
oracle.apps.fnd.provisioning.ant.taskdefs.util.logger.Provisioni
```

```
ngLogger] [SRC_METHOD: log] Attempt 1 of 20 for
importProvisionDeployedInfo
```

```
[2012-12-11T01:24:10.767-08:00]
[runProvisioning-fs-postconfigure] [ERROR] []
[runProvisioning-fs-postconfigure] [tid: 403] [ecid:
0000Ji9Hp6F3r2GLIyT4if1GljTr00006A,0] INFO: WSM-09004 Component
auditing cannot be initialized.
```

```
[2012-12-11T01:24:10.772-08:00]
[runProvisioning-fs-postconfigure] [ERROR] []
[runProvisioning-fs-postconfigure] [tid: 403] [ecid:
0000Ji9Hp6F3r2GLIyT4if1GljTr00006A,0] INFO: WSM-09004 Component
auditing cannot be initialized.
```

```
[2012-12-11T01:24:11.676-08:00]
[runProvisioning-fs-postconfigure] [ERROR] []
[runProvisioning-fs-postconfigure] [tid: 403] [ecid:
0000Ji9Hp6F3r2GLIyT4if1GljTr00006A,0] SEVERE: Error while
invoking endpoint
"http://<host>:<port>/topologyManagerService/ProvisionConfigurat
ionService" from client.
```

This error message occurs when the validation is initiated by the provisioning
framework before the Oracle Web Service Manager (OWSM) is fully initialized. The
provisioning framework will retry up to a predetermined number of times, therefore
such error messages can be ignored. However, if validation fails after 20 attempts, then
you should investigate the issue.

5.5.7.3 Validate Phase Group Not Found in OVD

During the Validate phase, you will encounter ldapSearch validation error and the
runProvisioning-validate.log file will contain the following error messages:

```
[2013-06-04T21:33:25.523-07:00] [runProvisioning-validate]
[NOTIFICATION] [FAPROV-01042] [runProvisioning-validate] [tid:
11] [ecid: 0000JwIb1v20rmG5Izt1if1Hffxu000002,0] [arg:
/tmp/clean-559114674.ldif] Validating user and group entries in
the LDIF file '/tmp/clean-559114674.ldif' ...
```

```
[2013-06-04T21:33:26.249-07:00] [runProvisioning-validate]
[NOTIFICATION] [] [runProvisioning-validate] [tid: 11] [ecid:
0000JwIb1v20rmG5Izt1if1Hffxu000002,0]  [logStatus] STATE=BUILD_
ERROR!TIMESTAMP=2013-06-04 21:33:26
PDT!TARGET=common-validate-global-identities!CATEGORY=BUILD_
ERROR!DOMAIN=CommonDomain!HOSTNAME=slc00veq!PRODUCTFAMILY=fs!PRO
DUCT=Functional-Setup!TASK=validateLDIFEntries!TASKID=fs.Functio
nal-Setup.BUILD_
ERROR.common-validate-global-identities.validateLDIFEntries!MESS
AGE=ldapSearch encountered an error while validating the group
'cn=PER_EXECUTIVE_MANAGER_
ABSTRACT,cn=FusionGroups,cn=Groups,dc=us,dc=oracle,dc=com'
[LDAP: error code 32 - LDAP Error 32 : No Such Object] url
-ldap://<host>:<port>!DETAIL=ldapSearch encountered an error
while validating the group 'cn=PER_EXECUTIVE_MANAGER_
ABSTRACT,cn=FusionGroups,cn=Groups,dc=us,dc=oracle,dc=com'
[LDAP: error code 32 - LDAP Error 32 : No Such Object] url
-ldap://<host>:<port>!BUILDFILE=/scratch/aime/ST5REPO/provisioni
ng/provisioning-build/common-validate-build.xml!LINENUMBER=1010!
```

```
[2013-06-04T21:33:26.264-07:00] [runProvisioning-validate]
[ERROR] [FAPROV-01045] [runProvisioning-validate] [tid: 11]
[ecid: 0000JwIb1v20rmG5Izt1if1Hffxu000002,0] *** Validation
Error! ***[[  ]]

[2013-06-04T21:33:26.264-07:00] [runProvisioning-validate]
[ERROR] [] [runProvisioning-validate] [tid: 11] [ecid:
0000JwIb1v20rmG5Izt1if1Hffxu000002,0] ldapSearch encountered an
error while validating the group 'cn=PER_EXECUTIVE_MANAGER_
ABSTRACT,cn=FusionGroups,cn=Groups,dc=us,dc=oracle,dc=com'
[LDAP: error code 32 - LDAP Error 32 : No Such Object] url
-ldap://<host>:<port>

[2013-06-04T21:33:26.264-07:00] [runProvisioning-validate]
[NOTIFICATION] [FAPROV-01046] [runProvisioning-validate] [tid:
11] [ecid: 0000JwIb1v20rmG5Izt1if1Hffxu000002,0] *** The 'Defer
On Error' validation mode is enabled. ***

[2013-06-04T21:33:26.264-07:00] [runProvisioning-validate]
[ERROR] [FAPROV-01002] [runProvisioning-validate] [tid: 11]
[ecid: 0000JwIb1v20rmG5Izt1if1Hffxu000002,0] *** Will continue
processing of the next validation task (if any). ***
```

This validation error occurs because the abstract role, PER_EXECUTIVE_MANAGER_ ABSTRACT, does not have a description in LDAP. This does not have any functional impact. You can ignore this validation error.

5.6 Postinstallation Tasks

After you have successfully completed the installation phases on all the hosts in your environment, perform the following required manual steps.

Some components in the Oracle Fusion Applications environment are dependent on one another. Therefore, it is important to start and stop components in the proper order. In the course of normal IT operations, common operations include shutting down computers and starting them back up. Therefore, it is crucial to start and stop Oracle Fusion Applications in a sequential manner. For more information, see "Starting and Stopping the Entire Oracle Fusion Applications Environment" in *Oracle Fusion Applications Administrator's Guide*.

5.6.1 Apply Patches to Your New Environment

Refer to Oracle Fusion Applications release notes for mandatory postinstallation steps, including the application of all mandatory patches. For general information about applying patches to an applications environment, see *Oracle Fusion Applications Patching Guide*.

5.6.2 Configure Oracle HTTP Server for Privileged Port (UNIX Only)

> **Note:** You do not need to complete this step if your Oracle Fusion Applications environment is created from the certified Oracle Fusion Applications Oracle VM templates or the environment is not created by following the instructions in this installation guide.
>
> This step is optional if you follow the instructions in this installation guide to create your Oracle Fusion Applications environment.

The TCP/IP port numbers are special in that only processes with `root` privileges are allowed to listen on those ports. By default, Oracle HTTP Server runs as a non-root user (the user that installed Oracle Fusion Middleware). Since Oracle Fusion Applications Provisioning cannot be run as `root`, you should not use a port number. For more information, see "Changing the Oracle HTTP Server Listen Ports" in the *Oracle Fusion Middleware Administrator's Guide*.

5.6.3 Create upgradeLDAPUsersForSSO.props

> **Note:** You do not need to complete this step if your Oracle Fusion Applications environment is created from the certified Oracle Fusion Applications Oracle VM templates or the environment is not created by following the instructions in this installation guide.

Create a file called upgradeLDAPUsersForSSO.props with the following contents. This file is only for the IDSTORE user.

```
IDSTORE_DIRECTORYTYPE: OID
IDSTORE_HOST: idstore.mycompany.com
IDSTORE_PORT: 3060
IDSTORE_ADMIN_USER: cn=IDRWUSER,cn=users,dc=mycompany,dc=com
IDSTORE_USERSEARCHBASE: cn=Users,dc=mycompany,dc=com
IDSTORE_GROUPSEARCHBASE: cn=groups,dc=mycompany,dc=com
IDSTORE_LOGINATTRIBUTE: uid
PASSWORD_EXPIRY_PERIOD: 7300
```

> **Note:** The PASSWORD_EXPIRY_PERIOD is calculated as number of days. For more information, see "Updating Existing LDAP Users with Required Object Classes" in the *Oracle Fusion Middleware Enterprise Deployment Guide for Oracle Identity Management (Oracle Fusion Applications Edition)*.

The IDRWUser is the read-write user created for provisioning:

IAM_ORACLE_HOME/idmtools/bin/idmConfigTool.sh -upgradeLDAPUsersForSSO input file=upgradeLDAPUsersForSSO.props log_file=upgradeLDAPUsersForSSO.out.

5.6.4 Add Privileges to IDStore and Policy Store Entities

Additional privileges must be given to the entities that are created during provisioning for the IDStore and the Policy Store. To add these privileges, following these steps from the IDM domain:

1. Set the environment variables: *MW_HOME*, *JAVA_HOME, IDM_HOME*, and *ORACLE_HOME*. Set *IDM_HOME* to *IDM_ORACLE_HOME*. Set *ORACLE_HOME* to *IAM_ORACLE_HOME*.

2. Create a properties file as follows and replace the values accordingly:

```
IDSTORE_HOST: idstore.mycompany.com
IDSTORE_PORT: 3060
IDSTORE_BINDDN: cn=orcladmin
IDSTORE_USERSEARCHBASE: cn=Users,DC=mycompany,dc=com
IDSTORE_SEARCHBASE: dc=mycompany,dc=com
```

```
                        IDSTORE_GROUPSEARCHBASE: cn=Groups,dc=mycompany,dc=com
                        POLICYSTORE_HOST: policystore.mycompany.com
                        POLICYSTORE_PORT:  389
                        POLICYSTORE_BINDDN: cn=orcladmin
                        POLICYSTORE_CONTAINER: cn=FAPolicies
                        POLICYSTORE_READWRITEUSER: cn=PolicyRWUser,cn=Users,dc=us,dc=oracle,dc=com
                        OIM_T3_URL : t3://idstore.mycompany.com:14000
                        OIM_SYSTEM_ADMIN : xelsysadm
                        OVD_HOST: idstore.mycompany.com
                        OVD_PORT: 6501
                        OVD_BINDDN: cn=orcladmin
```

3. Perform postprovisioning configuration as follows:

   (Linux x86-64)

   idmConfigTool.sh -postProvConfig input_file=idm.props

   (Windows)

   idmConfigTool.bat -postProvConfig input_file=idm.props

5.7 What to Do Next

Your new Oracle Fusion Applications environment is complete and operational. You must now perform the necessary implementation and functional setup tasks.

5.7.1 Manage User Passwords for Login Access to Applications Components

For complete information about setting up and managing passwords for your new environment, see "Securing Oracle Fusion Applications" and "Provisioning Identities" in *Oracle Fusion Applications Administrator's Guide*

5.7.2 Enable Product Offering Functionality

Before you can start using any of the product offerings you have installed, you must complete some common implementation tasks and enable the functionality of the offerings in your environment.

A large library of product-related documentation is available for use after provisioning. Some of the guides that you will find useful are listed here:

- *Oracle Fusion Functional Setup Manager User's Guide*

- *Oracle Fusion Applications Common Implementation Guide*

- *Oracle Fusion Applications Post-Installation Guide*

- Product-specific Oracle Fusion Applications implementation guides

5.7.3 (Optional) Install Oracle Enterprise Manager Cloud Control

Oracle Enterprise Manager Cloud Control (Cloud Control) is a system management software that delivers centralized monitoring, administration, and life cycle management functionality for the complete Oracle Fusion Applications IT infrastructure from one single console. For example, you can monitor all the Oracle WebLogic Server domains for all the product families from one console.

See the following documentation to install Cloud Control:

- *Oracle Enterprise Manager Cloud Control Basic Installation Guide*

- *Oracle Enterprise Manager Cloud Control Advanced Installation and Configuration Guide*

6

Deinstalling an Applications Environment

This chapter describes the actions necessary to remove an existing Oracle Fusion Applications environment from your system. It includes step-by-step instructions and provides important information about the ramifications of taking this action.

This chapter includes the following sections:

- Introduction to Deinstalling Environments
- Before You Begin
- Deinstallation Using the Wizard
- Deinstallation Using the Command Line
- Postdeinstallation Tasks
- Deleting the Database

6.1 Introduction to Deinstalling Environments

During the deinstallation process, components that were installed using the **Provisioning Wizard** are removed. The database and the LDAP are *not* removed.

Note the following characteristics of the deinstallation process:

- You must run the deinstall process on *all* hosts. Use the Provisioning Wizard deinstall option for the **Primordial host**, and the command line option for the **Primary host** and **Secondary host**. *Products installed from the command line must be deinstalled from the command line*.

- Start the Provisioning Wizard on the same host (primordial) where you started it at the time of installation. You can monitor the process on all hosts using the primordial host interface.

- All binaries, regardless of patch level, are removed.

> **Note:**   You cannot partially deinstall an environment by selecting specific components to deinstall.

6.2 Before You Begin

Always use the provisioning deinstall option (the Provisioning Wizard option or the command line) rather than simply deleting the `APPLICATIONS_BASE`, `APPLICATIONS_CONFIG`, and the `oraInventory` directories manually. This is especially important for the web tier. Two of its instances share the same `oraInventory` location.

Before you begin the deinstallation process, complete these tasks:

1. Stop any processes that are running in the environment. Stop any specific processes required by the Oracle Fusion Applications features that you have selected. For example, if you select Customer Relationship Management, you will need to stop the Informatica Identity Resolution (IIR) processes according to the instructions in Chapter 29, "Define Data Quality" in *Oracle Fusion Applications Customer Data Management Implementation Guide*.

2. Shut down all Managed Servers, the Administration Server, and the Node Manager on all hosts. If the servers are configured as Windows services, stop the services before deinstalling the software. See "Stopping an Oracle Fusion Applications Environment" in *Oracle Fusion Applications Administrator's Guide*.

3. Stop Oracle HTTP Server with this command: `WT_CONFIG_HOME`/bin/opmnctl shutdown.

4. Stop the Oracle Business Intelligence components that are controlled by OPMN with this command: `BI_CONFIG_HOME`/bin/opmnctl shutdown. See "Using the OPMN Command Line to Start, Stop, Restart, and View the Status of System Components" in *Oracle Fusion Middleware System Administrator's Guide for Oracle Business Intelligence Enterprise Edition* for more information.

5. Shut down Global Order Promising (GOP) (if provisioned): (UNIX) `gop_instance_base`/bin/opmnctl shutdown. To remove the Windows service, run: `sc delete GlobalOrderPromisingServer1`.

6. Stop the Java EE components using Oracle Enterprise Manager Fusion Middleware Control. See "Starting and Stopping Java EE Applications Using WLST" in *Oracle Fusion Applications Administrator's Guide*.

7. Shut down Informatica Identity Resolution (IIR) (if provisioned) by running these commands *in the order listed*:

   a. `APPLICATIONS_BASE`/informaticaIR/bin/idsdown

   b. `APPLICATIONS_BASE`/informaticaIR/bin/lidown

See "Starting and Stopping Components in the Oracle Fusion Applications Environment" in the *Oracle Fusion Applications Administrator's Guide* for more information.

6.3 Deinstallation Using the Wizard

To perform a deinstallation using the Provisioning Wizard, start the wizard from the primordial host and complete the deinstallation interview screens.

6.3.1 Start the Provisioning Wizard

To start the Provisioning Wizard, do the following from the primordial host:

1. Set the `JAVA_HOME` environment variable to point to the JDK location in the **provisioning repository**, for example:

   (UNIX)

   export `JAVA_HOME=repository_location`/jdk6

   export PATH=$JAVA_HOME/bin:$PATH

   (AIX)

   export `JAVA_HOME=repository_location`/jdk6

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

export SKIP_ROOTPRE=TRUE
```

(Windows)

```
set JAVA_HOME=repository_location\jdk6

set PATH=%JAVA_HOME%\bin;%PATH%
```

2. Verify that the LIBPATH value is null.

3. Run the following command on the primordial host:

(UNIX)

```
cd framework_location/provisioning/bin

./provisioningWizard.sh
```

On Solaris, use `bash provisioningWizard.sh` instead of `./provisioningWizard.sh`.

(Windows)

```
cd framework_location\provisioning\bin

provisioningWizard.bat
```

6.3.2 Wizard Interview Screens and Instructions

Table 6–1 shows the steps necessary to deinstall an Oracle Fusion Applications environment with the Provisioning Wizard. For help with any of the interview screens, see Appendix F or click **Help** on any Provisioning Wizard interview screen.

> **Note:** If you do not input the correct values required, the error and warning messages are displayed at the bottom of the screen.

Table 6–1   Deinstalling an Applications Environment

| Screen	Description and Action Required
Welcome	No action is required on this read-only screen. Click **Next** to continue.
Specify Central Inventory Location	This screen displays only if one or more of the following conditions are not met: ■ The `-invPtrLoc` option is used to specify the central inventory location on non-Windows platforms, so the default value for your platform is not used. Note that the default for Linux and AIX platforms is `/etc/oraInst.loc` and for Solaris and HP, it is `/var/opt/oracle/oraInst.loc`. ■ The Central Inventory Pointer File is readable. ■ The Central Inventory Pointer File contains a value for `inventory_loc`. ■ The `inventory_loc` directory is writable. ■ The `inventory_loc` directory has at least 150K of space. ■ `inventory_loc` is not a file. Specify the location of the **Central Inventory Directory** that meets the previous criteria. The `inventory_loc` directory can be created by the `createCentralInventory.sh` script and does not have to exist at the time you specify its location. For non-Windows platforms, in the **Operating System Group ID** field, select or enter the group whose members will be granted access to the inventory directory. All members of this group can install products on this host. Click **OK** to continue. The **Inventory Location Confirmation** dialog prompts you to run the `inventory_directory`/`createCentralInventory.sh` script as root, to confirm that all conditions are met and to create the default inventory location file, such as `/etc/oraInst.loc`. After this script runs successfully, return to the interview and click **OK** to proceed with the installation. If you do not have root access on this host but want to continue with the installation, select **Continue installation with local inventory** and click **OK** to proceed with the installation. For Windows platforms, this screen displays if the inventory directory does not meet requirements. For more information about inventory location files, see "Oracle Universal Installer Inventory" in the *Oracle Universal Installer and OPatch User's Guide*. Click **Next** to continue.
Installation Options	Presents a list of valid installation actions that you can perform using the Provisioning Wizard. Select **Deinstall an Applications Environment**. Enter the directory path in the **Response File** field to the **response file** associated with the environment you want to deinstall. Or click **Browse** to navigate to the response file location. Click **Next** to continue.

Table 6–1   (Cont.) Deinstalling an Applications Environment

Screen	Description and Action Required
Summary	Displays the application and middleware components to be deinstalled. The processes associated with these components must be shut down manually. See Section 6.2 for details.
	Click **Deinstall** to begin deinstalling the applications and middleware components.
Deinstallation Progress	The deinstallation process runs on the primordial host. You must deinstall from the command line on any primary or secondary hosts provisioned in your environment. See Section 6.4 for more details.
	The following symbols help track the deinstall progress:
	■ **Block**: Processing has not yet started on this host for the named phase.
	■ **Clock**: Performing the build for a phase.
	■ **Check mark**: The build was completed successfully.
	■ **x** mark: The build has failed for this phase. You must correct the errors before you can continue.
	■ **Restricted** symbol: The validation process has stopped due to a failure within another process.
	Click an **x** or a **Restricted** symbol to display information about failures. Select the icon in the **Log** column to view host-level details. If there is a **Log** file icon beside a build message, you can select that file to see the details of that build.
	If the deinstallation fails, a **Retry** button is enabled, allowing you to try the deinstall again. See Section 5.5.3 for information about retry, **cleanup**, and **restore** actions.
	Click **Next** to continue.
Deinstallation Complete	Review the list of components removed from this environment. Click **Save** to create a text file that contains the details.
	See Section 6.5 for information about manual tasks necessary to complete the deinstallation process.
	Click **Finish** to dismiss the screen.

6.4 Deinstallation Using the Command Line

If you have provisioned a primary or secondary host, you must run the deinstall on those hosts from the command line, using the same procedure that you used during provisioning. If the primordial host is no longer available, the entire deinstall process must be run from the command line.

Run the deinstall command as `root` (with administration privileges) as follows:

(UNIX) `runProvisioning.sh -responseFile` *response_file_location* `-target deinstall`

(Windows) `runProvisioning.bat -responseFile` *response_file_ location* `-target deinstall`

If the web tier has been deployed in a DMZ, you must run the Oracle Universal Installer (OUI) manually on that host to deinstall. See *Oracle Universal Installer and OPatch User's Guide*.

6.5 Postdeinstallation Tasks

The remaining cleanup tasks are as follows:

(UNIX)

1. If you set up processes to run as a service, then verify the `/etc/services` file and remove the corresponding Entries from the file.

2. If you set up processes to run as a service, then verify the `/etc/inetd.conf` file and remove the corresponding process Entries from the file.

3. Clean up or remove the *APPLICATIONS_BASE* directory

4. Clean up or remove the application configuration (*APPLICATIONS_CONFIG*) directory. If you enable local application configuration, you should also clean up or remove the local application configuration directories.

(Windows)

1. Remove Program Groups. You must also remove Program Groups from the Start Menu\Programs folder.

2. Reboot your system after you have finished removing all programs.

Note: Deinstalling Oracle Fusion Applications does not remove the `beahomelist` file or the `bea` directory under:

(UNIX) `user_home/bea/beahomelist`

(Windows) `C:\bea\beahomelist`

For information about how this file is used, see "Backup Artifacts" and "Updating Oracle Inventory" in the *Oracle Fusion Middleware Administrator's Guide*.

6.6 Deleting the Database

To delete the database, you can use Database Configuration Assistant (DBCA) to delete an instance of the database and then remove the database software. For more information, see "Deleting a Database Using DBCA" and "Removing Oracle Database Software" in *Oracle Database 2 Day DBA*.

A

Provisioning Framework Screens

This appendix presents screens used to install and deinstall the Oracle Fusion Applications Provisioning framework components.

It includes the following sections:

- Installing Provisioning Framework Screens
- Deinstalling Provisioning Framework Screens

A.1 Installing Provisioning Framework Screens

To install the provisioning framework, complete the information on these screens:

- Specify Inventory Directory (UNIX Only)
- Welcome
- Prerequisite Checks
- Specify Installation Location
- Installation Summary
- Installation Progress
- Installation Complete

A.1.1 Specify Inventory Directory (UNIX Only)

If this is your first Oracle installation on this host, you must specify the location of the **Inventory Directory**. It is used by the installer to keep track of all Oracle products installed on this host.

In the **Operating System Group Name** field, select the group whose members you want to grant access to the inventory directory. All members of this group can install products on this host. Click **OK** to continue.

The **Inventory Location Confirmation** dialog prompts you to run the `inventory_directory`/`createCentralInventory.sh` script as `root` to create the `/etc/oraInst.loc` file. This file is a pointer to the central inventory and must be present for silent installations. It contains two lines:

`inventory_loc=`*`path_to_central_inventory`*

`inst_group=`*`install_group`*

The standard location for this file is `/etc/oraInst.loc`, but it can be created anywhere. If you create it in a directory other than `/etc`, you must include the `-invPtrLoc` argument and enter the location of the inventory when you run the `provisioningWizard` or the `runProvisioning` script.
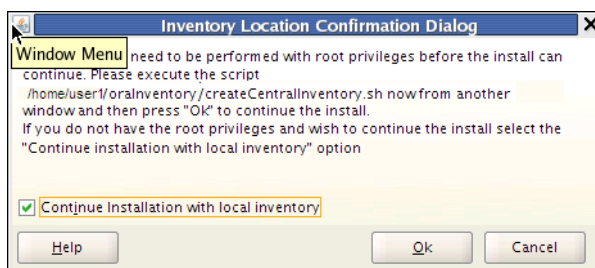
If you do not have `root` access on this host but want to continue with the installation, select **Continue installation with local inventory**.

Click **OK** to continue.

A.1.2 Welcome

No action is required on this read-only screen.

Click **Next** to continue.

A.1.3 Prerequisite Checks
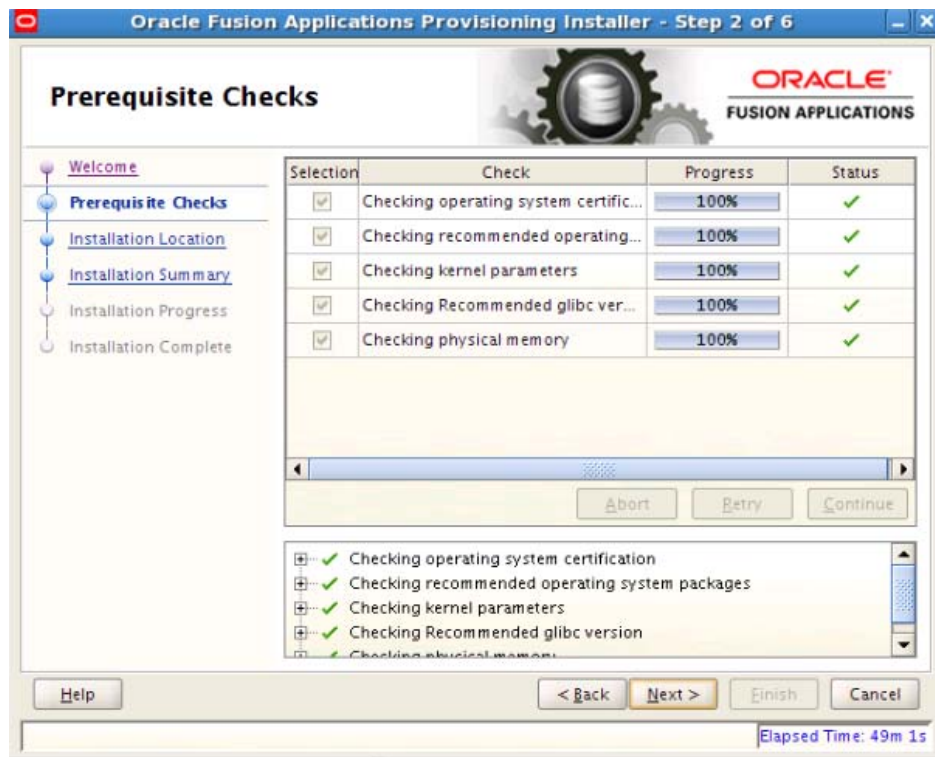
Analyzes the host computer to ensure that specific operating system prerequisites have been met. If any prerequisite check fails, the screen displays a short error message at the bottom. Fix the error and click **Retry**.

To ignore the error or warning message, click **Continue**. Click **Abort** to stop the prerequisite check process for all components.

Click **Next** to continue.

