Oracle® Fusion Middleware

Upgrading with the Upgrade Assistant

12*c* (12.1.3)

E42118-02

December 2014

This tool-specific reference guide provides command-line instructions and screen references for the Oracle Fusion Middleware Upgrade Assistant.

ORACLE

Oracle Fusion Middleware Upgrading with the Upgrade Assistant, 12*c* (12.1.3)

E42118-02

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Preface

This preface contains the following sections:

- Audience
- Documentation Accessibility
- Related Documents
- Conventions

Audience

This manual is intended for Oracle Fusion Middleware system administrators who are responsible for upgrading Oracle Fusion Middleware. It is assumed that the readers of this manual have knowledge of the following:

- Oracle Fusion Middleware 12*c* system administration and configuration information for the existing deployment
- The configuration and expected behavior of the system or systems being upgraded

Documentation Accessibility

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Related Documents

For more information, see the following related documentation available in the Oracle Fusion Middleware 12c documentation library:

- *Oracle Fusion Middleware Planning an Upgrade of Oracle Fusion Middleware*
- *Oracle Fusion Middleware Planning an Installation of Oracle Fusion Middleware*
- *Oracle Fusion Middleware Understanding Oracle Fusion Middleware*

- *Oracle Fusion Middleware Understanding Interoperability and Compatibility*
- *Oracle Fusion Middleware Installing Software with the Oracle Universal Installer*
- *Oracle Fusion Middleware Creating Schemas with the Repository Creation Utility*
- *Oracle Fusion Middleware Upgrading to the Oracle Fusion Middleware Infrastructure*
- *Oracle Fusion Middleware Upgrading Oracle SOA Suite and Business Process Management*
- *Upgrading Oracle WebLogic Server*
- *Oracle Fusion Middleware Upgrading Oracle Data Integrator*
- *Oracle Fusion Middleware Upgrade Guide for Oracle Enterprise Repository*

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

The following topics introduce the new and changed features of the Upgrade Assistant and other significant changes that are described in this guide, and provides pointers to additional information.

- New and Changed Features for 12c (12.1.3)
- Other Significant Changes in this Document for 12c (12.1.3)

> **Note:** This guide, *Oracle Fusion Middleware Upgrading with the Upgrade Assistant*, is new to the Oracle Fusion Middleware library for 12*c*. Individual upgrade guides will no longer include the basic instructions for using the Upgrade Assistant. Component-specific upgrade guides will document any specific upgrade information related to the component or suite.

New and Changed Features for 12c (12.1.3)

Upgrade Assistant 12c (12.1.3) includes the following new and changed administrative features:

- Upgrade Assistant performs all configuration upgrades offline. The Administration Servers are expected to be shut down during the Oracle WebLogic component configurations upgrade.
- The Upgrade Assistant displays the source version of the pre-upgrade schemas and components.
- Upgrade Assistant can be used to upgrade Oracle SOA and Business Process Management schemas, component configurations, and standalone system component configurations. The separate Patch Set Assistant utility is no longer used for upgrading schemas.

> **Note:** A number of new features were introduced in Oracle Fusion Middleware 12*c* Release 12.1.2. If this is your first upgrade to 12*c*, see "New and Changed Features for 12c (12.1.2)" and *Oracle Fusion Middleware Understanding Oracle Fusion Middleware*

Other Significant Changes in this Document for 12c (12.1.3)

This guide was created as a reference guide for using the Upgrade Assistant. See the following document for detailed procedural information:

- For component-specific upgrade procedures, see the component or suite upgrade guide in the Oracle Fusion Middleware 12c (12.1.3) documentation library.

1 Using the Upgrade Assistant

The Oracle Fusion Middleware Upgrade Assistant automates many upgrade tasks. This chapter describes how to use the Upgrade Assistant.

This chapter describes the following:

- Section 1.1, "About the Upgrade Assistant"
- Section 1.2, "Verifying Your Database is Supported for Upgrade"
- Section 1.3, "Using the Upgrade Assistant in the Overall 12c Upgrade Process"
- Section 1.4, "Identifying Schemas that Can be Upgraded with the Upgrade Assistant"
- Section 1.5, "Identifying Component Configurations to be Upgraded with the Upgrade Assistant"
- Section 1.6, "Before You Begin Using the Upgrade Assistant"
- Section 1.7, "Starting the Upgrade Assistant"
- Section 1.8, "Upgrading Schemas with the Upgrade Assistant"
- Section 1.9, "Upgrading Oracle WebLogic Component Configurations"
- Section 1.10, "Upgrading Standalone System Component Configurations"
- Section 1.11, "Post-Upgrade Procedures"

> **Note:** Before starting the Upgrade Assistant, refer to *Oracle Fusion Middleware Planning an Upgrade of Oracle Fusion Middleware* and your component-specific upgrade documentation for detailed information about the supported upgrade starting points, as well as the prerequisites and upgrade paths for specific installation types.

1.1 About the Upgrade Assistant

The Oracle Fusion Middleware Upgrade Assistant is used to upgrade supported 11g and 12c component schemas, component configurations, and standalone system component configurations to Fusion Middleware 12*c* (12.1.3).

When you run the Upgrade Assistant from the `oracle_common/upgrade/bin/ua` directory of your Fusion Middleware 12*c* (12.1.3) installation, it performs the following tasks:

- For schema upgrades, the Upgrade Assistant examines the current install directory and identifies the list of possible component schemas to be upgraded. It also

determines the order of schema upgrade based on certain dependency information present.

- The Administration server is offline during the configuration upgrade. The list of component configurations to upgrade are determined by reading the domain configuration in an offline manner.

1.2 Verifying Your Database is Supported for Upgrade

The database that hosts the schemas used in Fusion Middleware must be supported. For more information, see "Verifying Your Database and Schemas are Ready for Upgrade" in *Oracle Fusion Middleware Planning an Upgrade of Oracle Fusion Middleware*.

1.3 Using the Upgrade Assistant in the Overall 12c Upgrade Process

The Upgrade Assistant is used in conjunction with other Fusion Middleware tools and processes to complete an upgrade of supported 11*g* and 12*c* components to 12*c* (12.1.3) upgrade. Supported versions are described in Table 1–1.

The 11*g* to 12*c* upgrade process is very different from previous releases. To understand how the Upgrade Assistant and the other upgrade tools are used in the upgrade process, see "Understanding the 12c Upgrade Process" in *Oracle Fusion Middleware Planning an Upgrade of Oracle Fusion Middleware*.

At a high level, the Upgrade Assistant is used twice during a typical upgrade. The general steps are as follows:

Step 1 Use the Upgrade Assistant to upgrade schemas

You will launch the Upgrade Assistant the first time to upgrade the available schemas to the latest version. Depending on which schemas you select to upgrade, you will be presented with a series of standard and schema-specific Upgrade Assistant screens.

If you are upgrading from 11g, you will need to create the Service Table schema for use in 12c (12.1.3). For more information on which schemas you will need to create for 12c, see "Creating Schemas Before You Upgrade" in *Oracle Fusion Middleware Planning an Upgrade of Oracle Fusion Middleware*.

Step 2 Use the Reconfiguration Wizard to reconfigure the domain

Once the schemas are upgraded, you will use the Reconfiguration Wizard to reconfigure the existing domain.

For more information on using the Reconfiguration Wizard, see "Reconfiguring WebLogic Domains" in *Upgrading Oracle WebLogic Server*.

Step 3 Use the Upgrade Assistant again to upgrade component configurations

After the domain has been reconfigured, you will use the Upgrade Assistant again to upgrade any component configurations.

1.4 Identifying Schemas that Can be Upgraded with the Upgrade Assistant

The Upgrade Assistant identifies schemas for which an upgrade is available. You can upgrade multiple schemas in a single session of running the Upgrade Assistant.

When the schemas are created in your database, RCU creates and maintains a table called `schema_version_registry`. This table contains schema information such as

version number, component name and ID, date of creation and modification, and custom prefix.

> **Note:** The Upgrade Assistant identifies all of the schemas that are available for an upgrade, but it allows you to select which schemas should be upgraded.
>
> If you determine that an upgrade is not needed for a schema, the `schema_version_registry` table will retain the schemas at their pre-upgrade version after the 12.1.3.0.0 upgrade. Table 1–1 shows what the pre- and post-upgrade version numbers will be when the schemas are selected for an upgrade.

To determine which of your 11*g* or 12.1.2 schemas can be upgraded to 12.1.3.0.0, execute the following:

If you are using an Oracle database, connect to the database as SYSTEM or as any user who has the Oracle DBA role and run the following from SQL*Plus to get the current version numbers. The following report is generated when saved to a SQL script, for example `version.sql`:

```
SET LINE 120
COLUMN MRC_NAME FORMAT A14
COLUMN COMP_ID FORMAT A20
COLUMN VERSION FORMAT A12
COLUMN STATUS FORMAT A9
COLUMN UPGRADED FORMAT A8
SELECT MRC_NAME, COMP_ID, OWNER, VERSION, STATUS, UPGRADED FROM SCHEMA_VERSION_
REGISTRY ORDER BY MRC_NAME, COMP_ID ;
```

If the number in the "VERSION" matches that mentioned in the table below, the STATUS column is 'VALID', and the schema is listed in Table 1–1, then the schema is supported for upgrade.

The component schemas listed in Table 1–1 (default names shown) can be upgraded to 12*c* (12.1.3.0.0) using this version of the Upgrade Assistant.

> **Note:** The Schema(s) column in Table 1–1 shows the default schema name format of prefix and schema name separated by an underscore (_) character. The default prefix is `DEV`, but you may have created new prefixes for your schemas while using the RCU.

Notes About the Schemas That Need to Be Upgraded:

- For most components, the only schema versions that are valid for updating are 11*g* Release 1 (11.1.1.6 or 11.1.1.7) or 12c (12.1.2). If your schemas are not at a supported version, then you must upgrade them before using the 12*c* (12.1.3) upgrade procedures.

  Some components, such as Oracle Enterprise Data Quality and Oracle Golden Gate Veridata, support an upgrade from versions other than the standard Oracle Fusion Middleware supported versions. See Table 1–1 for more information on supported schems and starting points for these components.

- Refer to your component-specific installation and upgrade documentation for additional information about the schemas that are required for your upgrade.

- If you used a file-based policy store in 11g, then you must reassociate the file-based policy store with a database-based security store before running the Upgrade Assistant. For more information see "Reassociating a File-Based Policy Store Before Upgrade" in *Oracle Fusion Middleware Upgrading to the Oracle Fusion Middleware Infrastructure*.
- If you used an OID-based policy store in 11g, make sure that you have created new OPSS schemas before upgrade.
- Table 1–1 lists only the schemas for products that are available for upgrade in the Oracle Fusion Middleware 12*c* (12.1.3) release. Do not attempt to upgrade a domain that includes components that are not yet available for upgrade to 12c (12.1.3). For more information, see *Oracle Fusion Middleware Understanding Interoperability and Compatibility*.

Table 1–1 Oracle Component Schemas That Require an Upgrade

Component Name	Schema(s)	Schema Version Before Upgrade	Schema Version After Upgrade	Dependencies and Additional Information
AS Common Schemas				
Audit Services[1]	*prefix*_IAU	11.1.1.6 11.1.1.7 12.1.2.	12.1.3.0.0	No dependencies. Requires AS SYSDBA privileges.
Metadata Services	*prefix*_MDS	11.1.1.6. 11.1.1.7 12.1.2	12.1.3.0.0	No dependencies. Requires AS SYSDBA privileges.
Platform Security Services[2]	*prefix*_OPSS	11.1.1.6 11.1.1.7 12.1.2	12.1.3.0.0	The *prefix*_IAU schema must be upgraded first. Requires AS SYSDBA privileges.
Common Infrastructure Services (LocalSvcTbl)	*prefix*_STB	12.1.2	12.1.3.0.0	The 12.1.2.0.0 *prefix*_STB schema must be upgraded to 12.1.3.0.0 before upgrading other components, such as SOAINFRA, to 12c 12.1.3.0.0.
User Messaging Service	*prefix*_ORASDPM	11.1.1.6 11.1.1.7 12.1.2	12.1.3.0.0	When upgrading a system that is a new installation of 12.1.2 the schema name will be called prefix_UMS.
WebLogic Diagnostic Framework	*prefix*_WLDF	11.1.1.6 11.1.1.7	12.1.2.0.0	
Oracle Data Integrator				
Data Integrator (Master and Work Repository)	*prefix*_ODI_REPO	11.1.1.6 11.1.1.7 12.1.2	12.1.3.0.0	None. Requires AS SYSDBA privileges.

Table 1–1 (Cont.) Oracle Component Schemas That Require an Upgrade

Component Name	Schema(s)	Schema Version Before Upgrade	Schema Version After Upgrade	Dependencies and Additional Information
Oracle SOA Suite				
SOA Core Extension[3] **NOTE:** In 11g SOA Core Extension was called the Application Integration Architecture Foundation Pack (AIAFP). AIAFP has been rebranded in 12c to SOA Core Extension.	*prefix*_AIA	11.1.1.6 11.1.1.7	12.1.3.0.0	When the 11g schema is upgraded, the AIAFP schema is retained and a new 12c schema is created. After the upgrade, you have two sets of AIAFP schemas as the old one is not deleted.
SOA Infrastructure	*prefix*_SOAINFRA	11.1.1.6 11.1.1.7	12.1.3.0.0	
Oracle Enterprise Data Quality				
Enterprise Data Quality	*prefix*_EDQCONF *prefix*_EDQRES	11.1.1.7.3	12.1.3.0.0	
Oracle Golden Gate Monitor				
Golden Gate Monitor	*prefix*_OGGMON	11.1.1.7	12.1.3.0.0	
Oracle Golden Gate Veridata				
Veridata	*prefix*_VERIDATA	11.2.1	12.1.3.0.0	

[1] When upgrading _IAU from 11*g* starting points, the Upgrade Assistant will update two auxilary schemas, IAU_APPEND and IAU_VIEWER and add them to the schema_version_registry for 12.1.3.0.0. These schemas were not part of the 11.1.1.6 or 11.1.1.7 schema_version_registry table.

[2] As of release 11.1.1.7, OPSS audit data is stored in IAU common tables instead of the JPS table. When upgrading _OPSS schemas to 12.1.3.0.0 from 11.1.1.6, any existing data in the JPS table can remain unchanged for reporting or auditing purposes, and there is no need to upgrade JPS table with extra columns.

[3] In 11g, the AIAFP schema was a separate, non-RCU schema, but in 12c it is now part of RCU and is part of the SOAINFRA schema. When the 11g schema is upgraded, the AIAFP schema is retained and a new 12c schema is created. After the upgrade, you have two sets of AIAFP schemas because the old one is not deleted. This is specific to 12.1.3 release.

1.5 Identifying Component Configurations to be Upgraded with the Upgrade Assistant

When you use the Upgrade Assistant to upgrade your component configurations, it automatically determines the list of components that are configured and can be upgraded to the latest version. After you run the Upgrade Assistant for schema upgrades, you will use the Reconfiguration Wizard to reconfigure your domain. The Upgrade Assistant is used again, after the reconfiguration, to upgrade any remaining configuration properties.

You can use the Upgrade Assistant to upgrade the following component configurations to 12*c* (12.1.3.0.0):

- Oracle HTTP Server
- Oracle Web Services Manager
- Oracle Data Integrator
- Oracle SOA Core Extension

- JRF Infrastructure
- Oracle MapViewer
- Oracle Golden Gate Veridata
- Oracle User Messaging Service

Caution: If you have existing Fusion Middleware 11*g* components that are not available in the 12.1.3.0.0 upgrade, and you want to continue to use them with your upgraded components, review *Oracle Fusion Middleware Understanding Interoperability and Compatibility* before you upgrade. You will need to determine if an upgrade will cause any incompatibility issues with your Fusion Middleware 11*g* components.

1.6 Before You Begin Using the Upgrade Assistant

This section describes the procedures you must perform before you run the Upgrade Assistant:

- Verifying Pre-Upgrade Requirements Have Been Met
- Installing Oracle Fusion Middleware 12c (12.1.3)
- Creating New 12.1.3 Schemas Before You Upgrade
- Stopping Servers and Processes Before Schema Upgrades

1.6.1 Verifying Pre-Upgrade Requirements Have Been Met

The *Oracle Fusion Middleware Planning an Upgrade of Oracle Fusion Middleware* guide provides detailed information on the tasks that you will need to perform before you begin the upgrade process.

Review "Developing an Upgrade Strategy" to make sure that all pre-upgrade requirements have been met.

1.6.2 Installing Oracle Fusion Middleware 12c (12.1.3)

The Upgrade Assistant is included in the 12*c* (12.1.3) Fusion Middleware software Infrastructure distribution. The 12.1.3 product distributions must be installed before executing your upgrade. For more information on 12*c* (12.1.3) installations, including the standard 12*c* (12.1.3) installation topologies, see *Oracle Fusion Middleware Planning an Installation of Oracle Fusion Middleware*. This guide also discusses additional prerequisites and links to component-specific Installation Guides.

You can also see a complete list of Installation Guides in the Oracle Fusion Middleware 12*c* (12.1.3) documentation library.

1.6.3 Creating New 12.1.3 Schemas Before You Upgrade

If your starting point is 11*g*, after installing your 12.1.3.0.0 components, you will need to create the new 12*c* schemas, such as the new Service Table schema (*prefix*_STB) in a supported database certified for use with this release of Oracle Fusion Middleware.

For more information on determining which schemas should be created for your upgrade, see "Creating Schemas Before You Upgrade" in *Oracle Fusion Middleware Planning an Upgrade of Oracle Fusion Middleware*.

Note: Before upgrading an EBR-enabled schema from Fusion Middleware 11g Release 1 (11.1.1.6 or 11.1.1.7) or 12c (12.1.2), you must first connect to the database server and create an edition on the database server for 12c (12.1.3). The new edition for 12.1.3 must be a child of your 11.1.1.6, 11.1.1.7 or 12.1.2 edition.

For more information on creating an edition on the server for edition-based redefinition, see "Creating an Edition on the Server for Edition-Based Redefinition" in *Oracle Fusion Middleware Planning an Upgrade of Oracle Fusion Middleware*.

1.6.4 Stopping Servers and Processes Before Schema Upgrades

Before running Upgrade Assistant to upgrade your schemas, shut down all Oracle Fusion Middleware Managed Servers, Administration Servers, and system components (such as OHS) that may be using the schemas you want to upgrade. The databases that contain Fusion Middleware database schemas must be quiesced before running Upgrade Assistant. You can either shutdown and restart the database server, or ensure that there are no other database users operating on the same database instance that will be upgraded by Upgrade Assistant. Failure to do so may result in an incomplete or failed upgrade.

If you are running Node Manager, you should also stop Node Manager. You can do this by closing the console window in which Node Manager is running, or by using the `stopNodeManager` WLST command.

Instructions for stopping an Oracle Fusion Middleware environment are provided in "Stopping an Oracle Fusion Middleware Environment" in *Oracle Fusion Middleware Administering Oracle Fusion Middleware*.

1.7 Starting the Upgrade Assistant

Upgrade Assistant will be installed by the 12*c* (12.1.3) version of the Oracle Universal Installer (OUI) into the `oracle_common` area of the Fusion Middleware home in the `oracle_common/upgrade/bin` directory.

To start the Upgrade Assistant using the graphical user interface, navigate to the `oracle_common` directory of your the Oracle home where your Middleware products are installed. For information on launching the Upgrade Assistant from the command line with arguments, see Using the Upgrade Assistant Command-Line Interface.

Note: Oracle recommends that you successfully complete the upgrade of schemas and component configurations for a single domain before beginning the upgrade of another domain.

1. Change directory to *`ORACLE_HOME`*`/oracle_common/upgrade/bin` on Unix operating systems or *`ORACLE_HOME`*`\oracle_common\upgrade\bin` on Windows operating systems.
2. Enter the following command to start the Upgrade Assistant.

