Oracle® Fusion Middleware

Interoperability and Compatibility Guide for Oracle Identity and Access Management

11*g* Release 2 (11.1.2)

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Oracle Fusion Middleware Interoperability and Compatibility Guide for Oracle Identity and Access Management, 11g Release 2 (11.1.2)

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Preface

This guide describes interoperability and compatibility considerations you should review when installing, upgrading, or patching Oracle Fusion Middleware 11*g*.

This preface contains these topics:

- Audience
- Documentation Accessibility
- Related Documents
- Conventions

Audience

This document is intended for system administrators responsible for installations, upgrade planning, and patch set application.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at
`http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc`.

Access to Oracle Support

Oracle customers have access to electronic support through My Oracle Support. For information, visit
`http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info` or visit
`http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs` if you are hearing impaired.

Related Documents

For more information, see the following related documentation available in the Oracle Fusion Middleware 11g documentation library:

- *Oracle Fusion Middleware Upgrade Planning Guide*
- *Oracle Fusion Middleware Installation Planning Guide for Oracle Identity and Acess Management*
- *Oracle Fusion Middleware Patching Guide*

Conventions

The following text conventions are used in this document:

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

1

Understanding Compatibility and Interoperability

This chapter provides an introduction to compatibility and interoperability and describes how to identify areas where compatibility and interoperability considerations may arise when you are upgrading Oracle Fusion Middleware 11g components, applying patch sets, or installing new Oracle Fusion Middleware components.

- Section 1.1, "What is Compatibility?"
- Section 1.2, "What is Interoperability?"
- Section 1.3, "Understanding Interoperability and Compatibility with Supported Databases"
- Section 1.4, "Identifying Potential Compatibility and Interoperability Issues"

1.1 What is Compatibility?

For the purposes of this guide, **compatibility** is defined as the ability of two Oracle Fusion Middleware components of different versions (or releases) to interoperate. It is possible that you will have compatibility considerations when upgrading Oracle Fusion Middleware 11*g* or when applying Oracle Fusion Middleware 11*g* patch sets.

When upgrading, for example, you may need to know which components must be updated so that your existing integration points continue to work. When applying a patch set you may want to know if the new products will work with other products of the same release or if they will continue to work with previous versions.

Compatibility can be further broken down into the following:

- Compatibility Between Oracle Fusion Middleware Software Suites
- Compatibility Within Oracle Fusion Middleware Software Suites

1.1.1 Compatibility Between Oracle Fusion Middleware Software Suites

When you are upgrading your Oracle Application Server 10*g* environment to Oracle Fusion Middleware 11*g*, you will likely update one area of your environment at a time.

For example, you might upgrade your Oracle Identity and Access Management products to 11*g* Release 2 (11.1.2) in order to support new Oracle Identity and Access Management features. At the same time, you might leave your company-wide Oracle SOA Suite components at 11*g* Release 1 (11.1.1).

1.1.2 Compatibility Within Oracle Fusion Middleware Software Suites

While you are upgrading your Oracle Application Server environment to Oracle Fusion Middleware 11*g*, you should also consider potential compatibility issues within a specific software suite.

In most cases, issues are temporary and occur only during the upgrade process. After you finish the complete procedure for upgrading the software suite, the issues are typically resolved. However, you should still be aware of these potential concerns, because they can influence your upgrade planning.

1.2 What is Interoperability?

For the purposes of this guide, **interoperability** is defined as the ability of two Oracle Fusion Middleware components of the same version (or release) to work together (interoperate) in a supported Oracle Fusion Middleware configuration. Specifically, interoperability applies when the first 4 digits of the release or version number are the same. For example, Oracle Fusion Middleware 11*g* Release 1 (11.1.1.6.0) components are generally interoperable with other 11*g* Release 1 (11.1.1.6.0) components.

However, in some cases, there may be interoperability issues between Oracle Fusion Middleware software suites. In those cases, the issues would be covered in this guide.

1.3 Understanding Interoperability and Compatibility with Supported Databases

Each release of Oracle Fusion Middleware 11*g* is certified against specific database versions. Specifically, you can use these certified databases to host the Oracle Fusion Middleware 11*g* components schemas.

In some cases, you might have to upgrade your database to a supported version before upgrading to a specific Oracle Fusion Middleware 11*g* release. For more information on upgrading your Oracle Fusion Middleware components, see *Oracle Fusion Middleware Upgrade Planning Guide*.