A.1.4 Specify Installation Location

Specify the **Location** where you want to install the provisioning framework. This is the location where the **Provisioning Wizard** and the start command for provisioning are installed. You can choose any location if it is on a shared disk that is accessible to all hosts in your new environment.

The installation process creates a logical directory called the Oracle home. This location is where software binaries will be stored. No runtime process can write to this directory. The directory must initially be empty.

If you are performing the installation on a Windows operating system, ensure that the directory paths are valid and do not contain a double backslash (\\).

Click **Next** to continue.

A.1.5 Installation Summary

Summarizes the selections that you have made during this installation session. To change this configuration before installing, select a screen from the left navigation pane or click **Back** to return to a previous screen. When you are satisfied with the details, click **Save** to create a text file (**response file**) to use if you choose to perform the same installation later.

Click **Install** to begin installing this configuration.

A.1.6 Installation Progress
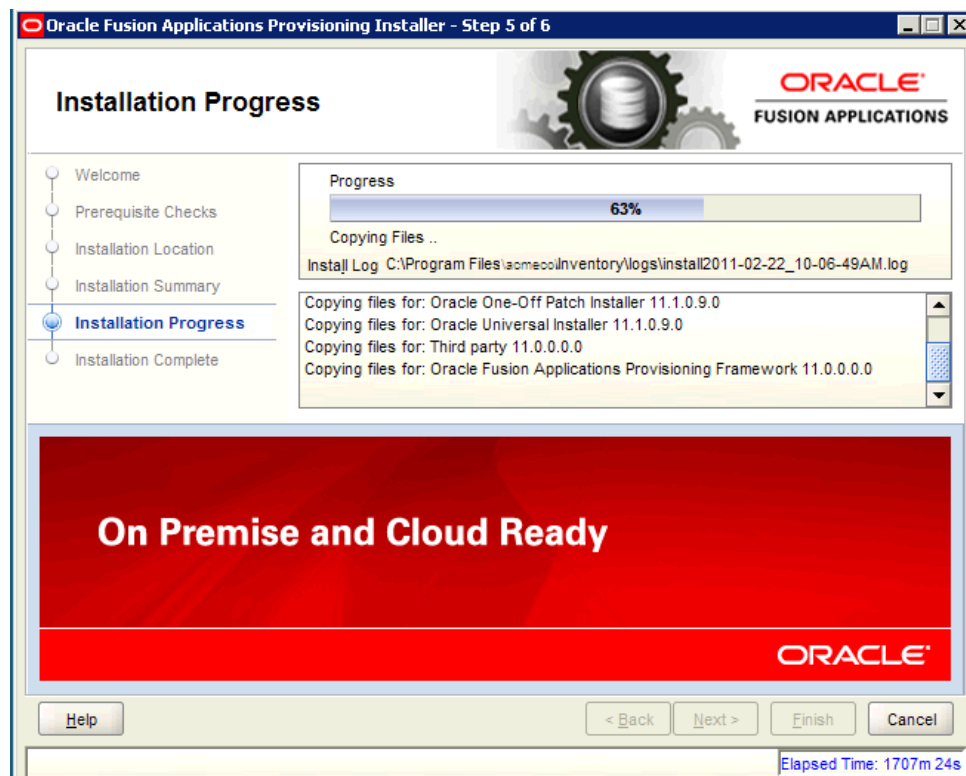
The progress indicator shows the percent of the installation that is complete, and indicates the location of the installation log files. No user action is required.

When the progress indicator indicates 100 percent, click **Next** to continue.

A.1.7 Installation Complete
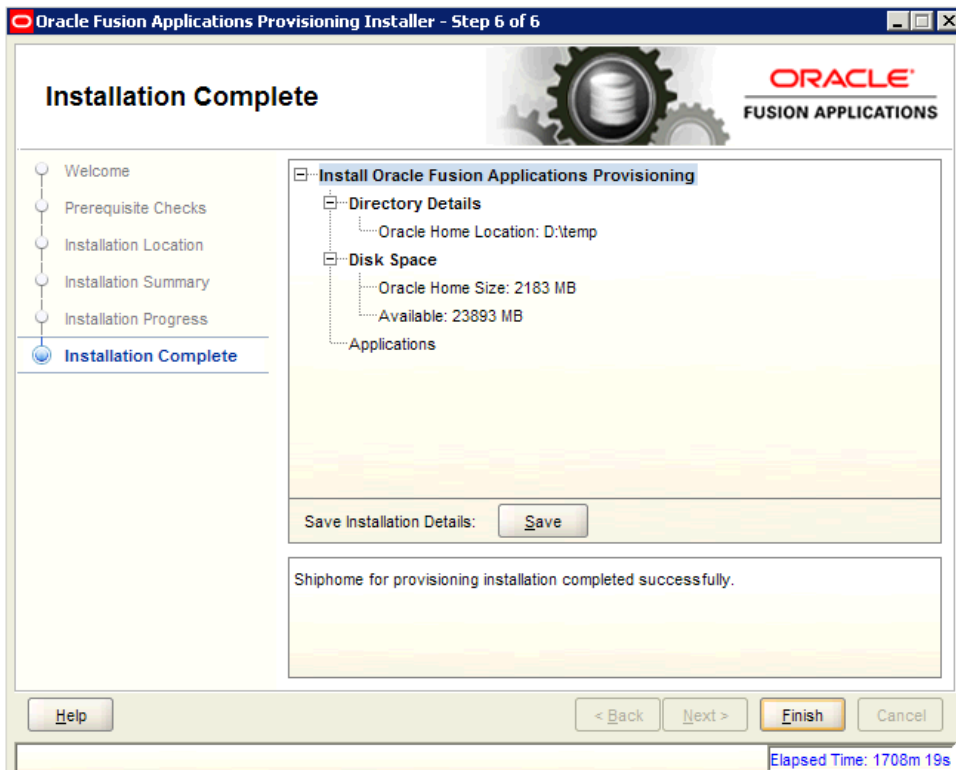
Summarizes the installation that was just completed. To save the details to a text file, click **Save** and indicate a directory where you want to save the file.

Click **Finish** to dismiss the screen and exit the installer.

A.2 Deinstalling Provisioning Framework Screens

To deinstall the provisioning framework, complete the information on these screens:

- Welcome
- Deinstall Oracle Home
- Deinstallation Progress
- Deinstallation Complete

A.2.1 Welcome

No action is required on the read-only screen.

Click **Next** to continue.

A.2.2 Deinstall Oracle Home

Verify that the directory path is correct. Click **Save** to create a text file with the details of the configuration you are deinstalling.

Click **Deinstall** to continue. On the **Warning** screen, click **Yes** to remove the software files and the provisioning Oracle **home directory**. Click **No** to remove only the software files, or **Cancel** to return to the previous screen.

If you clicked **No**, remove the files manually. For example, if the provisioning framework directory is /d1/Oracle/Provisioning, you would use this syntax:

(UNIX)

```
cd /d1/oracle/provisioning
rm -rf provisioning
```

(Windows)

If the Oracle home directory is C:\Oracle\Provisioning, use a file manager window and navigate to the C:\Oracle directory. Right-click the Provisioning folder and select **Delete**.

A.2.3 Deinstallation Progress
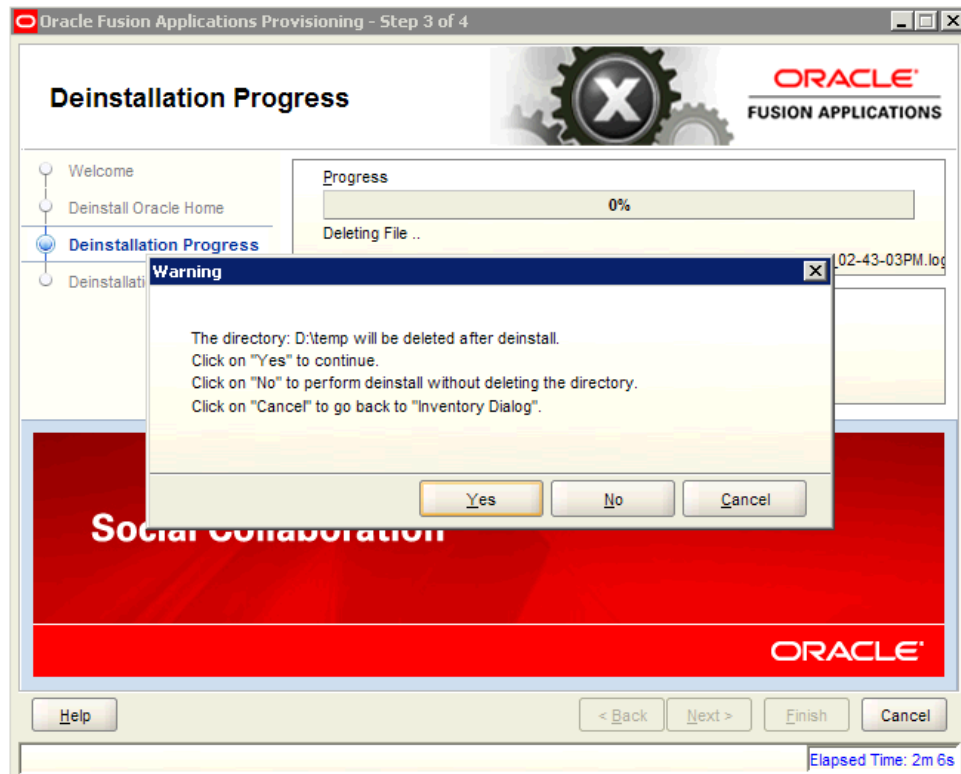
Monitor the progress of the deinstallation. Click **Cancel** to stop the process.

Click **Next** to continue.

A.2.4 Deinstallation Complete
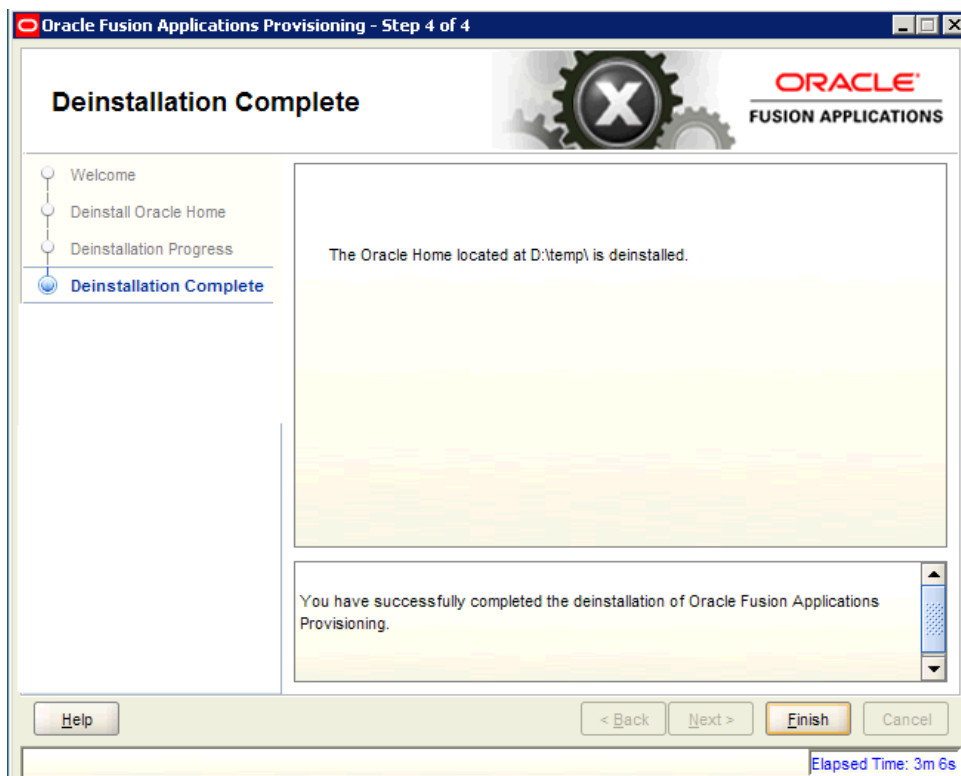
Review the summary of your deinstallation and the components that were deinstalled. Click **Finish** to exit.

B

Install Transaction Database Screens

This appendix presents the **Provisioning Wizard** screens in the Database Installation interview and describes the purpose of each of the following screens:

- Welcome
- Specify Central Inventory Directory
- Installation Options
- Specify Security Updates
- Database Install Configuration
- Prerequisite Checks
- Summary
- Database Installation Progress
- Installation Complete

B.1 Welcome
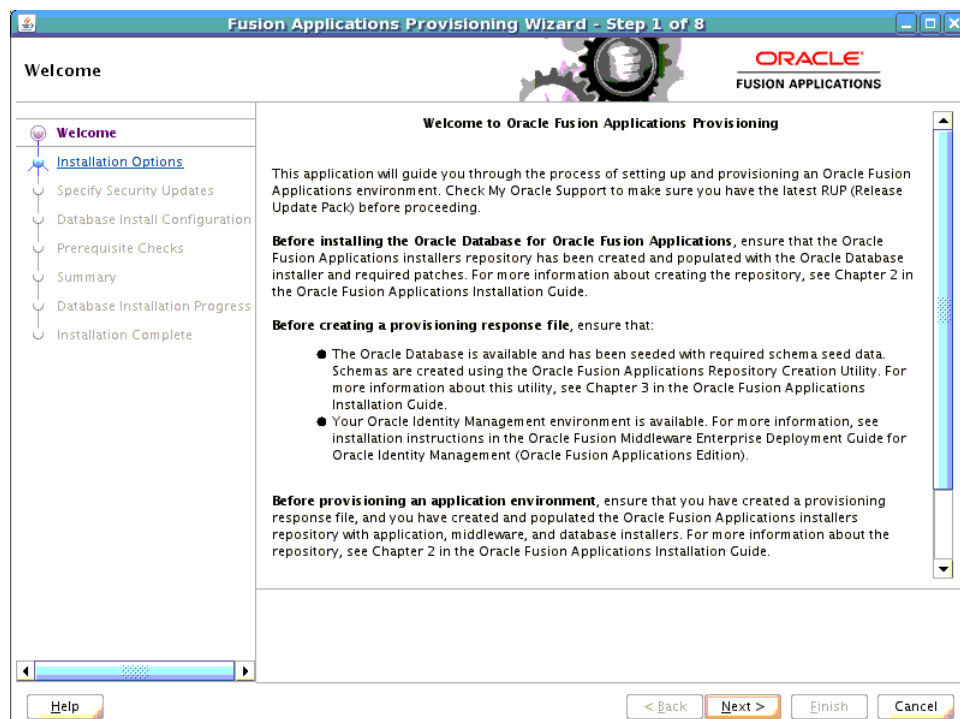
No action is required on this read-only screen.

Click **Next** to continue.

B.2 Specify Central Inventory Directory

This screen displays only if one or more of the following conditions are not met:

- The `-invPtrLoc` option is used to specify the central inventory location on non-Windows platforms, so the default value for your platform is not used. The default values for platforms follows:

    - Linux and AIX: `/etc/oraInst.loc`

    - Solaris and HP: `/var/opt/oracle/oraInst.loc`

- The Central Inventory Pointer File is readable.

- The Central Inventory Pointer File contains a value for `inventory_loc`.

- The `inventory_loc` directory is writable.

- The `inventory_loc` directory has at least 150K of space.

- `inventory_loc` is not an existing file.

Specify the location of the **Central Inventory Directory** that meets the previous criteria. The `inventory_loc` directory can be created by the `createCentralInventory.sh` script and does not have to exist at the time you specify its location.

For non-Windows platforms, in the **Operating System Group ID** field, select or enter the group whose members will be granted access to the inventory directory. All members of this group can install products on this host. Click **OK** to continue.

The **Inventory Location Confirmation** dialog prompts you to run the *inventory_ directory*`/createCentralInventory.sh` script as root, to confirm that all conditions are met and to create the default inventory location file, such as

`/etc/oraInst.loc`. After this script runs successfully, return to the interview and click **OK** to proceed with the installation.

If you do not have root access on this host but want to continue with the installation, select **Continue installation with local inventory** and click **OK** to proceed with the installation.

For Windows platforms, this screen displays if the inventory directory does not meet requirements.

For more information about inventory location files, see "Oracle Universal Installer Inventory" in the *Oracle Universal Installer and OPatch User's Guide*.

Click **Next** to continue.

B.3 Installation Options
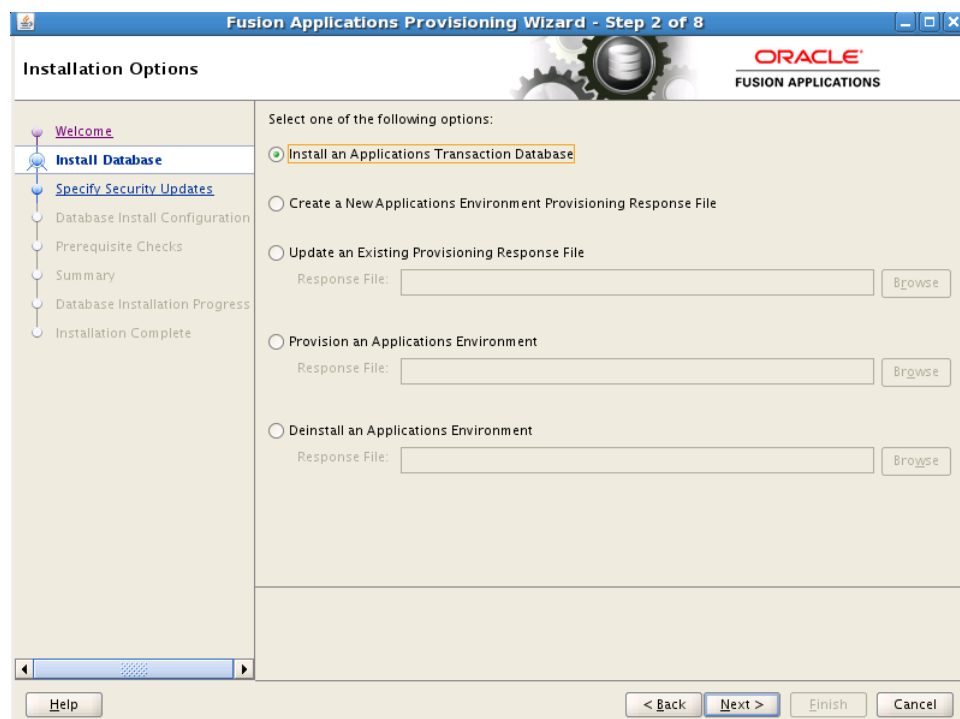
Select the task that you want to perform from the list of options. When prompted, enter a directory path in the **Response File** field to access completed **response file** to use as the base for one of the actions. Or, click **Browse** to navigate to the response file location.

- **Install an Applications Transaction Database**: Install an empty, single-instance Oracle Database Enterprise Edition using the nonseeded database template shipped with this release.

- **Create a New Applications Environment Provisioning Response File**: Create a response file for a new Oracle Fusion Applications environment.

- **Update an Existing Provisioning Response File**: Add or change details in a completed response file that has not yet been implemented or in a partially completed response file.

■ **Provision an Applications Environment**: Initiate and track the processes that install, configure, and deploy **product offerings** in a new Oracle Fusion Applications environment.

■ **Deinstall an Applications Environment**: Remove applications and middleware components from an existing applications environment.

Click **Next** to continue.

B.4 Specify Security Updates

Set up a notification preference for security-related updates and installation-related information from My Oracle Support.

■ **Email**: Specify your email address to have updates sent by this method.

■ **I wish to receive security updates via My Oracle Support**: Select this option to have updates sent directly to your My Oracle Support account. You must enter your **My Oracle Support Password** if you select this option.

Click **Next** to continue.

B.5 Database Install Configuration

Specify information about the database that you want to install:

- **Database Listener Port**: Port number designated for the database server. The default port for Oracle Database is 1521.

- **Installers Directory Location**: Enter the path to the *repository_location* directory you created when you downloaded the **provisioning repository**. For Windows, the location must be a symbolically linked directory. Symbolic links are described in *Oracle Fusion Applications Installation Guide*. Note that a symbolic link is not necessary if the repository and the database are on the same node.

- **Oracle Base**: Enter the top-level directory for Oracle software installations. You can change the path based on your requirements.

- **Software Location**: Accept the default value or enter the Oracle **home directory** path that points to where you want the data files to reside. The directory path must not contain spaces.

- **Database File Location**: Accept the default value or enter the path to the .dbf, .dtl, and .log files.

- **OSDBA Group**: The UNIX operating system group that the database administrator is a member of. Displayed only if the platform detected by the installer is UNIX.

- **Global Database Name**: Enter a name to distinguish this database instance from other Oracle Database instances running on the same host. The name can be written as *database name* or *database name.domain name*. This is the database service name.

- **Administrative Password**: Specify a valid password. Retype it to **Confirm**.

Click **Next** to continue.

B.6 Prerequisite Checks
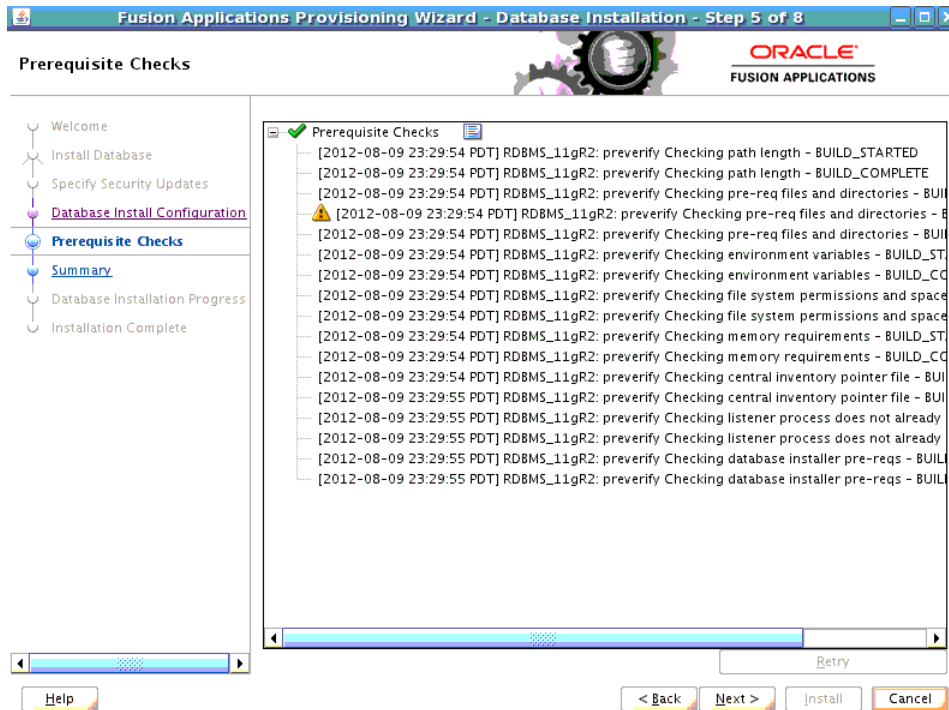
The **Prerequisite Checks** list shows each prerequisite check performed, and its status:

- **Block**: Processing has not yet started on this host for the named phase.

- **Clock**: Performing the build for a phase.

- **Check mark**: The build was completed successfully.

- **x** mark: The build has failed for this phase. You must correct the errors before you can continue.

- **Restricted** symbol: The validation process has stopped due to a failure within another process.

Click an **x** or a **Restricted** symbol to display information about failures. Click the **Log** file for details about the validation.

Fix any issues reported, and click **Retry** to run the prerequisite checks again. See "Troubleshooting for Database Installation" in the *Oracle Fusion Applications Installation Guide* for information about recovery after failure.

When prerequisite checking is complete with no errors, click **Next** to continue.

B.7 Summary
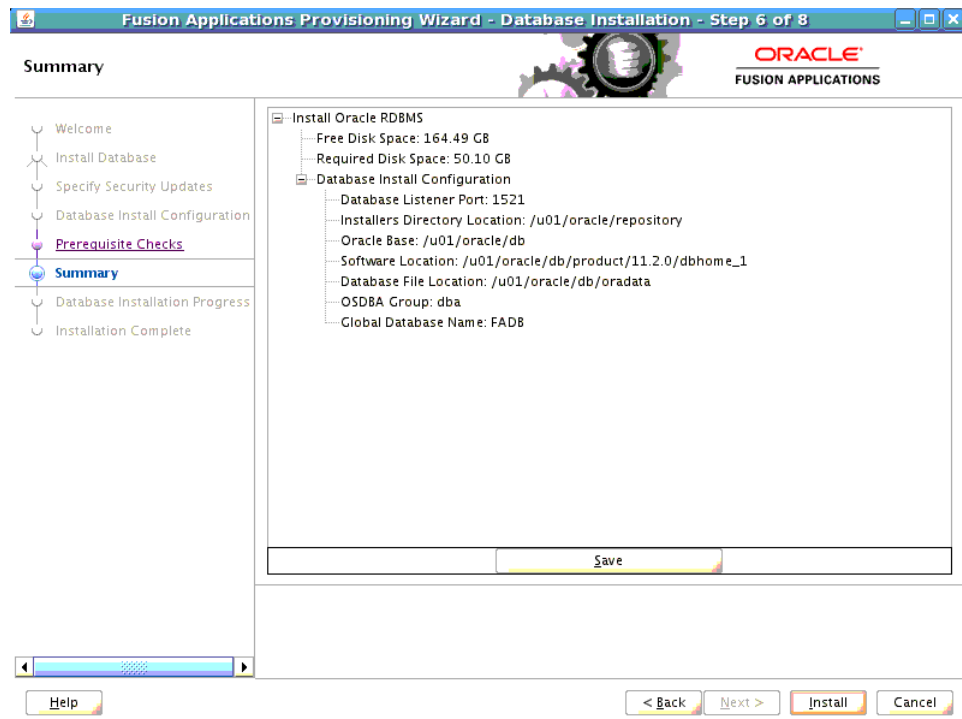
Click **Save** to create and save a text file to use as a record of this configuration.

Note: Record the file name and its location. You must supply these details when you create a response file.

Click **Install** to begin the installation.