   On UNIX operating systems:

   ```
   ./ua
   ```

   On Windows operating systems:

```
ua.bat
```

The Upgrade Assistant displays the Welcome screen. Provide the required information in each of the Upgrade Assistant screens. The screens you see will vary depending on the type of upgrade you select. The sections below describe the upgrade options and the information you will need to provide.

1.8 Upgrading Schemas with the Upgrade Assistant

If you are running the Upgrade Assistant from an Oracle home that contains components with any schemas listed in Table 1–1, then the **Schemas** upgrade option is shown. The Upgrade Assistant will only list components that are candidates for schema upgrade. You can select which schemas to upgrade from the component list.

The Upgrade Assistant will display the following screens when upgrading schemas:

Table 1–2 Upgrade Assistant Screens: Upgrading Schemas

Screen	When Screen Appears	Description
Welcome	Always.	This screen provides an overview of the Upgrade Assistant and some information about important pre-upgrade tasks.
Schemas	When Schemas is selected as the upgrade type, the screen name is Schemas.	Use this screen to select the option to upgrade schemas for your installed components.
Available Components: Schemas	Always.	This screen provides a list of installed Oracle Fusion Middleware components that have schemas that can be upgraded. When you select a component, the schemas and any dependencies are automatically selected.
Prerequisites	Always.	This screen requires you to acknowledge that all prerequisites have been met before you continue with the upgrade. You must check the boxes before you can continue.
Schema Credentials	Only when Schemas is selected as the upgrade type.	Use this screen to enter information required to connect to the selected schema and the database that hosts the schema. The screen name changes based on the type of schema selected ("MDS Schema", for example). Note that since the component ID or schema name is changed for UCSUMS schema in 12.1.2, the UA does not automatically recognize the possible schemas and display them in a drop-down list. The user has to manually enter the name in a text field. The name can be either prefix_`ORASDPM` or prefix_`UMS`, depending on the starting point for the upgrade.
Domain Directory	Only when upgrading OPSS or Audit schemas.	Use this screen to specify the existing Oracle WebLogic 11g domain directory or 12c (if the starting point is 12.1.2)domain directory for _`OPSS` and _`IAU` schema upgrades. The Upgrade Assistant requires the 11*g* domain location to access the `jps-config.xml` file.
Examine	Always.	This screen displays the status of the Upgrade Assistant as it examines each component, verifying that the component is ready for upgrade.

Table 1–2 (Cont.) Upgrade Assistant Screens: Upgrading Schemas

Screen	When Screen Appears	Description
Upgrade Summary	Always.	Use this screen to review a summary of the options you have selected and to start the upgrade process.
Upgrade Progress	Always.	This screen shows the status of the upgrade process.
Upgrade Success Or Upgrade Failure	Always.	The upgrade was successful. The Post-Upgrade Actions window describes the manual tasks you must perform to make the component function in the new installation. Or: The upgrade failed for the specified component(s) and Upgrade Assistant will have to be restarted. Note: UA logs are populated at `<OH>/oracle_common/upgrade/logs`.

Note: For SOA Suite and BPM Upgrades:

The upgrade of active and closed SOA instance data to 12c (12.1.3) happens automatically as part of the SOA schema upgrade process with the Upgrade Assistant. For more information, see "Administering and Monitoring the Upgrade of SOA Instance Data" in *Fusion Middleware Upgrading SOA Suite and Business Process Management*

1.9 Upgrading Oracle WebLogic Component Configurations

If you are running the Upgrade Assistant from an Oracle home that contains managed WebLogic domain components, then the **WebLogic Component Configuration** upgrade option is available.

Note: After upgrading the component schemas, you must run the Reconfiguration Wizard to reconfigure the domain. For more information, see "*Reconfiguring an Oracle WebLogic Domain with the Reconfiguration Wizard*". After the domain reconfiguration, use the Upgrade Assistant again to upgrade the component configurations as described in Upgrading Oracle WebLogic Component Configurations.

The Upgrade Assistant will display the following screens when upgrading a WebLogic component configurations, such as Oracle Web Services Manager (OWSM).

Table 1–3 Upgrade Assistant Screens: Upgrading Oracle WebLogic Component Configurations

Screen	When Screen Appears	Description
Welcome	Always.	This screen provides an overview of the Upgrade Assistant and some information about important pre-upgrade tasks.
WebLogic Component Configurations	When WebLogic Component Configurations is selected as the upgrade type, the screen name is WebLogic Components.	Select the WebLogic Component Configurations option to upgrade component configurations for a managed WebLogic Server domain. Configuration upgrades are offline in 12.1.3. You must enter the domain directory for the domain that you are upgrading now.
11g AIAFP Details	Only when AIAFP 11g is installed on the domain which is being upgraded.	If your domain has AIAFP 11g then you need to provide AIA 11g home path and the 11g AIAFP instance name.
SCE Cluster Configuration	When the domain being upgraded is a cluster domain and AIAFP 11g is installed on the domain.	If AIAFP 11g is installed on a cluster you need to provide a shared location path accessible to all the nodes of the cluster.
OWSM Policy Manager	Only when upgrading Oracle Web Services Manager (OWSM) configuration in a cross-domain topology.	If your enviroment has multiple WebLogic Server domains, but the OWSM Policy Manager is only in one WLS domain and the OWSM agents are on other domains, you will use this screen to enter the credentials for the WebLogic Administration Server domain where the Oracle Web Services Manager (OWSM) Policy Manager is deployed.
Component List: WebLogic Components	Always.	This screen provides a list of components that will be included in the WebLogic domain's component configuration upgrade. The name of the domain is provided along with the list of components located within the domain.
Prerequisites	Always.	This screen requires you to acknowledge that all prerequisites have been met before you continue with the upgrade. You must check the boxes before you can continue.
UMS Configuration	When there are remote managed servers hosting UMS 11g configuration files, that is, when the required configuration files are not locally accessible at the Administration Server.	This screen specifies the login credentials of the remote managed servers hosting your UMS 11g configuration files. The Upgrade Assistant automatically copies remote configuration files if all necessary prerequisites are met and the required login information is provided.
Examine	Always.	This screen displays the status of the Upgrade Assistant as it examines each component, verifying that the component is ready for upgrade.

Table 1–3 (Cont.) Upgrade Assistant Screens: Upgrading Oracle WebLogic Component Configurations

Screen	When Screen Appears	Description
Upgrade Summary	Always.	Use this screen to review a summary of the options you have selected and to start the upgrade process.
Upgrade Progress	Always.	This screen shows the status of the upgrade process.
Upgrade Success Or Upgrade Failure	Always.	The upgrade was successful. The Post-Upgrade Actions window describes the manual tasks you must perform to make the component function in the new installation. Or: The upgrade failed for the specified component(s) and Upgrade Assistant will have to be restarted.

1.10 Upgrading Standalone System Component Configurations

If you are running the Upgrade Assistant from an Oracle home that contains only standalone system components, such as Oracle Data Integrator or Oracle HTTP Server (OHS), then the Standalone Components upgrade option is shown. Standalone components are not associated with a managed WebLogic domain.

> **Note:** As of 12*c* (12.1.2), the Upgrade Assistant will create a separate **standalone domain** for your system components. This domain can be managed by Node Manager, but has no Administration Servers. For more information on using the new system component domain, see *Oracle Fusion Middleware Understanding Oracle Fusion Middleware*.

The Upgrade Assistant will display the following screens when upgrading a standalone system component, such as Oracle HTTP Server (OHS), for example. The screens that you use will vary depending on the system components you are upgrading and the options you select. See your component-specific upgrade documenation for information on the screens related to your specific component upgrade.

Table 1–4 Upgrade Assistant Screens: Upgrading Standalone System Component Configurations

Screen	When Screen Appears	Description
Welcome	Always.	This screen provides an overview of the Upgrade Assistant and some information about important pre-upgrade tasks.
Standalone Components	Only when you have a standalone system component to upgrade and no schemas available to upgrade.	Beginning with 12c (12.1.2), standalone system components will have their own standalone domain. Use this screen to specify the domain option you want to apply to the standalone system component you are upgrading. You will have two options: ■ Create a New Domain When you are upgrading your 11*g* standalone system components (which had no previous domain associations), you must first create a new standalone domain for your system components. ■ Update an Existing Domain After you have created a new 12.1.3 standalone domain for your upgraded 11g or 12.1.2 system components, you can extend the standalone domain with additional standalone system components using this option. This option would also be used if a domain was created with the "Create a New Domain" option and you re-run the upgrade.
Component List: WebLogic Components	Always.	Lists the standalone system components that are available to upgrade.
Prerequisites	Always.	This screen requires you to acknowledge that all prerequisites have been met before you continue with the upgrade. You must check the boxes before you can continue.
Instance Directories	Always.	When upgrading system components, such as OHS, you must provide the directory locations of the 11g instances that will be used as a starting point for creating new 12c component instances.
Node Manager	Only when Create a New Domain is selected.	Use this screen to specify the credentials of the Node Manager that will be used to create a domain during the upgrade of standalone system components.
Examine	Always.	This screen displays the status of the Upgrade Assistant as it examines each component, verifying that the component is ready for upgrade.

Table 1–4 (Cont.) Upgrade Assistant Screens: Upgrading Standalone System Component Configurations

Screen	When Screen Appears	Description
Upgrade Summary	Always.	Use this screen to review a summary of the options you have selected and to start the upgrade process.
Upgrade Progress	Always.	This screen shows the status of the upgrade process.
Upgrade Success Or Upgrade Failure	Always.	The upgrade was successful. The Post-Upgrade Actions window describes the manual tasks you must perform to make the component function in the new installation. Or: The upgrade failed for the specified component(s) and Upgrade Assistant will have to be restarted.

1.11 Post-Upgrade Procedures

This section contains information about basic tasks performed after the 12.1.3.0.0 upgrade is complete. Some of the tasks may not apply to your environment, as you may not be upgrading the products listed.

Always refer to your component-specific upgrade documentation for more information on post-upgrade procedures.

- Performing Basic Post-Upgrade Administrative Tasks
- Verifying a Successful Schema Upgrade
- Checking for Invalid Database Objects

Note: You should be able to successfully complete the tasks described in this section after an upgrade. If you are unable to complete one or more of these tasks in your newly upgraded environment, see Troubleshooting Your Upgrade.

1.11.1 Performing Basic Post-Upgrade Administrative Tasks

Table 1–5 lists some common administration tasks you will likely want to perform on your newly upgraded domain.

Note: The administrative tasks in the table below are optional. Only perform those tasks that apply to your upgraded environment.

Table 1–5 Basic Post-Upgrade Administration Tasks

Task	Description	More Information
Starting and stopping products and servers	Learn how to start and stop Oracle Fusion Middleware, including the Administration Server, Managed Servers, and components. Performing these tasks will validate that the upgrade was successful.	"Starting and Stopping Oracle Fusion Middleware" in *Oracle Fusion Middleware Administering Oracle Fusion Middleware*.
Starting and stopping upgraded applications.	Learn how to start your upgraded applications in the new 12.1.3 environment to verify they are working as expected.	"Starting and Stopping Applications" in *Oracle Fusion Middleware Administering Oracle Fusion Middleware*.
Configuring Secure Sockets Layer (SSL)	Learn how to set up secure communications among between Oracle Fusion Middleware components using SSL.	"Configuring SSL in Oracle Fusion Middleware" in *Oracle Fusion Middleware Administering Oracle Fusion Middleware*.
Deploying Applications	Learn how to deploy your applications to Oracle Fusion Middleware.	"Deploying Applications" part in *Oracle Fusion Middleware Administering Oracle Fusion Middleware*.
Monitoring Oracle Fusion Middleware	Learn how to keep track of the status of Oracle Fusion Middleware components.	"Monitoring Oracle Fusion Middleware" in *Oracle Fusion Middleware Administering Oracle Fusion Middleware*.
Adding a Web Tier front-end to your WebLogic domain	Oracle Web Tier hosts Web pages (static and dynamic), provides security and high performance along with built-in clustering, load balancing, and failover features. In particular, the Web Tier contains Oracle HTTP Server.	*Oracle Fusion Middleware Installing and Configuring Oracle HTTP Server*.
Tuning and configuring Coherence for your topology.	The standard installation topology includes a Coherence cluster that contains storage-enabled Managed Coherence Servers. This configuration is a good starting point for using Coherence, but depending upon your specific requirements, consider tuning and reconfiguring Coherence to improve performance in a production environment.	For information about Coherence clusters, see "Configuring and Managing Coherence Clusters" in *Administering Clusters for Oracle WebLogic Server*. For information about tuning Coherence, see *Administering Oracle Coherence*. For information about storing HTTP session data in Coherence, see "Using Coherence*Web with WebLogic Server" in *Administering HTTP Session Management with Oracle Coherence*Web*. For more information about creating and deploying Coherence applications, see *Developing Oracle Coherence Applications for Oracle WebLogic Server*.

1.11.2 Verifying a Successful Schema Upgrade

You can use the following SQL command to verify that the schema version in `schema_version_registry` has been properly upgraded:

```
SET LINE 120
```

```
COLUMN MRC_NAME FORMAT A14
COLUMN COMP_ID FORMAT A20
COLUMN VERSION FORMAT A12
COLUMN STATUS FORMAT A9
COLUMN UPGRADED FORMAT A8
SELECT MRC_NAME, COMP_ID, OWNER,
VERSION, STATUS, UPGRADED FROM
SCHEMA_VERSION_REGISTRY ORDER BY MRC_NAME, COMP_ID ;
```

All the numbers in the "VERSION" column should be the versions specified in the "Schema Version After Upgrade" column of Table 1–1, that is 12.1.3.0.0.

In the query results, the STATUS field will be either "UPGRADING" or "UPGRADED" during the schema patching operation, and will become "VALID" when the operation is finished.

If the status appears as "INVALID" then the schema upgrade failed. You should examine the logs files to determine the reason for the failure.

1.11.3 Checking for Invalid Database Objects

If you are using an Oracle database, you should recompile database objects after running the Upgrade Assistant by connecting to the database as SYS and running the following from SQL*Plus:

```
SQL>@/rdbms/admin/utlrp.sql
```

This will compile the database objects that were upgraded by Upgrade Assistant.

Then issue the following query to ensure there are no longer any invalid database objects:

```
SELECT owner, object_name FROM all_objects WHERE status='INVALID';
```

None of the database objects for the upgraded schema should be invalid at this point. If there are any, run the `utlrp.sql` command again and check again. If the problem persists, you should file a service request.

2

Using the Upgrade Assistant Command-Line Interface

This chapter describes how to run the Oracle Fusion Middleware Upgrade Assistant from the command-line interface (CLI).

You can use the optional command-line interface arguments, documented in this chapter, to upgrade your Oracle Fusion Middleware 11*g* and 12.1.2 components to Oracle Fusion Middleware 12*c* (12.1.3). In addition, a response file can be generated to automate some of the upgrade tasks.

This chapter contains the following sections:

- Launching the Upgrade Assistant with Optional Arguments
- Performing Silent Upgrades with Response Files

2.1 Launching the Upgrade Assistant with Optional Arguments

The following examples show the optional arguments that can be used when you launch the Upgrade Assistant graphical user interface:

On Unix operating systems:

Change directory to *ORACLE_HOME*/oracle_common/upgrade/bin

```
./ua [-logLevel <log_level>] [-logDir <log_directory>]
```

On Windows operating systems:

Change directory to *ORACLE_HOME*\oracle_common\upgrade\bin

```
ua.bat [-logLevel <log_level>] [-logDir <log_directory>]
```

Refer to Table 2–1 for a description of the command line arguments available when you are invoking the Upgrade Assistant graphical user interface from your operating system's command line.

Note: If you get an Xlib error when starting the Oracle Upgrade Assistant such as "Failed to connect to server", "Connection refused by server", or "Can't open display", then you must set the DISPLAY environment variable and restart the Upgrade Assistant as described in Setting the DISPLAY Environment Variable.

Table 2–1 Optional Upgrade Assistant GUI Command Line Parameters

Parameter	Required or Optional Parameter?	Description
`-logLevel`	Optional.	Logging level. Select one of the following: ■ TRACE ■ NOTIFICATION ■ WARNING ■ ERROR ■ INCIDENT_ERROR The default logging level is NOTIFICATION. **NOTE**: Consider setting the `-logLevel` to `TRACE` so that more information will be logged. This is useful when troubleshooting a failed upgrade.The Upgrade Assistant's log files can become very large if `-logLevel TRACE` is used.
`-logDir`	Optional.	Change the default location of upgrade log files and temporary files. You must specify an existing, writable directory where Upgrade Assistant will create log files and temporary files. On UNIX operating systems, the default locations are: *ORACLE_HOME*`/oracle_common/upgrade/logs` *ORACLE_HOME*`/oracle_common/upgrade/temp` On Windows operating systems, the default locations are: *ORACLE_HOME*`\oracle_common\upgrade\logs` *ORACLE_HOME*`\oracle_common\upgrade\temp`
`-help`	Optional.	View all of the command line options.

2.2 Performing Silent Upgrades with Response Files

This section describes how you can upgrade supported Oracle Fusion Middleware components in a silent mode using a response file. The response file collects all the information that you have entered through the Upgrade Assistant's graphical user interface screens, and performs exactly the same function that the Upgrade Assistant wizard performs.

2.2.1 Creating an Upgrade Response File

The **Save Response File** option on the Upgrade Summary screen creates a file that uses the information you have already provided in the Upgrade Assistant screens. The response file enables you to use the saved information instead of manually entering data through the Upgrade Assistant wizard screens.

Once you select the **Save Response File** option, you will be prompted for a name and location where you want to create this response file. After it is created, you can use it exactly as-is to replicate the upgrade options on other systems, or modify it as needed. For more information, see Using the Response File to Upgrade Fusion Middleware.

2.2.2 Using the Response File to Upgrade Fusion Middleware

To perform upgrades using a response file from the command-line interface (CLI), use the following command:

On Unix operating systems:

Change directory to *ORACLE_HOME*/oracle_common/upgrade/bin

```
./ua -response <response_file> [-examine] [-logLevel <log_level>] [-logDir <log_
directory>]
```

On Windows operating systems:

Change directory to *ORACLE_HOME*\oracle_common\upgrade\bin

Execute the following:

```
ua.bat -response <response_file> [-examine] [-logLevel <log_level>] [-logDir <log_
directory>]
```

Refer to Table 2–2 for a description of the command line arguments available when you are using a response file to upgrade.

Table 2–2 Upgrade Assistant Silent Mode Command Line Parameters

Parameter	Required or Optional Parameter?	Description
-response	Required.	File containing inputs required to perform an upgrade. This file can be generated from inputs entered when the Upgrade Assistant is run in graphical mode.
-examine	Optional.	If this option is present, Upgrade Assistant will perform the examine phase but WILL NOT perform any actual upgrades.
-logLevel	Optional.	Logging level. Select one of the following: ■ TRACE ■ NOTIFICATION ■ WARNING ■ ERROR ■ INCIDENT_ERROR The default logging level is NOTIFICATION. **NOTE**: Consider setting the -logLevel to TRACE so that more information will be logged. This will be useful when troubleshooting a failed upgrade. The Upgrade Assistant's log files can become very large if -logLevel TRACE is used.
-logDir	Optional.	Change the default location of upgrade log files and temporary files. You must specify an existing, writable directory where Upgrade Assistant will create log files and temporary files. On UNIX operating systems, the default locations are: *ORACLE_HOME*/oracle_common/upgrade/logs *ORACLE_HOME*/oracle_common/upgrade/temp On Windows operating systems, the default locations are: *ORACLE_HOME*\oracle_common\upgrade\logs *ORACLE_HOME*\oracle_common\upgrade\temp
-help	Optional.	View all of the command line options.