For the latest information about the databases supported by each Oracle Fusion Middleware 11*g* release, refer to *Oracle Fusion Middleware Supported System Configurations* on the Oracle Technology Network.

From the Supported Configurations page, you can locate the specific Oracle Application Server or Oracle Fusion Middleware release you are using, as well as the target Oracle Fusion Middleware release to which you want to upgrade. For each Oracle Application Server and Oracle Fusion Middleware release, there is a corresponding spreadsheet that lists the certified configurations, including the supported databases.

1.4 Identifying Potential Compatibility and Interoperability Issues

The following sections describe how to identify and answer common compatibility and interoperability issues using information from this guide, Oracle Technology Network (OTN) and other Oracle documents:

- Before You Begin
- Using This Guide
- Using Oracle Certification Matrices
- Understanding the Compatibility Matrices in this Guide

- Collecting Your Component and Infrastructure Information

- Using Release Notes

- Using the Oracle Fusion Middleware Documentation Library

1.4.1 Before You Begin

If you are installing a new product or updating an existing one (either to a new major version or a patch set), interoperability and compatibility issues may arise. During a new product component installation, interoperability considerations relate to the capability of the new product to integrate with other Oracle Fusion Middleware components of the same release.

Compatibility considerations relate to the capability of the new product to integrate with previous versions of Oracle Fusion Middleware products which may have already been installed. During product updates, the question is mainly one of compatibility and you may need to consider the other components that need to be updated so that existing integration points continue to work.

Table 1–1 provides a list of tasks that will help you collect the information necessary to plan your Oracle Fusion Middleware upgrade and installation strategy.

Table 1–1   Tasks for Preparing to Identify and Solve Interoperability Considerations

Task	Description	Documentation
Task 1 - Gather release and version information for your installed components and supporting infrastructure.	In order for you to identify potential interoperability and compatibility issues with your Oracle Fusion Middleware components, you must first collect the release and version information for each component or suite of components you have installed or plan to install or upgrade. In addition, you should also have version and release information for your operating system, database, JDKs and other third-party products.	See Section 1.4.5, "Collecting Your Component and Infrastructure Information"
Task 2 - If you are planning an upgrade, you should develop an upgrade strategy and understand the supported starting points for upgrading to Oracle Fusion Middleware 11g.	An upgrade starting point is a specific version of Oracle Application Server that you must be running in order to upgrade to Oracle Fusion Middleware 11g. If you are not running a version of Oracle Application Server that is a supported upgrade starting point, then you must first upgrade to a supported starting point using documentation from a previous release.	The *Oracle Fusion Middleware Upgrade Planning Guide* provides detailed information for developing and implementing an Oracle Fusion Middleware upgrade plan. In addition, each of the Oracle Fusion Middleware products has an upgrade guide that details the upgrade process and identifies any post-upgrade configuration tasks that must be completed. See Section 1.4.7, "Using the Oracle Fusion Middleware Documentation Library" for more information on locating the correct documentation for your upgrade.

Table 1–1 (Cont.) Tasks for Preparing to Identify and Solve Interoperability Considerations

Task	Description	Documentation
Task 3 - If you are applying a patch set, you should understand the patching requirements for your components and supporting infrastructure.	Patching involves copying a small collection of files over an existing installation. A patch is normally associated with a particular version of an Oracle product and involves updating from one minor version of the product to a newer minor version of the same product (for example, from version 11.1.1.2.0 to version 11.1.1.3.0).	The *Oracle Fusion Middleware Patching Guide* describes the tools available for you to patch your existing Oracle Fusion Middleware or upgrade your existing Oracle Application Server environment. The guide also describes product-specific prerequisites that must be met before patching. Information about the latest patches and patch sets is located in the *Oracle Fusion Middleware System Requirements and Specifications Document*.
Task 4 - If you are Installing new Oracle Fusion Middleware components, you should understand the installation requirements and the supported starting points.	Each Fusion Middleware product suite has an installation guide that describes prerequisites, supported starting points and post-installation configuration procedures. It is important to read and follow the installation procedures to avoid potential interoperability and compatibility issues.	To download free installation documentation, release notes, white papers, or other collateral, go to Oracle Technology Network (OTN). You must register online before using OTN; registration is free and can be done at: http://www.oracle.com/technology/membership If you already have a user name and password for OTN, then you can go directly to the documentation section of the OTN Web site at: http://www.oracle.com/technology/documentation

1.4.2 Using This Guide

The chapters in this guide are organized by the different types of interoperability or compatibility issues you might have while installing, upgrading or patching your Oracle Fusion Middleware components.