B.8 Database Installation Progress
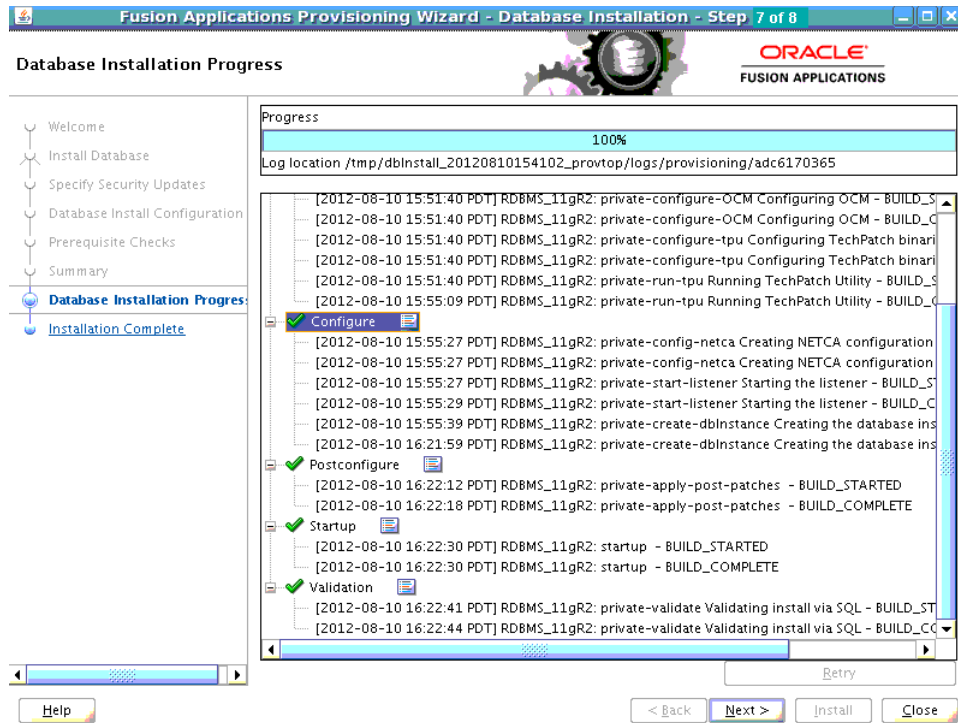
The installation **Progress** is reported by phase:

- **Installation**: Runs the database installer to install the software.

- **Preconfigure**: Applies patches to the installed database. The patches are located in the *repository_location*/installers/database/patch directory.

- **Configure**: Creates services used to connect to the database and applies the database template to set system parameters.

- **Postconfigure**: Performs any necessary postconfigure steps.

- **Startup**: Starts any installed components that are not already started.

- **Validation**: Connects to the database to verify the integrity of the installation.

The progress of the installation phases is listed. A message appears after the installation phase is complete directing you to run root.sh. Follow this instruction and click **OK** when you are finished to continue the installation.

The central log file location is displayed below the **Progress** bar. Click a **Log** icon to view phase log files. Click **Retry** if a failure occurs. If a recovery action is necessary, see "Troubleshooting for Database Installations" in *Oracle Fusion Applications Installation Guide*.

Click **Next** to continue.

B.9 Installation Complete
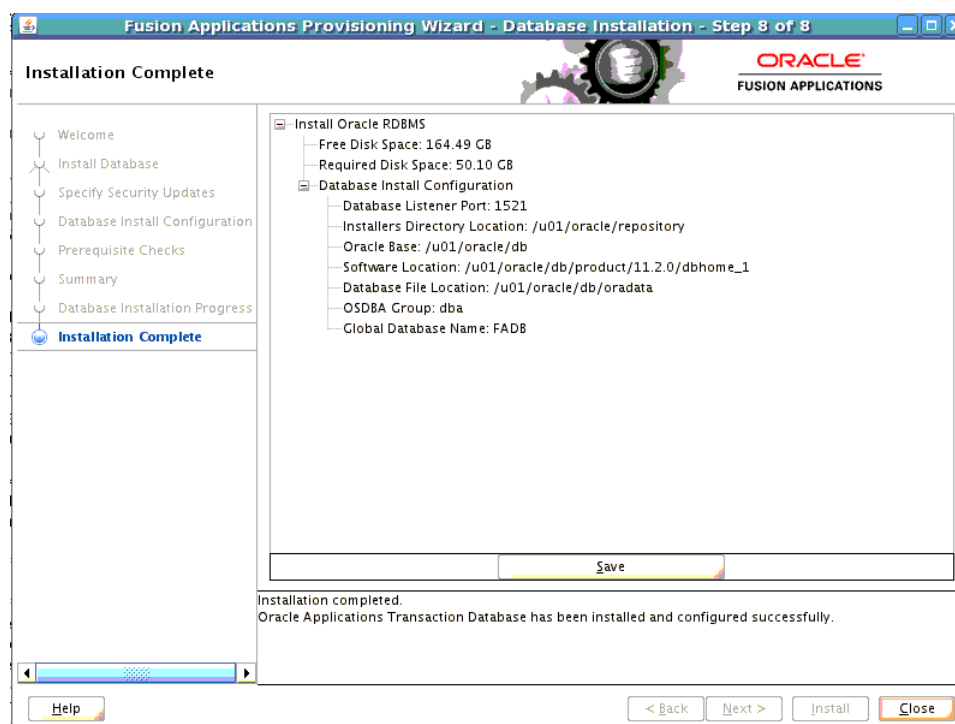
Summarizes the actions and validations that were performed for this installation. Click **Save** to record the database summary information in a text file.

Record the name and location of this file. You must supply these details when you create a response file. Your system administrator may also need this information as they perform maintenance tasks.

Click **Close** to dismiss the screen and exit the wizard.

C

Oracle Fusion Applications RCU Screens

This appendix presents the Oracle Fusion Applications Repository Creation Utility (Oracle Fusion Applications RCU) creation interface and describes the purpose of each of the following screens:

- Welcome
- Create Repository
- Database Connection Details
- Select Components
- Schema Passwords
- Custom Variables
- Map Tablespaces
- Summary
- Completion Summary

C.1 Welcome
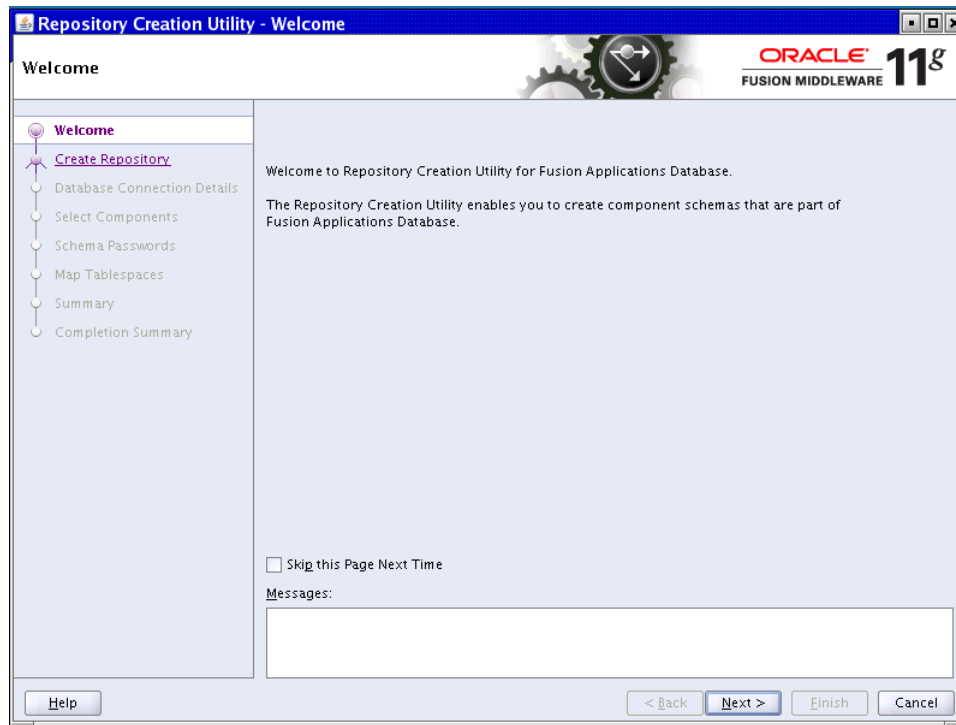
No action is necessary on this standard read-only screen. Click **Skip this Page Next Time** if you do not want to see it the next time you log in to the Oracle Fusion Applications RCU.

Click **Next** to continue.

C.2 Create Repository

Select **Create** to create and load component schemas into the database.

Click **Next** to continue.

C.3 Database Connection Details
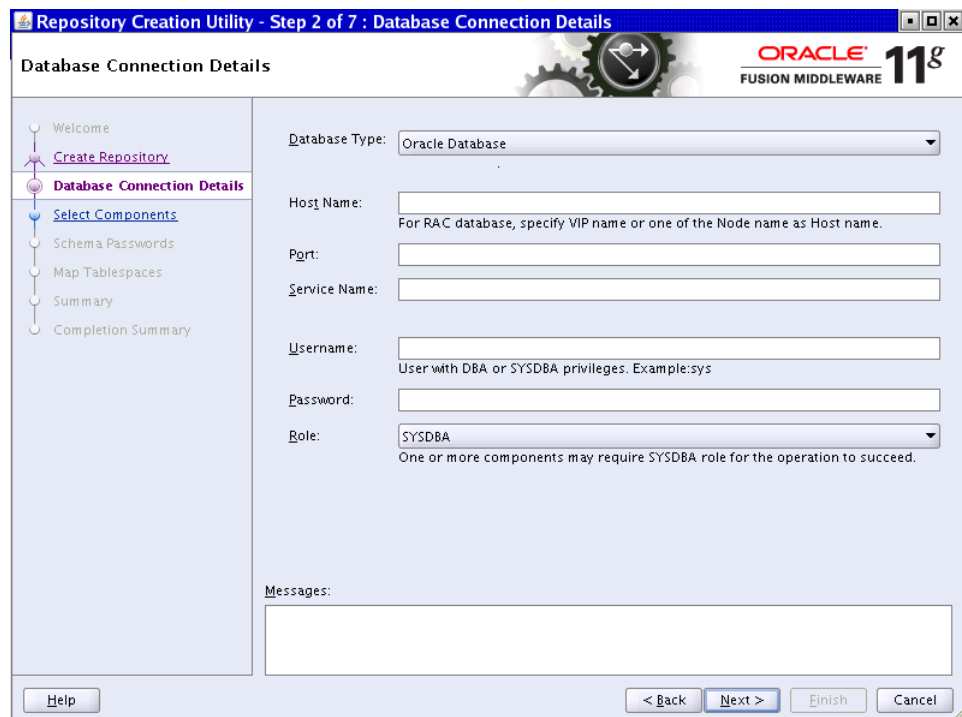
For Oracle Database, specify the following connection credentials:

- **Database Type**: Select the database type.

- **Host Name**: Enter the name of the node on which the database resides, for example, `myhost.mydomain.com`. For Oracle RAC, specify the VIP name or one of the node names as the host name.

- **Port**: Specify the listener port number for the database. The default port number is 1521.

- **Service Name**: This is the global database name. If you do not know it, see the `SERVICE_NAMES` parameter in the database initialization file. If it is not there, use the global name in `DB_NAME` and `DB_DOMAIN`. For Oracle RAC, specify the service name of one of the nodes, for example, `examplehost.exampledomain.com`.

- **User Name**: Supply the name of the user with DBA or SYSDBA privileges. The default user name with SYSDBA privileges is `SYS`.

- **Password**: Enter the password for the database user.

- **Role**: Select Normal or SYSDBA. All schemas installed for Oracle Database require the `SYSDBA` role. For Oracle Internet Directory (OID) database schemas, use `SYS` and `SYSDBA`.

Click **Next** to continue.

C.4 Select Components
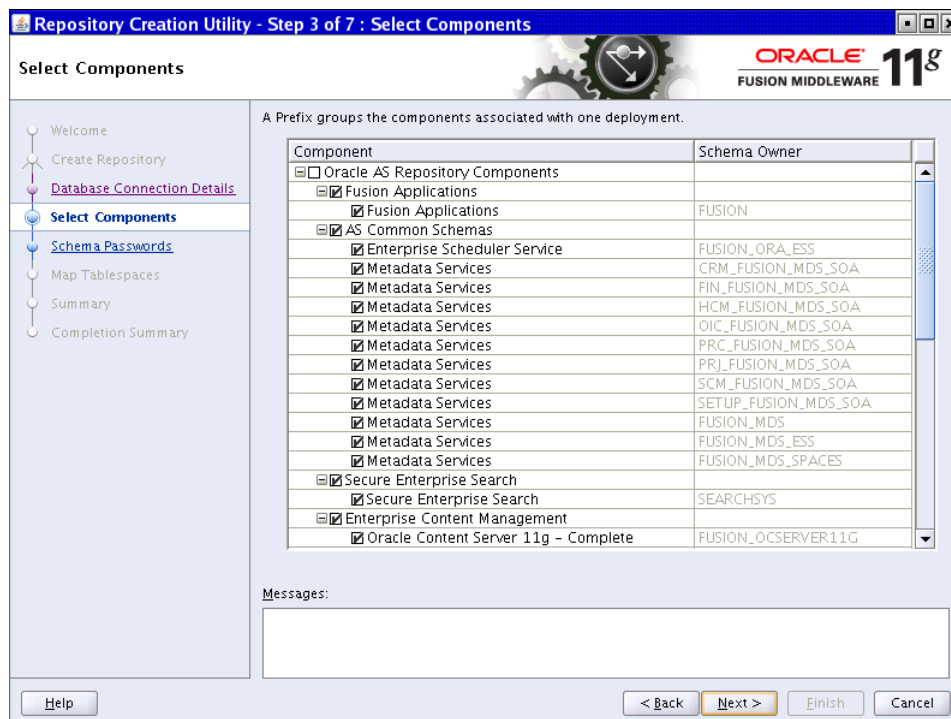
The Oracle Fusion Applications RCU retrieves the names of the Oracle Fusion Middleware and Oracle Fusion Applications components. You cannot change the schema owner names on this screen. By default, all components are checked so that they are included in the prerequisite check process. Click **Next** to begin the process.

The Oracle Fusion Applications RCU verifies the global prerequisites. When the progress bar reports 100 percent complete and all prerequisites report a check mark, click **OK**.

> **Note:** When you use the Provisioning Wizard to install the database using the dbca template, the default values for the disk_asynch_io and filesystemio_options parameters are as follows:
>
> disk_asynch_io is set to TRUE
>
> filesystemio_options will be set to the default value based on the platform where the database is installed. It could be either "none", "setall", "asynch", or "diskio". To verify that the filesystemio_options parameter is using the default value, run the following query: `"select isdefault from v$parameter where name='filesystemio_options"`. If it returns TRUE, the default value is set.
>
> If you change the parameter value from the original default value to another value and then change it back to the original default value, the default value will still remain FALSE.
>
> The following Warning messages will be displayed based on the values set:
>
> If disk_asynch_io is set to FALSE and filesystemio_options is set to the default value, a Warning message will be displayed recommending setting the value for disk_asynch_io to TRUE.
>
> If disk_asynch_io is set to FALSE and filesystemio_options is not set to the default value, a Warning message will be displayed recommending setting the value for disk_asynch_io to TRUE for the best performance optimization.

Click **Next** to continue.

C.5 Schema Passwords
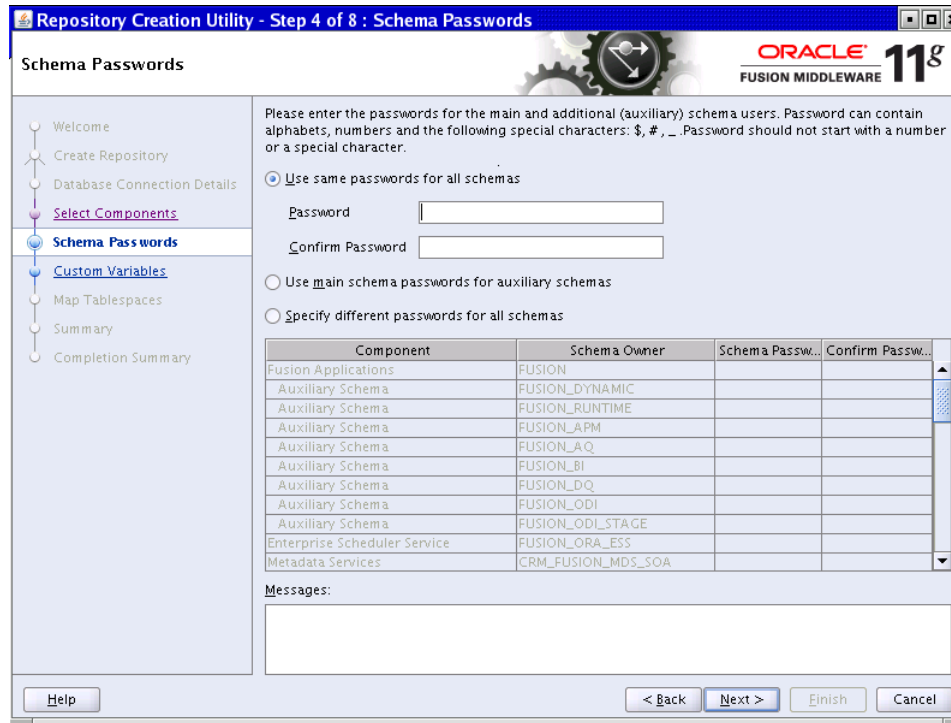
To specify the passwords for main and additional (auxiliary) schemas, select one of the following options:

- **Use same passwords for all schemas**: Specify a single password for both schemas. Retype to **Confirm**.

- **Use main schema passwords for auxiliary schemas**: Specify a different password to use for each main schema and for the associated auxiliary schema. Only the main schemas are visible. Retype the password to **Confirm**.

- **Specify different passwords for all schemas**: Specify a unique password for each main schema and its auxiliary schema. All schemas are visible. Retype to **Confirm**.

Note the passwords that you enter. You must supply them when you create a **response file**.

Click **Next** to continue.

C.6 Custom Variables

In the **Value** column, enter a pre-existing physical directory on the database server where the custom variables for each component should be created.

Fusion Applications

- **FUSIONAPPS_DBINSTALL_DP_DIR**: The directory on the database server where you unzipped `export_fusionapps_dbinstall.zip` and copied the `otbi.dmp` file.

- **APPLCP_FILE_DIR**: Used by Oracle Enterprise Scheduler to store the log and output files. Must be valid on the database server with read-write permissions to the database owner. For Oracle RAC, must point to a location that is shared across all nodes.

- **APPLLOG_DIR**: Location of the PL/SQL log file from Oracle Fusion Applications PL/SQL procedures, on the database server. Ensure that the database owner has read-write privileges.

- **OBIEE Backup Directory**: Location of the Oracle Business Intelligence Enterprise Edition dump files. These files are used for enabling a restart action.

Secure Enterprise Search

- **Do you have Advanced Compression Option (ACO) License? Yes (Y) or No (N)**: Default is No.

- **Do you have Oracle Partitioning option License? Yes (Y) or No (N)**: Default is No.

Master and Work Repository

Note: The default values are the **only** valid values. If you change any of these values, the ODI-related provisioning process will not work.

- **Master Repository ID**: Default = 501

- **Supervisor Password**: Enter and confirm your ODI supervisor password.

- **Work Repository Type**: (D) Development or (E) Execution = D

- **Work Repository ID**: Default = 501

- **Work Repository Name**: Default = FUSIONAPPS_WREP

- **Work Repository Password**: Enter and confirm your Work Repository supervisor password.

Oracle Transactional BI

- Directory on the database server where Oracle Transactional Business Intelligence import and export files are stored.

Activity Graph and Analytics

- **Install Analytics with Partitioning (Y/N)**: Default is N.

Click **Next** to continue.

C.7 Map Tablespaces
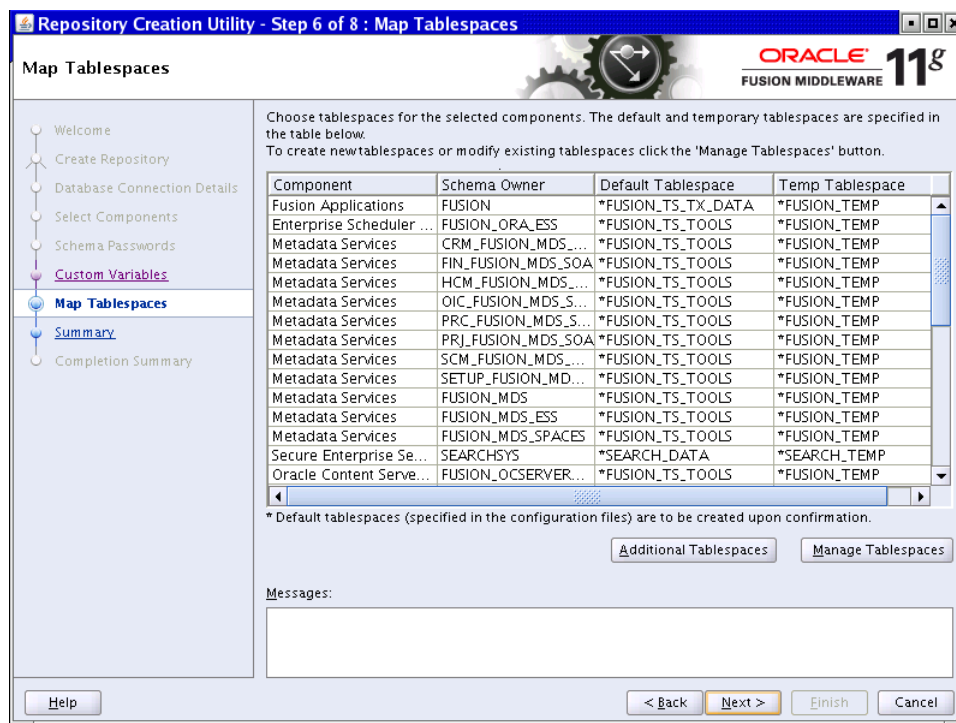
If you want to start the tablespace create process without making any changes, click **Next** on this screen. A message informs you that any tablespaces that do not already exist will be created. Click **OK** to continue. The **Creating Tablespaces** progress screen appears. Click **OK** when the operation is completed.

However, before you create the tablespaces, you can perform the following operations:

- Change Default and Temporary Tablespaces

- View and Change Additional Tablespaces

- Manage Tablespaces and Datafiles (add, modify, or remove)

To view default and temporary tablespaces, click a tablespace cell in the Default Tablespace or Temp Tablespace column. A list of default tablespace names appears.
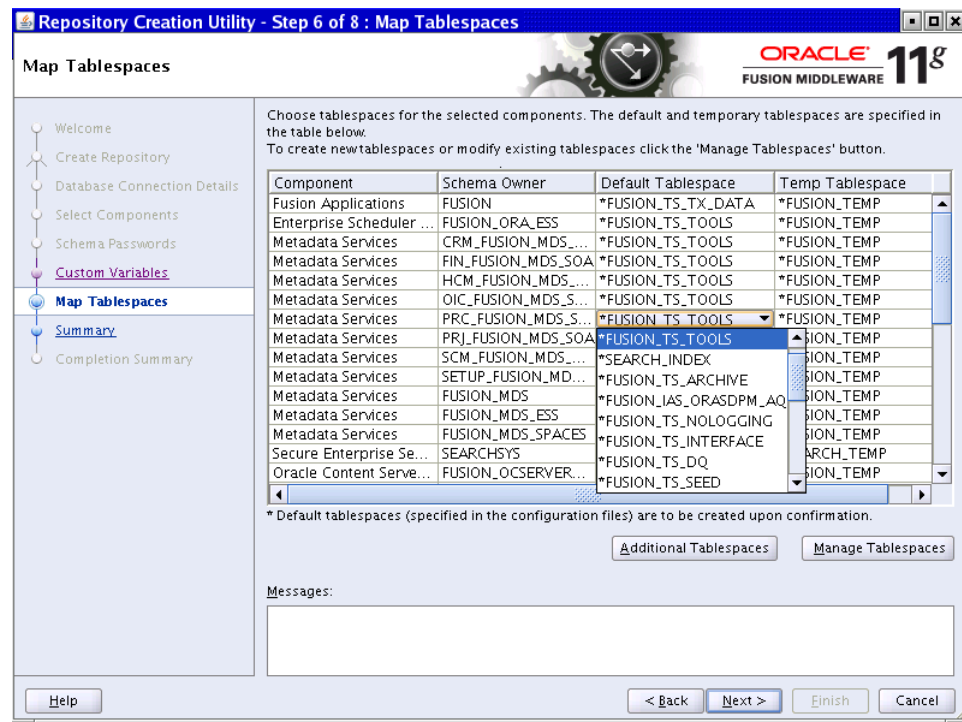
The default values are as follows:

- **FUSION_TEMP**: For temporary tables.

- **FUSION_DYN_TS**: For dynamically generated PL/SQL statements.

- **FUSION_IAS_ORASDPM_AQ**: For advanced queuing JMS data and indexes.

- **FUSION_TS_AQ**: For advanced queuing JMS data and indexes.

- **FUSION_TS_DQ**: For data quality data and indexes.

- **FUSION_TS_TOOLS**: Associated with Oracle Fusion Middleware data and indexes.

- **FUSION_TS_QUEUES**: For advanced queuing and dependent tables and indexes.

- **FUSION_TS_TX_DATA**: For transactional data.

- **FUSION_TS_TX_IDX**: Indexes for transactional data.

- **FUSION_TS_SEED**: For seed or reference data and indexes.

- **FUSION_TS_INTERFACE**: For temporary or interface data and indexes.

- **FUSION_TS_SUMMARY**: For summary management objects.

- **FUSION_TS_NOLOGGING**: For materialized views and other temporary or scratch pad objects.

- **FUSION_TS_ARCHIVE**: For tables and objects that are no longer used.

- **FUSION_TS_MEDIA**: Contains multimedia objects such as text, video, and graphics.

For tablespaces that need to be created, the datafile defaults to %DATAFILE_LOCATION%\%sid%\%tablespace_name%.dbf. You can select from existing tablespaces if they are already defined in the database.

C.7.1 Change Default and Temporary Tablespaces

To change the default tablespace for a component, select the tablespace name in the Default Tablespace column, and then select the tablespace name you want to use from the list. You can assign components to use any number of default tablespaces.

To change a temporary tablespace for a component, select a tablespace name in the Temp Tablespace column, and then select the tablespace name from the list.