2.2.3 Troubleshooting a Silent Upgrade

For more information on troubleshooting a failed upgrade, see Chapter 3, "Troubleshooting Your Upgrade".

3 Troubleshooting Your Upgrade

This chapter describes how to resolve common problems and issues that may occur while you are using the Upgrade Assistant to upgrade to Oracle Fusion Middleware to 12c (12.1.3):

This chapter contains the following topics:

- General Troubleshooting Guidelines
- Reviewing Log Files
- Investigating Examination Failures
- Investigating Upgrade Failures
- Resolving Common Upgrade Assistant Errors
- Upgrading Unsupported Domains
- Restarting the Upgrade Assistant After a Failure

3.1 General Troubleshooting Guidelines

If errors occur while you are running the Upgrade Assistant, use the following steps to troubleshoot the problem:

> **Note:** Errors that occur (or are detected) during the **Examination phase** can be corrected and the Upgrade Assistant can be restarted.
>
> Errors that occur during the **Upgrade phase**, however, require you to restore your environment from your backup copies, correct the errors and then restart the upgrade process from the beginning.
>
> Your corrective course of action will depend on the phase in which the error occurred. For more information, see Investigating Examination Failures and Investigating Upgrade Failures.

1. Locate and open the Upgrade Assistant log file with a text editor:

   For the location of the log file, see Section 3.2, "Reviewing Log Files".

2. To verify the correct version of Upgrade Assistant jar file run the following command:

   ```
   unzip -p ua.jar META-INF/MANIFEST.MF
   ```

   You can run the above command only after you change directory to the `jlib` directory: `cd ORACLE_HOME/oracle_common/upgrade/jlib`.

3. Locate any error messages that are identified by number; for example, `UPGAST-00091`.
4. Look up the error in the *Oracle Fusion Middleware Error Messages*.

   The description of the error in the *Oracle Fusion Middleware Error Messages* should include a description of the cause of the error, as well as the action you should take to resolve the error.
5. Based on whether or not you can locate an error message and the error message description, do the following:
   - If, by reviewing the log files and the *Oracle Fusion Middleware Error Messages*, you are able to identify a solution to the upgrade failure, you can implement your solution and then re-start the Upgrade Assistant and perform the upgrade again.

     When you re-run the Upgrade Assistant, any components that were upgraded successfully during the previous run will not be affected. However, the Upgrade Assistant will attempt to upgrade any components that were not upgraded successfully during a previous run of the utility.
   - Contact Oracle Support for any errors that are not documented or that cannot be resolved by following documented actions. Note that some errors that occur will require the repository to be restored from backup, the problem to be resolved, and another upgrade to be run. Note that Oracle Support requires both the `UA.log` file and if present, the `UA.out` file, to be provided for troubleshooting purposes.Provide complete logs and not just excerpts of those files.

3.2 Reviewing Log Files

Should any failures occur when running Upgrade Assistant, log files will be needed to help diagnose and correct the problem; do not delete them. When running the Upgrade Assistant, you can alter the contents of your log files by specifying a different `-logLevel` from the command line. The default value is `-logLevel NOTIFICATION` You can alter the location of your log files using the `-logDir` parameter. For more information see `-logLevel` in Table 2–2, " Upgrade Assistant Silent Mode Command Line Parameters"

Tip: To expedite the review process, search for the word "ERROR".

For more information on understanding error messages in your log files, see Resolving Common Upgrade Assistant Errors.

Log files are stored in the following default directory:

On UNIX operating systems:

ORACLE_HOME`/oracle_common/upgrade/logs/ua<`*timestamp*`>.log`

On Windows operating systems:

ORACLE_HOME`\oracle_common\upgrade\logs\ua<`*timestamp*`>.log`

Some components will create a second log file called `ua<`*timestamp*`>.out`, also in the same location.

The *timestamp* will reflect the actual date and time that Upgrade Assistant was run.

For database schema upgrades of certain components, there can also be an output (`.out`) file that will contain the screen output of commands that were run in a shell process or as PL/SQL scripts. You can locate these output files in the same default directory.

> **Note:** In the event that there are questions or issues about an upgrade failure that cannot be resolved with the information in this guide, it will be important to retain the log files. If a service request is needed, the entire Upgrade Assistant .log file and the .out files (if available) should be uploaded to the service request.

3.3 Investigating Examination Failures

To determine the cause of an examination failure:

1. Note the name of the failed component in the Upgrade Assistant dialog or command-line output.
2. Open the following Upgrade Assistant log file.

   For the location of the log file, see Section 3.2, "Reviewing Log Files".
3. In the log file, search for the message `Starting to examine` *`component_name`*.

> **Note:** To complete the upgrade, resolve the issues and then launch the Upgrade Assistant again, or, if possible, click **Back** to return to a previous screen and make the necessary changes.

3.4 Investigating Upgrade Failures

To determine the cause of an upgrade failure:

1. Note the name of the failed component in the Upgrade Assistant dialog or command-line output.
2. Open the Upgrade log file:

   For the location of the log file, see Section 3.2, "Reviewing Log Files".
3. Search for the message `Starting to upgrade` *`component_name`*.

> **Note:** To complete the upgrade, restore the environment using your pre-upgrade backup, resolve the issues and then launch the Upgrade Assistant again. You will have to start the upgrade process from the beginning to ensure a successful (complete) upgrade.

3.5 Resolving Common Upgrade Assistant Errors

If errors occur while you are running the Upgrade Assistant, you must correct the conditions that caused them before you try the upgrade again. The following sections provide some common errors that can occur.

Note: This section provides descriptions of the most common upgrade errors. For a complete list of Fusion Middleware errors, see the *Oracle Fusion Middleware Error Messages*.

3.5.1 Ensuring there is sufficient disk space

If an upgrade fails due to the database server running out of disk space, you must restore the database server environment from backups, add sufficient disk space or remove unwanted files (such as temp or trace files) from the database server, and then retry the upgrade.

Note: Once a database schema upgrade has failed due to this class of error, you cannot simply add more disk space and retry the upgrade. The schemas have been left in an inconsistent state and may have been marked "INVALID". You cannot recover from this error without restoring the original database state from backups.

The following examples show some insufficient disk space errors you may encounter:

ORA-01658: unable to create INITIAL extent for segment in tablespace

Cause: The existing schema tablespace does not have sufficient space to complete the upgrade.

Action: Make sure that the tablespace has sufficient room (space) for a successful upgrade. Oracle recommends that you add more data files to the existing 11g database tablespaces, otherwise the upgrade will fail.

ORA-01114: IO error writing block to file <*block number*>

Cause: The device on which the file resides is probably offline. If the file is a temporary file, then it is also possible that the device has run out of space. This could happen because disk space of temporary files is not necessarily allocated at file creation time.

Action: Restore access to the device or remove unnecessary files to free up space.

ORA-09945: Unable to initialize the audit trail file

Cause: The system is unable to write header information to the file being used as the audit trail. The audit_trail_dest or audit trail destination is full for generation of audit file.

Action: Free up space and retry the operation.

Linux-x86_64 Error: 28: No space left on device

3.5.2 Resolving Database Connection Problems When Upgrading Schemas

If you have trouble connecting to a database when using the Upgrade Assistant to upgrade a component schema, try connecting to the database using another tool, such as SQL*Plus. This will help you troubleshoot the problem by verifying that the database is up and running and available on the network.

3.5.3 Setting the DISPLAY Environment Variable

When running Upgrade Assistant in GUI mode, you must set the DISPLAY variable properly or you may receive the following errors:

```
Xlib: connection to ":1.0" refused by server
```

```
Xlib: No protocol specified
```

Cause: These errors indicate that the `DISPLAY` variable is not set up properly to allow a GUI to be displayed to the screen.

Action: Set the `DISPLAY` environment variable to the system name or IP address of your local workstation, and re-run Upgrade Assistant.

If you continue to receive these errors after setting the `DISPLAY` variable, try launching another GUI tool, such as vncconfig. If you see the same errors, your `DISPLAY` environment variable may not be set correctly.

3.6 Upgrading Unsupported Domains

If you receive an error stating that the specified domain cannot be upgraded, contact Oracle Support for more information. **Do not attempt to upgrade schemas or domain configurations in an unsupported domain.**

3.7 Restarting the Upgrade Assistant After a Failure

If the Upgrade Assistant fails during the upgrade phase or only partially upgrades your components, try to resolve the and then follow these steps:

1. Restore your backed-up 11*g* or 12.1.2 environment.
2. Start the Upgrade Assistant in GUI or command-line mode.

Note: If you continue to experience upgrade failures, consider setting the `-logLevel` to `TRACE` so that more information will be logged. This will be useful when troubleshooting a failed upgrade, but be sure to reset the `-logLevel` to `NOTIFICATION` after the issue has been resolved to avoid performance issues.

A

Upgrade Assistant Screens

The screens for the Oracle Fusion Middleware Upgrade Assistant vary depending upon the type of Oracle Fusion Middleware software you are upgrading.

Refer to the following sections for more information:

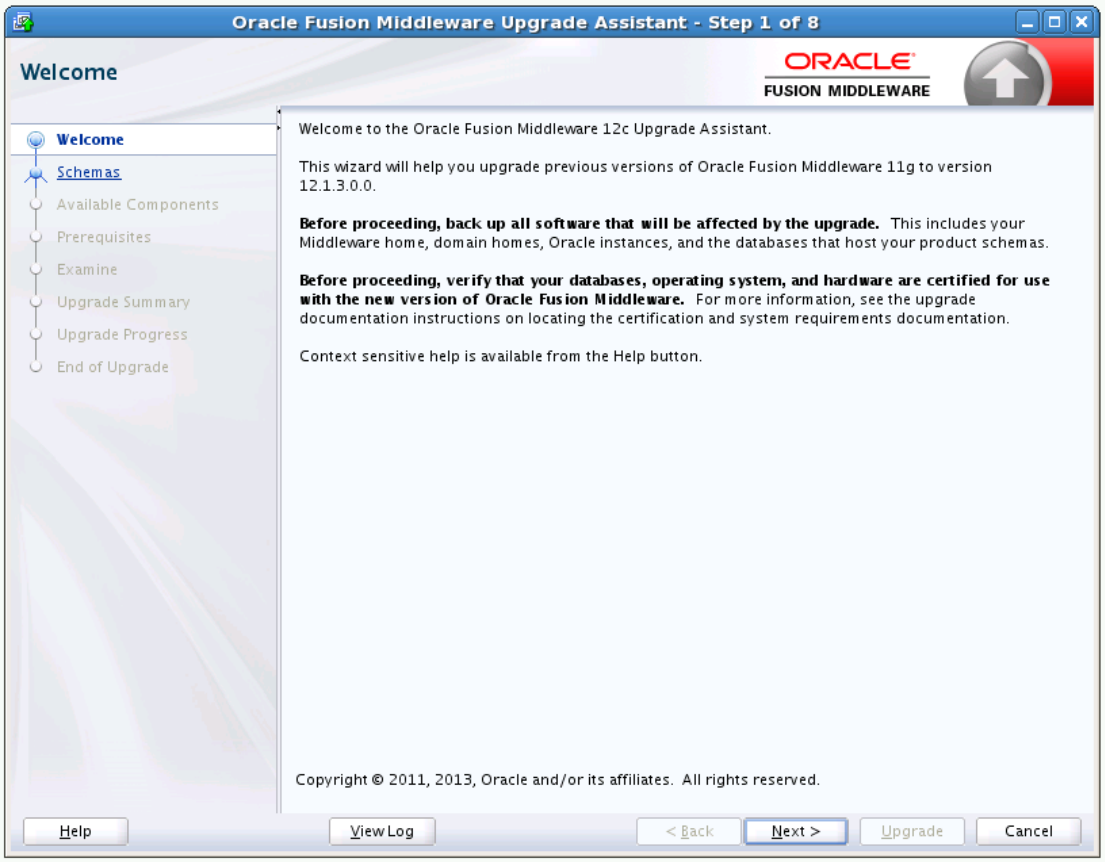
- Section A.1, "Welcome"
- Section A.2, "Schemas"
- Section A.3, "Available Components: Schemas"
- Section A.4, "WebLogic Component Configurations"
- Section A.5, "Standalone Components"
- Section A.6, "Component List: WebLogic Components"
- Section A.7, "Domain Directory"
- Section A.8, "Prerequisites"
- Section A.9, "EBR Database Upgrade"
- Section A.10, "Schema Credentials"
- Section A.11, "Instance Directories"
- Section A.12, "Node Manager"
- Section A.13, "OWSM Policy Manager"
- Section A.14, "ODI Options"
- Section A.15, "ODI Supervisor"
- Section A.16, "ODI Upgrade Key"
- Section A.17, "Oracle Golden Gate Monitor OGGMON Schema Prefix"
- Section A.18, "Veridata Directory"
- Section A.19, "Veridata Schema Prefix"
- Section A.20, "SCE Cluster Configuration"
- Section A.21, "11g AIAFP Details"
- Section A.22, "UMS Configuration"
- Section A.23, "MapViewer"
- Section A.24, "Examine"
- Section A.25, "Examine Failure"

- Section A.26, "Upgrade Summary"
- Section A.27, "Upgrade Progress"
- Section A.28, "Upgrade Success"
- Section A.29, "Upgrade Failure"
- Section A.30, "Cancel Upgrade"

Note: The screens documented in this appendix are not necessarily in sequential order. Depending on the options you select, you may not see all of the screens. See Chapter 1, "Using the Upgrade Assistant" for general information on the screens that are used for each upgrade type.

A.1 Welcome

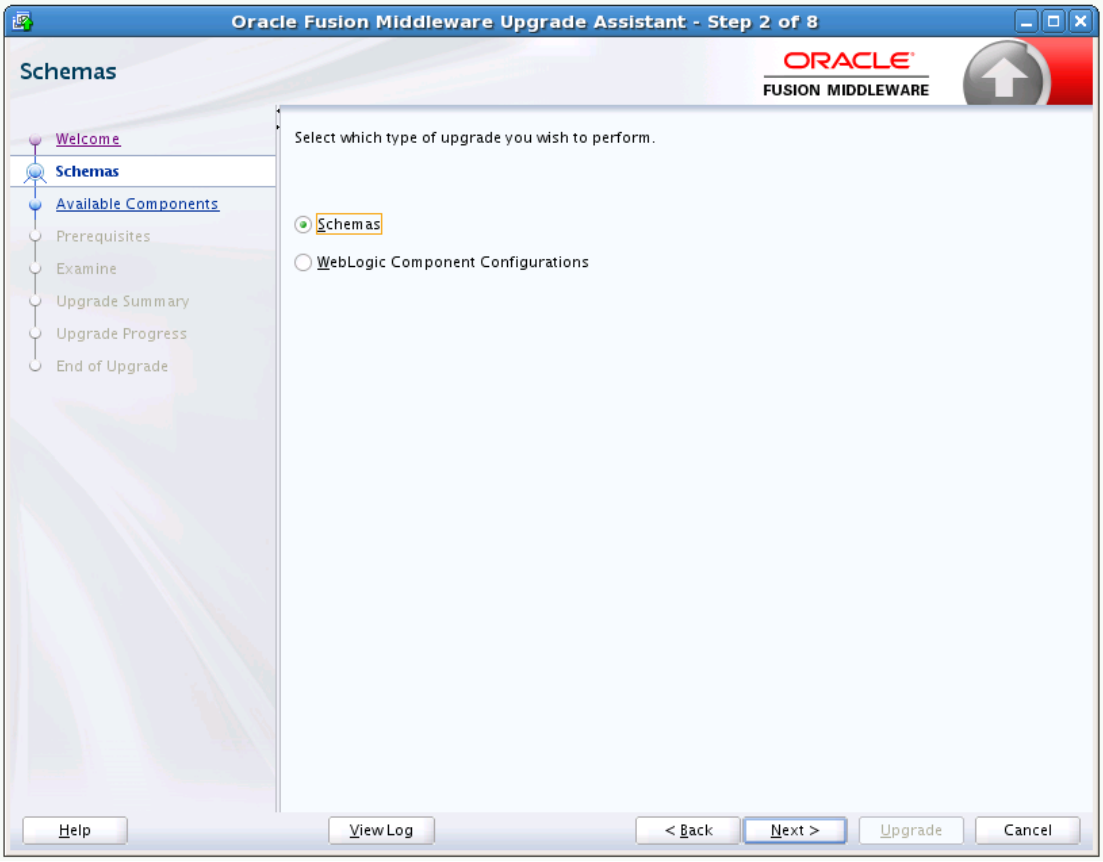
Figure A–1 Welcome



The Oracle Fusion Middleware Upgrade Assistant is used to upgrade component schemas, component configurations, and standalone system component configurations from Fusion Middleware 11*g* Release 1 (11.1.1.6.0 or 11.1.1.7.0) or 12*c* (12.1.2) to Fusion Middleware 12*c* (12.1.3).

A.2 Schemas

Figure A–2 Schemas



Select **Schemas** to upgrade schemas for your installed components. The Upgrade Assistant will list components that are candidates for schema upgrade in the next screen.

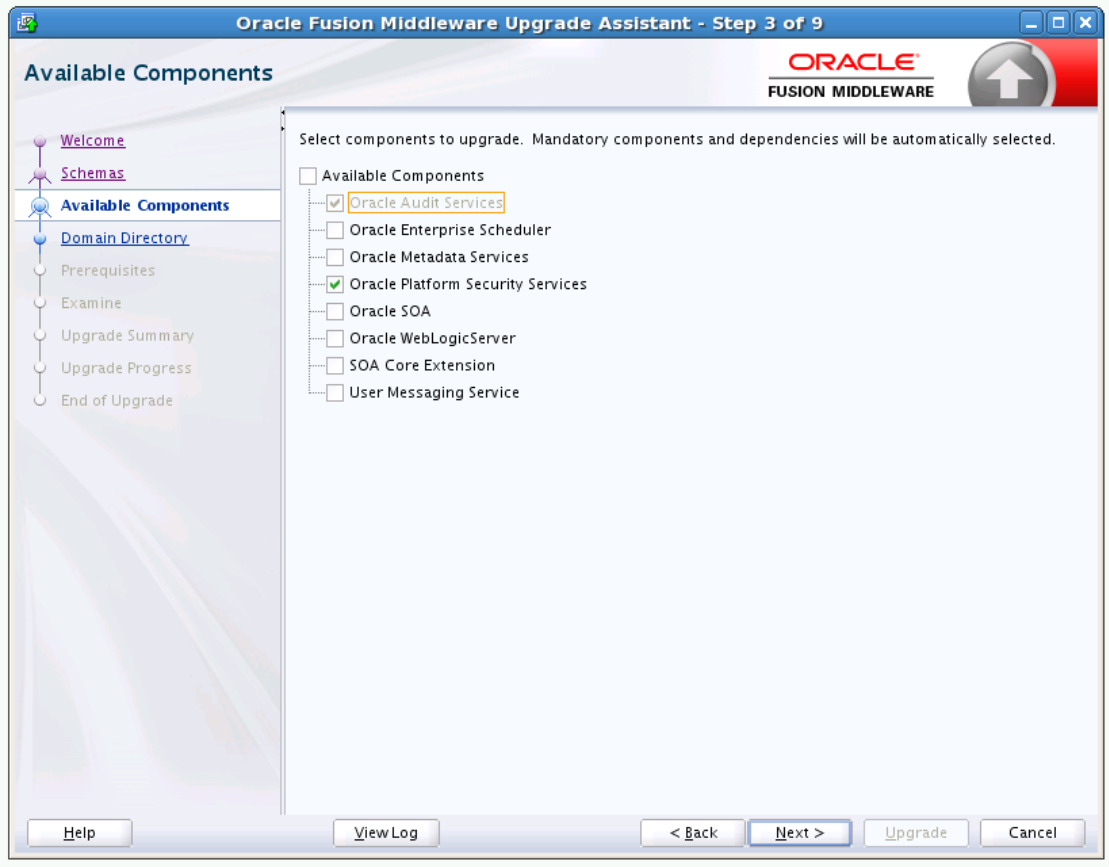
A.3 Available Components: Schemas

It is possible that your environment does not use one of the listed components and, therefore, does not need a schema upgrade for the component. Select only those schemas that you want to upgrade.