1.4.3 Using Oracle Certification Matrices

The Oracle Fusion Middleware Certification matrices provide important compatibility and interoperability information such as supported system configurations, database versions, and third-party products. Refer to these documents to ensure that your current environment can support an upgrade or patch set.

> **Note:** The information in this guide is meant to complement the information contained in the Oracle Fusion Middleware certification matrices. If there is a conflict of information between this guide and the certification matrices, then the information in the certification matrices should be considered the correct version as they are frequently updated.

Table 1–2   Oracle Fusion Middleware Certification Matrices

Document Name	Description
Oracle Fusion Middleware Supported System Configurations	Each product area within Oracle Fusion Middleware maintains certification documentation that covers supported installation types, platforms, operating systems, databases, JDKs, and third-party products.
	From the Oracle Fusion Middleware Supported System Configurations page, locate the product area to review and select the appropriate certification document.
Oracle Fusion Middleware System Requirements and Specifications Document	The Oracle Fusion Middleware System Requirements and Specifications document covers information such as hardware and software requirements, minimum disk space and memory requirements, and required system libraries, packages, or patches.
Oracle Identity Management Certification Matrix [XLS Spreadsheet]	The Oracle Fusion Middleware Identity Management document maintains certification documentation that covers supported Identity and Access Management configurations.

1.4.4 Understanding the Compatibility Matrices in this Guide

Interoperability and compatibility matrices are used throughout the book to identify potential issues and to provide links to additional information. When you use the interoperability and compatibility matrices in this guide, the level of support can be defined in one of the following ways:

Table 1–3   How To Use the Matrices in This Guide

Status	Description	Example
Compatible or Interoperable	Integration between the components involved is expected to work with appropriate configuration. It is important to note, however, that compatibility is not a statement of certification. Certification information is located in the certification matrices described in Table 1–2.	For example, the Oracle HTTP Standalone Server 10.1.3 is compatible with Forms, Portal, Reports, Discoverer 10.1.2, but you may have some restrictions depending on your configuration.
Not Compatible or Interoperable	Integration between the components involved is not expected to work.	For example, Oracle HTTP Server 11gR1 is not compatible with Forms, Portal, Reports, Discoverer 10.1.2 and Oracle highly discourages their being used together.
A reference to a specific guide or section	This reference is provided when an individual guide provides more detailed information about the compatibility requirements and considerations that you should review when upgrading, patching or installing Oracle Fusion Middleware 11*g*.	For example, refer to the *Oracle Fusion Middleware Upgrade Guide for Oracle Identity Management* for specific information about the interoperability of Oracle Identity and Access Management 11*g* Release 2 (11.1.2) components with the Identity Management 11*g* Releaes 1 (11.1.1) components.
N/A	Not Applicable.	For example, there is normally no communication or interaction between custom Java EE Applications and Oracle Portal, Forms, Reports, and Discoverer installations.

1.4.5 Collecting Your Component and Infrastructure Information

Oracle Fusion Middleware release and version information is available for each installed component on your system. This information is required before you can effectively identify and solve interoperability or compatibility issues. The certification matrices described in Section 1.4.3 provide certification and system requirements information for Oracle Fusion Middleware components.

This section provides information for the following:

- Locating Oracle Fusion Middleware Product Release Information
- Locating your database-specific version and release information:
  - Locating Your Oracle Database Release Information
  - Locating your Microsoft SQL Server Version Information
  - Locating your DB2 Version Information
- Locating JDK Version Information

1.4.5.1 Locating Oracle Fusion Middleware Product Release Information

To find specific release and version information for your Oracle Fusion Middleware components, see the installed product information using the Oracle Universal Installer (OUI). For more information, see "Viewing Release Numbers" in the *Oracle Fusion Middleware Administrator's Guide*.

Note: You can also find version and release information in the installation log files located in the `oraInventory/logs` directory of your Oracle Home.