C.7.2 View and Change Additional Tablespaces

When components have additional tablespaces associated with their schemas, the **Additional Tablespaces** button is active. Click to view or modify additional tablespaces.
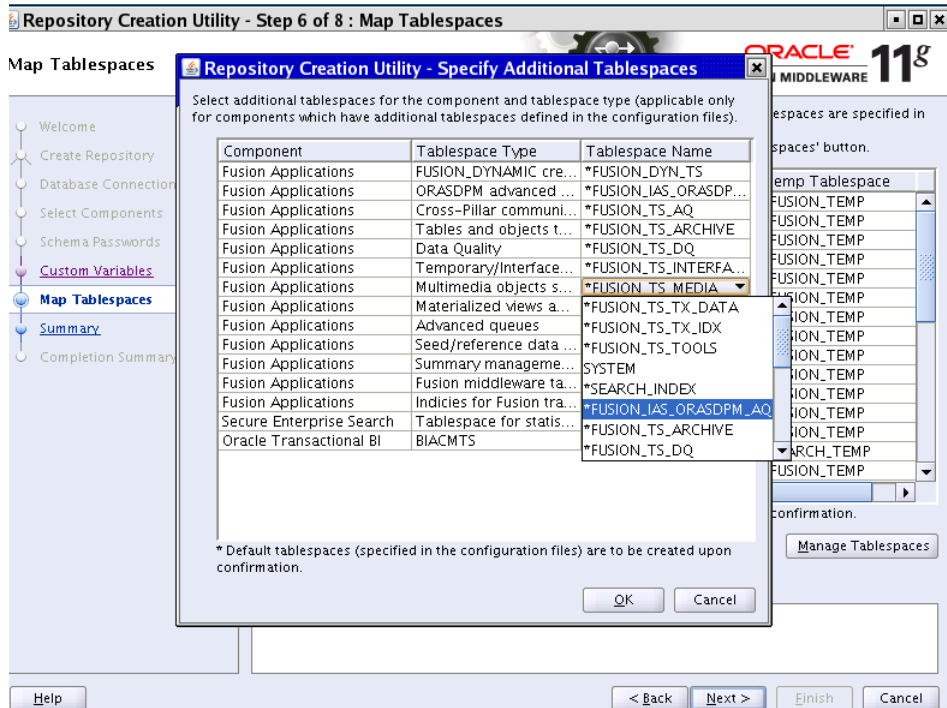
To change a tablespace, click in the Tablespace Name column and select the tablespace from the list.

Click **OK** when you are finished.

C.7.3 Manage Tablespaces and Datafiles

Click **Manage Tablespaces** to add, modify, or remove tablespaces.
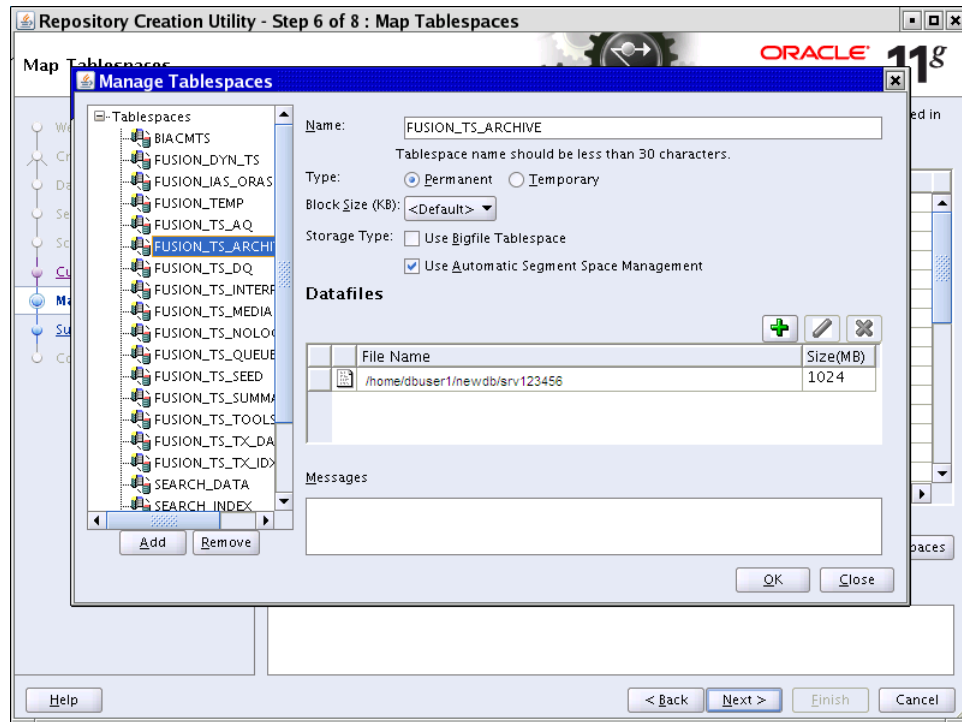
Only tablespaces that have not yet been created can be modified or removed. Existing tablespaces are visible, but grayed out. You can specify a new tablespace, but unless it is used by a component, it will not be created.

Select a tablespace from the navigation tree and make changes where necessary:

- **Name**: Specify a new name for the tablespace.

- **Type**: Indicate whether this tablespace is temporary or permanent.

- **Block Size**: Specify the block size (in kilobytes) to be used for data retrieval.

- **Storage Type**: Select **Use Bigfile Tablespace** if you have single large files. Select **Use Automatic Segment Space Management** to use bitmaps to manage free space within segments.

To **Add** a tablespace, specify the same details as for modifying one. Select a tablespace name from the navigation tree and click **Remove** to prevent it from being created.

Manage Datafiles

Click the **Plus (+)** icon and complete the **Add Datafile** details:

- **File Name**: The name of the datafile.

- **File Directory**: The location where the datafile will reside.

- **Size**: The initial size of the datafile.

- **Automatically extend datafile when full (AUTOEXTEND)**: Select this option to extend the datafile size automatically when it becomes full. In the **Increment**, field, select the size by which the datafile should be increased.

- To limit the maximum size, specify a value in the **Maximum Size** field.

Select a datafile and click the **pencil** icon. Modify the details on the **Edit Datafile** screen. Select a datafile and click the **X** icon to delete the file.

Edit a Datafile Size

To change the size of a tablespace:

1. Click a tablespace name to select it.

2. Click the **pencil** icon to bring up the **Edit Datafile** screen.

3. In the **Size** field, enter a new file size. For tablespaces with multiple data files, such as FUSION_TS_TX_DATA, you may delete the additional data files using the Remove Data File icon (**X**).

4. Click **OK** when you have configured all the tablespaces to return to the Map Tablespaces screen.

Click **OK** to dismiss the screen.

C.8 Summary
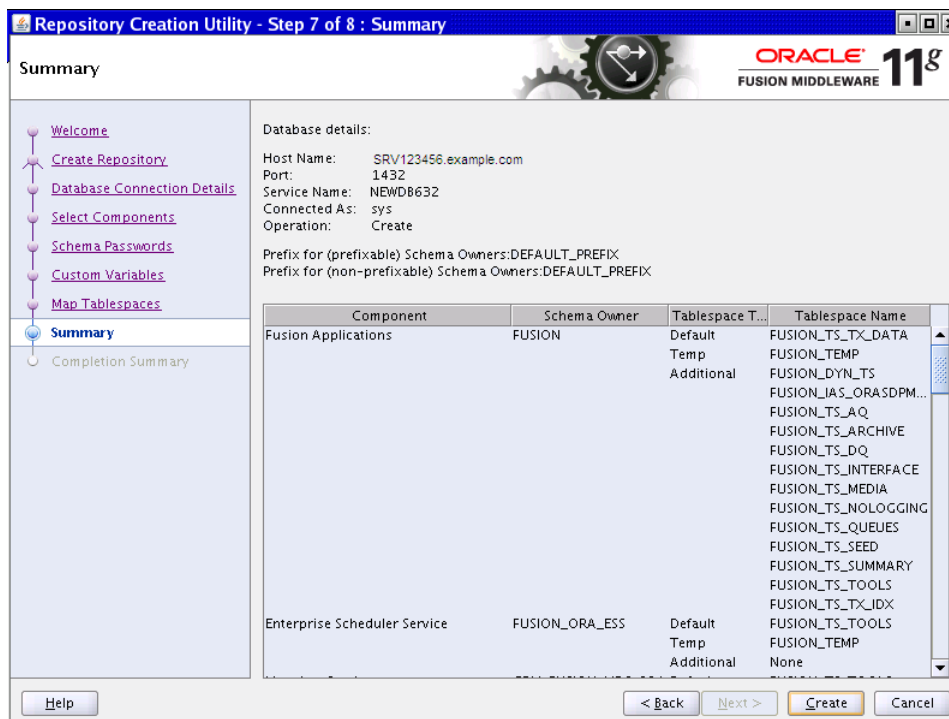
Review the information you have specified. If it is what you expected, click **Create** to begin creating schemas. The Oracle Fusion Applications RCU displays the **Repository Creation Utility – Create** screen, showing the schema creation process.

Typically, it takes 1 to 10 minutes to create each schema; however, the entire process may run for an additional half hour or more.
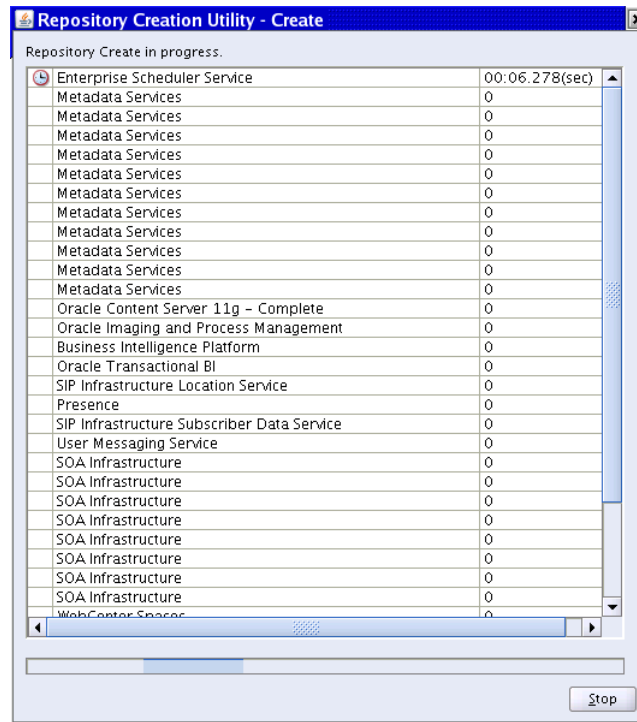
A **Clock** indicates which schema creation is in progress. A **Check** indicates that the schema has been created successfully. To stop creating the schemas, click **Stop**.

C.9 Completion Summary
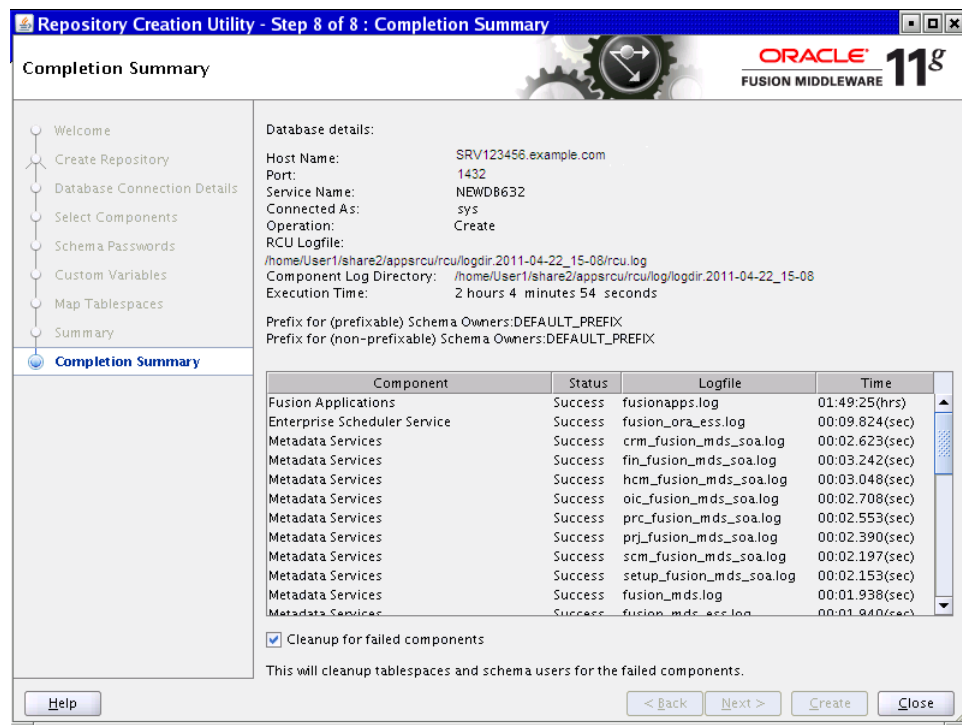
The names of the log files for each component are listed in the Logfile column. The main Oracle Fusion Applications RCU log (`rcu.log`) and the component log files are written to the following directory:

(UNIX)

APP_RCU_HOME/rcu/log/logdir.*date_timestamp*.log

(Windows)

APP_RCU_HOME\rcu\log\logdir.*date_timestamp*

If problems were encountered during the **Create** operation, check the log files for details. For more information about log files, see "Troubleshooting for Database Installations" in *Oracle Fusion Applications Installation Guide*.

If errors occur during the **Create** operation, or if the operation fails for any component, the **Cleanup for failed components** check box appears on this page and is selected by default. If you leave the check box selected, the Oracle Fusion Applications RCU automatically performs **cleanup** actions for the components that failed.

Click **Close** to dismiss the screen and exit the Oracle Fusion Applications RCU.

D

Create a New Response File Screens

This appendix contains descriptions of the interview screens in the Create a New Applications Environment Response File option and describes the purpose of each of the following screens:

- Welcome
- Specify Central Inventory Directory
- Installation Options
- Specify Security Updates
- Provisioning Configurations
- Response File Description
- Installation Location
- System Port Allocation
- Database Configuration
- Schema Passwords
- ODI Password Configuration
- Domain Topology Configuration
- Common Domain
- Customer Relationship Management Domain
- Financial Domain
- Human Capital Management Domain
- Incentive Compensation Domain
- Procurement Domain
- Projects Domain
- Supply Chain Domain
- Business Intelligence Configuration
- Web Tier Configuration
- Virtual Hosts Configuration
- Load Balancer Configuration
- Web Proxy Configuration
- IDM Properties File

- [Identity Management Configuration](#)

- [Access and Policy Management Configuration](#)

- [IDM Database Configuration](#)

- [Summary](#)

D.1 Welcome
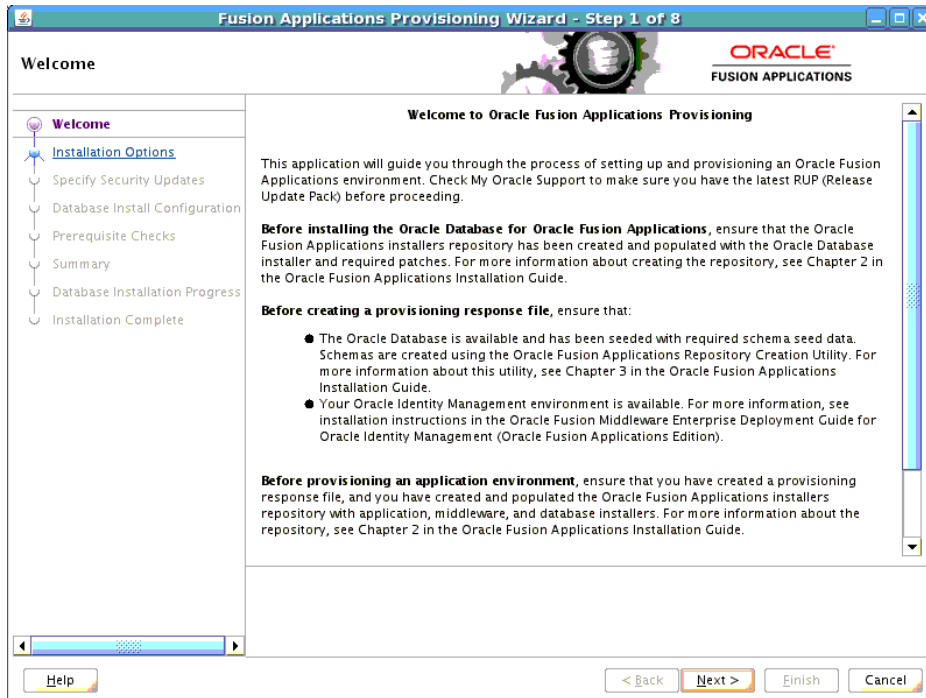
No action is necessary on this read-only screen.

Click **Next** to continue.

D.2 Specify Central Inventory Directory

This screen displays only if one or more of the following conditions are not met:

- The `-invPtrLoc` option is used to specify the central inventory location on non-Windows platforms, so the default value for your platform is not used. The default values for platforms follows:

    - Linux and AIX: `/etc/oraInst.loc`

- – Solaris and HP: `/var/opt/oracle/oraInst.loc`
- The Central Inventory Pointer File is readable.
- The Central Inventory Pointer File contains a value for `inventory_loc`.
- The `inventory_loc` directory is writable.
- The `inventory_loc` directory has at least 150K of space.
- `inventory_loc` is not an existing file.

Specify the location of the **Central Inventory Directory** that meets the previous criteria. The `inventory_loc` directory can be created by the `createCentralInventory.sh` script and does not have to exist at the time you specify its location.

For non-Windows platforms, in the **Operating System Group ID** field, select or enter the group whose members will be granted access to the inventory directory. All members of this group can install products on this host. Click **OK** to continue.

The **Inventory Location Confirmation** dialog prompts you to run the *inventory_directory*/`createCentralInventory.sh` script as root, to confirm that all conditions are met and to create the default inventory location file, such as `/etc/oraInst.loc`. After this script runs successfully, return to the interview and click **OK** to proceed with the installation.

If you do not have root access on this host but want to continue with the installation, select **Continue installation with local inventory** and click **OK** to proceed with the installation.

For Windows platforms, this screen displays if the inventory directory does not meet requirements.

For more information about inventory location files, see "Oracle Universal Installer Inventory" in the *Oracle Universal Installer and OPatch User's Guide*.

Click **Next** to continue.

D.3 Installation Options

Select the task that you want to perform from the list of options. When prompted, enter a directory path in the **Response File** field to access a completed **response file** to use as a base for one of the actions. Or, click **Browse** to navigate to the response file location.

■ **Install an Applications Transaction Database**: Install an empty, single-instance Oracle Database Enterprise Edition using the nonseeded database template shipped with this release.

■ **Create a New Applications Environment Provisioning Response File**: Create a response file for a new Oracle Fusion Applications environment.

■ **Update an Existing Provisioning Response File**: Add or change details in a completed response file that has not yet been implemented or in a partially completed response file.

■ **Provision an Applications Environment**: Initiate and track the processes that install, configure, and deploy product offerings in a new Oracle Fusion Applications environment.

■ **Deinstall an Applications Environment**: Remove applications and middleware components from an existing applications environment.

Click **Next** to continue.

D.4 Specify Security Updates

Set up a notification preference for security-related updates and installation-related information from My Oracle Support. This information is optional.

- **Email**: Specify your email address to have updates sent by this method.

- **I wish to receive security updates via My Oracle Support**: Select this option to have updates sent directly to your My Oracle Support account. You must enter your **My Oracle Support Password** if you select this option.

Click **Next** to continue.

D.5 Provisioning Configurations

Select one or more offerings, either within a configuration, or from the list of standalone product offerings.

You can select individual product offerings within a configuration, without selecting all available offerings. When you do, provisioning starts the Managed Servers *only for the offerings that you selected*. However, because you have specified interdependent details for the entire configuration, you can "turn on" additional functionality later by using the Oracle Fusion Applications Functional Setup Manager to start the other Managed Servers.

> **Note:**
>
> ■ If you select the **Projects** check box within the **Oracle Fusion Financials** offering, the Project Management application will be available in the Projects domain.
>
> ■ If you select the **Workforce Development** or **Workforce Deployment** check boxes within the **Oracle Fusion Human Capital Management** offering, the Workforce Reputation application will be available in the HCM domain.

Click **Details** in the message pane to see a breakdown of servers for each offering.

After you click **Next**, you cannot change the selections on this screen. To make changes, click **Cancel**, open a new wizard session, and create a new response file.

Click **Next** to continue.

D.6 Response File Description

Enter descriptive information for this **response file**. This description is not associated in any way with the executable response file, or the summary file, that you save at the end of the response file creation process.

- **Response File Name**: Specify a name to identify this response file.

- **Response File Version**: Assign a version number to keep track of changes that you made to a response file. This information is for documentation only.

- **Created By**: Defaults to the operating system user who invoked the wizard. Set when the response file is initially created and cannot be modified for the current response file.

- **Created Date**: Defaults to the date that the response file was initially created and saved. Set when the response file was initially created and cannot be modified for the current response file.

- **Response File Description**: Provide a description of this response file.

To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.

Click **Next** to continue.

D.7 Installation Location

Specify credentials for the Node Manager and supply the location of the various directories required for installation and configuration actions.

Node Manager Credentials

- **User Name**: Specify a user name for the Node Manager role.

- **Password**: Specify a password for the Node Manager and retype it in the **Confirm Password** field.

Provide locations of various directories that the administrator needs access to.

Installation and Configuration

- **Installers Directory Location**: Enter the path to the `repository_location` directory you created when you downloaded the **provisioning repository**. For Windows, the location must be a symbolically linked directory. See "Set Up the Server and the shared Area Permissions" in *Oracle Fusion Applications Installation Guide*. Note that a symbolic link is not necessary if the repository and the database are on the same node.

- **Applications Base**: Enter the directory path to the Fusion Applications Oracle home. The Oracle Fusion Applications Oracle **home directory** (`FA_ORACLE_HOME`) is located under the `APPLICATIONS_BASE`/`fusionapps` directory (`net/mount1/appbase/fusionapps`).

  The applications base directory must not be set to the system root directory or set to the root directory of a logical drive. Some lifecycle management tools computed directory names by backing up one directory level from the applications base directory and then appending the appropriate subdirectory name. These tools will fail if the applications base directory is set to the system root directory or set to the root directory of a logical drive because it is not possible to back up one directory level from the system root directory or from the root directory of a logical drive.

In a Unix environment, this name cannot exceed 59 characters.

In a Windows environment, this name cannot exceed eight characters, and must be a symbolically linked directory. See "Set Up the Server and the shared Area Permissions" in *Oracle Fusion Applications Installation Guide.*

- **Applications Configuration**: This directory is automatically populated based on the value you specify in the **Oracle Fusion Applications Home** field. It is the path to the directory where the configuration files for the domain will be written. For Windows, the location must be a symbolically linked directory. See "Set Up the Server and the shared Area Permissions" in *Oracle Fusion Applications Installation Guide*.

- **Enable Local Applications Configuration**: Select this check box if you want Managed Servers to run from a non-networked (local) disk on the host, visible only to the processes running on that host. If you enable this option, the wizard copies the domain configuration from the shared location and places it on the local disk you specify. This configures all Managed Servers to run from the non-networked location.

- **Local Applications Configuration**: Specify the location for the local domain directory that you want to set up. This field is required if you selected **Enable Local Applications Configuration**. The specified directory must initially be empty.

Middleware Dependencies

- **Font Directory**: Appears only if you have selected Oracle Sales, Oracle Marketing, or Oracle Financials offerings. Enter the directory where the TrueType fonts are installed. The location varies on different operating systems, but is typically found here:

  - **Microsoft Windows x64 (64-Bit)**: `C:\WINDOWS\Fonts`

  - **Linux x86-64**: `/usr/X11R6/lib/X11/fonts/TTF`

  - **Oracle Solaris**: `/usr/X11R6/lib/X11/fonts/TrueType`

  - **IBM AIX on POWER Systems (64-Bit)**: `/usr/X11R6/lib/X11/fonts/TrueType`

  Some systems may not have TrueType fonts installed. If you cannot locate the fonts on your system, verify that they have been installed. In addition, you can use the fonts directory shipped as part of the JRE installed in the repository. Regardless of which path you specify, you must have access to .ttf (.TTF) files.

Oracle Business Intelligence Repository Password

RPD Password: Specify and **Confirm** a password to allow access to the metadata repository (RPD) for both Oracle Business Intelligence Applications and Oracle Transactional Business Intelligence. The password must be between 8 and 30 characters and contain at least one digit. It can include letters, numbers, pound sign (#), dollar sign ($), or underscore (_). If you want to include a dollar sign ($) in the RPD password, enter one additional dollar sign ($) as the escape character before the dollar sign ($) in the password. Provisioning sets up this password, but does *not* actually access the repository.

If the environment created is Windows-based, the wizard prompts for these values:

- *Windows Domain\Windows User Name*: Specify a user name to use for running provisioning.

■ *Windows Domain* **Password**: Specify a password for running provisioning. Retype the password to **Confirm** it.

Click **Next** to continue.

D.8 System Port Allocation

Accept the default values or set a custom value for the **Applications Base Port**. The application domain port ranges are derived from this value. If you change the base port value, the domain port ranges adjust accordingly. Ranges must not overlap and must be set in ascending order.

Ports listed under **Other Ports** are not derived from the **Applications Base Port** value. These "individual" ports can be defined using custom port values.

To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.

Click **Next** to continue.

D.9 Database Configuration

Enter the database parameters that you established when you installed Oracle Database. The wizard validates whether the database you installed is a single-instance or Oracle Real Application Clusters (Oracle RAC). If a **Single Instance Database**, enter:

- **User Name (SYSDBA Role)**: The user name of the sysdba role. This user name is used to upgrade schemas during the configuration phase. Note that the sysdba fields are not validated, so ensure that you enter the correct values.

- **Password**: The password of the sysdba role.

- **Host Name**: The name of the host where the database is installed.

- **Port**: The listening port for the database.

- **Service Name:** The global database name for the transaction database that you installed. Used to distinguish this database instance from other instances of Oracle Database running on the same host.

If you have installed a multi-instance database based on Oracle RAC, select **Real Application Clusters Database** and enter the **Service Name** that you specified when you installed this database.

Click **Add** to create a new row for each instance. Select a row and click **Remove** to delete it. Enter the following values for the previously installed database:

- **User Name (SYSDBA Role)**: The user name of the sysdba role. This user name is used to upgrade schemas during the configuration phase. Note that the sysdba fields are not validated, so ensure that you enter the correct values.

- **Password**: The password of the sysdba role.

- **Host Name**: The name of the host for each Oracle RAC instance.

- **Port**: The listening port of the database.

■ **Instance Name** - the name of the Oracle RAC instance used to manage this database.

To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.

Click **Next** to continue.

Note: The wizard warns if it cannot connect to the database. If this warning represents an exception, you can ignore it and continue creating the response file. However, you *must* fix all issues before you start to provision an environment. You cannot successfully run provisioning until all validation have passed.