The Oracle Platform Security Services option is selected by default (and therefore the Audit Services schemas are also selected), but you can deselect it if necessary.

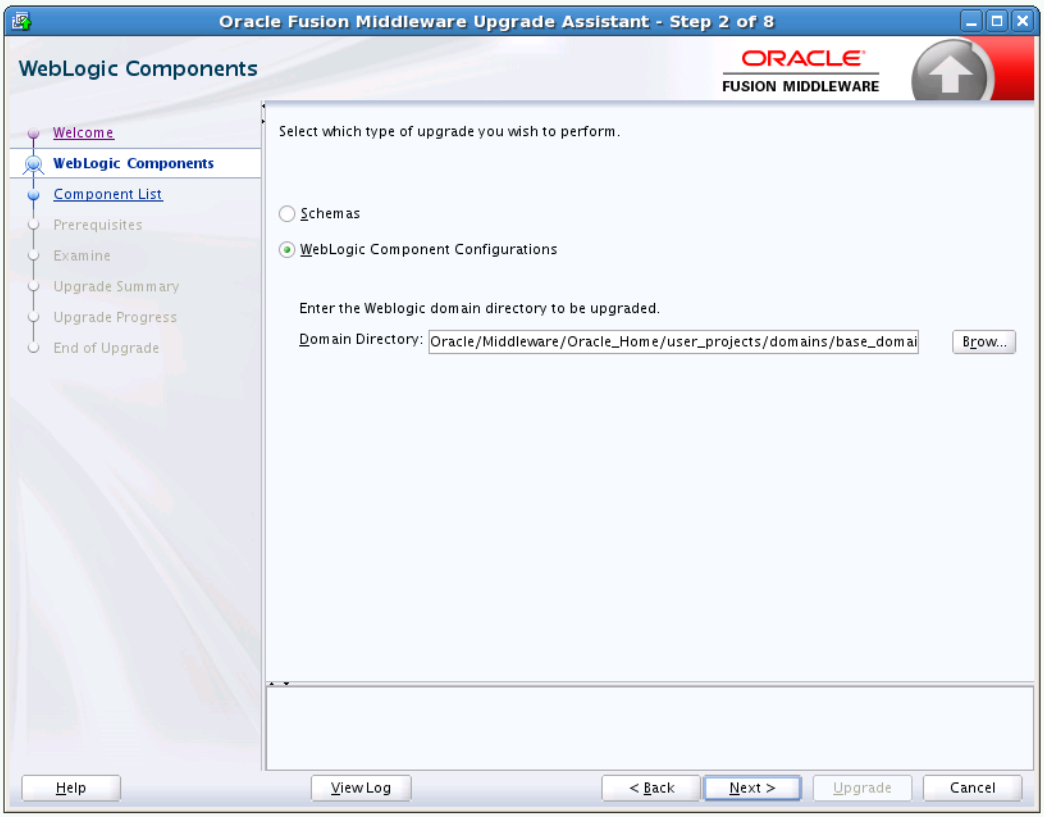
When using the Upgrade Assistant to upgrade schemas, upgrade schemas one domain at a time. After the schemas are upgraded, and the domain has been reconfigured and upgraded, launch the Upgrade Assistant again for each additional domain that requires an upgrade.

Figure A–3 Available Components: Schemas



A.4 WebLogic Component Configurations

Figure A–4 WebLogic Component Configurations



Use this screen to specify the upgrade operation you want to perform. Your choices are:

- Schemas
- WebLogic Component Configurations
- Standalone System Components

Schemas

Select this option to upgrade schemas for your installed components. The Upgrade Assistant will list components that are candidates for schema upgrade. It is possible that your environment does not use one of the listed components and, therefore, does not need a schema upgrade for the component. When using the Upgrade Assistant to upgrade schemas, consider upgrading schemas one domain at a time. After a successful upgrade of schemas in one domain, launch the Upgrade Assistant again and upgrade schemas of another domain.

CAUTION: Upgrade only those schemas that will be used to support your 12.1.3.0.0 components. Do not upgrade schemas that are currently being used to support 11g or 12c (12.1.2.0.0) components that are not included in the Oracle Fusion Middleware 12.1.3.0.0 release.

WebLogic Component Configurations

Select this option to upgrade component configurations for a managed WebLogic Server domain after reconfiguration. You will be prompted to supply the 12c domain location that will be upgraded.

Note: When using the Upgrade Assistant to upgrade WebLogic component configurations, you must complete the following:

1. Run Upgrade Assistant to perform schema upgrade.
2. Run the Reconfiguration Wizard to reconfigure the domain as described in "Reconfiguring WebLogic Domains" in *Upgrading Oracle WebLogic Server*.
3. Run Upgrade Assistant again to perform any remaining configuration upgrades.

For more information on the upgrade process and related tools, see *Oracle Fusion Middleware Planning an Upgrade of Oracle Fusion Middleware* and review the 12.1.3 upgrade process diagram.

You must provide the domain location of the Oracle WebLogic Server domain that is being upgraded.

Standalone System Components

When upgrading a standalone system component, such as Oracle HTTP Server (OHS), you have two choices for configuring the component's upgrade domain directory:

- **Create New Domain**

  Specify the location and name of a new (unique) directory to be created for the upgrade of your system components.

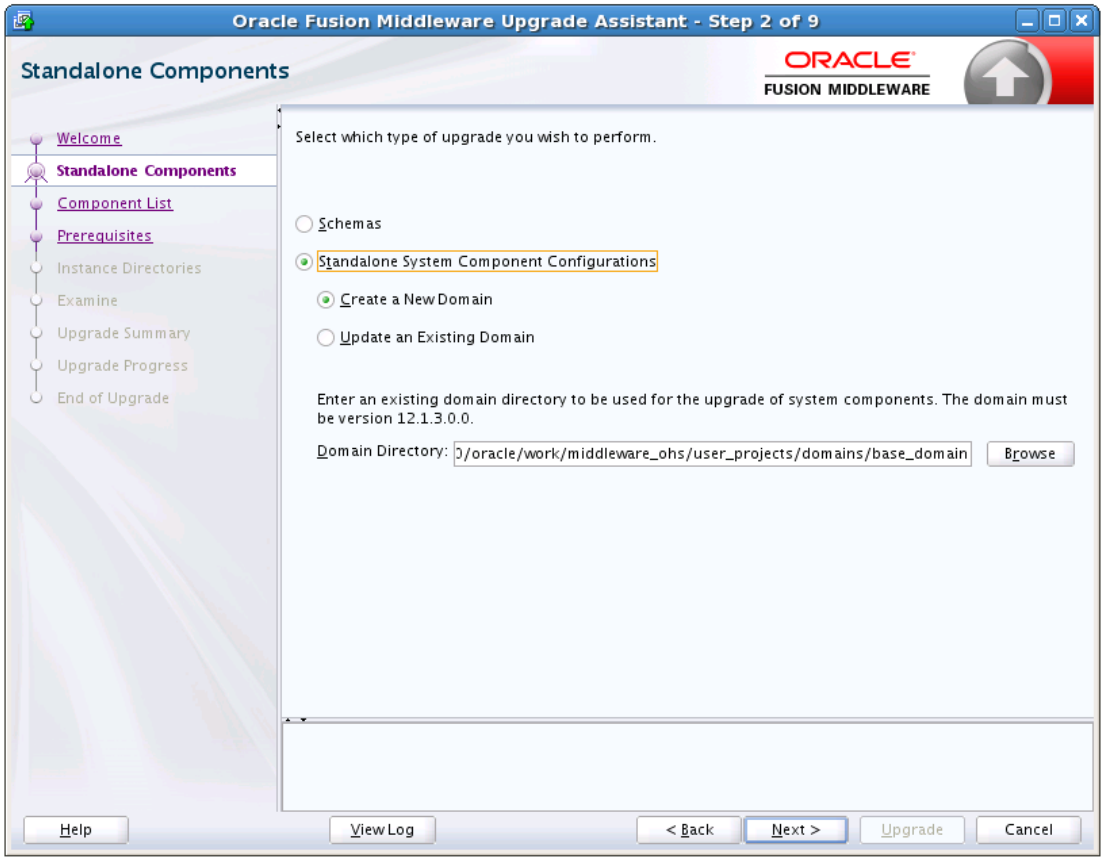
- **Update an Existing Domain**

  Select an existing 12.1.3.0.0 domain to use for the system components upgrade.

  Click **Browse** and use the navigation tree to select a valid domain directory (a directory that contains a `config.xml` file in the `config` directory of a 12.1.3.0.0 domain), and click **Next.**

A.5 Standalone Components

Figure A–5 Standalone Components

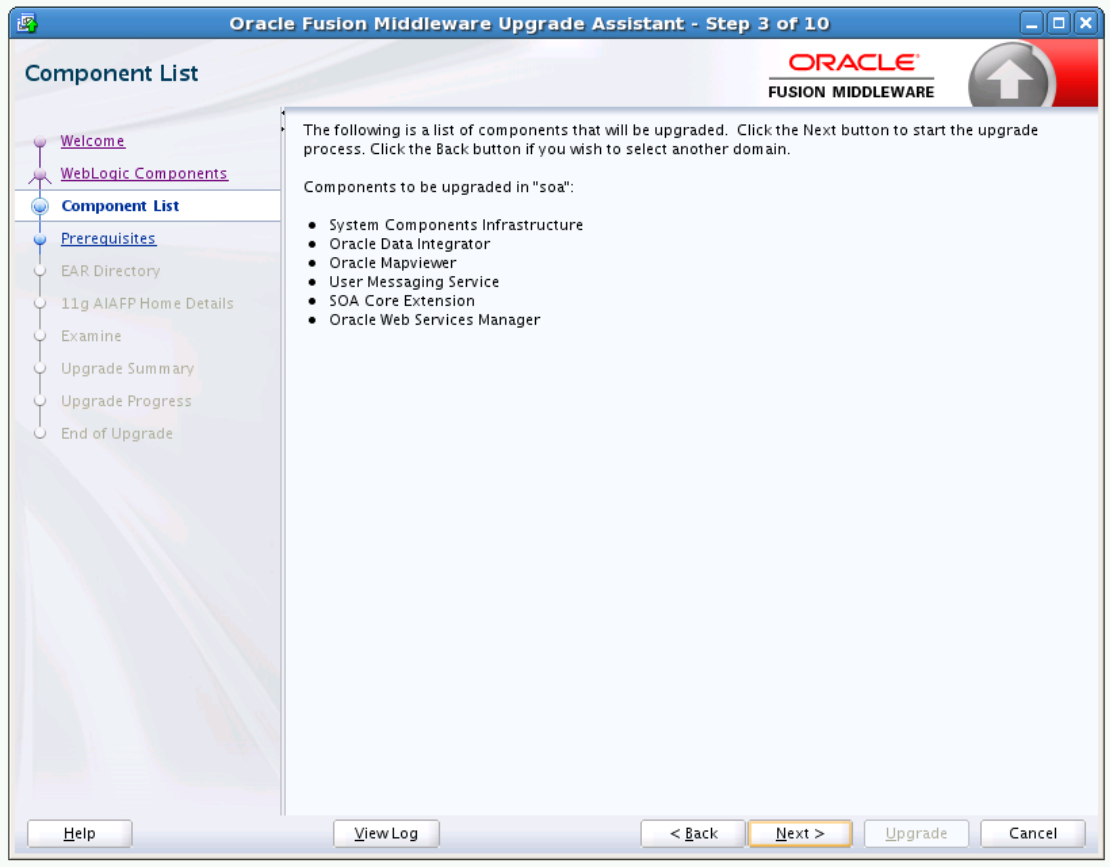


Select the **Standalone System Component Configurations** option when you will be upgrading a standalone system component, such as Oracle HTTP Server (OHS). You will be prompted to select one of the following:

Option	Description
Create a New Domain	Standalone system components will have a separate standalone domain in 12*c*. A standalone domain is a container for system components, such as Oracle HTTP Server. It has a directory structure similar to an Oracle WebLogic domain, but it does not contain an Administration Server or Managed Servers. It can contain one or more instances of system components of the same type, such as Oracle HTTP Server, or a mix of types. Management tools, such as the Configuration Wizard, pack and unpack, WLST, and Node Manager can operate on standalone domains.
Update an Existing Domain	Once a standalone domain has been created for a system component, you can select this option to extend that domain for another standalone system component. This option is also used when upgrading from 12.1.2. You must provide the location of the existing 12.1.3 domain.

A.6 Component List: WebLogic Components

Figure A–6 Component List

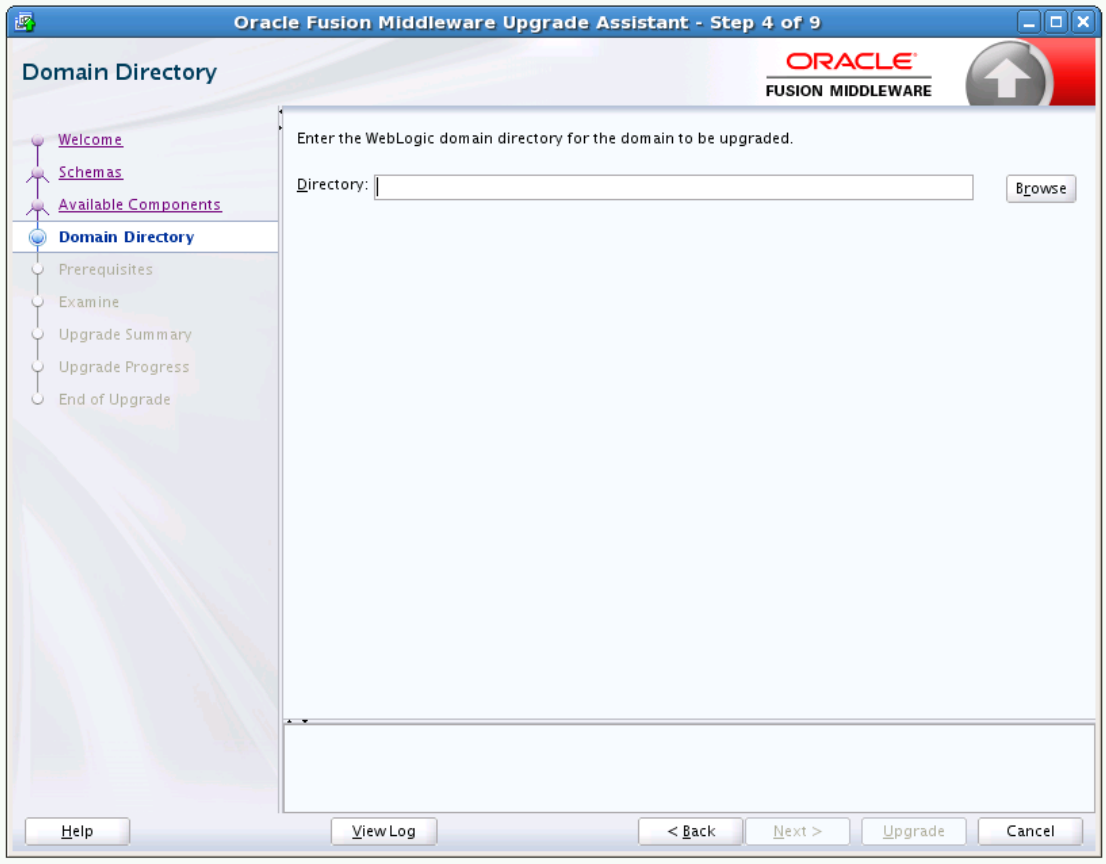


This screen provides a list of components that will be included in the WebLogic domain's component configuration upgrade. The name of the domain is provided along with the list of components located within the domain.

Review the list to verify that the correct components will be upgraded. If you do not see the components you want to upgrade, you may have selected the wrong domain. Use the **Back** button to specify a different domain.

A.7 Domain Directory

Figure A–7 Domain Directory



When upgrading schemas for OPSS or Audit, you must specify the existing Oracle WebLogic 11*g* or 12.1.2 domain directory. The Upgrade Assistant requires the domain location to access the `jps-config.xml` file.

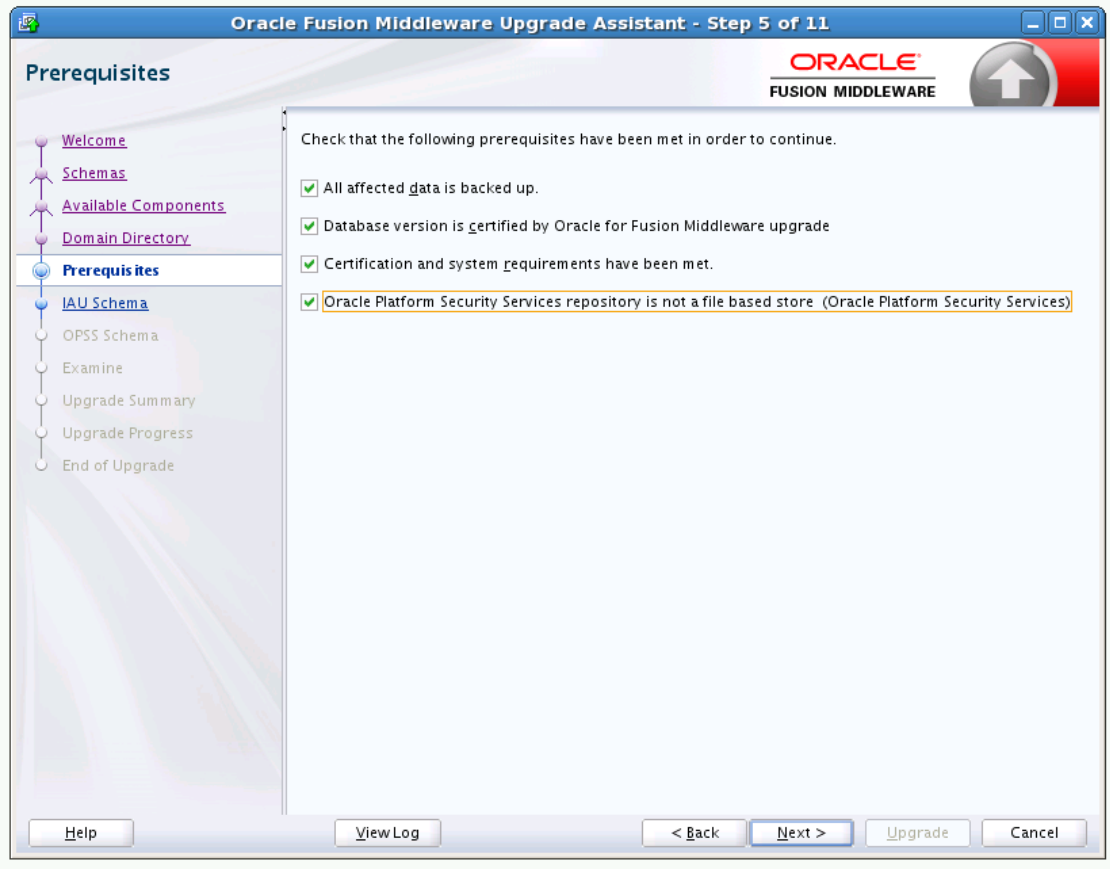
Click **Browse** and use the navigation tree to select a WebLogic domain directory of the 11*g* domain or 12.1.2 domain to be upgraded.