1.4.5.2 Locating Your Oracle Database Release Information

To determine the release information of your Oracle database:

Start SQL*Plus from the Oracle home directory:

```
sqlplus /nolog
SQL> CONNECT / AS SYSDBA
SQL> select * from v$version;
```

The command returns the release information, such as the following:

```
Oracle9i Enterprise Edition Release 9.2.0.8.0 - Production
PL/SQL Release 9.2.0.8.0 - Production
CORE 9.2.0.8.0 Production
TNA for 32-bit Windows: Version 9.2.0.8.0 - Production
NLSRTL Version 9.2.0.8.0 - Production
```

1.4.5.3 Locating your Microsoft SQL Server Version Information

To determine the release information of your Microsoft SQL database:

From the command line, enter the following:

```
exec xp_msver ProductVersion
```

The command returns the product version information, such as the following:

```
ProductVersion 589824 9.00.1399.06
```

1.4.5.4 Locating your DB2 Version Information

To determine the release information of DB2, do the following:

- From the **Windows** operating system command line, navigate to the following:

  ```
  \Program Files\IBM\SQLLIB\BIN>db2level
  ```

  The command returns the database version and applicable fix pack information such as the following:

  ```
  DB21085I Instance "DB2? uses "32? bits and DB2 code release "SQL09011? with
  level identifier "01020107?.
  Informational tokens are "DB2 v9.1.100.129?, "s061104?, "WR21374?, and Fix Pack
  "1?.
  Product is installed at "D:\PROGRA~1\IBM\SQLLIB" with DB2 Copy Name "DB2COPY1?.
  ```

- From **UNIX** operating system command line, type the following:

  ```
  db2ls
  ```

  This command shows the installation path, version level, fix pack information and installation date of the installed DB2 product. Output from this command goes to the console by default.

  ```
  Install Path       Level    Fix Pack    Install Number     Install Date
  ---------------------------------------------------------------------------
  /opt/ibm/db2/V9.1  9.1.0.0       0            1      Fri Sep 3 10:26:33 2010 EDT
  ```

1.4.5.5 Locating JDK Version Information

Many Fusion Middleware Components are dependent on having a supported JDK installed and configured. The currently supported JDK version information is documented in the Oracle Fusion Middleware Supported System Configurations matrix as described in Section 1.4.3.

To locate your installed JDK version information, navigate to the *ORACLE_COMMON_HOME* which contains the binary and library files required for Fusion Middleware Control and Java Required Files (JRF). Note that there can be only one Oracle Common home within each Middleware home. Typical Oracle WebLogic Server installations include either an Oracle JRockit SDK or Sun SDK as shown in the examples below:

```
ORACLE_COMMON_HOME/jrockit_160_17_R28.0.0-679
```

Or:

```
ORACLE_COMMON_HOME/jdk160_20
```

Oracle JRockit JDK 6 R28.0.0 indicates the 28.0.0 release of JRockit JVM used with Java SE 6; similarly, Oracle JRockit JDK 5.0 R28.0.0 indicates the 28.0.0 release of the JRockit JVM used with J2SE 5.0.

The following is an example of a complete release number:

```
R28.0.0-637-126675-1.6.0_17-20100111-2121-windows-ia32
```

In this example, R28.0.0 is the JRockit JVM release, 1.6.0_17 is the Java version, and windows-ia32 is the platform on which the release runs.

1.4.6 Using Release Notes

Refer to the Oracle Fusion Middleware Release Notes for specific information about required patch sets that address specific interoperability and compatibility issues which may surface during upgrade or patching process. The release notes for each release are available on the Oracle Technology Network (OTN):

```
http://docs.oracle.com/
```

1.4.7 Using the Oracle Fusion Middleware Documentation Library

The Oracle Fusion Middleware documentation library provides access to information that may assist you when upgrading and patching your Oracle environment. You can review component-specific administration, installation, and upgrade guides for Oracle Fusion Middleware Release 11g Release 1 (11.1.1) documentation at:

```
http://docs.oracle.com/
```

2

Compatibility With Previous Oracle Fusion Middleware Products

There are cases where you need to run your Oracle Identity and Access Management 11*g* Release 2 (11.1.2) software with previous versions of Oracle Fusion Middleware products.

The following sections provide some specific compatibility issues and considerations between Oracle Fusion Middleware 11*g* and Oracle Application Server 10*g*:

- Oracle Identity and Access Management 11g Release 2 (11.1.2) Compatibility with Oracle Fusion Middleware 11g Release 1 (11.1.1) Products

- Oracle Identity and Access Management 11g Release 2 (11.1.2) Compatibility with Pre-11g Products

2.1 Oracle Identity and Access Management 11*g* Release 2 (11.1.2) Compatibility with Oracle Fusion Middleware 11*g* Release 1 (11.1.1) Products

If you plan to upgrade your Oracle Identity and Access Management produts to 11*g* Release 2 (11.1.2), be sure to verify that your existing Oracle Fusion Middleware 11*g* Relase 1 products are certified to work with 11*g* Release 2 (11.1.2).