D.10 Schema Passwords
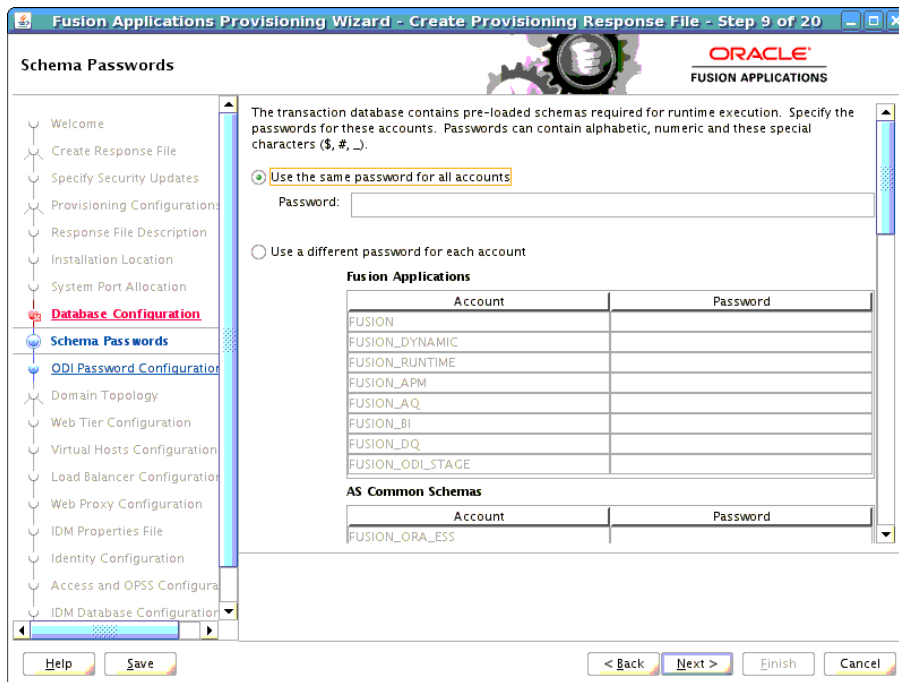
The database that you installed contains preloaded schemas required for runtime execution. Select one of the following options and enter the database schema passwords that you set up when you installed the database:

■ **Use the same password for all accounts**: Select this option if you set up a single password for all accounts. Enter the value in the **Password** field. This option is the default.

■ **Use a different password for each account**: Select this option if you set up individual passwords for each **Account**. Password values were set up for Fusion Applications and AS Common Schemas. Enter those values in the **Password** field.

To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.

Click **Next** to continue.

Note: The wizard warns if the passwords are not valid and do not allow a connection to the database. If this warning represents an exception, you can ignore it and continue

creating the response file. However, you *must* fix all issues before you start to provision an environment. You cannot successfully run provisioning until all validations have passed.

D.11 ODI Password Configuration
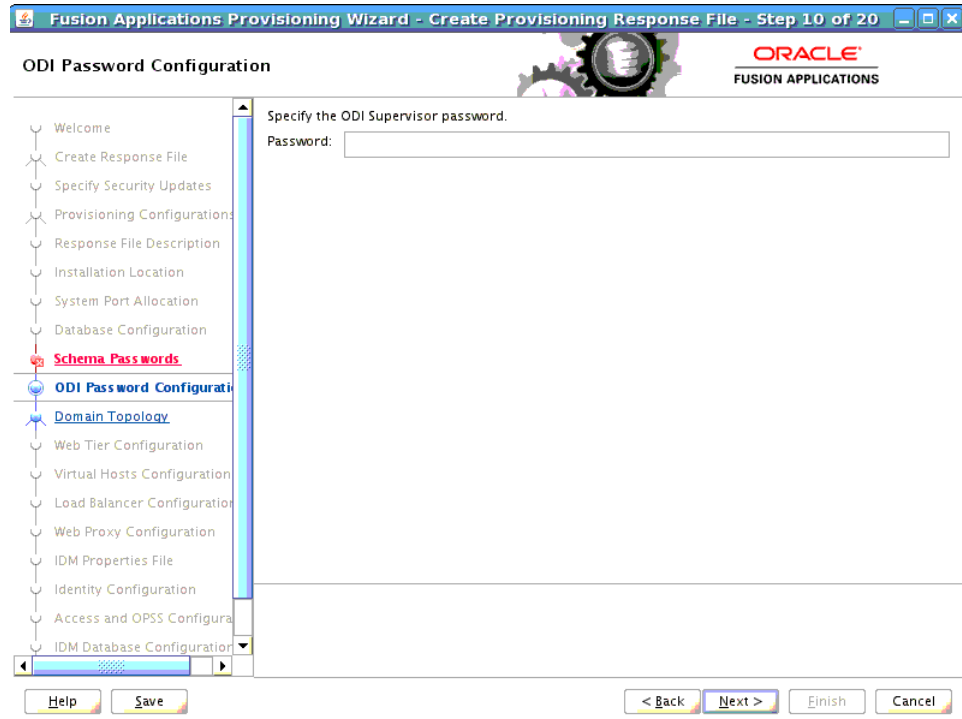
Enter and confirm your ODI supervisor password. The ODI Supervisor Password is the Supervisor Password that you entered on the **Custom Variables** page during execution of Applications RCU under the Master and Work Repository component.

To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.

Click **Next** to continue.

D.12 Domain Topology Configuration
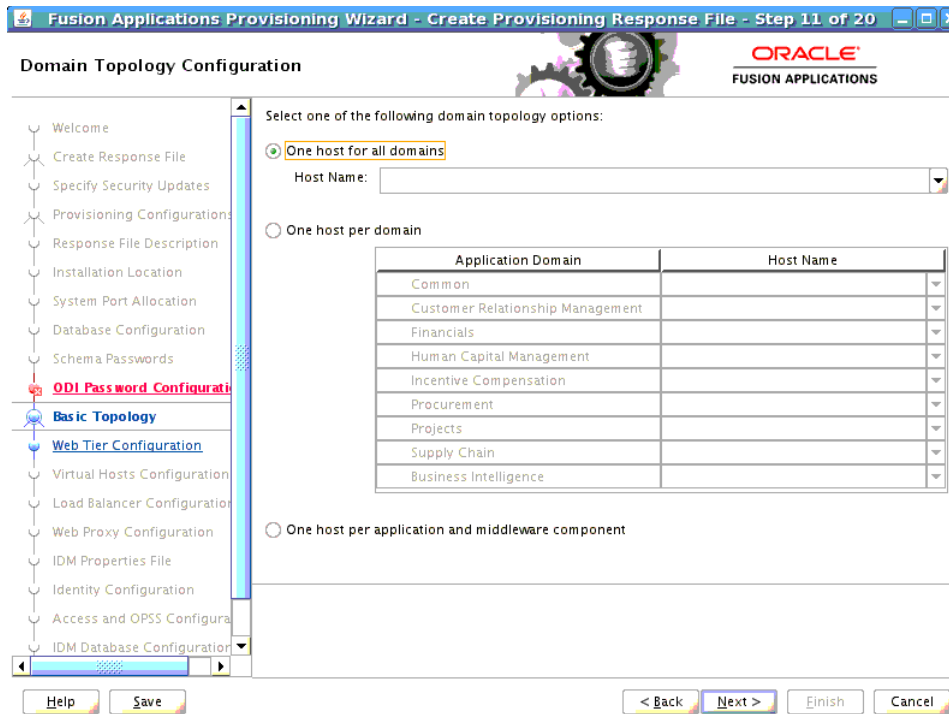
To determine the flow for the remaining wizard interview screens, choose one of the following options.

The types of possible topologies are:

- **Basic Topology**: One host for all domains

- **Medium Topology**: One host per domain

- **Advanced Topology**: One host per application and middleware component

Note that all hosts must use the same operating system. You cannot install "domain1" on Windows and "domain2" on Linux.

- **One host for all domains**: Select this option to specify the **Host Name** to provision all applications domains and their middleware dependencies on a single host. The wizard continues the interview at the **Web Tier Configuration** screen when you click **Next**.

- **One host per domain**: Select this option and then select a **Host Name** for each domain to be created. Provisioning installs and configures the Managed Servers for each **Application Domain** and the middleware dependencies on the host that you specify. The wizard continues the interview at the **Web Tier Configuration** screen when you click **Next**.

- **One host per application and middleware component**: Select this option to specify the host for each application and middleware component individually. The wizard displays the **Common Domain** screen when you click **Next**, and includes all domain-specific screens in the interview.

If you select the last option, you cannot change the selections on this screen after you click **Next**. You must click **Cancel**, open a new wizard session, and create a new response file to change the configuration domain topology later.

To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.

Click **Next** to continue.

D.13 Common Domain

Specify values for this domain and its middleware dependencies. All hosts must use the same operating system and share a common mount point for network storage. The host specified for the Admin Server is the default for all servers. You can change the default.

- **Host Name**: Specify the host where you want to install and configure the Managed Servers for this domain.

- **Port**: Port for internal communications only. The wizard assigns values based on values on the **System Port Allocation** screen. You can edit port values. However, they must be unique within the domain and fall within the range previously specified. For example, in a range of 7401 to 7800, a value of 8444 generates an error.

- **UCM Intradoc Server Port**: Port where the Universal Content Management Server listens.

- **InBound Refinery Server Port**: Used for calling top-level services.

To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.

Click **Next** to continue.

D.14 Customer Relationship Management Domain

Specify values for this domain and its middleware dependencies. All hosts must use the same operating system and share a common mount point for network storage. The host specified for the Admin Server is the default for all servers. You can change the default.

■ **Host Name**: Specify the host where you want to install and configure the Managed Servers for this domain.

■ **Port**: Port for internal communications only. The wizard assigns values based on values on the **System Port Allocation** screen. You can edit port values. However, they must be unique within the domain and fall within the range previously specified. For example, in a range of 7401 to 7800, a value of 8444 generates an error.

To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.

Click **Next** to continue.

D.15 Financial Domain

Specify values for this domain and its middleware dependencies. All hosts must use the same operating system and share a common mount point for network storage. The host specified for the Admin Server is the default for all servers. You can change the default.

■ **Host Name**: Specify the host where you want to install and configure the Managed Servers for this domain.

■ **Port**: Port for internal communications only. The wizard assigns values based on values on the **System Port Allocation** screen. You can edit port values. However, they must be unique within the domain and fall within the range previously specified. For example, in a range of 7401 to 7800, a value of 8444 generates an error.

To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.

Click **Next** to continue.

D.16 Human Capital Management Domain

Specify values for this domain and its middleware dependencies. All hosts must use the same operating system and share a common mount point for network storage. The host specified for the Admin Server is the default for all servers. You can change the default.

■   **Host Name**: Specify the host where you want to install and configure the Managed Servers for this domain.

■   **Port**: Port for internal communications only. The wizard assigns values based on values on the **System Port Allocation** screen. You can edit port values. However, they must be unique within the domain and fall within the range previously specified. For example, in a range of 7401 to 7800, a value of 8444 generates an error.

To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.

 Click **Next** to continue.

D.17 Incentive Compensation Domain

Specify values for this domain and its middleware dependencies. All hosts must use the same operating system and share a common mount point for network storage. The host specified for the Admin Server is the default for all servers. You can change the default.

- **Host Name**: Specify the host where you want to install and configure the Managed Servers for this domain.

- **Port**: Port for internal communications only. The wizard assigns values based on values on the **System Port Allocation** screen. You can edit port values. However, they must be unique within the domain and fall within the range previously specified. For example, in a range of 7401 to 7800, a value of 8444 generates an error.

To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.

Click **Next** to continue.

D.18 Procurement Domain

Specify values for this domain and its middleware dependencies. All hosts must use the same operating system and share a common mount point for network storage. The host specified for the Admin Server is the default for all servers. You can change the default.

- **Host Name**: Specify the host where you want to install and configure the Managed Servers for this domain.

- **Port**: Port for internal communications only. The wizard assigns values based on values on the **System Port Allocation** screen. You can edit port values. However, they must be unique within the domain and fall within the range previously specified. For example, in a range of 7401 to 7800, a value of 8444 generates an error.

To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.

Click **Next** to continue.
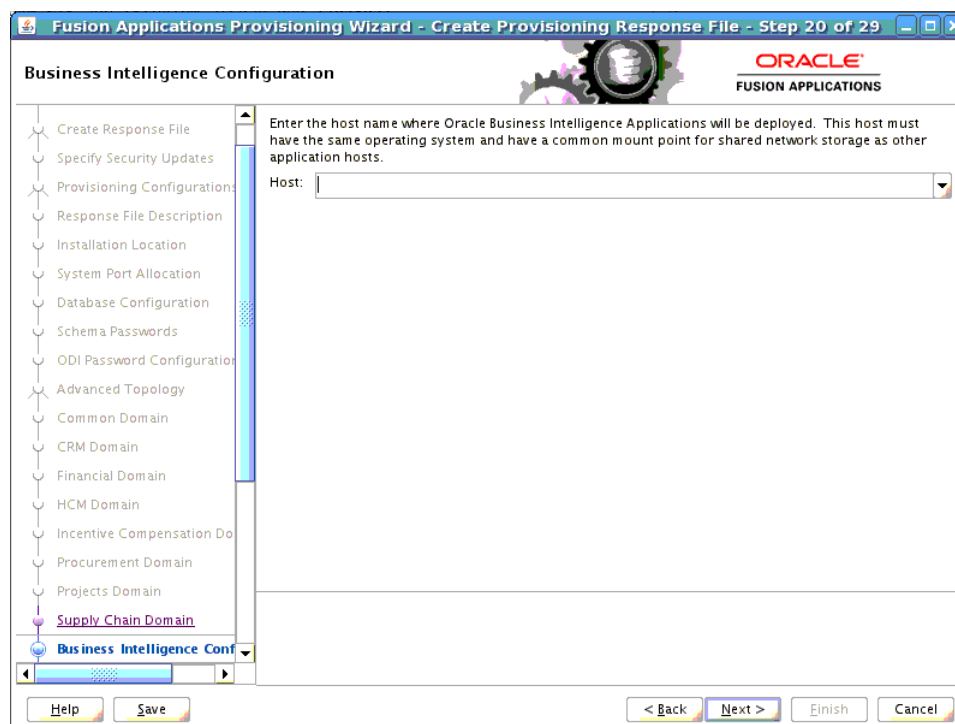
D.19 Projects Domain

Specify values for this domain and its middleware dependencies. All hosts must use the same operating system and share a common mount point for network storage. The host specified for the Admin Server is the default for all servers. You can change the default.

- **Host Name**: Specify the host where you want to install and configure the Managed Servers for this domain.

- **Port**: Port for internal communications only. The wizard assigns values based on values on the **System Port Allocation** screen. You can edit port values. However, they must be unique within the domain and fall within the range previously specified. For example, in a range of 7401 to 7800, a value of 8444 generates an error.

To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.

 Click **Next** to continue.

D.20 Supply Chain Domain

Specify values for this domain and its middleware dependencies. All hosts must use the same operating system and share a common mount point for network storage. The host specified for the Admin Server is the default for all servers. You can change the default.

- **Host Name**: Specify the host where you want to install and configure the Managed Servers for this domain.

- **Port**: Port for internal communications only. The wizard assigns values based on values on the **System Port Allocation** screen. You can edit port values. However, they must be unique within the domain and fall within the range previously specified. For example, in a range of 7401 to 7800, a value of 8444 generates an error.

To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.

 Click **Next** to continue.

D.21 Business Intelligence Configuration

Oracle Business Intelligence products are integrated with, and accessible from, Oracle Fusion Applications. Products include:

- Oracle Business Intelligence Enterprise Edition

- Oracle Business Intelligence Applications

- Oracle Transactional Business Intelligence

- Oracle Essbase

- Oracle Business Intelligence Publisher

- Oracle Real-Time Decisions

Enter the **Host** where you want Oracle Business Intelligence products to be installed. You specified an **RPD** password on the **Installation Location** screen. Provisioning creates this password and makes it available so that Oracle Business Intelligence Applications and Oracle Transactional Business Intelligence can access the metadata repository in your new environment.

To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.

Click **Next** to continue.

D.22 Web Tier Configuration

Use this screen to configure Oracle HTTP Server and choose a virtual host type. You can deploy the web tier to a host inside the firewall, or outside the firewall (demilitarized zone, known as DMZ).

You can create virtual hosts on a single web tier. There are three options (IP-based, name-based, and port-based) for each domain that is created during installation. The values assigned during installation are derived from the default HTTP port that you name on this screen.

Web Tier Configuration

- **Install Web Tier in DMZ**: Select this option if you set up a separate host for web tier installation as a demilitarized zone (DMZ). This host does not have access to the shared file system. It cannot be used for any other host deployed, regardless of domain. See "Setting Up a Demilitarized Zone (DMZ) for the Web Tier" in *Oracle Fusion Applications Installation Guide*.

Fusion Applications Web Tier

- **Host**: Enter the name of the host where the Oracle HTTP Server will be installed and configured.

- **Virtual Host Mode**: Select one of the following:

  - **IP Based**: Created on the basis of an IP or IP:host combination.

  - **Name Based**: Create new DNS entries, such as `fin.example.com` and `crm.example.com` to use as virtual hosts.

  - **Port Based**: Created based on the internal and external port for each domain.

  The default is to create an IP-based host.

■ **Domain Name**: Specify a domain name (using the format *my.example.com*) to configure the domain in which Oracle Fusion Applications will receive requests. This value is also used as the default domain name for name-based virtual hosts.

■ **HTTP Port**: The default port for the web tier. Should not require operating system administrator privileges.

■ **HTTPS (SSL) Port**: Secure port for the web tier. Should not require operating system administrator privileges.

SMTP Server

■ **Host**: Specify the host for email marketing. This field appears only if you selected the Oracle Fusion Customer Relationship Management offering.

■ **Port**: Default port for the SMTP server.

To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.

Click **Next** to continue.

D.23 Virtual Hosts Configuration

Specify the configuration parameters for the domains to be installed on the virtual hosts that you selected on the **Web Tier Configuration** screen.

If you selected **IP Based**, specify the following information for each application domain listed:

■ **Internal Name**: The host name where the web tier listens on the internal virtual host for this domain. The host name can consist of letters A through Z (upper or

lower case), digits 0 through 9, minus sign (-) and period (.). The first character must be an alphabet and the last character must not be a minus sign or a period.

- **Internal Port**: Port for this internal virtual host. Visible only from inside the firewall.

- **External Name**: The host name for the external virtual host for this domain or middleware dependency. The host name can consist of letters A through Z (upper or lower case), digits 0 through 9, minus sign (-) and period (.). The first character must be an alphabet and the last character must not be a minus sign or a period. The host:port should be visible from outside the firewall.

- **External Port**: Port to be used for this external virtual host. The host:port should be visible from outside the firewall.

If you selected **Name Based**, specify the following information for each domain listed:

- **Internal.Name**: The DNS name for this internal virtual host. For example, for Oracle Fusion Financials, the name might be `fin-internal`.

- **External.Name**: The DNS name for this external virtual host. For example, for Oracle Fusion Financials, the name might be `fin`.

If you selected **Port Based**, specify the following information for each domain listed:

- **Internal Port**: The port that is visible only from inside the firewall for this domain.

- **External Port**: The port that is visible from outside the firewall for this domain.

To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.

Click **Next** to continue.

D.24 Load Balancer Configuration
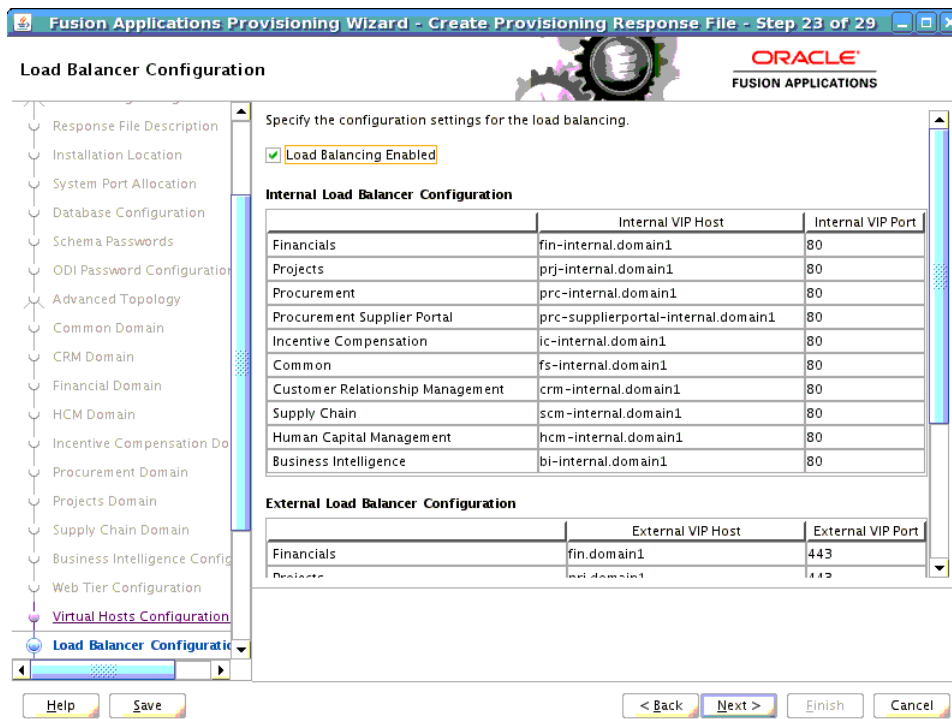
Load balancing enables you to distribute a workload evenly across two or more hosts, network links, CPUs, hard drives, or other resources.

Load Balancer Enabled: This check box is selected by default. Keep it checked if you use load balancer in front of the Oracle Fusion Applications environment and specify:

- **Internal Load Balancer Configuration**: The host and port for the internal Virtual IP (VIP).

- **External Load Balancer Configuration**: The host and port for external Virtual IP (VIP). It must have a publicly available address to be usable.

To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.

Click **Next** to continue.

D.25 Web Proxy Configuration

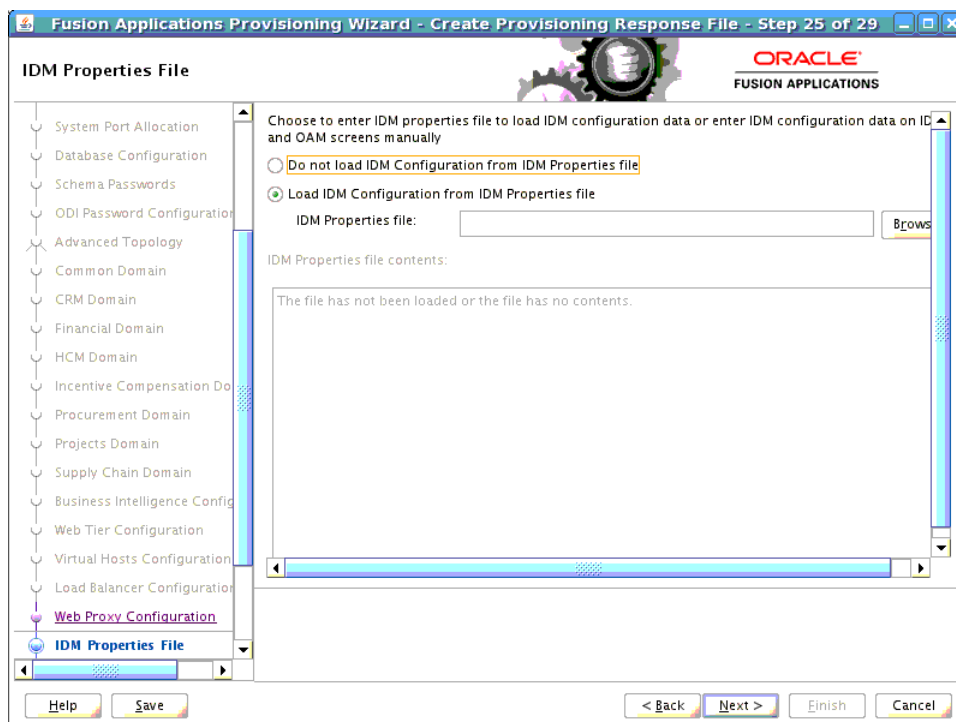Create **Proxy Settings** to enable users who want to use a proxy server to connect to the Internet.

- **Enable Web Proxy**: Select to enable proxy-related values to set up access to the Internet. **Note**: If you are a CRM customer and have a web proxy for external HTTP(S) traffic, you must select **Enable Web Proxy** on this screen and specify your web proxy configuration.

- **Web Proxy Host**: Enter the name of the host where the proxy server is installed.

- **Web Proxy Port**: The listening port assigned to the proxy server.

- **Enable Secure Web Proxy**: Select to have the proxy server SSL-enabled. If you select this check box, the **Secure Web Proxy Host** and **Secure Web Proxy Port** fields are enabled and become mandatory.

■ **Secure Web Proxy Host**: Enter the SSL host used for secure communications.

■ **Secure Web Proxy Port**: Enter the SSL port used for internal communications.

■ **No Proxy Hosts**: Defaults to hosts that are connected directly. If there are multiple hosts, they are listed and separated by a vertical bar (|). You can use a wildcard character (*) to specify hosts that should be bypassed. For example, `*.example.com` would bypass all hosts whose name ends with `.example.com`.

■ **Proxy Server Requires Authentication**: To enable authentication for the proxy server, select this option.

■ **User Name**: Enter the user name that you set up for accessing the proxy server.

■ **Password**: Enter the password that you set up for accessing the proxy server.

To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.

Click **Next** to continue.

D.26 IDM Properties File

When you are creating a response file or updating an incomplete response file without updates to this page, you will be able to select the IDM properties file to load IDM configuration data. After you select the file, you can review the content and decide if you want to proceed with this file.

> **WARNING:** You can review the file and select a different file if required on this screen. You cannot select an IDM properties file after you click **Next**, as the screen will display read-only fields.

- **Do not load IDM Configuration from IDM Properties file**: Select this option if you do not want to load the IDM configuration data from the IDM properties file.

- **Load IDM Configuration from IDM Properties file**: Select this option if you want the values on the **Identity Management Configuration** screen and the **Access and Policy Management Configuration** screen to default to the values in the IDM properties file (for example, `idmsetup.properties`).

- **IDM Properties file**: Enter the location of the IDM properties file, for example, *SHARED_CONFIG_DIR*/fa/idmsetup.properties, where *SHARED_CONFIG_DIR* is the shared configuration location that you selected in the **Install Location Configuration** page of the Oracle Identity Management Provisioning Wizard.

- **IDM Properties file contents**: If you have selected a valid IDM properties file, the contents will be displayed. This field is read-only and cannot be modified.

If you choose to load an existing IDM Properties file, you MUST still verify and enter values for the following fields or select the check boxes which appear in the subsequent screens as described.