NOTE: The Upgrade Assistant performs a verification check to ensure that the domain can be upgraded. If the Upgrade Assistant returns a message stating that your domain cannot be upgraded, consult your upgrade documentation for supported domain configurations. If the domain configuration is not supported, do not attempt to upgrade the schemas or domain configurations. Contact Oracle Support for more information on upgrading the domain.

A.8 Prerequisites

This screen requires you to acknowledge that all prerequisites have been met before you continue with the upgrade. You must check the boxes before you can continue.

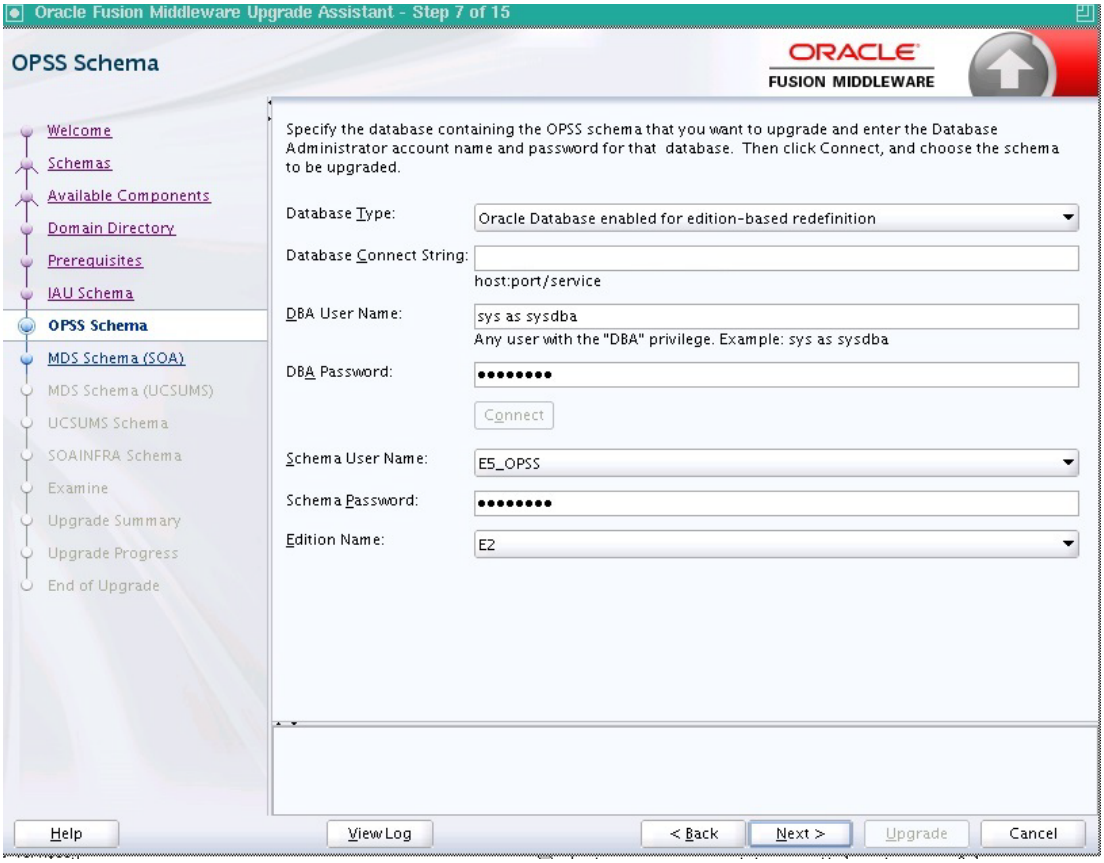
Figure A–8



The Upgrade Assistant will not verify that the prerequisites have been met.

A.9 EBR Database Upgrade

Figure A–9 EBR Database Upgrade



Use this screen to select the child edition from edition drop down list for EBR.

A.10 Schema Credentials

Figure A–10 Select Schemas - Dropdown Menu

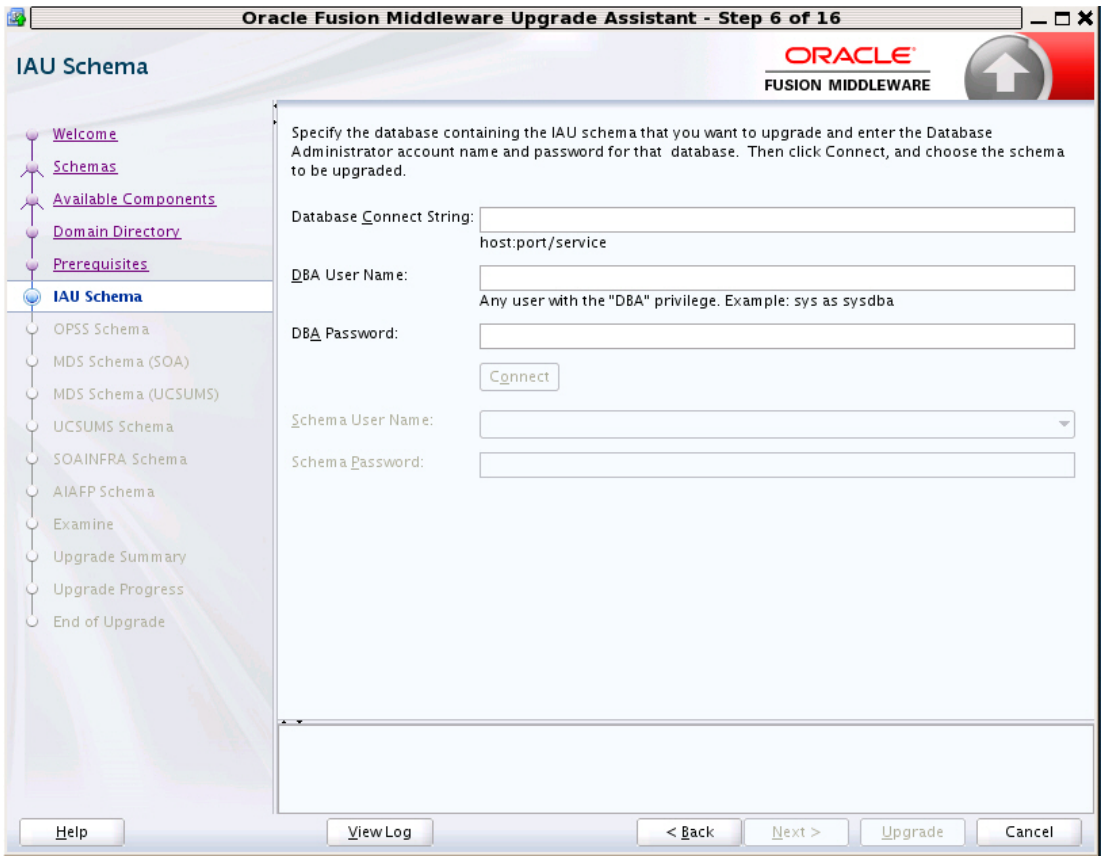
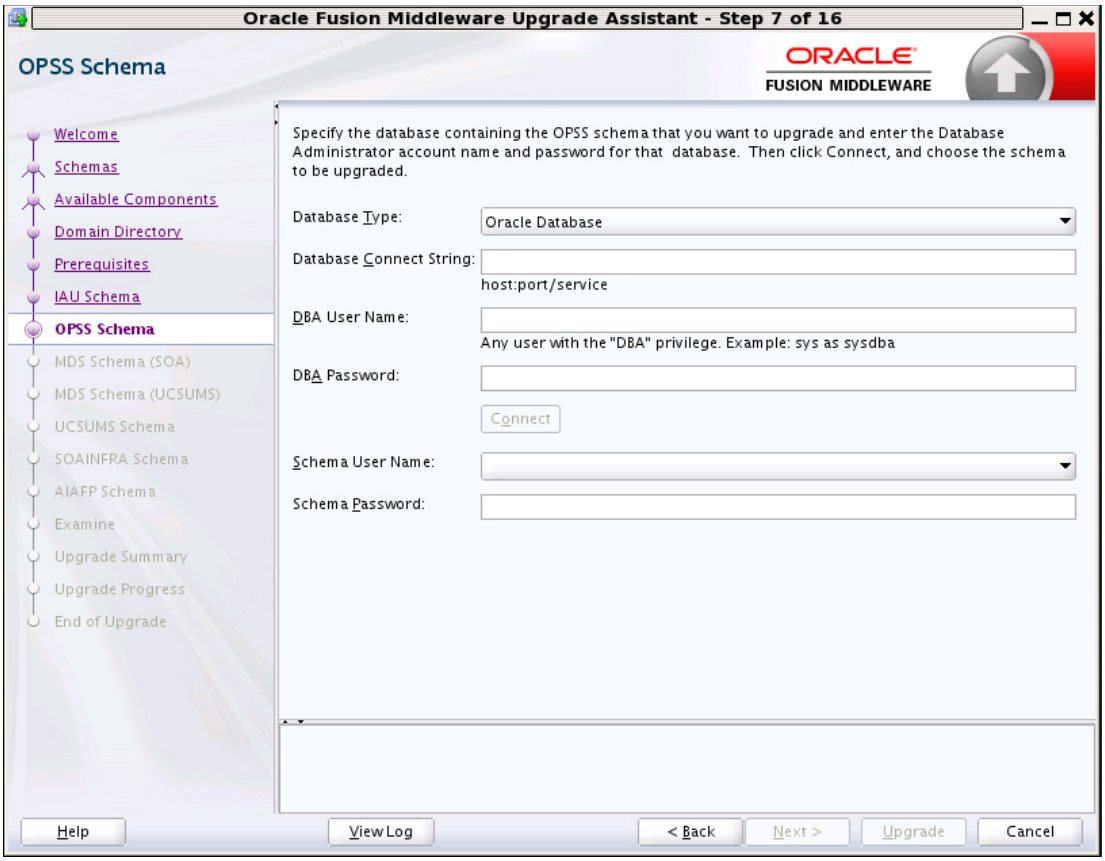


Figure A–11 Schema Name - Manually Entered



Use this screen to enter information required to connect to the selected schema and the database that hosts the schema. If the schema that is to be upgraded was created by RCU in a prior Fusion Middleware release then you will see a drop-down menu listing the possible schema names as shown in Figure A–10. Click **Connect** to connect to the database then select the schema to be upgraded.

Some component schemas must be entered manually as shown in Figure A–11.

The following table describes the elements that appear on this screen.

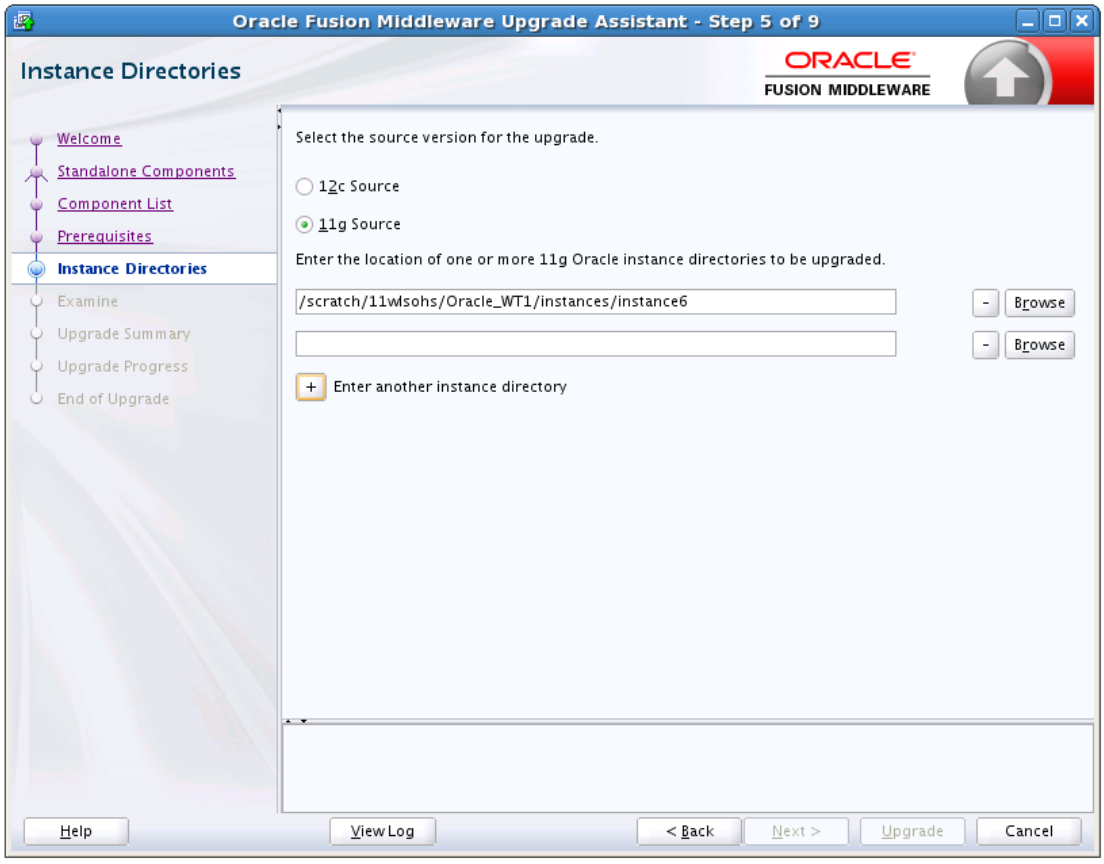
Element	Description
Database Type	Select the database type from the drop-down menu. The types of databases available in the menu varies, depending on the schema you are about to upgrade. The database type chosen for upgrade must be identical to the database type that was selected when RCU originally created the schema. If you select Oracle Edition-Based Redefinition (EBR) as the database type, the schema that you are upgrading also must have been created by RCU as the EBR database type. In particular, Upgrade Assistant never converts schemas from one database type to another.Select the database type from the drop-down menu.

Element	Description
Database Connect String	Enter the location of the database. For example, if you are selecting an Oracle database, the following URL format could be used: *host*:*port*/*db_service_name* If you are using a Microsoft SQL Server or IBM DB2 database, then select the database type from the drop-down menu, and review the text below the field, which provides the syntax required for each database type. NOTE: The Upgrade Assistant accepts other valid forms of connection strings. For example, the Oracle Database TNS style connection string may also be used.
DBA User Name	Enter the database user name used to connect to the database. For Oracle database users, the user of Upgrade Assistant must be granted the Oracle "DBA" role. NOTE: For some components, the DBA role is insufficient to run the schema upgrade. The DBA user must have SYSDBA privileges. For example in 12.1.3 release, SOAINFRA and MDS require SYSDBA privileges. On certain database platforms user names are case sensitive, and the DBA user name might consist of lower case letters. The Upgrade Assistant connects to the name the user enters and does not convert the user name to upper case.
DBA Password	Enter the password associated with the specified DBA database user.
Schema User Name	Select the schema user name from the drop-down list or enter the user name of the schema, for example, **DEV_MDS**. For some components the DBA role is insufficient to run their schema upgrade. They need to be run as `SYSDBA` instead. Note that all Oracle Fusion Middleware schema names consist solely of upper case characters on all database platforms. Also, all schema names are stored as upper case in the `schema_version_registry` table. If you type lower case letters in the Schema User Name field, the Upgrade Assistant converts the name to upper case. For WebLogic Server domain, UMS, and Veridata schemas you need to manually enter the 11*g* schema user name and password.
Schema Password	Enter the password associated with the specified schema user name.

Element	Description
Edition Name	When Oracle Database enabled for edition-based redefinition is selected as the database type, you must specify the existing edition name. **NOTE**: Before upgrading an EBR-enabled schema from Fusion Middleware 11g Release 1 (11.1.1.6.0 or 11.1.1.7.0), you must first connect to the database server and create an edition on the database server for 12c (12.1.3). The new edition for 12.1.3 must be a child of your 11.1.1.6.0, 11.1.1.7.0, or 12.1.2.0.0 edition. For more information on creating an edition on the server for edition-based redefinition, see "Creating an Edition on the Server for Edition-Based Redefinition" in *Oracle Fusion Middleware Planning an Upgrade of Oracle Fusion Middleware*.

A.11 Instance Directories

Figure A–12 Instance Directories



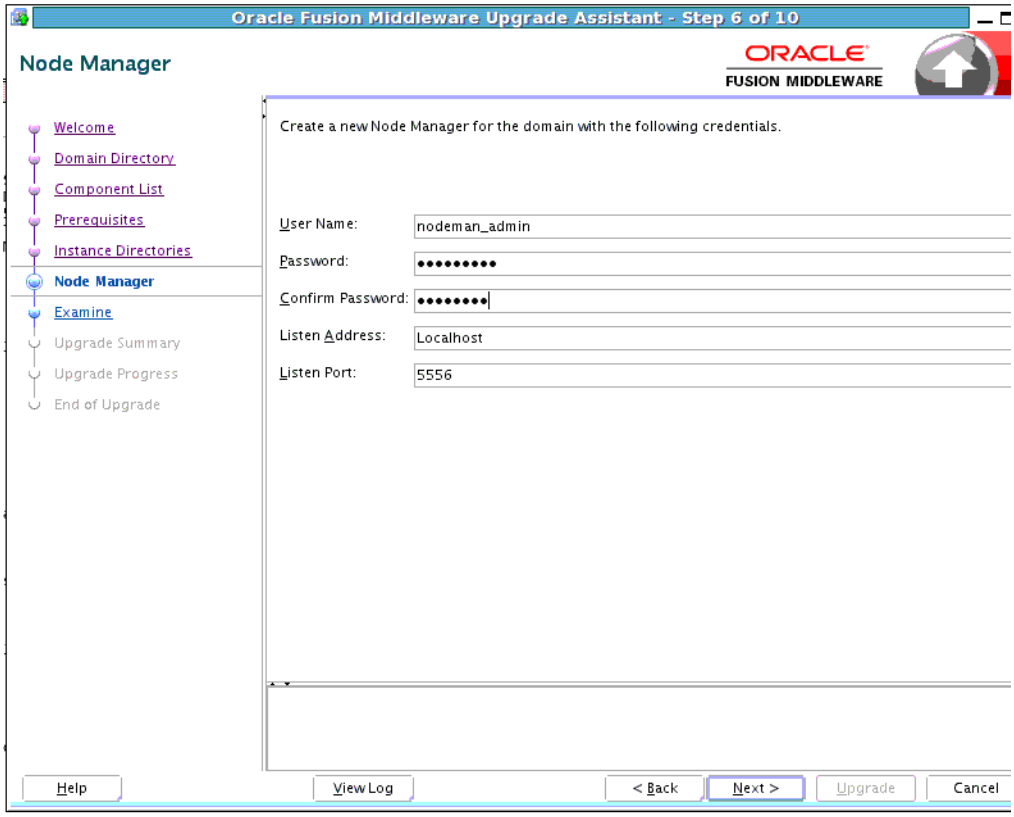
When upgrading system components, such as OHS, you must provide the directory locations of the 11g instances that will be used as a starting point for creating new 12c component instances.

Use the **Add** button to include more than one instance, if needed.

NOTE: You cannot use the Upgrade Assistant to upgrade Oracle 10g instances to Oracle 12c. You must first upgrade Oracle 10g instances to 11g. For more information on migrating 10g to 11g, see the 11g upgrade documentation for your components.

A.12 Node Manager

Figure A–13 Node Manager



Use this screen to specify the credentials of the Node Manager that will be used to create a domain during the upgrade of standalone system components.

Note that the fields displayed in the screenshot may not appear during your upgrade. The conditions that trigger the fields to display are described in the table below.