For more information, see Section 1.4.3, "Using Oracle Certification Matrices".

2.2 Oracle Identity and Access Management 11*g* Release 2 (11.1.2) Compatibility with Pre-11*g* Products

As described in the *Oracle Fusion Middleware Upgrade and Migration Guide for Oracle Identity and Access Management*, you can upgrade from selected pre-11*g* Identity Management products to specific Oracle Identity and Access Management 11*g* Release 2 (11.1.2) products. This upgrade process is referred to as a migration from one release to another.

For more information, see "Supported Starting Points for Migration and Coexistence" in the *Oracle Fusion Middleware Upgrade and Migration Guide for Oracle Identity and Access Management*.

When you migrate from these selected pre-11*g* products, you might have to use a phased approach, where not all the products are upgraded at the same time. In these scenarios, you might have to run both the existing pre-11*g* products with some newly upgraded 11*g* Release 2 (11.1.2) products.

In most cases, Oracle supports these interim co-existence scenarios, but some configuration and post-migration steps are required to ensure the two versions are compatible and can run in the same environment.

Table 2–1 lists the pre-11*g* starting points for migrating to Oracle Identity and Access Management 11*g* Release 2 (11.1.2). For each starting point, the table identifies where you can find the associated information about configuring your environment so these products can continue to coexist in the same environment.

Table 2–1   Oracle Fusion Middleware 11g Compatibility Matrix

	Oracle Identity and Access Management 11*g* Release 2 (11.1.2) Compatibility
Oracle Access Manager 10*g*	See "Co-existence of Oracle Access Manager 10g with Oracle Access Manager 11.1.2.0.0" in the *Oracle Fusion Middleware Upgrade and Migration Guide for Oracle Identity and Access Management*.
Oracle Single Sign-On 10*g*	See "Migrating Oracle Single Sign-On 10g Environments" in the *Oracle Fusion Middleware Upgrade and Migration Guide for Oracle Identity and Access Management* for information about considerations when migrating from Oracle Single Sign-On 10*g* to Oracle Access Manager 11*g* Release 2 (11.1.2)
Sun OpenSSO 8.0	See "Co-existence of Sun OpenSSO Enterprise 8.0 with Oracle Access Manager 11.1.2.0.0" in the *Oracle Fusion Middleware Upgrade and Migration Guide for Oracle Identity and Access Management*.
Sun Java System Access Manager 7.1	See "Co-existence of Sun Java System Access Manager 7.1 with Oracle Access Manager 11.1.2.0.0" in the *Oracle Fusion Middleware Upgrade and Migration Guide for Oracle Identity and Access Management*.

3

Interoperability for Oracle Identity and Access Management 11*g* Release 2 (11.1.2)

The following sections describe interoperability scenarios to consider when you are using Oracle Fusion Middleware 11*g* components with other Oracle Fusion Middleware 11*g* components.

This chapter contains the following sections:

- Section 3.1, "Oracle Identity and Access Management Interoperability"
- Section 3.2, "Interoperability with Oracle Forms and Reports 11g Release 2 (11.1.2) Products"
- Section 3.3, "Middleware Home and Domain Extension Interoperability"
- Section 3.4, "Patch Set Interoperability"

3.1 Oracle Identity and Access Management Interoperability

This section describes Oracle Identity Management interoperability considerations:

- Interoperability Between Oracle Identity and Access Management and Other Oracle Fusion Middleware Products
- Interoperability Between Oracle Identity Management Components and Oracle Identity and Access Management Components

3.1.1 Interoperability Between Oracle Identity and Access Management and Other Oracle Fusion Middleware Products

Before you install new Oracle Identity and Access Management components or configure your Oracle Fusion Middleware products to use Oracle Identity and Access Management services, review:

- The Oracle Fusion Middleware certification information to identify which Oracle Identity Management products are compatible with the Oracle Fusion Middleware products you are using. For more information, see Section 1.4.3, "Using Oracle Certification Matrices".
- The information in this chapter, to be sure you understand some of the general Oracle Fusion Middleware interoperability concepts and rules.

Similarly, before you apply an Oracle Fusion Middleware patch set, review your current environment and verify that applying the patch set or installing the new version of your software won't affect the interoperability between your Oracle Identity and Access Management components and the Oracle Fusion Middleware products

that depend on them. For more information pertinent to patch sets, see Section 3.4, "Patch Set Interoperability".