Appendix D.27, "Identity Management Configuration"

- Select the **Create Administrators Group**, **Create Monitors Group**, and **Create Operators Group** check box.

- Select the identity store server type from the **Identity Store Server Type** drop-down list.

- Specify the password values for all the relevant fields.

  Appendix D.28, "Access and Policy Management Configuration"

- Select or deselect the **Enable Second Primary Oracle Access Manager** check box.

- Select or deselect the **Default to Identity Store** check box.

  Appendix D.29, "IDM Database Configuration"

- Specify the values corresponding to the Oracle Identity Management database fields in the IDM Properties file for the **Host Name**, **Port** and **Service Name** fields.

Click **Next** to continue.

D.27 Identity Management Configuration

Provisioning loads the roles, policies, and application IDs that you created when you installed and configured the Oracle Identity Management environment. To share the identity management environment across multiple Oracle Fusion Applications installations and make the policies and roles accessible to all environments, populate identity management configuration details during the first installation.

If you chose to use the values in the IDM properties file (for example, `idmsetup.properties`) on the **IDM Properties File** screen, they appear as defaults in the corresponding fields.

■ **Super User Name**: Enter the name of an existing user who should be granted administrator and functional setup privileges. By default Oracle Identity Management Provisioning creates a user named `FAAdmin`. If you do not have a Super User, you can enter `FAAdmin` in this field.

■ **Create Administrators Group**: Indicate whether you created an "Administrators" group, whose members have specialized privileges for all Oracle Fusion Middleware components.

■ **Create Monitors Group**: Indicate whether you created a "Monitors" group, whose members have read-only administrative privileges to Oracle WebLogic Server domains.

■ **Create Operators Group**: Indicate whether you created an "Operators" group, whose members have Monitors privileges to Oracle WebLogic Server domains.

Identity Store Server Type: Indicate the type of identity store that you set up during Oracle Identity Management provisioning. The available options are OID (Oracle Internet Directory) or OVD (Oracle Virtual Directory). If you select the OVD product during Oracle Identity Management provisioning, then you must select the OVD option for this field. Otherwise, you can select the OID option. You will not be able to complete provisioning an environment if you choose an

incorrect option that does not match what you have selected during Oracle Identity Management provisioning.

If you select OVD, then the **Default to Identity Store** check box in Oracle Platform Security Services Configuration must be unchecked and the policy store cannot be the same instance as the identity store. Using OVD for policy store is not currently supported.

Note: If the Oracle Identity Management deployment is an EDG deployment, then the **Identity Store Server Type** should be selected as **OVD**.

- **Use SSL to Communicate With Identity Store**: This feature is not enabled in this release.

- **Identity Store Host**: Enter the host or DNS name for your identity store LDAP service.

- **Identity Store Port**: The port assigned to the identity store.

- **Identity Store Secure Port**: The SSL port assigned to the identity store.

- **Identity Store User DN**: Enter the Distinguished Name of the user that you set up with read-write access to the LDAP.

- **Identity Store Password**: Enter the password that you set up for the user with read-write access to the LDAP.

- **Identity Store Read-only User DN**: Enter the Distinguished Name (DN) of the user that you set up with read-only access to the Identity Store LDAP.

- **Identity Store Read-only Password**: Enter the password that you set up for the identity store read-only user.

- **Identity Store User Name Attribute**: Choose the type of user name attribute that you configured in the identity store. Valid values are: user ID (uid), common name (CN), or email address.

- **Identity Store User Base DN**: Enter the root Distinguished Name assigned to the upload of applications user data. This is the root for all the user data in your identity store.

- **Identity Store Group Base DN**: Enter the root Distinguished Name for all the group data in your identity store.

- **OIM Admin Server Host**: Enter the name of the host where the OIM Administration Server is installed.

- **OIM Admin Server Port**: The port where the OIM Administration Server listens.

- **OIM Administrator User Name**: Enter the name you set up as the OIM administrator.

- **OIM Administrator Password**: Enter the password you set up for the OIM administrator.

- **OIM Managed Server Host**: Enter the virtual or real host name of the Oracle Identity Manager Managed Server where SPML callback and other OIM services are running.

- **OIM Managed Server Port**: Enter the virtual or real port where the Oracle Identity Manager Managed Server listens.

- **OIM HTTP Internal Endpoint URL**: The access point on the Oracle HTTP Server for Oracle Identity Manager services in an Oracle Identity Management enterprise

deployment, or the Oracle Identity Manager Managed Server access point for a non-enterprise deployment. This URL is used for deployment.

Enter the HTTP termination address of Oracle Access Manager, using the following format: `http://host:port`. It terminates at either a load balancer or the Oracle HTTP Server.

■ **OIM HTTP(S) External Endpoint URL**: The access point to use for taxonomy. This is not used for deployment. Note that a non-secure connection is used unless you provide an `HTTPS` URL. Enter a value using the following format: `http(s)://host:port`.

To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.

Click **Next** to continue.

Note: The wizard warns if the Identity Store credentials are not valid and do not allow a connection to the database. If this warning represents an exception, you can ignore it and continue creating the response file. However, you *must* fix all issues before you start to provision an environment. You cannot successfully run provisioning until all validations have passed.

D.28 Access and Policy Management Configuration
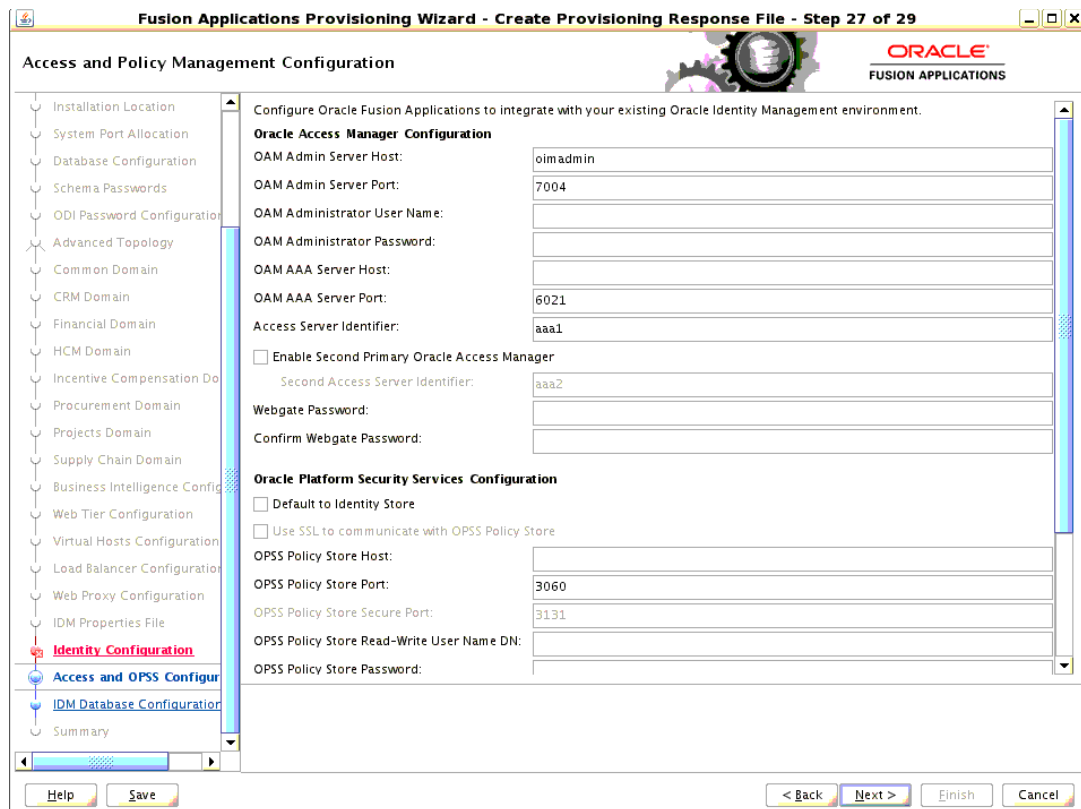
Enter the parameters for integrating Oracle Fusion Applications with a previously installed Oracle Identity Management infrastructure. If you chose to use the values in the IDM properties file (for example, `idmsetup.properties`) on the **IDM**

Properties File screen, they appear as defaults in the corresponding fields. You can replace the defaults if your original configuration has changed.

Oracle Access Manager Configuration

- **OAM Admin Server Host**: Enter the name of the host where the Oracle Access Manager Administration Server is installed.

- **OAM Admin Server Port**: The port where the Oracle Access Manager Administration Server listens.

- **OAM Administrator User Name**: Enter the name you assigned this user when you installed Oracle Access Manager.

- **OAM Administrator Password**: Enter the password you assigned this user when you installed Oracle Access Manager.

- **OAM AAA Server Host:** Enter the name of the proxy host where the Oracle Access Manager is installed.

- **OAM AAA Server Port:** The port number for the Oracle Access Manager listener on the OAM proxy host.

- **Access Server Identifier:** Name used to identify the Oracle Access Server.

- **Enable Second Primary Oracle Access Manager**: Select this check box to name a second Primary Oracle Access Manager for high availability.

- **Second Access Server Identifier**: This defaults to `aaa2`, the name of the second Primary Oracle Access Manager Server.

- **Webgate Password**: Specify a password for the Resource WebGate. It must contain at least eight alphanumeric characters and at least one digit or punctuation mark. Retype to **Confirm** the password. If seeding of security data is disabled, the password must be the existing WebGate password.

Oracle Platform Security Services Configuration

- **Default to Identity Store:** The default values of this section depend on whether this field is enabled. If the checkbox is unchecked, which is the default, the **OPSS Policy Store Host, OPSS Policy Store Read-Write User Name** and **OPSS Policy Store Password** fields are empty by default and do not inherit values from your identity store. **OPSS Policy Store Port** defaults to 3060 and **OPSS Policy Store Secure Port** defaults to 3131.

  If you check this checkbox, the following fields inherit values from your identity store: **OPSS Policy Store Host**, **OPSS Policy Store Port**, and **OPSS Policy Store Secure Port**.

  A description of related fields follows:

  – **Use SSL to communicate with OPSS Policy Store**: This feature is not enabled in this release.

  – **OPSS Policy Store Host**: Enter the host name for OID where Oracle Platform Security Services (OPSS) policies are to be seeded if **Default to Identity Store** is unchecked. If **Default to Identity Store** is checked, this value defaults from your identity store.

  – **OPSS Policy Store Port**: The number of the OID port for the OPSS policy store defaults to 3060 if **Default to Identity Store** is unchecked. If **Default to Identity Store** is checked, this value defaults from your identity store.

- **OPSS Policy Store Secure Port**: The number of the secure port for OID defaults to 3131 if **Default to Identity Stor**e is unchecked. If **Default to Identity Store** is checked, this value defaults from your identity store.

- **OPSS Policy Store Read-Write User Name**: Enter the Distinguished Name of the user that you set up with write privileges to the OPSS policy store.

- **OPSS Policy Store Password**: Enter the password that you set up for the OPSS policy store user with read-write privileges.

- **OPSS Policy Store JPS Root Node**: This is the Distinguished Name of the node to be used as the OPSS policy root for Oracle Fusion Applications. This field is read-only and the default value is set as `cn=FAPolicies`.

- **Create OPSS Policy Store JPS Root Node**: Select this option to create the OPSS JPS Root Node. For this release, this option must be enabled.

Identity Management Keystore Configuration

The IDM Keystore file and password value fields are enabled if either the Identity Store, the OPSS Store, or the OIM endpoint is SSL-enabled. These fields are populated by the values from the IDM properties file (for example,`idmsetup.properties`), if you have this file that contains these values. You can also edit these values if the fields are enabled.

- **IDM Keystore File**: Enter the location of the JKS keystore containing the certificates for the Oracle Identity Management components.

- **IDM Keystore Password**: Enter the password that you set up for the IDM Keystore File.

To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.

Click **Next** to continue.

Note: The wizard warns if the OPSS Policy Store LDAP connection and the Keystore connection information is not valid and does not allow a connection to the database. If this warning represents an exception, you can ignore it and continue creating the response file. However, you *must* fix all issues before you start to provision an environment. You cannot successfully run provisioning until all validations have passed.

D.29 IDM Database Configuration

Enter the database parameters you established when you installed Oracle Database for the Oracle Identity Manager (OIM). The wizard validates whether the database you installed is a single-instance or Oracle Real Application Clusters (Oracle RAC). For a **Single Instance Database**, enter:

- **Host Name**: The name of the host where the OIM database is installed.

- **Port**: The listening port for the database.

- **Service Name**: The unique name for the OIM database.

If you have installed a multi-instance database based on Oracle RAC, select **Real Application Clusters Database** and enter the **Service Name** that you specified when you installed this database.

Click **Add** to create a new row for each instance. Select a row and click **Remove** to delete the row. Enter the following information for each instance:

- **Host Name**: The name of the host for each Oracle RAC instance.

- **Port**: The listening port of the database.

- **Instance Name**: The name of the Oracle RAC instance used to manage this database.

Enter the database schema and password that you set up to store the Oracle Metadata Services (MDS) Repository data for Oracle Web Services Policy Manager.

- **Schema Owner**: The owner of the MDS schema in the OIM database that is to be used by the Oracle Web Services Policy Manager.

- **Schema Owner Password**: The password for the MDS schema.

To stop creating this response file and resume later, click **Save**. This action creates a partial response file. A partial response file cannot be used to provision an environment.

Click **Next** to continue.

D.30 Summary
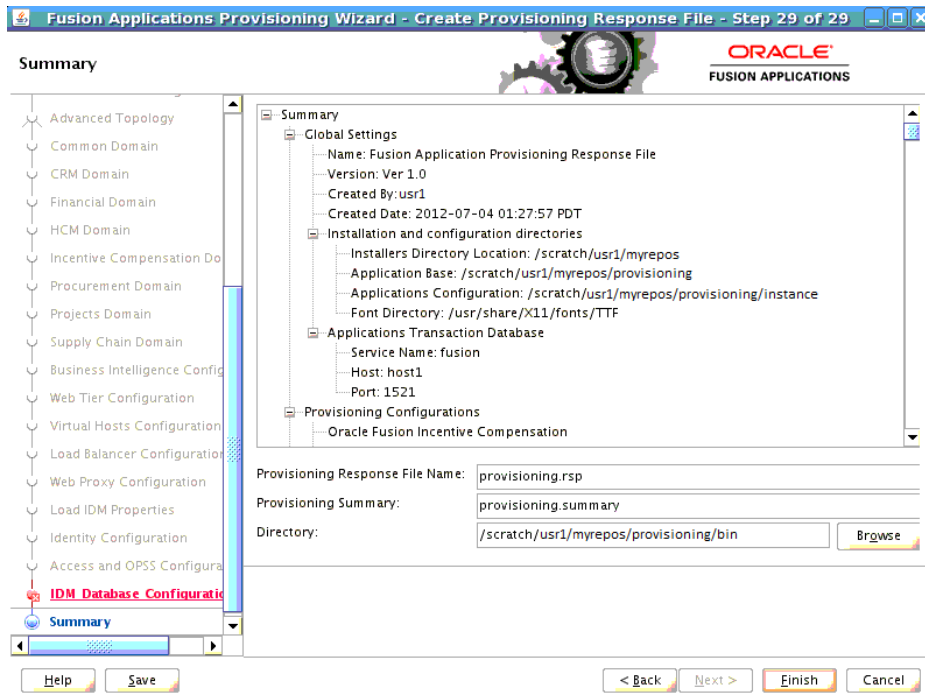
Verify that the installation represented on this screen is what you expected. Click **Back** to return to the interview screens that require changes. If you are satisfied with the details presented here, complete the following information:

- **Provisioning Response File Name**: Specify a unique file name for this response file. This is the executable file that you supply to the wizard when prompted for other options.

- **Provisioning Summary**: Specify a unique name for the summary details file. You cannot use this file to execute the response file.

- **Directory**: Enter the directory path where you want to save this response file and the summary file. Choose a location that is visible to all servers accessing shared storage. Make sure the location is not read-only.

Record the name of the response file and its location. You may want to supply it to your system administrator to use when performing system maintenance tasks.

Click **Finish** to save the response file and the summary.

E

Provision an Applications Environment Screens

This appendix presents the **Provisioning Wizard** interview screens for the Provision an Applications Fusion Applications Environment option and describes the purpose of each of the following screens:

- Welcome
- Specify Central Inventory Directory
- Installation Options
- Response File Description
- Installation Location
- Review Provisioning Configuration
- Summary
- Prerequisite Checks
- Installation
- Preconfigure
- Configure
- Configure Primary/Secondary
- Postconfigure
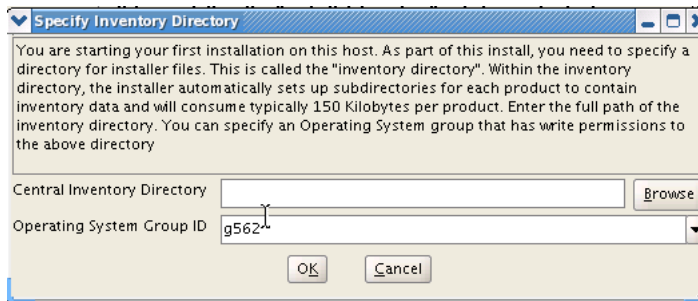- Startup
- Validation
- Installation Complete

E.1 Welcome
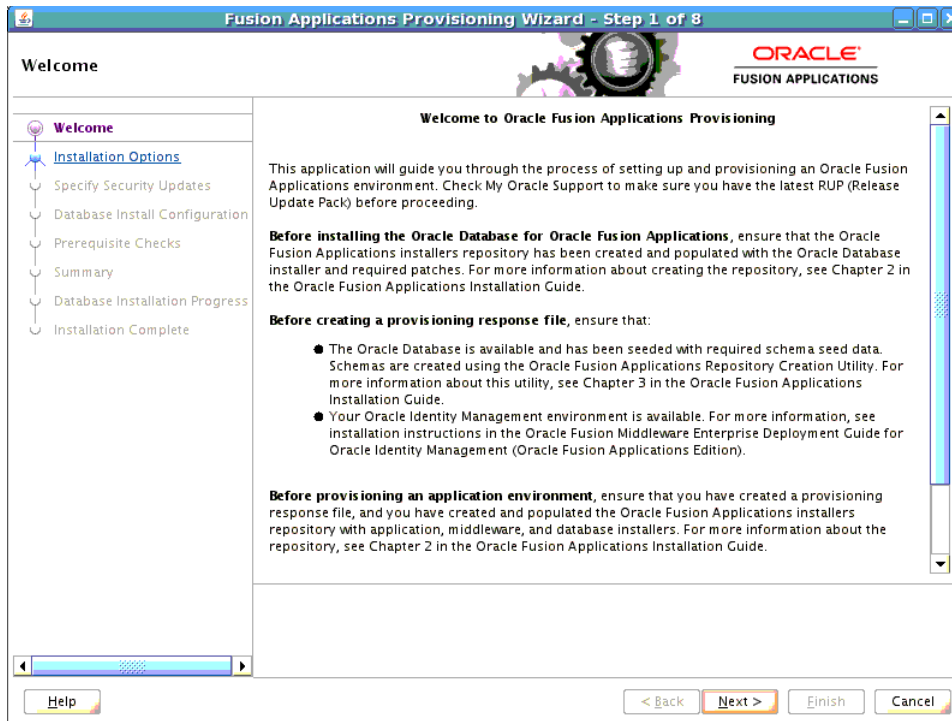
No action is necessary on this read-only screen.

Click **Next** to continue.

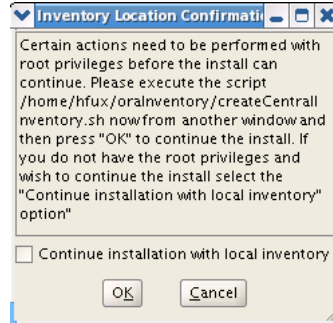# E.2 Specify Central Inventory Directory

This screen displays only if one or more of the following conditions are not met:

- The `-invPtrLoc` option is used to specify the central inventory location on non-Windows platforms, so the default value for your platform is not used. The default values for platforms follows:

  - Linux and AIX: `/etc/oraInst.loc`

  - Solaris and HP: `/var/opt/oracle/oraInst.loc`

- The Central Inventory Pointer File is readable.

- The Central Inventory Pointer File contains a value for `inventory_loc`.

- The `inventory_loc` directory is writable.

- The `inventory_loc` directory has at least 150K of space.

- `inventory_loc` is not an existing file.

Specify the location of the **Central Inventory Directory** that meets the previous criteria. The `inventory_loc` directory can be created by the `createCentralInventory.sh` script and does not have to exist at the time you specify its location.

For non-Windows platforms, in the **Operating System Group ID** field, select or enter the group whose members will be granted access to the inventory directory. All members of this group can install products on this host. Click **OK** to continue.

The **Inventory Location Confirmation** dialog prompts you to run the *inventory_directory*/`createCentralInventory.sh` script as root, to confirm that all conditions are met and to create the default inventory location file, such as `/etc/oraInst.loc`. After this script runs successfully, return to the interview and click **OK** to proceed with the installation.

If you do not have root access on this host but want to continue with the installation, select **Continue installation with local inventory** and click **OK** to proceed with the installation.

For Windows platforms, this screen displays if the inventory directory does not meet requirements.

For more information about inventory location files, see "Oracle Universal Installer Inventory" in the *Oracle Universal Installer and OPatch User's Guide*.

Click **Next** to continue.

E.3 Installation Options

Select the task that you want to perform from the list of options. When prompted, enter a directory path in the **Response File** field to access a completed **response file** to use as a base for one of the actions. Or, click **Browse** to navigate to the response file location.

- **Install an Applications Transaction Database**: Install an empty, single-instance Oracle Database Enterprise Edition using the nonseeded database template shipped with this release.

- **Create a New Applications Environment Provisioning Response File**: Create a response file for a new Oracle Fusion Applications environment.

- **Update an Existing Provisioning Response File**: Add or change details in a completed response file that has not yet been implemented or in a partially completed response file.

- **Provision an Applications Environment**: Initiate and track the processes that install, configure, and deploy **product offerings** in a new Oracle Fusion Applications environment.

- **Deinstall an Applications Environment**: Remove applications and middleware components from an existing applications environment.

Click **Next** to continue.

E.4 Response File Description

Specify descriptive information to identify this response file. This description is not associated in any way with the executable plan file, or the summary file, that you save at the end of the response file creation process.

■ **Response File Name**: Specify a name to identify this response file.

■ **Response File Version**: Assign a version number to the response file.

■ **Created By**: Defaults to the operating system user who invoked the wizard. Set when the response file is initially created and cannot be modified for the current response file.

■ **Created Date**: Defaults to the date that the response file was initially created. Set when the response file was initially created and cannot be modified for the current response file.

■ **Response File Description**: Provide a description of this response file.

Click **Next** to continue.

E.5 Installation Location

Specify credentials for the Node Manager and supply the location of the various directories required for installation and configuration actions.

Node Manager Credentials

- **User Name**: Specify a user name for the Node Manager role.

- **Password**: Specify a password for the Node Manager and retype it in the **Confirm Password** field.

Provide locations of various directories that the administrator needs access to.

Installation and Configuration

- **Installers Directory Location**: Enter the path to the *repository_location* directory you created when you downloaded the **provisioning repository**. For Windows, the location must be a symbolically linked directory. See "Set Up the Server and the shared Area Permissions" in *Oracle Fusion Applications Installation Guide*. Note that a symbolic link is not necessary if the repository and the database are on the same node.

- **Applications Base**: Enter the directory path to the Oracle home that you specified when you installed the provisioning framework. This is the Fusion Applications Oracle home. It is the root directory for all Oracle Fusion Applications and Oracle Fusion Middleware products.

  The applications base directory must not be set to the system root directory or set to the root directory of a logical drive. Some lifecycle management tools computed directory names by backing up one directory level from the applications base directory and then appending the appropriate subdirectory name. These tools will fail if the applications base directory is set to the system root directory or set to the root directory of a logical drive because it is not possible to back up one directory level from the system root directory or from the root directory of a logical drive.

In a Unix environment, this name cannot exceed 59 characters.

In a Windows environment, this name cannot exceed eight characters, and must be a symbolically linked directory. See "Set Up the Server and the shared Area Permissions" in *Oracle Fusion Applications Installation Guide.*

- **Applications Configuration**: This directory is automatically populated based on the value you specify in the **Applications Base** field. It is the path to the directory where the configuration files for the domain will be written. For Windows, the location must be a symbolically linked directory. See "Set Up the Server and the Shared Area Permissions" in *Oracle Fusion Applications Installation Guide*.

- **Enable Local Applications Configuration**: Select this check box if you want Managed Servers to run from a non-networked (local) disk on the host, visible only to the processes running on that host. If you enable this option, the wizard copies the domain configuration from the shared location and places it on the local disk you specify. This configures all Managed Servers to run from the non-networked location.

- **Local Applications Configuration**: Specify the location for the local domain directory that you want to set up. This field is required if you selected **Enable Local Applications Configuration**. The specified directory must be empty.

Middleware Dependencies

- **Font Directory**: Appears only if you have selected Oracle Sales, Oracle Marketing, or Oracle Financials offerings. Enter the directory where the TrueType fonts are installed. The location varies on different operating systems, but is typically found here:

  - **Microsoft Windows x64 (64-Bit)**: `C:\WINDOWS\Fonts`

  - **Linux x86-64**: `/usr/X11R6/lib/X11/fonts/TTF`

  - **Oracle Solaris**: `/usr/X11R6/lib/X11/fonts/TrueType`

  - **IBM AIX on POWER Systems (64-Bit)**: `/usr/X11R6/lib/X11/fonts/TrueType`

  Some systems may not have TrueType fonts installed. If you cannot locate the fonts on your system, verify that they have been installed. In addition, you can use the fonts directory shipped as part of the JRE installed in the repository. Regardless of which path you specify, you must have access to .ttf (.TTF) files.