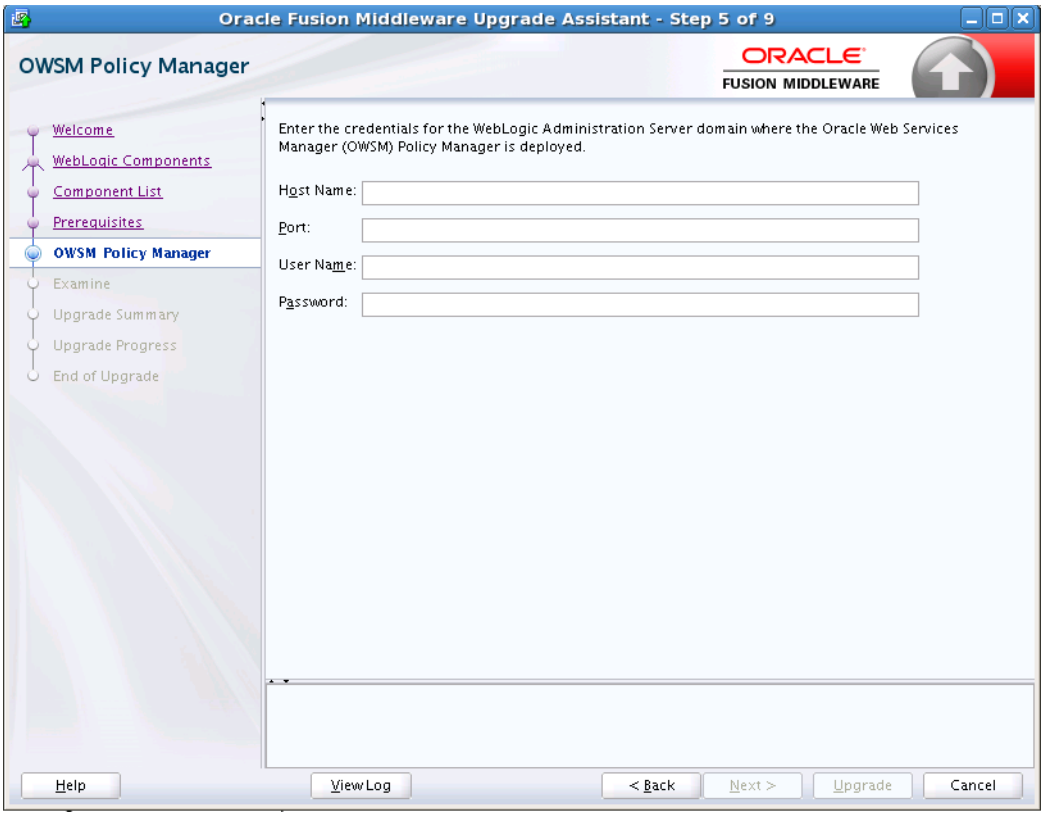
> **Note:** The user name and password are only used to authenticate connections between Node Manager and clients. They are independent from the server Administrator ID and password.

Element	Description
User Name	The user name used to access Node Manager. NOTE: This field is only shown if no local configuration is found on the Admin server or a shared disk for one or more managed servers in the 12c domain where UMS is targeted.

Element	Description
Password	The password used to access Node Manager. You will need to re-enter the password for confirmation. NOTE: Like User Name, this field is only shown if no local configuration is found on the Admin server or a shared disk for one or more managed servers in the 12c domain where UMS is targeted.
Listen Address	Enter the DNS name or IP address upon which Node Manager listens in the Listen Address field. NOTE: If the listening address is specified in the domain configuration, this field will not be shown.
Listen Port	The listening port number of Node Manager. NOTE: If the listening address and listen port is already specified in the domain configuration, then this field will not be shown.

A.13 OWSM Policy Manager

Figure A–14 OWSM Policy Manager



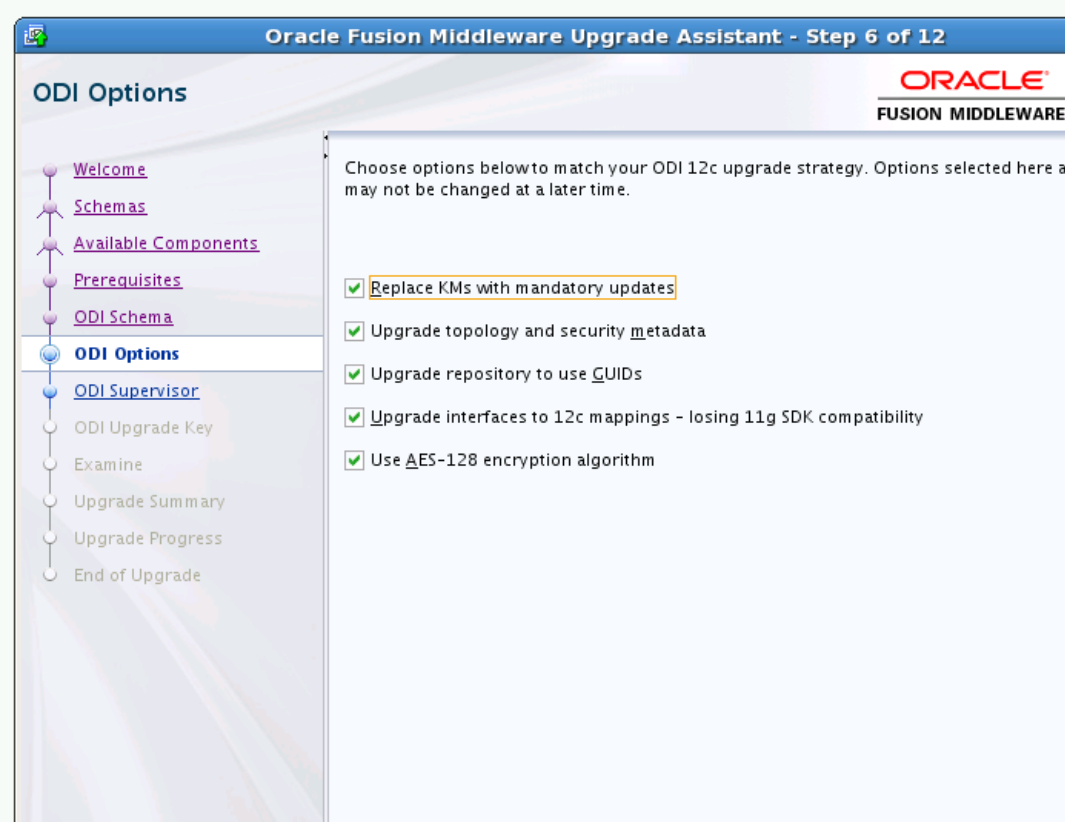
Use this screen to enter the credentials for the WebLogic Administration Server domain where the Oracle Web Services Manager (OWSM) Policy Manager is deployed.

Note: This is an optional screen. The screen appears only when OWSM is deployed in a cross domain configuration.

Element	Description
Host	The host where an Administration Server for the domain is running. Be sure to include the full host name; for example: `fusionHost1.example.com`
Port	The listening port of the administration server. Typically, the administration server listens on port 7001.
Username	The username that is used to log in to the administration server. This is the same username you use to log in to the Administration Console for the domain.
Password	The password for the administrator account that is used to log in to the administration server. This is the same password you use to log in to the Administration Console for the domain.

A.14 ODI Options

Figure A–15 Oracle Data Integrator (ODI) Options



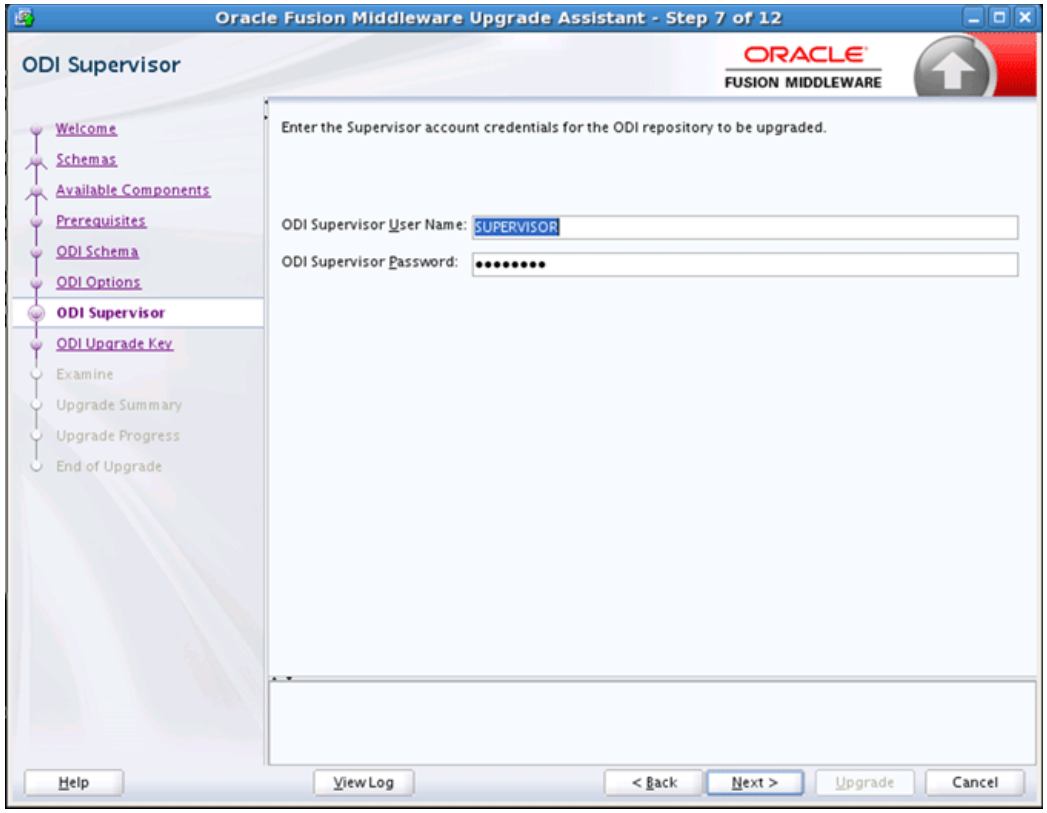
Select from the following options the operations you want the Upgrade Assistant to perform. Click **Next** to continue.

Option	Description
Replace Knowledge Modules with mandatory updates	This selection replaces standard KMs with the newest version. Any customizations to standard KMs will be lost.

Option	Description
Upgrade topology and security metadata	This selection replaces topology and security artifacts such as Technologies, Datatypes, Security Profiles and others with the newest version. Any customizations will be lost.
Upgrade repository to use GUIDs	This selection sets the repository to 12*c* full mode. All objects will be referenced using 12*c* GUID rather than the internal ID. If you uncheck this, then the repository is left in "11*g* compatibility mode," which allows the user to execute already generated 11*g* interface objects. The repository can be switched to 12*c* full mode using the graphical user interface or an SDK call. **CAUTION**: Once the repository is switched, you cannot revert to the previous 11g compatibility mode.
Upgrade interfaces to use 12c mappings - losing 11g SDK compatibility	This selection converts all 11*g* interfaces to 12*c* mappings. Once converted to 12*c* mappings, all of the existing scenarios must be regenerated before use. You cannot use the existing 11*g* SDK applications; they must be upgraded to use the 12*c* SDK. If this option is not selected, the conversion to 12*c* mappings is not performed. The interfaces remain and can be only modified by the 11*g* SDK (in the graphical interface they are read-only). These can be modified and regenerated/executed using the 11*g* SDK. Once the user has modified there custom application, the interfaces can then be converted to 12*c* mappings using the graphical interface or the 12*c* SDK. **NOTE**: In order for this upgrade to work properly, all interfaces in the 11*g* repository must be valid (they should not return any errors when validating from 11*g* Studio, for example). If an 11*g* interface is not valid, the Upgrade Assistant will not stop - even if some 11*g* interfaces fail during upgrade. The Upgrade Assistant will try to upgrade any invalid interfaces into a 12*c* mapping, but the upgrade of that interface may fail, or exceptions may be printed to the log file. If this occurs, the resulting mapping will be invalid. To ensure a successful upgrade, all interfaces in the 11*g* repository must be valid.
Use AES-128 encryption algorithm	AES with 128-bit keys provides adequate protection for sensitive information. AES with 256-bit keys is required to protect classified information of higher importance.

A.15 ODI Supervisor

Figure A–16 Oracle Data Integrator (ODI) Supervisor

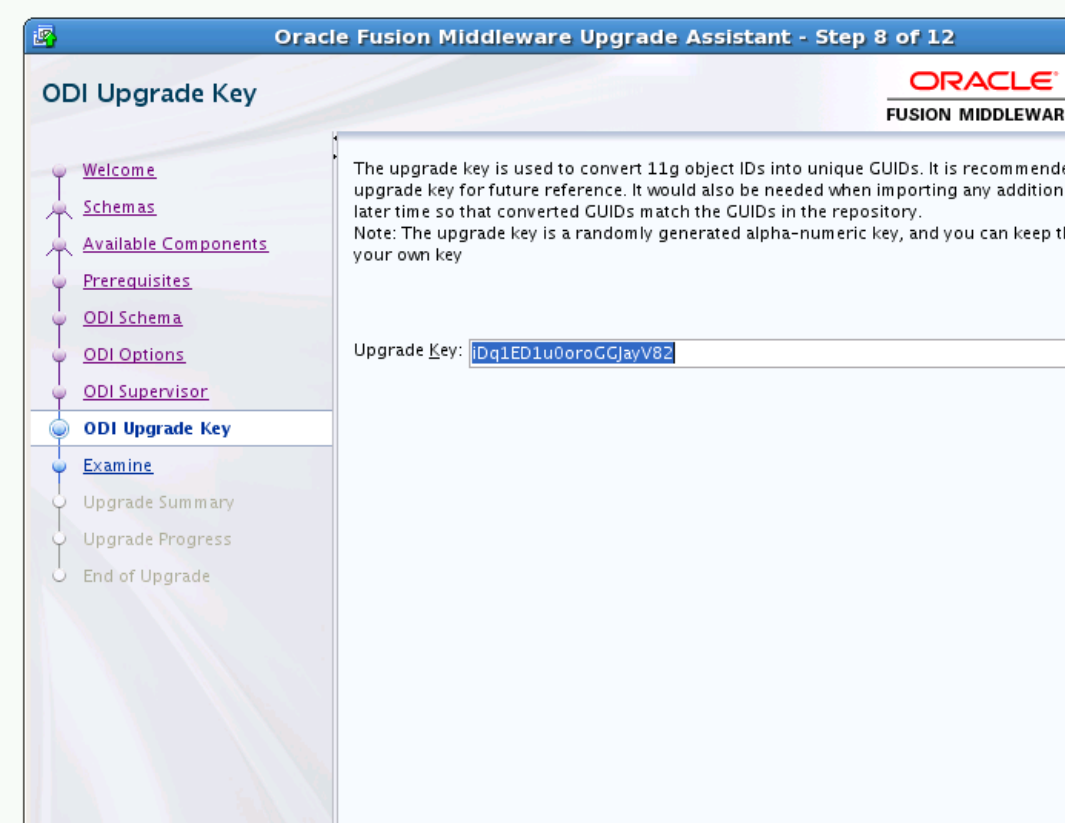


When you created the Master and Work repositories for ODI, the Repository Creation Utility prompted you to supply a password for the default SUPERVISOR account. On the ODI Supervisor screen, enter the following:

Element	Description
ODI Supervisor User Name	Supervisor account name for the ODI repository to be upgraded. The Supervisor user should be `SUPERVISOR` (all CAPS).
ODI Supervisor Password	Password that you created for the ODI Supervisor account.

A.16 ODI Upgrade Key

Figure A–17 Oracle Data Integrator (ODI) Upgrade Key



This screen generates a unique identifier or *upgrade key* to convert 11g IDs for repository objects into unique GUIDs. You can use the auto-generated upgrade key or you can specify your own key in the Upgrade Key field.

Consider the following two scenarios when selecting an upgrade key:

- You know that an ID used in the 11g repository is the same as a project ID located in an XML file exported from the same repository. Use the Upgrade Key field to enter the project ID that was used in the 11g repository.

  In this scenario, the upgrade key used to upgrade the repository should be the same as the upgrade key used to import the XML file into the upgraded 12c repository. This ensures that the project object in the import file will be properly matched with the project object in the repository (when using one of SYNONYM import modes).

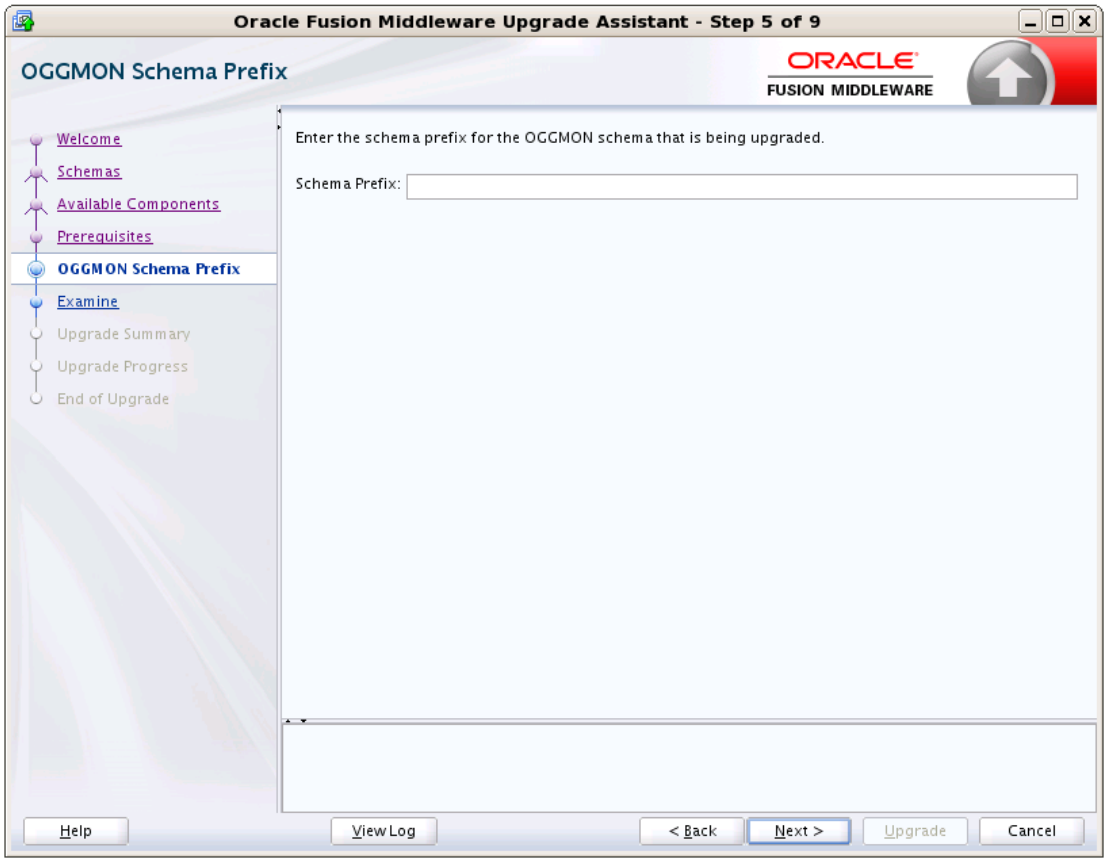
- You have 11g XML export file provided from a source containing objects created in another repository and you do not know which IDs were used. Use the auto-generated upgrade key or specify your own unique ID to avoid duplicate IDs.

  In this scenario, there is a chance that the file may contain a project that has the same internal ID. To prevent erroneous object matching, which may corrupt the metadata, a different, custom upgrade key should be used when importing that file into the repository.

NOTE: When multiple copies of the same object exist (in a repository or exported in XML files), the same GUID should be produced for all copies of the object. For this reason, the same upgrade key must be used for all upgrade operations involving the copies of that particular object.