3.1.2 Interoperability Between Oracle Identity Management Components and Oracle Identity and Access Management Components

Oracle offers two distinct identity management solutions:

- Oracle Identity Management

    For more information about the Oracle Identity Management software components available in the current release, see "Oracle Identity Management 11g Release 1 (11.1.1.6.0) Components" in the *Oracle Fusion Middleware Installation Guide for Oracle Identity Management*

- Oracle Identity and Access Management

    For more information about the Oracle Identity and Access Management components available in the current release, see "Overview of Oracle Identity and Access Management 11g Release 2 (11.1.2.0.0)" in the *Oracle Fusion Middleware Installation Guide for Oracle Identity and Access Management*.

These two identity management solutions are often updated independently, as illustrated in Table 3–1, which shows the availability of the Oracle Identity Management and Oracle Identity and Access Management software in recent 11*g* patch sets.

As a result, you should be aware of any interoperability issues between the available versions or patch sets of the Oracle Identity Management components and Oracle Identity and Access Management components.

In general, unless otherwise noted, you can use different versions of these solutions together, as long as they are not configured within the same domain. For more information, see the following sections:

- Section 3.3, "Middleware Home and Domain Extension Interoperability"

- Section 3.4.4, "Patch Set Interoperability Between Oracle Identity Management and Oracle Identity and Access Management"

Table 3–1   Summary of Oracle Identity Management Patch Set Releases and Oracle Identity and Access Management Releases

	Oracle Identity Management	Oracle Identity and Access Management
Oracle Fusion Middleware 11*g* Release 1 (11.1.1.2.0)	Included	Included
Oracle Fusion Middleware 11*g* Release 1 (11.1.1.3.0)	Included	Included
Oracle Fusion Middleware 11*g* Release 1 (11.1.1.4.0)	Included	Not Included
Oracle Fusion Middleware 11*g* Release 1 (11.1.1.5.0)	Included	Included
Oracle Fusion Middleware 11*g* Release 1 (11.1.1.6.0)	Included	Not included
Oracle Identity and Access Management 11*g* Release 2 (11.1.2)	Not included	Included

3.2 Interoperability with Oracle Forms and Reports 11*g* Release 2 (11.1.2) Products

As of the publication of this document, only Oracle Forms and Reports and Oracle Identity and Access Management are available as 11*g* Release 2 (11.1.2) products.

Oracle Forms and Reports 11*g* Release 2 (11.1.2) is released on a different schedule from Oracle Identity and Access Management. If you are using any Oracle Identity Management or Oracle Identity and Access Management products with your Oracle Forms and Reports installation, be sure to review the certification information on the Oracle Technology Network (OTN) to be sure Oracle Forms and Reports 11*g* Release 2 (11.1.2) is certified with Oracle Identity and Access Management 11*g* Release 2 (11.1.2).

For more information, see Section 1.4, "Identifying Potential Compatibility and Interoperability Issues".

3.3 Middleware Home and Domain Extension Interoperability

The following sections provide information about the interoperability of Oracle Fusion Middleware products when installing products in a Middleware home and when extending existing Oracle WebLogic Server domains:

- Middleware Home Interoperability
- Domain Extension Interoperability

3.3.1 Middleware Home Interoperability

When installing Oracle Fusion Middleware products, be sure that each Middleware home you create contains only products that are at the same version or patch set. Each product has its own maintenance schedule and it is possible that future interoperability issues could result.

For example, unless otherwise documented, do not install Oracle SOA Suite 11*g* Release 1 (11.1.1.5.0) in the same Middleware home with Oracle WebCenter Portal 11*g* Release 1 (11.1.1.6.0).

This rule applies when installing new products, as well as when apply patch sets. For more information, see Section 3.4, "Patch Set Interoperability".

One exception to this rule is the installation of Oracle SOA Suite 11*g* Release 1 (11.1.1.6.0) in the same Middleware home as Oracle Identity Manager 11*g* Release 2 (11.1.2). Oracle Identity Manager is one of the Oracle Identity and Access Management products. It requires Oracle SOA Suite. At the time this document was published, 11*g* Release 1 (11.1.1.6.0) was the latest version of Oracle SOA Suite.

For more information about installing Oracle Identity Manager and Oracle SOA Suite in the same Middleware home, see "Installation and Configuration Roadmap for Oracle Identity Manager" in the *Oracle Fusion Middleware Installation Guide for Oracle Identity and Access Management*.