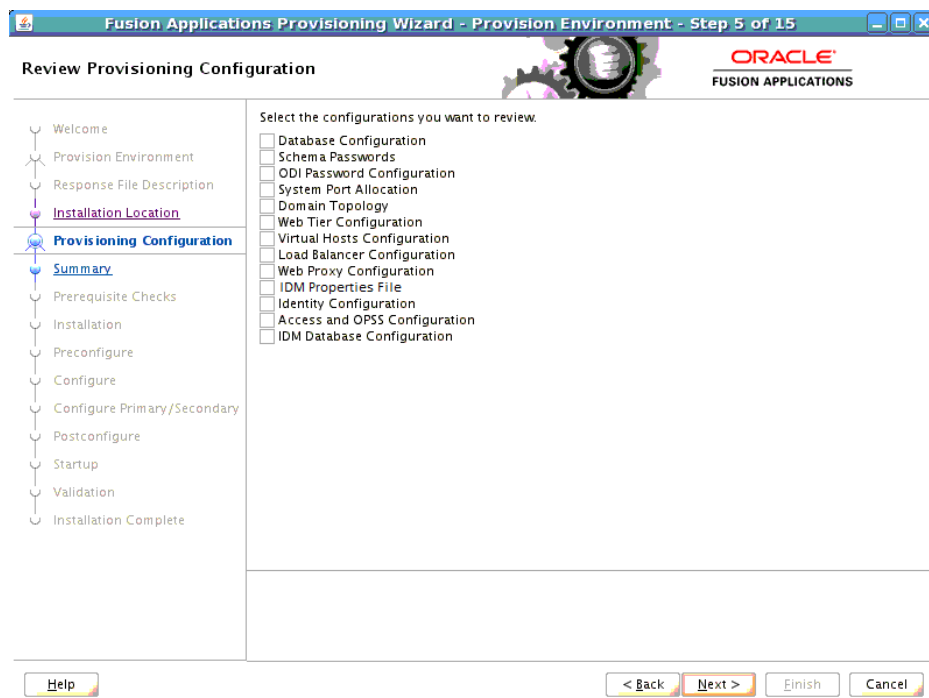**Oracle Business Intelligence Repository Password**

RPD Password: Specify and **Confirm** a password to allow access to the metadata repository (RPD) for both Oracle Business Intelligence Applications and Oracle Transactional Business Intelligence. The password must be between 8 and 30 characters and contain at least one digit. It can include letters, numbers, pound sign (#), dollar sign ($), or underscore (_). If you want to include a dollar sign ($) in the RPD password, enter one additional dollar sign ($) as the escape character before the dollar sign ($) in the password. Provisioning sets up this password, but does *not* actually access the repository.

If the environment created is Windows-based, the wizard prompts for these values:

- *Windows Domain\Windows User Name*: Specify a user name to use for running provisioning.

- *Windows Domain* **Password**: Specify a password for running provisioning. Retype the password to **Confirm** it.

Click **Next** to continue.

E.6 Review Provisioning Configuration

Lists the wizard interview screens where you originally specified domain-specific parameters for this response file. You can make changes to this information if necessary.

Note: If you ignored any warnings during the creation of this response file, you must fix all issues stated in the warnings before you can successfully provision an environment. Select any of the screens displayed here to make changes for a product domains with warnings. All validations must pass before you can run the **install** phase.

You cannot add or delete product offerings to this response file. To change product offerings, you must create a new response file.

Select one or more options from the list. When you click **Next**, the screens you select are added to the flow. Note that if you return to this screen after running the preverification checks, those verification checks are invalidated. You must run the **Preverify** phase again.

Click **Next** to continue.

E.7 Summary

Review the information displayed to ensure that the installation details are what you intend. To make changes, click **Back** to return to previous screens in the interview.

Click **Next** to initiate the **preverify** phase. The wizard displays the **Prerequisite Checks** screen, and creates a current copy of this response file. The response file is saved in the directory indicated in the message pane.

Click **Next** to continue.

E.8 Prerequisite Checks
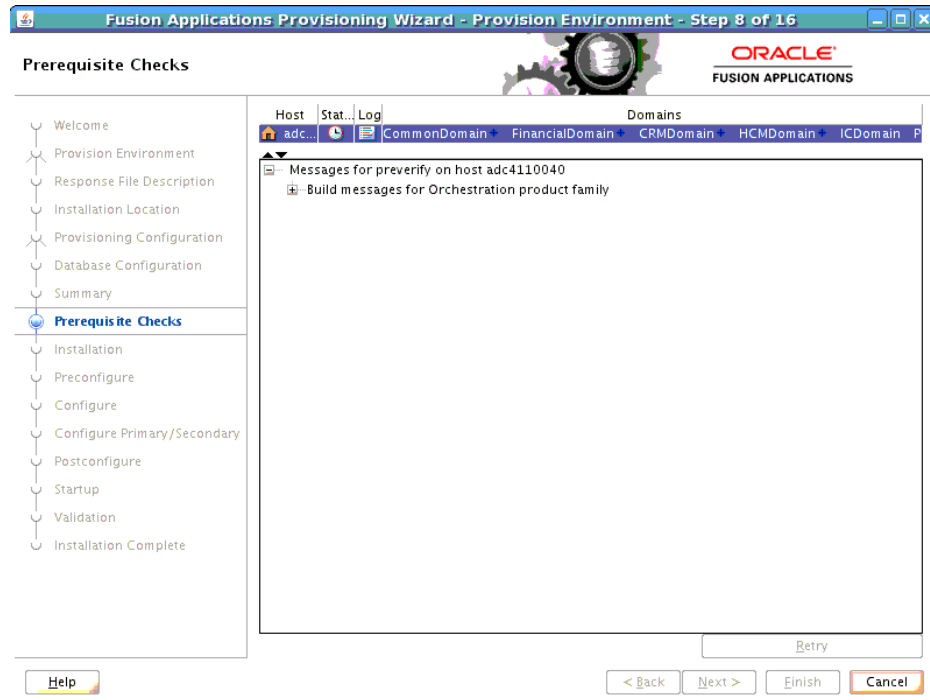
The **preverify** phase checks to see that all prerequisites are present on the host where you run the phase. The **Primordial host** is marked with a **Home** symbol in the **Host** column. The **Domains** column lists the domains that are being deployed.

In the terminal session for the **Primary host** and **Secondary host** (if present), run the **preverify** phase with this command:

(UNIX) *path_to_script*/runProvisioning.sh -responseFile *provisioning_response_file_location* -target preverify

(Windows) *path_to_script*\runProvisioning.bat -responseFile *provisioning_response_file_location* -target preverify

Note: This phase can run in parallel on all hosts and is tracked on this screen. Each **new** phase must run sequentially; that is, you cannot start a new phase until the previous phase has been completed successfully on all the hosts.

The **Status** of each build on each host is indicated by one of these icons:

- **Block**: Processing has not yet started on this host for the named phase.

- **Clock**: Performing the build for a phase.

- **Check mark**: The build was completed successfully.

- **x** mark: The build has failed for this phase. You must correct the errors before you can continue.

- **Restricted** symbol: The process has stopped due to a failure within another process.

Click an **x** or a **Restricted** symbol to display information about failures. Click the host-level **Log** file for details about this phase. Click a build **Log** file to see details specific to that build.

You can make changes to the interview screens and rerun the **preverify** phase as many times as is necessary. Click **Retry** to rerun this phase if errors are reported. You must fix all errors before you continue. See "Troubleshooting the Provisioning Process" in *Oracle Fusion Applications Installation Guide* for details about recovery from failures.

Note: After you click **Next** on this screen, you can no longer modify the response file.

Click **Next**. The wizard starts the **install** phase on the primordial host and displays the **Installation** screen.

E.9 Installation
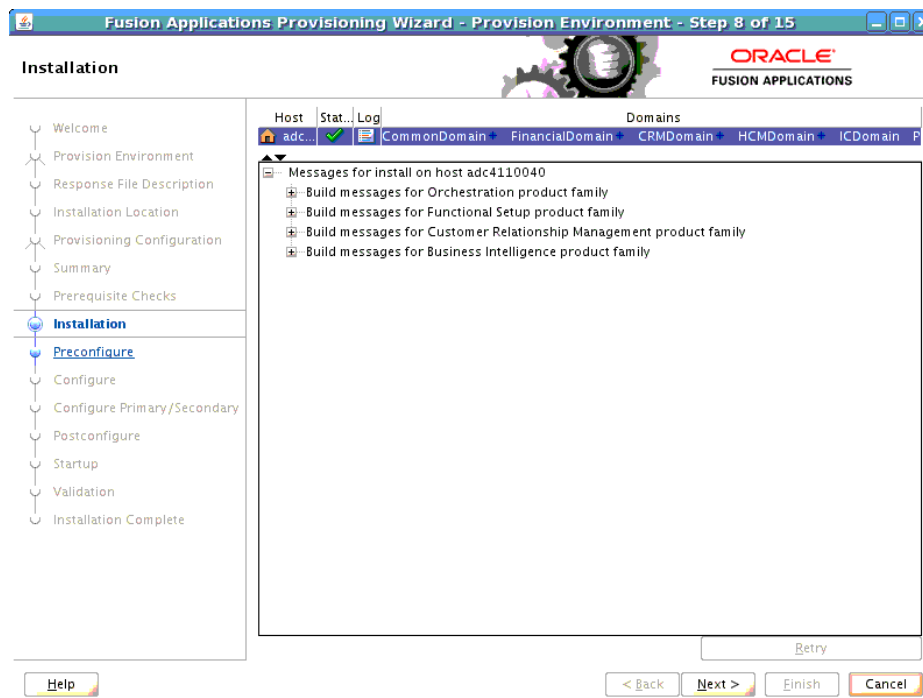
The **install** phase installs the Oracle Fusion Applications, Oracle Fusion Middleware, and Oracle Database products. The primordial host is marked with a **Home** symbol in the **Host** column. The **Domains** column lists the domains deployed in the new environment.

In the terminal session for the primary, secondary, and **DMZ host** (if present), run the **install** phase with this command:

(UNIX) *path_to_script*/runProvisioning.sh -responseFile *provisioning_response_file_location* -target install

(Windows) *path_to_script*\runProvisioning.bat -responseFile *provisioning_response_file_location* -target install

Note: This phase can run in parallel on all hosts and is tracked on this screen. Each **new** phase must run sequentially; that is, you cannot start a new phase until the previous phase has been completed successfully on all the hosts.

The **Status** of each build on each host is indicated by one of these icons:

■ **Block**: Processing has not yet started on this host for the named phase.

■ **Clock**: Performing the build for a phase.

■ **Check mark**: The build was completed successfully.

■ **x** mark: The build has failed for this phase. You must correct the errors before you can continue.

■ **Restricted** symbol: The process has stopped due to a failure within another process.

Note: You cannot view the build processes on the DMZ host on the primordial host interface because the DMZ host does not have access to the shared network drive.

Click an **x** or a **Restricted** symbol to display information about failures. Click the host-level **Log** file for details about this phase. Click a build **Log** file to see details specific to that build.

Click **Retry** to rerun this phase if errors are reported. You must fix all errors before you continue. See "Troubleshooting the Provisioning Process" in *Oracle Fusion Applications Installation Guide* for details about recovery from failures.

Note: If a DMZ host is present, copy the webtier_dmz_artifacts.zip file from the `APPLICATIONS_BASE`/ directory on the non-DMZ host to the `APPLICATIONS_ BASE`/ directory on the DMZ host.

Click **Next**. The wizard starts the **Preconfigure** phase on the primordial host and displays the **Preconfigure** screen.

E.10 Preconfigure
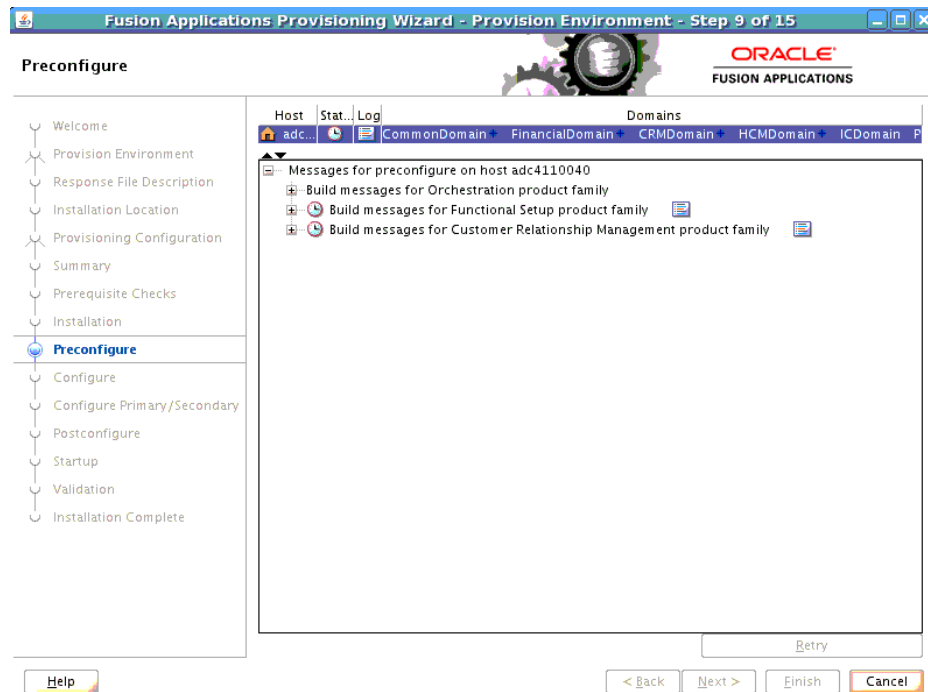
The **preconfigure** phase prepares application and middleware components for deployment and creates `appid` users and groups. It modifies the Oracle Application Development Framework (Oracle ADF) configuration file to use the database, based on Oracle Metadata Services (MDS) in the applications enterprise archive (EAR) files. It also updates the connections.xml file in all applications EAR files with endpoint

information. The primordial host is marked with a **Home** symbol in the **Host** column. The **Domains** column lists the domains deployed in the new environment.

In the terminal session for the primary, secondary, and DMZ host (if present), run the **preconfigure** phase with this command:

(UNIX) *path_to_script*/runProvisioning.sh -responseFile *provisioning_response_file_location* -target preconfigure

(Windows) *path_to_script*\runProvisioning.bat -responseFile *provisioning_response_file_location* -target preconfigure

Note: This phase can run in parallel on all hosts and is tracked on this screen. Each **new** phase must run sequentially; that is, you cannot start a new phase until the previous phase has been completed successfully on all the hosts.

The **Status** of each build on each host is indicated by one of these icons:

- **Block**: Processing has not yet started on this host for the named phase.

- **Clock**: Performing the build for a phase.

- **Check mark**: The build was completed successfully.

- **x** mark: The build has failed for this phase. You must correct the errors before you can continue.

- **Restricted** symbol: The process has stopped due to a failure within another process.

Note: You cannot view the build processes on the DMZ host on the primordial host interface because the DMZ host does not have access to the shared network drive.

Click an **x** or a **Restricted** symbol to display information about failures. Click the host-level **Log** file for details about this phase. Click a build **Log** file to see details specific to that build.

Click **Retry** to rerun this phase if errors are reported. You must fix all errors before you continue. See "Troubleshooting the Provisioning Process" in *Oracle Fusion Applications Installation Guide* for details about recovery from failures.

Note: If a DMZ host is present, recopy the response file to the DMZ host.

Click **Next**. The wizard starts the **configure** phase on the primordial host and displays the **Configure** screen.

E.11 Configure
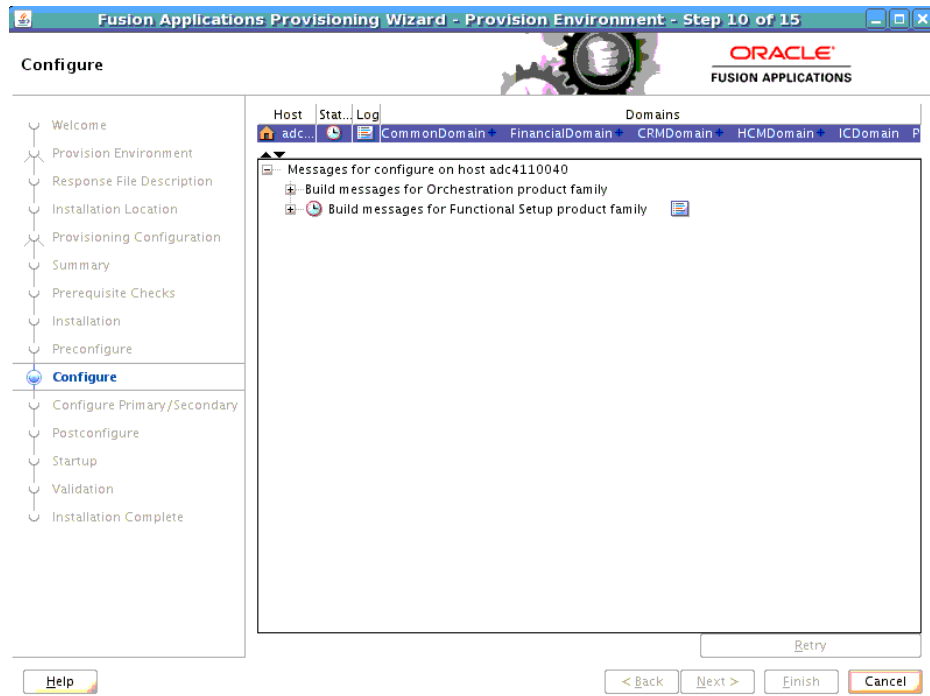
The **configure** phase creates Oracle WebLogic Server domains, Managed Servers, and clusters for Oracle Fusion Applications; applies templates; creates and configures data sources, queues, and topics; configures middleware (wiring); and deploys applications product offerings to domains. The primordial host is marked with a **Home** symbol in the **Host** column. The **Domains** column lists the domains deployed in the new environment.

In the terminal session for the primary, secondary, and DMZ host (if present), run the **configure** phase with this command:

(UNIX) *path_to_script*/runProvisioning.sh -responseFile *provisioning_response_file_location* -target configure

(Windows) *path_to_script*\runProvisioning.bat -responseFile *provisioning_response_file_location* -target configure

Note: This phase can run in parallel on all hosts and is tracked on this screen. Each **new** phase must run sequentially; that is, you cannot start a new phase until the previous phase has been completed successfully on all the hosts.

The **Status** of each build on each host is indicated by one of these icons:

- **Block**: Processing has not yet started on this host for the named phase.

- **Clock**: Performing the build for a phase.

- **Check mark**: The build was completed successfully.

- **x** mark: The build has failed for this phase. You must correct the errors before you can continue.

- **Restricted** symbol: The process has stopped due to a failure within another process.

Note: You cannot view the build processes on the DMZ host on the primordial host interface because the DMZ host does not have access to the shared network drive.

Click an **x** or a **Restricted** symbol to display information about failures. Click the host-level **Log** file for details about this phase. Click a build **Log** file to see details specific to that build.

Click **Retry** to rerun this phase if errors are reported. You must fix all errors before you continue. See "Troubleshooting the Provisioning Process" in *Oracle Fusion Applications Installation Guide* for details about recovery from failures.

Click **Next**. The wizard starts the **Configure-secondary** phase on the primordial host and displays the **Configure Secondary** screen.

E.12 Configure Primary/Secondary
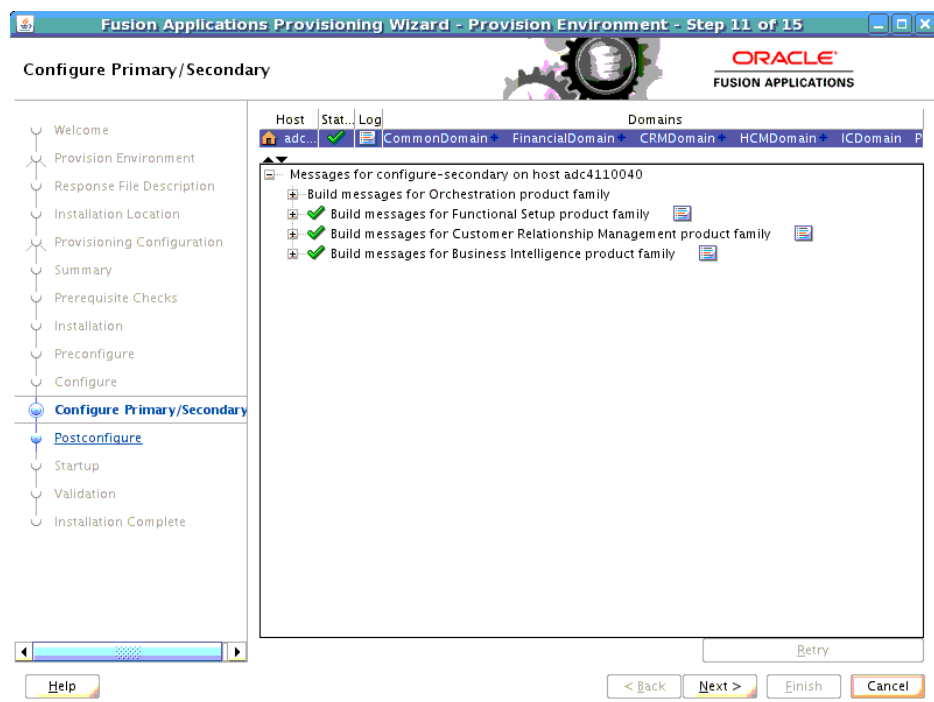
The **configure-secondary** phase performs configure actions on the primary and secondary host, if either is present. It there is no primary or secondary host, the phase runs, but takes no action. The **Domains** column lists the domains deployed in the new environment.

In the terminal session for the primary, secondary, and DMZ host (if present), run the **configure-secondary** phase with this command:

(UNIX) *path_to_script*/runProvisioning.sh -responseFile *provisioning_response_file_location* -target configure-secondary

(Windows) *path_to_script*\runProvisioning.bat -responseFile *provisioning_response_file_location* -target configure-secondary

Note: This phase can run in parallel on the primary and secondary hosts and is tracked on this screen. Each **new** phase must run sequentially; that is, you cannot start a new phase until the previous phase has been completed successfully on all the hosts.

The **Status** of each build on each host is indicated by one of these icons:

- **Block**: Processing has not yet started on this host for the named phase.

- **Clock**: Performing the build for a phase.

- **Check mark**: The build was completed successfully.

- **x** mark: The build has failed for this phase. You must correct the errors before you can continue.

- **Restricted** symbol: The process has stopped due to a failure within another process.

Note: You cannot view the build processes on the DMZ host on the primordial host interface because the DMZ host does not have access to the shared network drive.

Click an **x** or a **Restricted** symbol to display information about failures. Click the host-level **Log** file for details about this phase. Click a build **Log** file to see details specific to that build.

Click **Retry** to rerun this phase if errors are reported. You must fix all errors before you continue. See "Troubleshooting the Provisioning Process" in *Oracle Fusion Applications Installation Guide* for details about recovery from failures.

Click **Next**. The wizard starts the **Postconfigure** phase on the primordial host and displays the **Postconfigure** screen.

E.13 Postconfigure
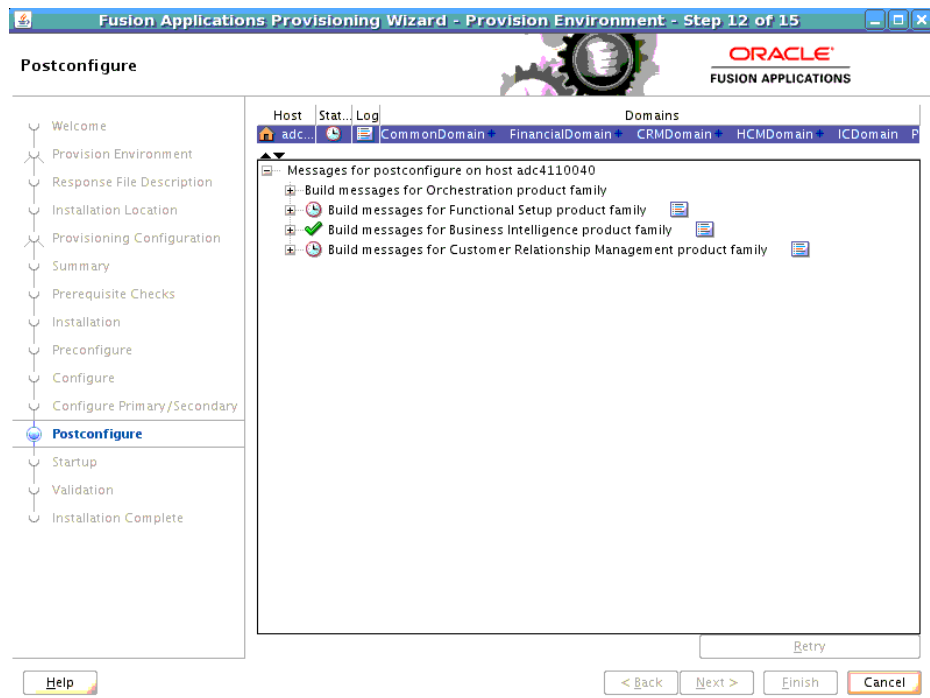
The **postconfigure** phase performs online tasks, such as configuring the Node Manager, SOA composite deployment, establishing Oracle HTTP Server wiring, seeding policies, and setting up postdeployment security configuration. The primordial host is marked with a **Home** symbol in the **Host** column. The **Domains** column lists the domains deployed in the new environment.

In the terminal session for the primary, secondary, and DMZ host (if present), run the **postconfigure** phase with this command:

(UNIX) *path_to_script*/runProvisioning.sh -responseFile *provisioning_response_file_location* -target postconfigure

(Windows) *path_to_script*\runProvisioning.bat -responseFile *provisioning_response_file_location* -target postconfigure

Note: This phase can run in parallel on all hosts and is tracked on this screen. Each **new** phase must run sequentially; that is, you cannot start a new phase until the previous phase has been completed successfully on all the hosts.

The **Status** of each build on each host is indicated by one of these icons:

- **Block**: Processing has not yet started on this host for the named phase.
- **Clock**: Performing the build for a phase.
- **Check mark**: The build was completed successfully.
- **x** mark: The build has failed for this phase. You must correct the errors before you can continue.
- **Restricted** symbol: The process has stopped due to a failure within another process.

Note: You cannot view the build processes on the DMZ host on the primordial host interface because the DMZ host does not have access to the shared network drive.

Click an **x** or a **Restricted** symbol to display information about failures. Click the host-level **Log** file for details about this phase. Click a build **Log** file to see details specific to that build.

Click **Retry** to rerun this phase if errors are reported. You must fix all errors before you continue. See "Troubleshooting the Provisioning Process" in *Oracle Fusion Applications Installation Guide* for details about recovery from failures.

Click **Next**. The wizard starts the **Startup** phase on the primordial host and displays the **Startup** screen.

