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Preface

Oracle Fusion Middleware Infrastructure release notes summarizes the release information related to the issues fixed, general issues and their workaround, deprecated and removed functionalities, and more.

- Audience
- Documentation Accessibility
- Related Documents
- Conventions

Audience

This document is intended for users of Oracle Fusion Middleware 12c.

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 that have purchased support 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 resources:

- Oracle Fusion Middleware Documentation
  This contains all documentation for all Oracle Fusion Middleware 12c products.
- Oracle Technology Network
  This site contains additional documentation that is not included as part of the documentation libraries.

Conventions

The following text conventions are used in this document:
<table>
<thead>
<tr>
<th>Convention</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>boldface</strong></td>
<td>Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.</td>
</tr>
<tr>
<td><em>italic</em></td>
<td>Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.</td>
</tr>
<tr>
<td>monospace</td>
<td>Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.</td>
</tr>
</tbody>
</table>
Introduction

This chapter contains the information about the latest release. It has the links to the latest System Requirements and Certifications.

Topics

• Latest Release Information
• Purpose of this Document
• System Requirements and Specifications
• Certification Information
• Oracle Support

Latest Release Information

This document is accurate at the time of publication. Oracle will update the release notes periodically after the software release. You can access the latest information and additions to these release notes on the Oracle Help Center.

http://docs.oracle.com/en/

Purpose of this Document

This document contains the release information for Oracle Fusion Middleware Infrastructure 12c (12.2.1.4.0).

System Requirements and Specifications

Oracle Fusion Middleware installation and configuration will not complete successfully unless users meet the hardware and software prerequisite requirements before installation. For more information, see System Requirements and Specifications.

Certification Information

To see versions of platforms and related software for which Oracle Fusion Middleware is certified and supported, go to Oracle Fusion Middleware Supported System Configurations

Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support at https://support.oracle.com.
Install and Configure

This chapter describes issues that are related to Oracle Fusion Middleware product installation and configuration.

The following topics are covered in this chapter:

- Issues Related to Product Installation
- Issues Related to Product Configuration
- Issues Related to Product Installation and Configuration Documentation
- Documentation Errata

Issues Related to Product Installation

This section contains the following topics:

- Checking for Available Software Patches and Product Information
- Downloading and Applying Required Patches
- Applying a Mandatory Patch for Oracle Business Activity Monitoring
- Updating the Database Client Software
- Mnemonics for Buttons are Not Read Using JAWS 2019
- A Caution Message Appears at Startup for OHS and CLASSIC on AIX
- Launch of OHS and CLASSIC Installer Fails on AIX

Checking for Available Software Patches and Product Information

Before you install any Oracle Fusion Middleware product, it is good practice to review the product information available on My Oracle Support:

http://support.oracle.com/

When you register for My Oracle Support, you have easy access to important information about available patches and other important Oracle Fusion Middleware product information.

Note:

For example, you can access the following generic install jar file names and quickstart jar file names:

- fmw_12.2.1.4.0_idm.jar
- fmw_12.2.1.4.0_idmquickstart.jar
- fmw_12.2.1.4.0_idmquickstart2.jar
Downloading and Applying Required Patches

After you install Oracle Fusion Middleware 12c (12.2.1.4.0), there might be cases where additional patches are required to address specific known issues.

Patches for Oracle Fusion Middleware 12c are available from My Oracle Support:

http://support.oracle.com

The following table lists some of the specific Oracle Fusion Middleware patches that were available at the time these release notes were published.

<table>
<thead>
<tr>
<th>Patch</th>
<th>Description</th>
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<td>24737021</td>
<td>This is a mandatory patch that must be applied after you install Fusion Middleware 12c (12.2.1.4.0). See the README file for patching instructions.</td>
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</table>

To download a patch:

1. Log in to My Oracle Support.
2. Click the Patches & Updates tab.
3. In the Patch Search area, select Patch Name or Number.
4. Enter the patch number.
5. Click Search. The Patch Search Results page appears.
6. Download and install the patch.