3.3.2 Domain Extension Interoperability

You can extend an existing Oracle Fusion Middleware product domain to support another Oracle Fusion Middleware product, as long as they are the same version number or patch set.

For example, if you have an existing SOA Suite 11*g* Release 1 (11.1.1.4.0) domain, do not attempt to extend or patch that domain using Oracle WebCenter Portal 11*g* Release

1 (11.1.1.6.0). To avoid potential interoperability issues, wait until both suites are available at equivalent versions.

An exception to this rule is Oracle Identity Manager 11*g* Release 2 (11.1.2) and Oracle SOA Suite 11*g* Release 1 (11.1.1.6.0). Oracle Identity Manager is one of the Oracle Identity and Access Management products. It requires Oracle SOA Suite. At the time this document was published, 11*g* Release 1 (11.1.1.6.0) was the latest version of Oracle SOA Suite.

For more information about configuring Oracle Identity Manager and Oracle SOA Suite in the same domain, see "Installation and Configuration Roadmap for Oracle Identity Manager" in the *Oracle Fusion Middleware Installation Guide for Oracle Identity and Access Management*.

Table 3–2 describes scenarios when two different products from different Oracle Fusion Middleware suites are collocated within the same domain. In these particular scenarios you will not be able to extend, upgrade, or patch one of the products before the other is available at the same version.

Table 3–2   Domain Extension Interoperability Considerations

Scenario	Description	Solution
Extending a domain with a WebLogic SIP Server	SIP servers cannot be collocated in an existing Fusion Middleware domain.	When extending an existing Fusion Middleware domain deselect the Basic WebLogic SIP Server Domain.
Extending a domain with Oracle Portal, Forms, Reports, and BI Discoverer	Oracle Portal, Forms, Reports, and Discoverer installations should not be collocated with other Oracle Fusion Middleware components	Create a separate domain for Portal, Forms, Reports and Business Intelligence Discoverer.
Extending an Oracle Identity Management or Oracle Identity and Access Management domain	Oracle Identity Management does not currently support sharing a domain with any of the other products.	Do not extend an Oracle Identity and Access Management domain with any other Oracle Fusion Middleware components except for the SOA Suite, which is required by Oracle Identity Manager.

3.4 Patch Set Interoperability

This section describes some general interoperability guidelines and considerations when you are applying an Oracle Fusion Middleware 11*g* Release 1 (11.1.1) patch set to an existing Oracle Fusion Middleware environment.

This section contains the following topics:

- Installing Different Patch Sets Within the Same Middleware Home

- Using Different Patch Sets Within a Single Domain

- Patch Set Interoperability Between Oracle Identity Management or Oracle Identity and Access Management and Other Oracle Fusion Middleware Products

- Patch Set Interoperability Between Oracle Identity Management and Oracle Identity and Access Management

- Patch Set Interoperability with Oracle WebLogic Server

3.4.1 Installing Different Patch Sets Within the Same Middleware Home

When you are applying an Oracle Fusion Middleware 11*g* Release 1 (11.1.1) patch set, ensure that all the products within the selected Middleware home are supported by the patch set.

For example, unless otherwise documented, do not install 11*g* Release 1 (11.1.1.6.0) and 11*g* Release 1 (11.1.1.5.0) products within the same Middleware home. Each product has its own maintenance schedule and it is possible that future interoperability issues could result.

3.4.2 Using Different Patch Sets Within a Single Domain

When you configure a domain, ensure that all products configured within the domain are at the same patch set. For example, do not configure Oracle Identity and Access Management 11*g* Release 1 (11.1.1.5.0) in the same domain with Oracle SOA Suite 11*g* Release 1 (11.1.1.6.0).

Similarly, if you have configured a domain with Oracle Identity Management 11*g* Release 1 (11.1.1.5.0) components and Oracle Identity and Access Management 11*g* Release 1 (11.1.1.5.0) components, do not apply the Oracle Identity Management 11*g* Release 1 (11.1.1.6.0) patch set until an equivalent patch set for Oracle Identity and Access Management is available.

3.4.3 Patch Set Interoperability Between Oracle Identity Management or Oracle Identity and Access Management and Other Oracle Fusion Middleware Products

Oracle often releases Oracle Identity Management and Oracle Identity and Access Management products on a schedule different from the schedule for the other Oracle Fusion Middleware products. As a result, it is common to use a different release or patch set of an Oracle Identity Management or Oracle Identity and Access Management product with your Oracle Fusion Middleware products, as long as they are not configured within the same domain.