A.17 Oracle Golden Gate Monitor OGGMON Schema Prefix

Figure A–18 Oracle Golden Gate Monitor Schema Prefix

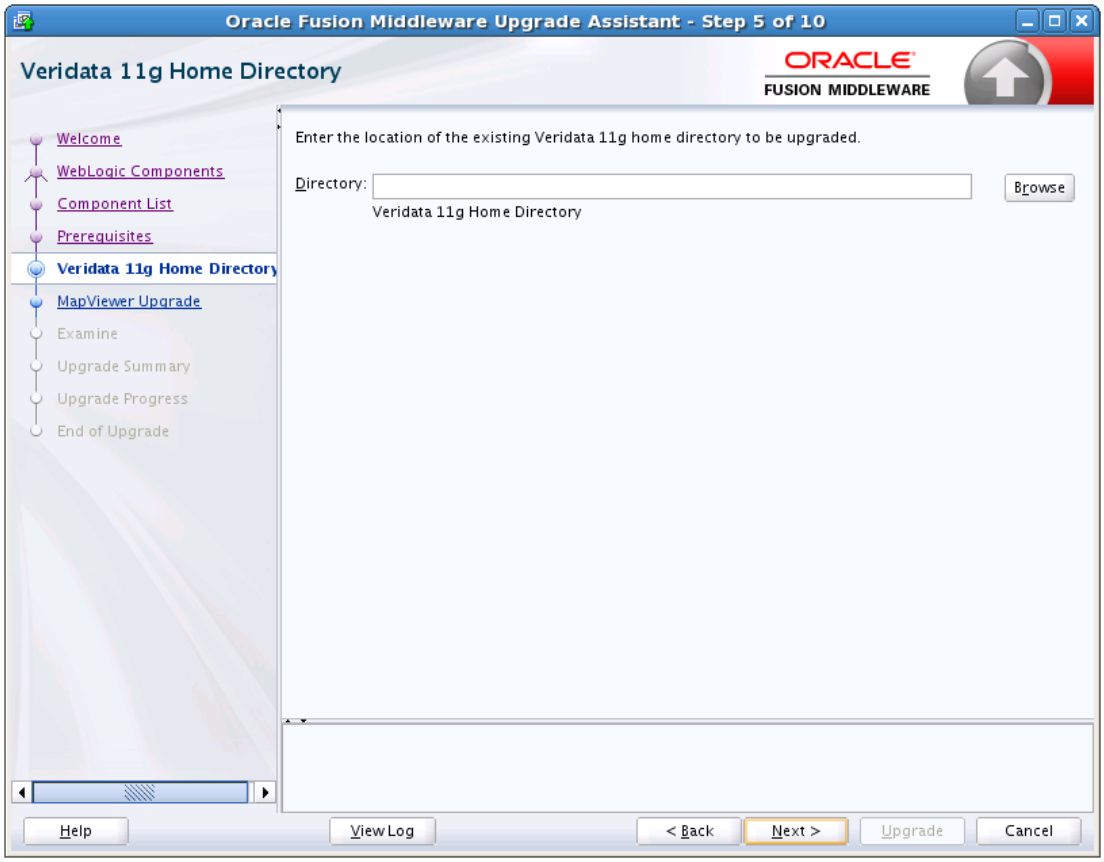


Use this screen to specify the `OGGMON` schema prefix used when creating the Veridata schema with the Repository Creation Utility (RCU).

RCU requires that you supply a schema owner prefix for each schema you create. Provide the exact schema prefix used for the schema to be upgraded. The default prefix is DEV; as in `DEV_OGGMON`.

A.18 Veridata Directory

Figure A–19 Veridata DIrectory

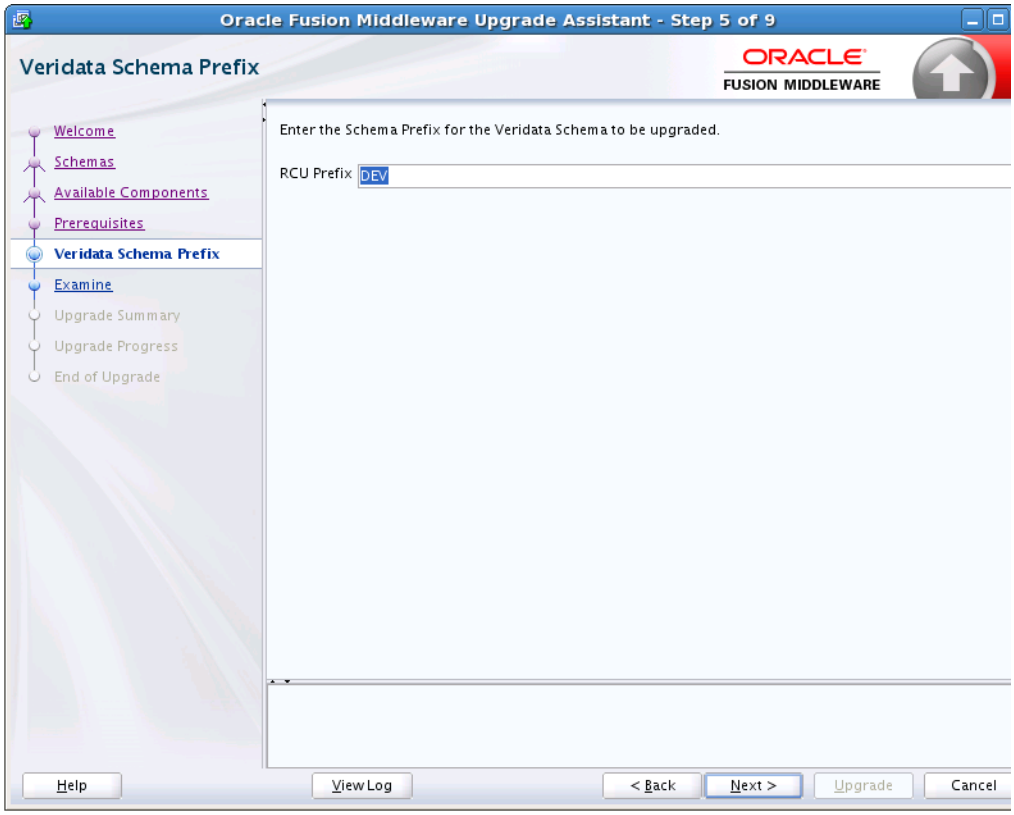


Use this screen to enter the location of the exisiting Veridata 11g home directory to be upgraded.

Click **Browse** and use the navigation tree to select the Veridata domain directory.

A.19 Veridata Schema Prefix

Figure A–20 Veridata Schema Prefix

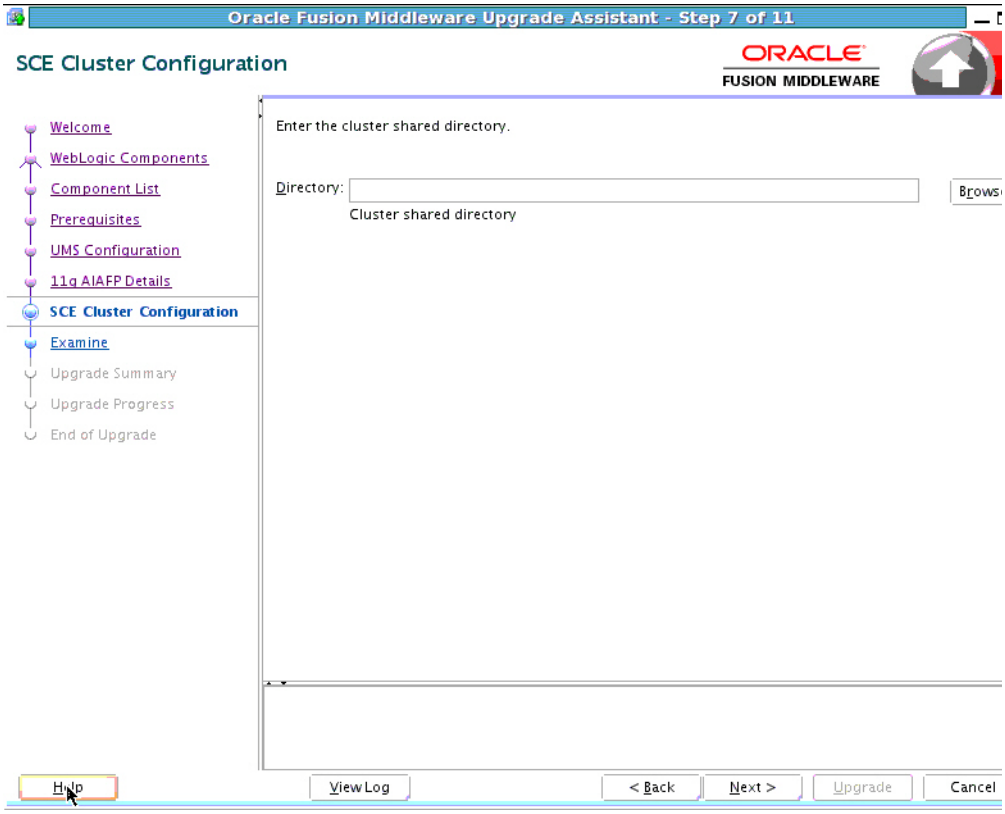


Use this screen to specify the `VERIDATA` schema prefix used when creating the Veridata schema with the Repository Creation Utility (RCU).

RCU requires that you supply a schema owner prefix for each schema you create. Provide the exact schema prefix used for the schema to be upgraded. The default prefix is DEV; as in `DEV_VERIDATA`.

A.20 SCE Cluster Configuration

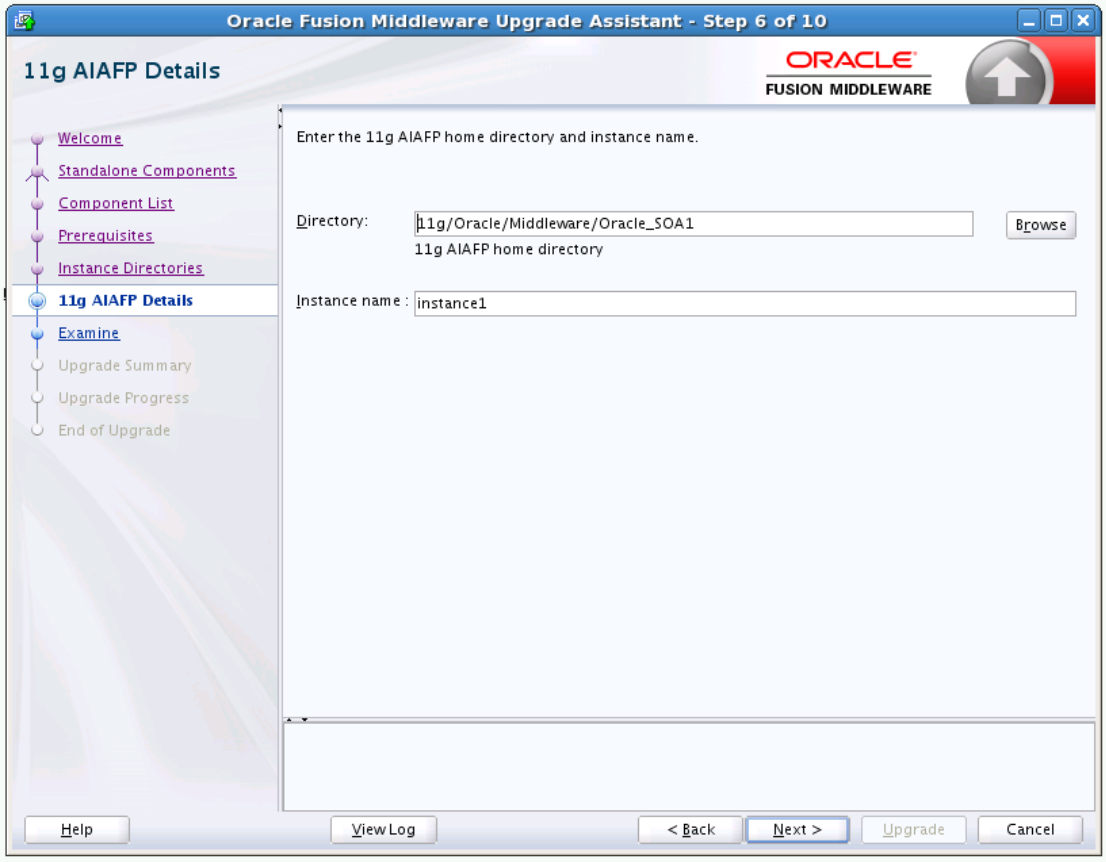
Figure A–21 SCE Cluster Configuration



When the domain being upgraded is a cluster domain and AIAFP 11g is installed on that domain, you must provide a shared location path accessible to all the nodes of the cluster.

A.21 11g AIAFP Details

Figure A–22 11g AIAFP Directory Location



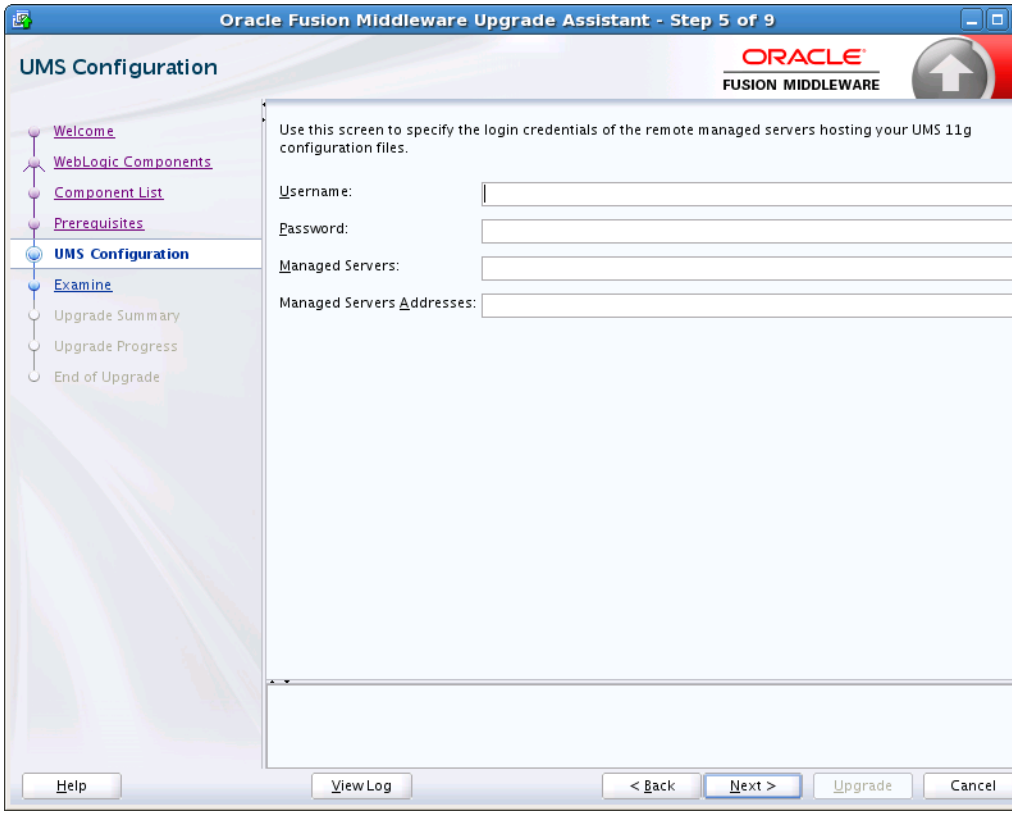
Use this screen to provide the AIAFP installation directory and Instance name as described in the following table

When upgrading Oracle Application Integration Architecture Foundation Pack (AIAFP), you must specify the existing 11g AIAFP home directory and the associated Instance name. Note that in 12*c* AIAFP has been rebranded with Oracle SOA Suite and is now called SOA Core Extension.

Element	Description
AIAFP Home Directory	This is the full file path where the AIA Foundation Pack Installer installed the 11g Foundation Pack product files. Click **Browse** and use the navigation tree to select the 11g AIAFP home to be upgraded.
11g AIAFP Instance Name	Enter the name of the AIAFP instance associated with the AIAFP home directory.

A.22 UMS Configuration

Figure A–23 User Messaging Service Configuration



Use this screen to specify the login credentials of the remote managed servers hosting your UMS 11g configuration files. The Upgrade Assistant automatically copies remote configuration files if all necessary prerequisites are met and the required login information is provided as described in the table below.

If the UMS configuration files are not locally accessible on the machine where the upgrade is being executed, then you must manually enter the login credentials for each managed server (**ums_server1**,**ums_server2** for example).

In some cases, the configuration files must be copied to the machine where the upgrade is being executed (in most cases to the AdminServer machine). The Upgrade Assistant will attempt to copy the files, but if it cannot locate them, then you will have to manually copy them to the Admin Server.

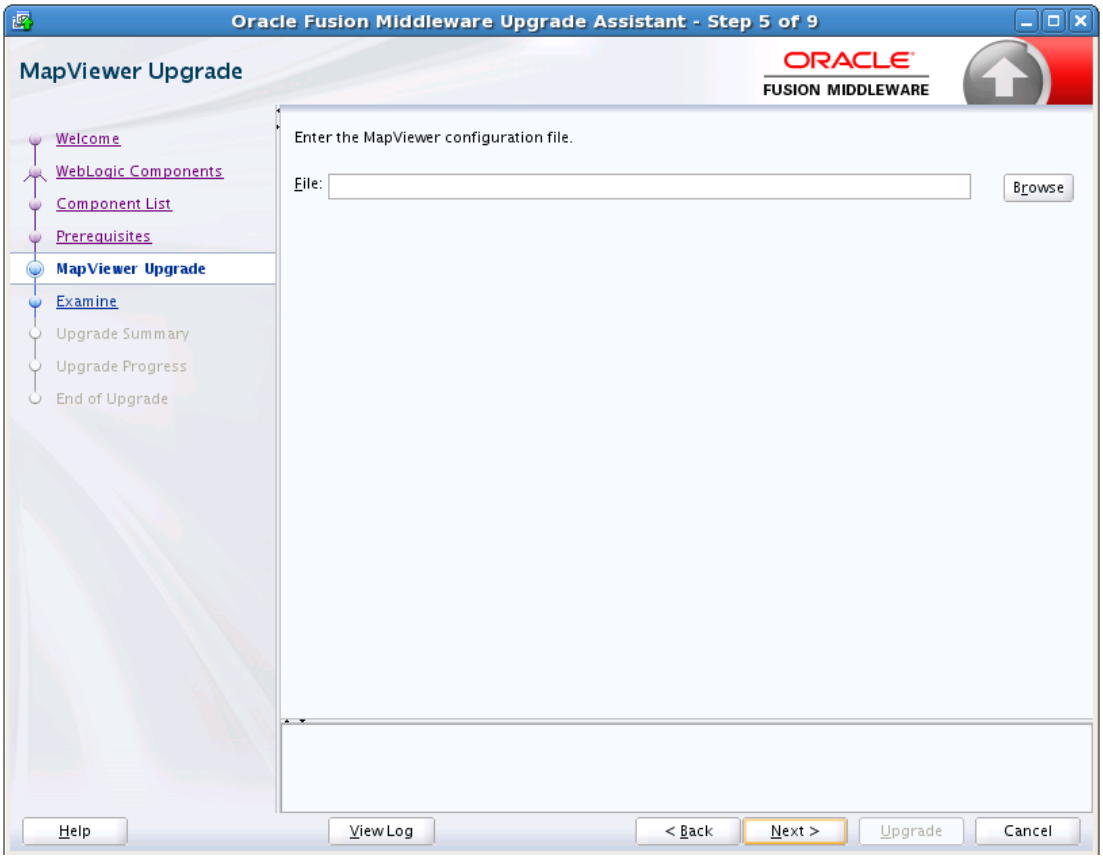
For more information, see "Copying UMS Configuration Files" in *Oracle Fusion Middleware Upgrading to the Oracle Fusion Middleware Infrastructure*.

Note: You will only need to copy the files manually if you receive a message stating that the Upgrade Assistant is not able to copy the configuration files. Once you have copied the files, you can restart the Upgrade Assistant and proceed with the upgrade.