E.14 Startup
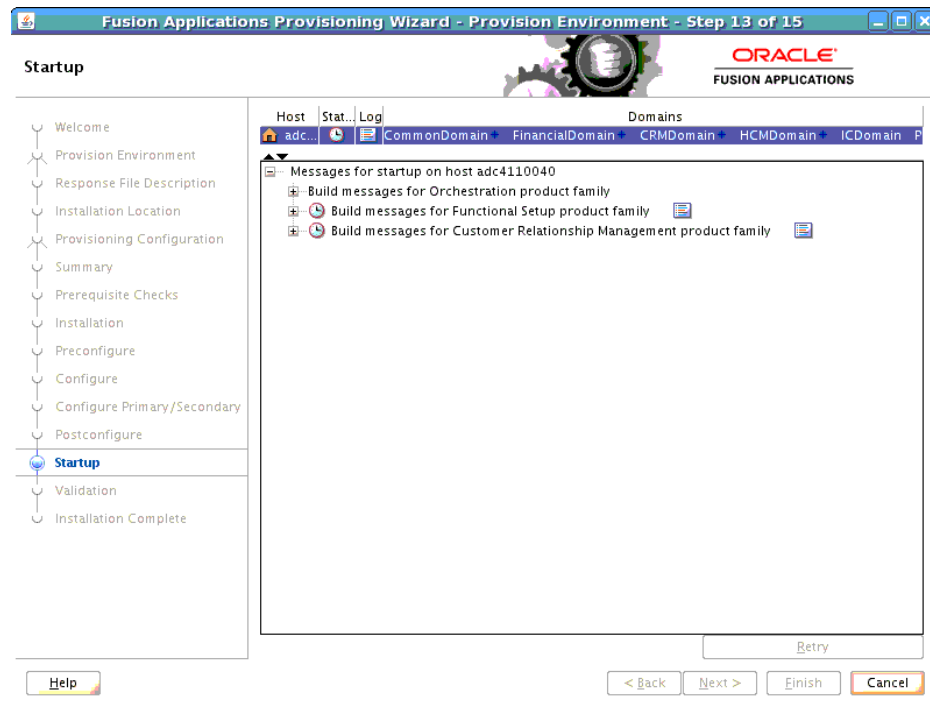
The **Startup** phase starts the Administration Server and Managed Servers for each domain on the host. The primordial host is marked with a Home symbol in the **Host** column. The **Domains** column lists the domains deployed in the new environment.

In the terminal session for the primary, secondary, and DMZ host (if present), run the **startup** phase with this command:

(UNIX) *path_to_script*/runProvisioning.sh -responseFile *response_file_location* -target startup

(Windows) *path_to_script*\runProvisioning.bat -responseFile *provisioning_response_file_location* -target startup

Note: This phase can run in parallel on all hosts and is tracked on this screen. Each **new** phase must run sequentially; that is, you cannot start a new phase until the previous phase has been completed successfully on all the hosts.

The **Status** of each build on each host is indicated by one of these icons:

- **Block**: Processing has not yet started on this host for the named phase.

- **Clock**: Performing the build for a phase.

- **Check mark**: The build was completed successfully.

- **x** mark: The build has failed for this phase. You must correct the errors before you can continue.

- **Restricted** symbol: The process has stopped due to a failure within another process.

Note: You cannot view the build processes on the DMZ host on the primordial host interface because the DMZ host does not have access to the shared network drive.

Click an **x** or a **Restricted** symbol to display information about failures. Click the host-level **Log** file for details about this phase. Click a build **Log** file to see details specific to that build.

Click **Retry** to rerun this phase if errors are reported. You must fix all errors before you continue. See "Troubleshooting the Provisioning Process" in *Oracle Fusion Applications Installation Guide* for details about recovery from failures.

Click **Next**. The wizard starts the **Validate** phase on the primordial host and displays the **Validation** screen.

E.15 Validation
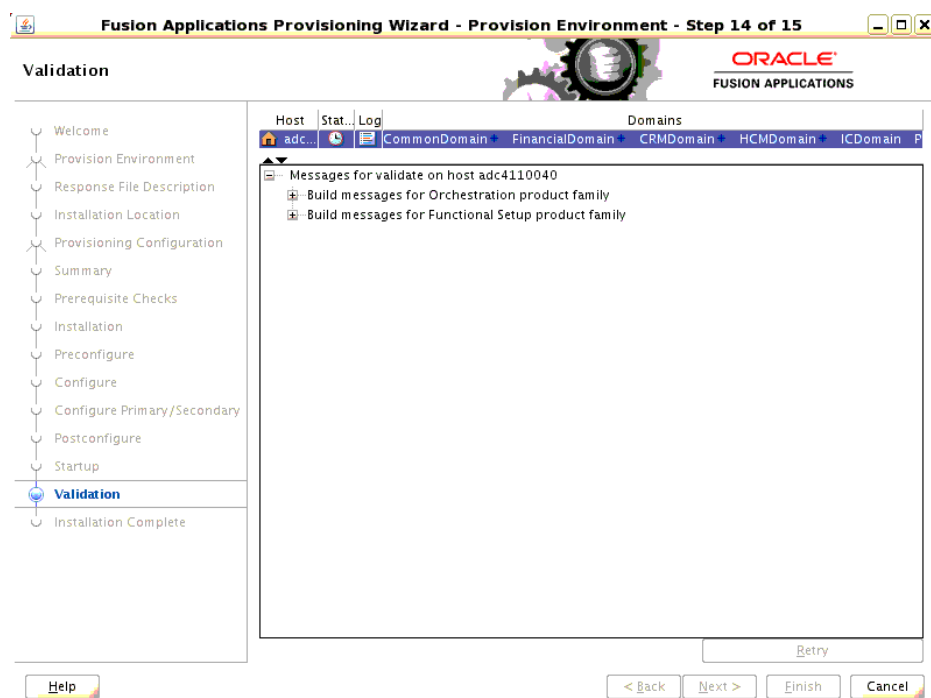
The **validate** phase performs a variety of postprovisioning validation tasks, such as server and application availability, successful loading of identity credentials, and validation of the data source. The primordial host is marked with a **Home** symbol in the **Host** column. The **Domains** column lists the domains deployed in the new environment.

In the terminal session for the primary and secondary host (if present), run the **validate** phase with this command:

(UNIX) *path_to_script*/runProvisioning.sh -responseFile *provisioning_response_file_location* -target validate

(Windows) *path_to_script*\runProvisioning.bat -responseFile *provisioning_response_file_location* -target validate

Note: This phase can run in parallel on all hosts and is tracked on this screen. Each **new** phase must run sequentially; that is, you cannot start a new phase until the previous phase has been completed successfully on all the hosts.

The **Status** of each build on each host is indicated by one of these icons:

■   **Block**: Processing has not yet started on this host for the named phase.

■ **Clock**: Performing the build for a phase.

■ **Check mark**: The build was completed successfully.

■ **x** mark: The build has failed for this phase. You must correct the errors before you can continue.

■ **Restricted** symbol: The process has stopped due to a failure within another process.

Click an **x** or a **Restricted** symbol to display information about failures. Click the host-level **Log** file for details about this phase. Click a build **Log** file to see details specific to that build.

Click **Retry** to rerun this phase if errors are reported. You must fix all errors before you continue. See "Troubleshooting the Provisioning Process" in *Oracle Fusion Applications Installation Guide* for details about recovery from failures.

After this phase has completed successfully on all hosts, click **Next** to continue.

E.16 Installation Complete
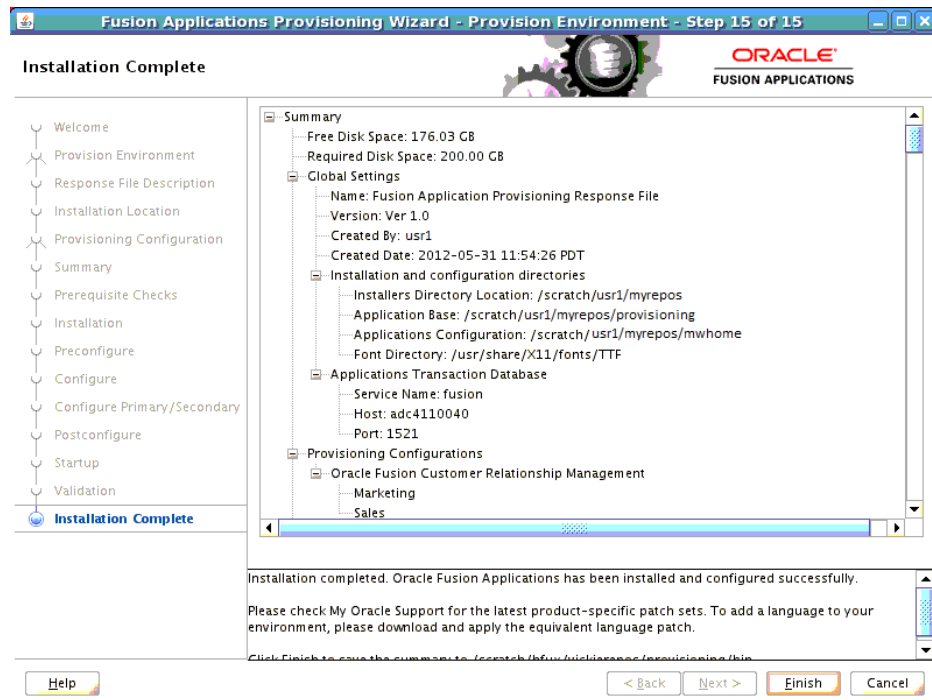
This screen displays the configuration of the new environment.

Click **Finish**. The wizard automatically saves a summary file that describes this installation. The file is saved to the response file directory as follows:

```
framework_
location/provisioning/provisioning-responseFile/provisioning_
response_file_name-timedate.summary.
```

F

Applications Deinstallation Screens

This appendix presents the **Provisioning Wizard** screens in the Deinstall a Fusion Environment interview and describes the purpose of each of the following screens:

- Welcome
- Specify Central Inventory Directory
- Installation Options
- Summary
- Deinstallation Progress
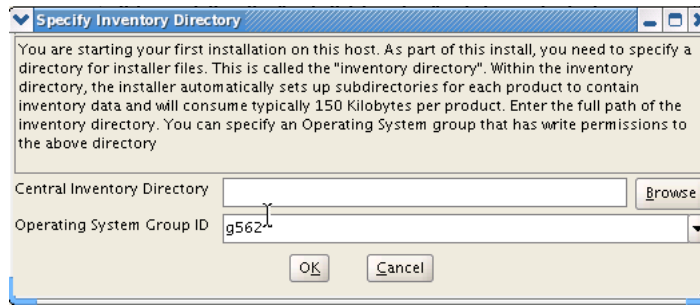- Deinstallation Complete

F.1 Welcome
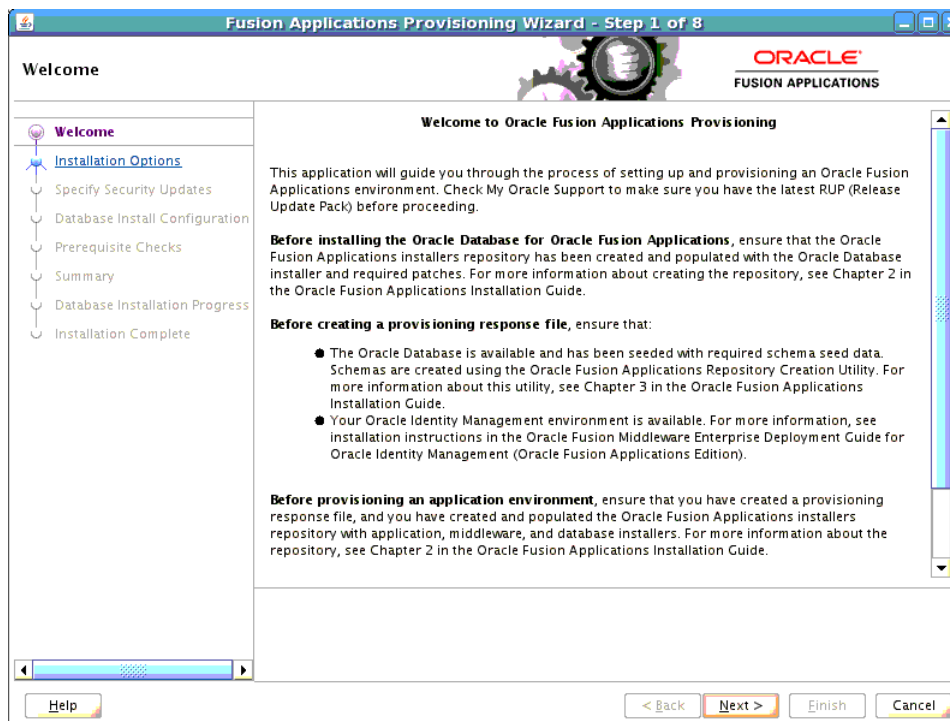
No action is required on this read-only screen.

Click **Next** to continue.
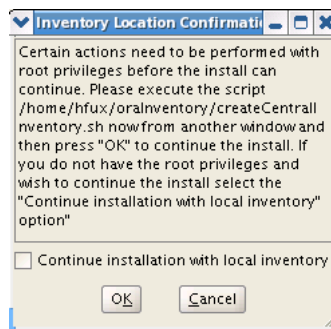
F.2 Specify Central Inventory Directory

This screen displays only if one or more of the following conditions are not met:

- The `-invPtrLoc` option is used to specify the central inventory location on non-Windows platforms, so the default value for your platform is not used. The default values for platforms follows:

  - Linux and AIX: `/etc/oraInst.loc`

  - Solaris and HP: `/var/opt/oracle/oraInst.loc`

- The Central Inventory Pointer File is readable.

- The Central Inventory Pointer File contains a value for `inventory_loc`.

- The `inventory_loc` directory is writable.

- The `inventory_loc` directory has at least 150K of space.

- `inventory_loc` is not an existing file.

Specify the location of the **Central Inventory Directory** that meets the previous criteria. The `inventory_loc` directory can be created by the `createCentralInventory.sh` script and does not have to exist at the time you specify its location.

For non-Windows platforms, in the **Operating System Group ID** field, select or enter the group whose members will be granted access to the inventory directory. All members of this group can install products on this host. Click **OK** to continue.

The **Inventory Location Confirmation** dialog prompts you to run the `inventory_directory/createCentralInventory.sh` script as root, to confirm that all conditions are met and to create the default inventory location file, such as `/etc/oraInst.loc`. After this script runs successfully, return to the interview and click **OK** to proceed with the deinstallation.

If you do not have root access on this host but want to continue with the deinstallation, select **Continue installation with local inventory** and click **OK** to proceed with the installation.

For Windows platforms, this screen displays if the inventory directory does not meet requirements.

For more information about inventory location files, see "Oracle Universal Installer Inventory" in the *Oracle Universal Installer and OPatch User's Guide*.

Click **Next** to continue.
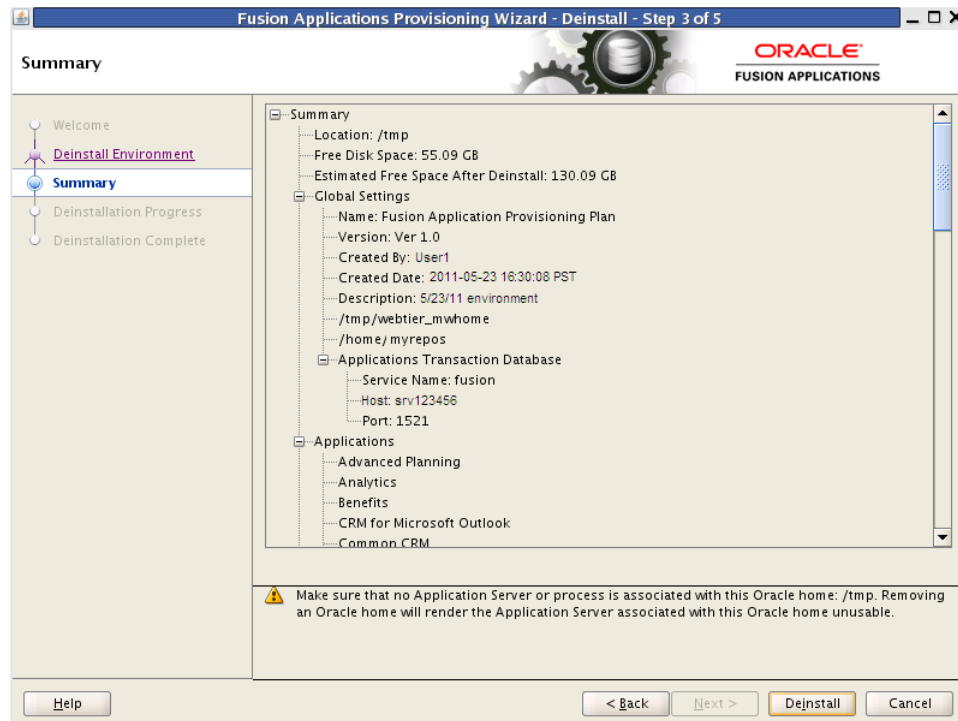
F.3 Installation Options

Select the task that you want to perform from the list of options. When prompted, enter a directory path in the **Response File** field to access a completed **response file** to use as a base for one of the actions. Or, click **Browse** to navigate to the response file location.

- **Install an Applications Transaction Database**: Install an empty, single-instance Oracle Database Enterprise Edition using the nonseeded database template shipped with this release.

- **Create a New Applications Environment Response File**: Create a response file for a new Oracle Fusion Applications environment.

- **Update an Existing Response File**: Add or change details in a completed response file that has not yet been implemented or in a partially completed response file.

- **Provision an Applications Environment**: Initiate and track the processes that install, configure, and deploy product offerings in a new Oracle Fusion Applications environment.

- **Deinstall an Applications Environment**: Remove applications and middleware components from an existing applications environment.

Click **Next** to continue.

F.4 Summary

Review the list of components to be deinstalled. Before you begin the deinstallation process, you must shut down or stop the following processes:

1. Stop any processes that are running in the environment. See *Oracle Fusion Applications Administrator's Guide* for details about stopping and starting components in the Oracle Fusion Applications environment.

2. Shut down all Managed Servers, the Administration Server, and the Node Manager on all hosts. If the servers are configured as Windows services, stop the services before deinstalling the software. For details about starting and stopping processes, see *Oracle Fusion Applications Administrator's Guide*.

3. Stop the Oracle HTTP server with this command: `WT_CONFIG_HOME`/bin/opmnctl shutdown.

4. Stop the Oracle Business Intelligence components that are controlled by OPMN with this command: `BI_CONFIG_HOME`/bin/opmnctl shutdown. See *Oracle Fusion Middleware System Administrator's Guide for Oracle Business Intelligence Enterprise Edition* for more information about using the OPMN commands.

5. Shut down Global Order Promising (GOP) (if provisioned): (UNIX) `gop_instance_base`/bin/opmnctl shutdown. To remove the Windows service, run: `sc delete GlobalOrderPromisingServer1`.

6. Stop the Java EE components using Oracle Enterprise Manage Fusion Middleware Control. See *Oracle Fusion Applications Administrator's Guide* for details.

7. Shut down Informatica Identity Resolution (IIR) (if provisioned) by running these commands *in the order listed*:

   a. `APPLICATIONS_BASE`/informaticaIR/bin/idsdown

b. _APPLICATIONS_BASE_/informaticaIR/bin/lidown

Click **Deinstall** to begin deinstalling the applications and middleware components.

F.5 Deinstallation Progress

Like provisioning, you run deinstall on the **Primordial host** first. If you have
provisioned a **Primary host** or **Secondary host**, you must deinstall that host from the
command line. If the primordial host is no longer available, the entire deinstall process
must be run from the command line.

Run the deinstall command as `root` (with administration privileges) using the
following command:

(UNIX)

```
runProvisioning.sh -responseFile response_file_location -target
deinstall
```

(Windows)

```
runProvisioning.bat -responseFile response_file_location -target
deinstall
```

If the web tier has been deployed in a DMZ, you must run the Oracle Universal
Installer (OUI) manually on the host to deinstall. See _Oracle Universal Installer and
OPatch User's Guide_.

The following symbols help you track the deinstallation:

- **Block**: Processing has not yet started on this host for the named phase.

- **Clock**: Performing the build for a phase.

- **Check mark**: The build was completed successfully.

- **x** mark: The build has failed for this phase. You must correct the errors before you can continue.

- **Restricted** symbol: The validation process has stopped due to a failure within another process.

Click an **x** or a **Restricted** symbol to display information about failures. Select the icon in the **Log** column to view host-level details. If there is a **Log** file icon beside a build message, you can select that file to see the details of that build.

If the deinstallation fails, a **Retry** button is enabled, allowing you to try the deinstall again. See *Oracle Fusion Applications Installation Guide* for information about retry, **cleanup**, and **restore** actions.

Click **Next** to continue.

F.6 Deinstallation Complete

During the deinstallation process, components that were installed using the Provisioning Wizard are removed. The database and the LDAP are *not* removed.

The remaining cleanup tasks are as follows:

(UNIX)

1. Remove the Entries from Services.

2. Remove the Entries from the inetd.conf file.

(Windows)

1. Remove Program Groups. You must also remove Program Groups from the Start Menu\Programs folder.

2. Reboot your system after you have finished removing all programs.

Click **Finish** to dismiss the screen.

Glossary

applications base

The top-level directory for the Oracle Fusion Applications binaries. You specify a name for this directory at the time of provisioning. This directory includes two mount points: */net/mount1/appbase* for components that will remain read-only after provisioning, and */net/mount2* (*APPLICATIONS_CONFIG*) to contain instances that are configurable after provisioning. This structure aids performance issues and accommodates a "lock-down" of binaries after provisioning. It ensures that the configurable components remain available.

cleanup

The installation phase that shuts down processes started during a failed phase and performs the necessary cleanup actions. If the automated cleanup fails, you must manually stop all processes except the Node Manager on all hosts including OPMN and Java EE processes before you can run the restore action. Note, however, that you must stop *all* processes if you are running the cleanup action on the **Configure** phase

CLI

Used for starting the **Provisioning Wizard** and running installation phases on the **Primary host**, **Secondary host**, and **DMZ host** (when present).

cluster

A group of Oracle WebLogic Servers that work together to provide scalability and high availability for applications. A cluster appears as a single Oracle WebLogic Server instance. The **Managed Server** instances that constitute a cluster can run on the same host or be located on different hosts. Applications are deployed to the cluster, which implies deployment to every **Managed Server** within the cluster.

Configure

The installation phase that creates domains, Managed Servers, and clusters. Configures data sources and performs Node Manager registration of servers on the primordial host and primary host.

Configure-secondary

The installation phase that performs the configuration actions on a primary or secondary host (or both), registers **Managed Server**s with the Node Manager on secondary hosts, and creates a web tier instance. If there are no primary or secondary hosts, or if there are only primary hosts, this phase runs, but takes no action.

DMZ host

A host that cannot access the shared storage within the firewall. This type of host is typically used to install the Oracle HTTP Server so that restrictions on communication with components within the firewall can be enforced.

home directory

A directory that contains one or more Oracle Fusion Middleware homes or Oracle Fusion Applications homes. This directory has no functional significance other than as a grouping of related Oracle product offerings.

idmsetup.properties

A properties file, idmsetup.properties, is automatically generated during the provisioning of an Oracle Identity Management enviroment. This file includes some of the configuration values that you must supply to the Provisioning Wizard when you create a response file. These values must be included in your response file to integrate Oracle Identity Management components with an Oracle Fusion Applications environment.

Select the **Load IDM Configuration from IDM Properties file** option available on the **IDM Properties File** screen of the Oracle Fusion Applications Provisioning Wizard, if you want the values on the Identity Management Configuration screen and the Access and Policy Management Configuration screen to default to the values in the IDM properties file. You must however review these screens to ensure that all values are accurate before proceeding to the next screen.

The properties file is created in: *SHARED_CONFIG_DIR*/fa/idmsetup.properties, where SHARED_CONFIG_DIR is the shared configuration location that you selected in the **Install Location Configuration** page of the Oracle Identity Management Provisioning Wizard.

For more information about the IDM properties file, see "Pass Configuration Properties File to Oracle Fusion Applications" in the *Oracle Fusion Middleware Identity Management Provisioning Guide (Oracle Fusion Applications Edition)*

Install

The installation phase that installs middleware and applications components and applies database patches shipped with provisioning (for databases created with the wizard).

Managed Server

A server which hosts components and associated resources that constitute each product configuration. The domains are predefined to ensure that product offerings and their dependencies are always stored in a standardized arrangement.

Postconfigure

Installation phase which configures Oracle SOA Suite composite deployment and Oracle HTTP Server, and populates policies and grants. Configures middleware and applications that require servers to be online.

Preconfigure

The installation phase that updates the Oracle Application Development Framework (Oracle ADF) configuration.

Preverify

The installation phase that checks to see that the prerequisites for an installation are met.

Primary host

The host on which the Administration Server of a domain runs.

Primordial host

The host that contains the Common domain (and specifically the Administration Server of the Common domain). There is one, and only one, primordial host per shared drive.

product offerings

Groups of features within an installation of Oracle Fusion Applications which represent the highest-level collection of functionality that you can license and implement.

provisioning configuration

A collection of one or more **product offerings**.

Provisioning Command-line Interface (CLI)

See **CLI**.

provisioning repository

A repository which contains all the installers required to provision a new Oracle Fusion Applications environment. You download the repository from the Oracle Fusion Applications Product Media Package and extract the files to a location of your choice, for example `repository_location`/`installers`. The repository must be located on a networked drive or a shared hard disk so that it is accessible to all the hosts in your new environment.

provisioning summary file

A file which contains details that describe the installation. It is automatically created by provisioning after the installation is complete and includes a link to the Oracle Fusion Applications home page.

Provisioning Wizard

A question-and-answer interview that guides you through the process of installing a database, creating or updating a response file, and installing or deinstalling the components of an Oracle Fusion Applications environment.

response file

A collection of configuration details you specify about installation locations, product offerings and middleware (technology stack) dependencies. In addition, you enter connection parameters for the database and identity management components that you set up as prerequisites. You use the **Provisioning Wizard** interview to create and execute the response file.

restore

The installation phase consisting of the necessary restore actions required for a given provisioning phase. This action deletes and restores the instance directory, and, if necessary (and available), restarts the Common Domain Administration Server and Oracle HTTP Server.

Secondary host

Location where the Managed Servers for any application reside when they are not on the same host as the Administration Server of the same domain. Typically used when a domain spans two physical servers.

Startup

Installation phase that starts the Administration Server and the **Managed Server** on the current host. Performs online configuration, including global unique identifier (GUID) reconciliation and Financial/IPM configuration.

Validate

Installation phase that validates the deployment configuration and starts the **Managed Server**.

WebLogic Server Domain

A logically related group of Oracle WebLogic Server resources that is managed as a unit. It consists of an Administration Server and one or more **Managed Server**.