For example, you can use Oracle Identity and Access Management 11*g* Release 1 (11.1.1.5.0) products with your Oracle SOA Suite 11*g* Release 1 (11.1.1.6.0) products, if they are in separate domains. In these scenarios, the Oracle Identity and Access Management products are typically installed on a separate host and in a separate Middleware home.

For complete information about the supported Oracle Identity Management and Oracle Identity and Access Management patch sets and versions you can use with your other Oracle Fusion Middleware products, refer to the certification information on the Oracle Technology Network (OTN). For more information, see Section 1.4.3, "Using Oracle Certification Matrices".

3.4.4 Patch Set Interoperability Between Oracle Identity Management and Oracle Identity and Access Management

You can configure an Oracle Fusion Middleware environment where Oracle Identity Management and Oracle Identity and Access Management components are at different patch sets, as long as the products are not configured within the same domain.

Do not attempt to configure a single domain that contains Oracle Identity Management components at one version or patch set and Oracle Identity and Access Management components at another.

For example, as shown in Table 3–3, Oracle does not support the configuration of a domain that contains Oracle Identity Management 11*g* Release 1 (11.1.1.6.0) components and Oracle Identity and Access Management 11*g* Release 1 (11.1.1.5.0) components.

Further, if you have an existing domain that contains both Oracle Identity Management components and Oracle Identity and Access Management components,

do not apply a patch set unless you can apply the patch set to both the Oracle Identity Management components and Oracle Identity and Access Management components.

For more information about Oracle Identity Management and Oracle Identity and Access Management interoperability, see Section 3.1.2, "Interoperability Between Oracle Identity Management Components and Oracle Identity and Access Management Components".

Table 3–3   Interoperability of Oracle Identity Management and Oracle Identity and Access Management Patch Sets Within the Same Domain

	Oracle Identity Management 11*g* Release 1 (11.1.1.2.0)	Oracle Identity Management 11*g* Release 1 (11.1.1.3.0)	Oracle Identity Management 11*g* Release 1 (11.1.1.4.0)	Oracle Identity Management 11*g* Release 1 (11.1.1.5.0)	Oracle Identity Management 11*g* Release 1 (11.1.1.6.0)
Oracle Identity and Access Management 11*g* Release 1 (11.1.1.3.0)	✘	✔	✘	✘	✘
Oracle Identity and Access Management 11*g* Release 1 (11.1.1.5.0)	✘	✘	✘	✔	✘

3.4.5 Patch Set Interoperability with Oracle WebLogic Server

Each version and patch set of Oracle Fusion Middleware is certified with a specific release of Oracle WebLogic Server. Create domains for a specific Oracle Fusion Middleware product release only with the certified version of Oracle WebLogic Server.

In the case of Oracle Fusion Middleware 11*g* Release 1 (11.1.1.6.0), the Oracle Fusion Middleware software is certified to work with both Oracle WebLogic Server 10.3.5 and Oracle WebLogic Server 10.3.6. This allows you to apply the Oracle Fusion Middleware 11*g* Release 1 (11.1.1.6.0) patch set to an 11*g* Release 1 (11.1.1.5.0) installation without updating Oracle WebLogic Server.

Note, however, that if you configure Oracle Fusion Middleware 11*g* Release 1 (11.1.1.6.0) components using Oracle WebLogic Server 10.3.5, you will not be able to take advantage of any of product features that depend upon Oracle WebLogic Server 10.3.6. For information on the new features available in Oracle WebLogic Server 11*g* (10.3.6), see *Oracle Fusion Middleware What's New in Oracle WebLogic Server*.

Table 3–4   Summary of Oracle WebLogic Server Versions Supported by Each Oracle Fusion Middleware 11g Patch Set

Oracle Fusion Middleware Product Version	Oracle WebLogic Server Version
Oracle Fusion Middleware 11*g* Release 1 (11.1.1.2.0)	10.3.2
Oracle Fusion Middleware 11*g* Release 1 (11.1.1.3.0)	10.3.3
Oracle Fusion Middleware 11*g* Release 1 (11.1.1.4.0)	10.3.4
Oracle Fusion Middleware 11*g* Release 1 (11.1.1.5.0)	10.3.5
Oracle Fusion Middleware 11*g* Release 1 (11.1.1.6.0)	10.3.5 or 10.3.6
Oracle Identity and Access Management 11*g* Release 2 (11.1.2)	10.3.5 or 10.3.6