Applying a Mandatory Patch for Oracle Business Activity Monitoring

Before you install Oracle Business Activity Monitoring (Oracle BAM) 12c, be sure to review the My Oracle Support Document ID 1682371.1, which is available from My Oracle Support.

This Support Note provides important information about a mandatory patch that must be applied to Oracle BAM 12c immediately after installation.

Updating the Database Client Software

During the installation of some Oracle Fusion Middleware 12c (12.2.1.4.0) components, the database client software has to be updated with the database patch set 12.1.0.2.190716.

When you execute the command `opatch lsinventory`, the patch identification number for this update appears as 29494060 on Linux/Unix and 30220086 on Microsoft Windows.
Note:

This update is required during the installation of the following Oracle Fusion Middleware 12c (12.2.1.4.0) components:

- Oracle Fusion Middleware Oracle HTTP Server
- Oracle Fusion Middleware Oracle Traffic Director
- Oracle Fusion Middleware Forms and Reports
- Oracle Internet Directory

Mnemonics for Buttons are Not Read Using JAWS 2019

For UA and Install screens, in JAWS 2019, short cut keys (mnemonics) to carry out some functions are not echoed while typing.

For example, in JAWS 2019, you cannot hear "ALT+N" shortcut key to activate the Next button.

As a workaround, you can use JAWS 2018 to carry out these functions.

A Caution MessageAppears at Startup for OHS and CLASSIC on AIX

When the installer is invoked for OHS and CLASSIC on AIX operating systems, the following caution message is displayed:

```
bash-4.2$ /net/slcnas561/export/fa_porting01/ASCLASSIC_122131_shiphomes/stage-rc2/fmw_12.2.1.4.0_fr_aix_ppc64.bin -J-Djava.io.tmpdir=/scratch/vsunkesu/tmp
-invPtrLoc /scratch/vsunkesu/122140/oraInst.loc
cautions: excluded filename not matched: sfx.ini
Launcher log file is /scratch/vsunkesu/tmp/OraInstall2019-09-10_06-08-56AM/launcher2019-09-10_06-08-56AM.log.
Extracting the installer ....................................................
............ Done
```

The caution message is printed by the unzip tool and will not affect the installation.

Launch of OHS and CLASSIC Installer Fails on AIX

OHS and Classic installer fails to launch on AIX operating systems if "/" is present at the end of value of -J-Djava.io.tmpdir parameter.

For example:

```
-J-Djava.io.tmpdir=/scratch/xyz/tmp/
```

Oracle recommends not to use "/" at the end of value of -J-Djava.io.tmpdir.

For example:

```
-J-Djava.io.tmpdir=/scratch/xyz/tmp/
```
Issues Related to Product Configuration

This section contains the following topics:

• A Partition with Japanese Name Cannot Be Created from Fusion Middleware Control

A Partition with Japanese Name Cannot Be Created from Fusion Middleware Control

A partition with a Japanese name cannot be created by using Fusion Middleware Control.

As a workaround, you can either use Fusion Middleware Control to create a partition that uses an English name or use the WebLogic Server Administration Console to create a partition with a Japanese name.

Issues Related to Product Installation and Configuration Documentation

This section contains the following topics:

• Registering Node Manager as a Windows Service
• An Incorrect Step Appears on the Installation Complete Screen
• An Error Message Appears When An Incorrect Version of JDK Is Used for Installation
• An Incorrect Error Message Appears if the JDK Is Not Compatible with the Operating System
• Warning Messages in make.log File
• Simple Security Mode Does Not Function with OAM Server
• Domain Creation Fails if the Correct Server Groups Are Not Selected While Configuring OSB and SOA
• An Incorrect config.xml File Is Generated While Extending a SOA Cluster with OSB
• The install<time-stamp>.out File Is Not Created in the MFT Installation Log Directory
• An Error Message Appears in the oblog.log File After You Configure OHS WebGate
• Configuring Oracle WebLogic Server to Access Oracle Internet Directory over SSL
• Switching to Authentication Against an LDAP Directory (WebCenter Sites)
• Additional Domain Configuration
• Compatibility of Oracle Business Intelligence with Oracle Fusion Middleware
Registering Node Manager as a Windows Service