Element	Description
Username	Provide the **Operating System user** who installed the product. This user will be used to fetch the remote configuration files. **NOTE**: This user must have permission to connect via `ssh` to the nodes where the remote managed servers are installed. The Username field is shown if: ■ no configuration files are found for the managed server on the local machine hosting the admin server or on a shared disk ■ there are more managed servers in the 12c domain where UMS is targeted.
Password	Provide the password associated with this user.
Managed Servers	If the Upgrade Assistant was unable to automatically detect the managed servers, then you must provide a comma separated list containing the names of the remote managed servers that contain the configuration files. For example: **ums_server1**,**ums_server2**
Managed Servers Addresses	Provide a comma separated list containing the complete hostnames or IP addresses for the nodes where the remote managed servers are running. The order of this list has to correspond with the list of managed server names provided above. For example: `fusionHost1.example.com,fusionHost2.example.com` where: `fusionHost1.example.com` hosts **ums_server1** and `fusionHost2.example.com` hosts **ums_server2**

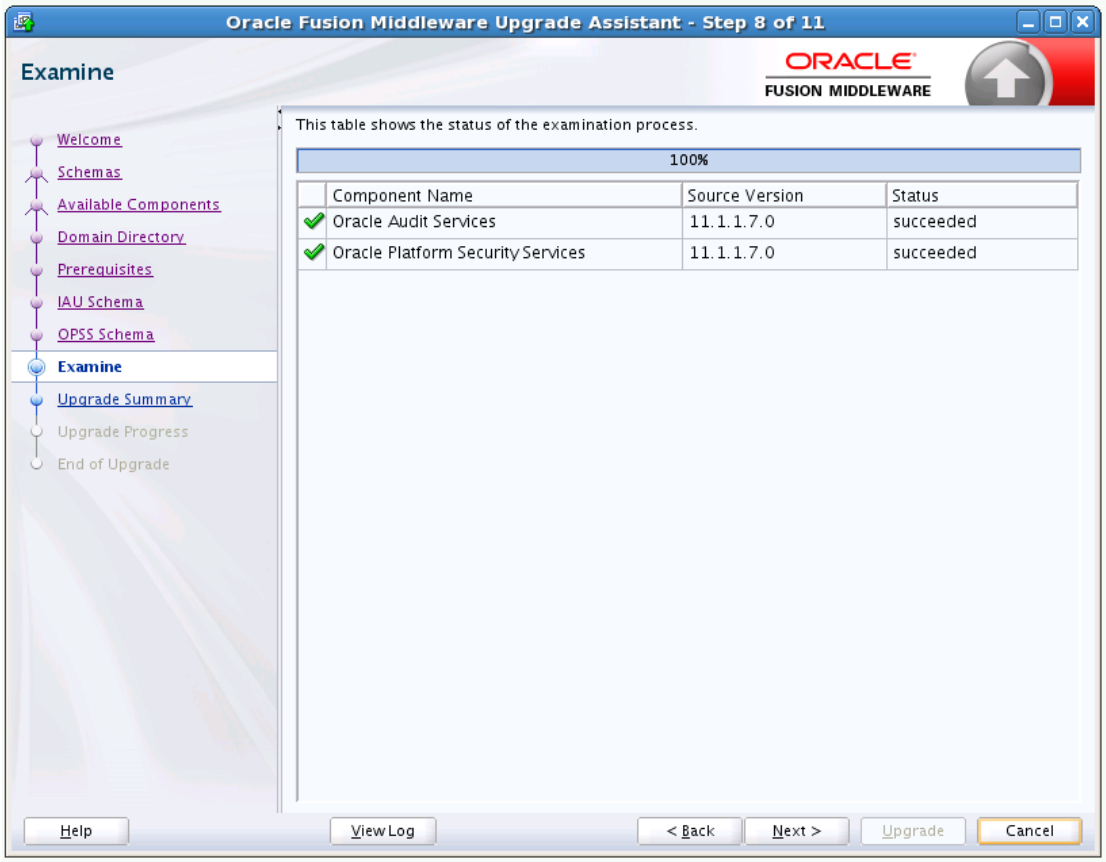
A.23 MapViewer

Figure A–24 MapViewer Configuration File Directory



A.24 Examine

Figure A–25 Examine



The Upgrade Assistant examines each component to be sure it meets a minimum set of criteria before you begin the upgrade process.

This screen displays the status of the Upgrade Assistant as it examines each component, verifying that the component is ready for upgrade.

The Upgrade Assistant examines each component to be sure it meets a minimum set of criteria before you begin the upgrade process.

Upgrade Assistant displays the schema **Source Version** of the schema on this screen if the information is listed in the schema version registry table. If the schema was not created using RCU, or the source version cannot be found, the source version will display `unavailable`.

The description of the **Status** indicators for the components is listed in the following table:

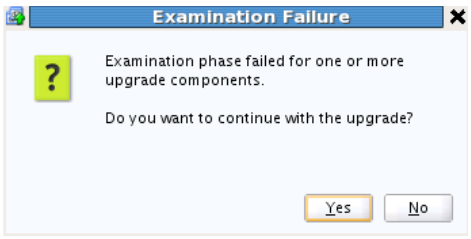
Status	Description
in progress...	The Upgrade Assistant is examining the upgrade items for the component.
pending...	The component will be examined when the Upgrade Assistant finishes the preceding component.

Status	Description
failed	Upgrade items were missing or did not meet upgrade criteria. The Upgrade Assistant cannot upgrade the component. Click **View Log** to troubleshoot the errors.
succeeded	Upgrade items were found and are valid for upgrade.

Canceling the examination process has no effect on the schemas or configuration data; the only consequence is that the information the Upgrade Assistant has collected must be collected again in a future upgrade session.

A.25 Examine Failure

Figure A–26 Examine Failure

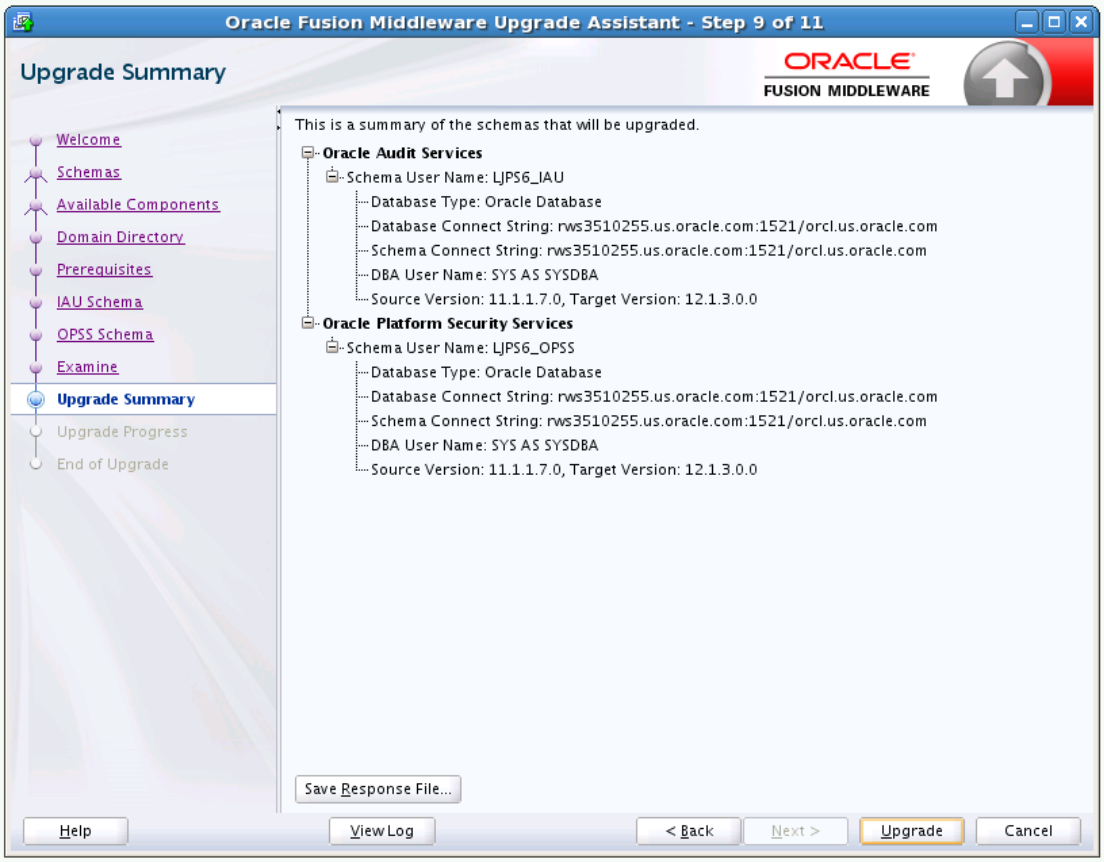


This dialog box appears when one of more of your components failed the examination phase and you selected to continue with the upgrade. If there was an examination failure, you should consider canceling the upgrade (click **No**) and review the log files. See Troubleshooting Your Upgrade for more information.

Click **Yes** to continue the upgrade.

A.26 Upgrade Summary

Figure A–27 Upgrade Summary



Reviewing the Upgrade Summary

Expand and collapse the tree to show or hide details about the data provided in the wizard screens, such as schema details, Oracle WebLogic Server connection details, and Oracle WebLogic domain directory information.

The Summary screen also displays the **Source Version** of the schema being upgraded and the resulting **Target Version** post upgrade. Make sure that both versions are correct before proceeding with the upgrade.

Starting the Upgrade Process

Click **Upgrade** to start the upgrade process.

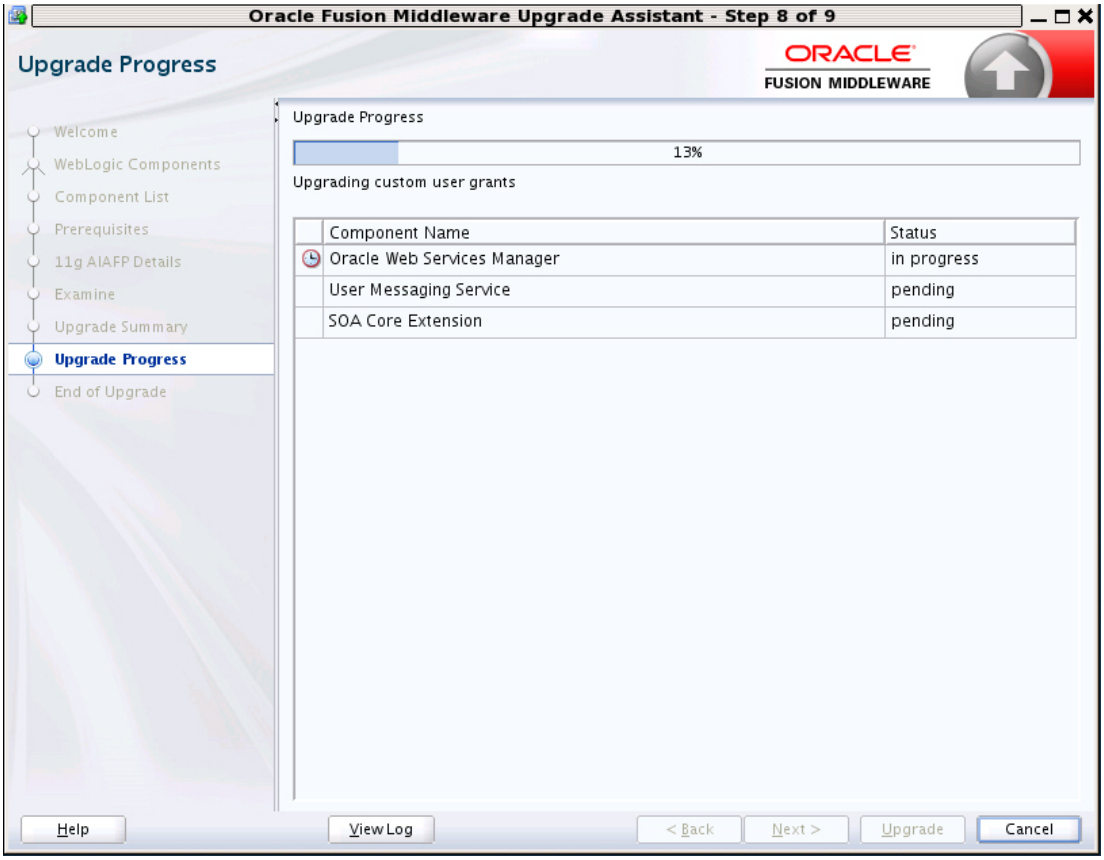
If you are upgrading a schema, verify that you have a backup of the database that hosts the schema.

Save Response File

The **Save Response File** option creates a file that can be used as input to the Upgrade Assistant. The response file collects all the information that you have entered through the Upgrade Assistant's graphical user interface screens, and enables you to perform a silent upgrade at a later time. The silent upgrade performs exactly the same function that the Upgrade Assistant wizard performs, but you do not have to manually enter the data again.

A.27 Upgrade Progress

Figure A–28 Upgrade Progress



This screen shows the status of the current upgrade process and the projected **Target Version** of the component after a successful upgrade.

Note that the progress bar is NOT a measure of time remaining for the upgrade. The progress bar is a moving graphical display of completed upgrade steps for each component being upgraded. In some cases, the progress bar does not move at a steady pace. It might move very quickly over a certain portion of the progress bar, and move very slowly, or even appear to freeze, for another component that is performing a long-running database operation. That does not mean that the upgrade progress is stalled, it simply indicates that a long-running operation is being performed. Different upgrade operations, especially during a schema upgrade, will operate at different paces.

Caution: Allow the Upgrade Assistant enough time to perform the upgrade. Do not cancel the upgrade operation unless absolutely necessary. Doing so may result in an unstable environment.

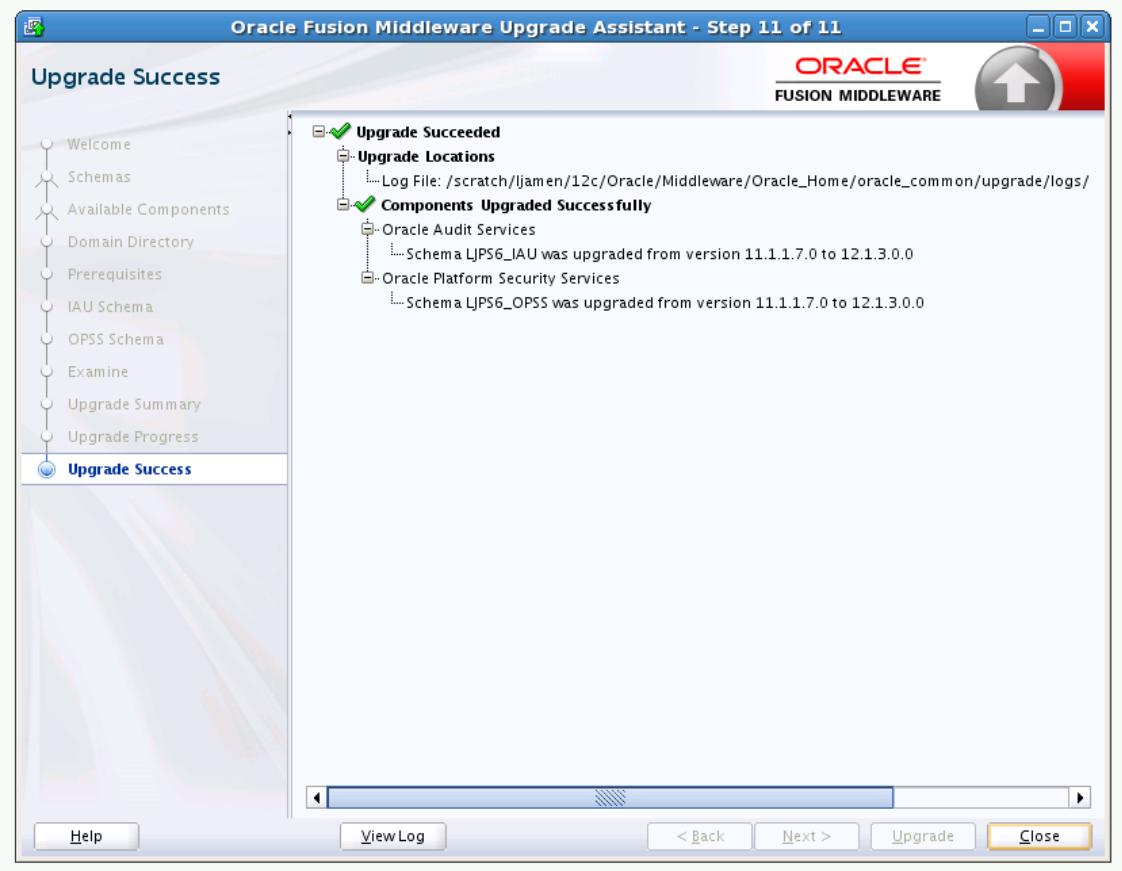
The status of each component upgrade is indicated by one of the following messages that can appear next to the component name. The following table describes each status message.

Status	Description
in progress...	The Upgrade Assistant is upgrading the component's upgrade items.
pending...	The component will be upgraded when the Upgrade Assistant finishes the preceding component.
upgrade not necessary	The component was upgraded previously by the Upgrade Assistant or the component was just installed and is already at the latest version. No action will be taken on this component.
skipped	The component is dependent on another component which has a status of "failed". When the status is "skipped" no upgrade is attempted for that component.
failed	Upgrade items were missing or did not meet upgrade criteria. The component cannot be upgraded. Click View Log to troubleshoot the errors.
succeeded	Upgrade items were upgraded successfully.

If any components are not upgraded successfully, refer to the Upgrade Assistant log files for more information.

A.28 Upgrade Success

Figure A–29 Upgrade Success



The upgrade was successful. The Post-Upgrade Actions window describes the manual tasks you must perform to make the component function in the new installation. This is an optional window that will only show up if a component has post-upgrade steps.

In addition, be sure to do the following:

- View the `postupgrade.txt` file in the Oracle home:

  On Unix systems:

  ```
  ORACLE_HOME/oracle_common/upgrade/logs
  ```

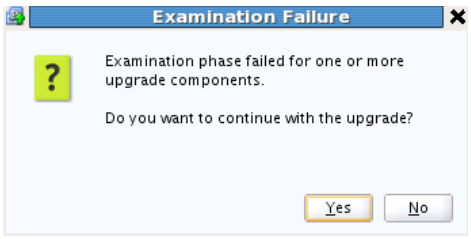
  On Windows systems:

  ```
  ORACLE_HOME\oracle_common\upgrade\logs
  ```

- Review the Upgrade Guide specific to your Oracle Fusion Middleware environment for more information about any additional post-upgrade tasks.

A.29 Upgrade Failure

Figure A–30 Upgrade Failure



The upgrade of one or more components has failed. The component cannot be upgraded at this time. Click **View Log** to troubleshoot the errors.

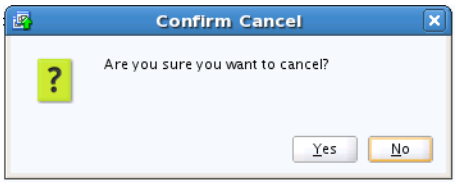
For more information, see Troubleshooting Your Upgrade.

A.30 Cancel Upgrade

Figure A–31 Cancel Upgrade

You get the above Confirm Cancel screen when you click **Cancel** while the upgrade plugin is actively running (that is, you are on the Upgrade page and the progress bar is less than 100%).

Figure A–32 Cancel Upgrade



You get the above Confirm Cancel screen on clicking **Cancel** when no upgrade plugins are actively running.

Important Note: If you cancel a schema upgrade, you must restore a backup of the database that hosts the schema and its environment (the pre-upgrade directory structure).