To register Node Manager as a Windows Service serving either one of the following:

- A standalone OHS domain
- A domain with a collocated ODI agent

Do the following after you have created the domain:

1. Set the `JAVA_OPTIONS` environment variable so that it points to the proper Oracle home and Domain home directories.

   ```
   set JAVA_OPTIONS=-Dohs.product.home=ORACLE_HOME -Dweblogic.RootDirectory=DOMAIN_HOME
   ```

   For example:

   ```
   set JAVA_OPTIONS=-Dohs.product.home=C:\Oracle\product\OHS\OracleHome -Dweblogic.RootDirectory=C:\Oracle\config\domains\OHSDomain
   ```

2. Go to the Domain home directory and run the following command:

   ```
   installNodeMgrSvc.cmd
   ```

An Incorrect Step Appears on the Installation Complete Screen

When you complete a standalone OHS installation, the step `Start Node Manager and Domain Servers` is displayed as one of the next steps you should take after installation.

This information is incorrect, as there are no domain servers configured during the standalone installation.

An Error Message Appears When An Incorrect Version of JDK Is Used for Installation

When you attempt to install a Fusion Middleware product on a 64-bit system, using a JDK for a 32-bit system, an error message is displayed before the installation begins.

Refer to the Oracle Fusion Middleware System Requirements and Specifications document for your product, and download a suitable JDK from the following location, before you install the Fusion Middleware software:


An Incorrect Error Message Appears if the JDK Is Not Compatible with the Operating System

If you run the installer jar file from a 32-bit JDK7 JVM on a 64-bit machine, the installer displays an incorrect message that the version of the JVM is correct and the version of the operating system on which the software is installed is incorrect.

Refer to the System Requirements and Specifications document for your product, and download a suitable JDK from the following location, before you install the Fusion Middleware software:
Note:
From 12c (12.2.1.4.0), you can install and use the new version of JDK after installing and configuring an Oracle Fusion Middleware product. See Updating the JDK After Installing and Configuring an Oracle Fusion Middleware Product.

Warning Messages in make.log File

While installing Oracle Web Tier 12c on AIX operating systems, warning messages may appear in the ORACLE_HOME/install/make.log file.

These messages can be safely ignored.

Simple Security Mode Does Not Function with OAM Server

On the AIX Platform, Simple Security Mode does not function with OAM Server.

While registering new Webgate Agent for artifacts generation, select Open or Cert Security Mode in the OAM Server Console.

Domain Creation Fails if the Correct Server Groups Are Not Selected While Configuring OSB and SOA

If you configure an OSB and SOA cluster without selecting the correct server groups, then the domain creation fails with the following notice:

Preparing...
Extracting Domain Contents...
Creating Domain Security Information...
Starting OPSS Security Configuration Data Processing...
The OPSS Security Configuration Data Processing Completed...
Domain Creation Failed!

To avoid this error, select OSB-MGD-SVRS-COMBINED and SOA-MGD-SVRS server groups for all managed servers on the Managed Servers screen.

An Incorrect config.xml File Is Generated While Extending a SOA Cluster with OSB

While extending your SOA cluster domain with OSB, if you delete the existing Managed Server and create a new Managed Server, an incorrect config.xml file is generated. For example, if you delete the existing soa_server1 and replaced it with osb_server1 you get an incorrect config.xml file. Specifically, the following SAF tags are missing from config.xml:

<saf-agent>
    <name>ReliableWseeSAFAgent_auto_1</name>
    <target>osb_server1 (migratable)</target>
To avoid this issue, while extending your SOA cluster, create new Managed Servers for OSB.

The install<time-stamp>.out File Is Not Created in the MFT Installation Log Directory

In Managed File Transfer the, install<timestamp>.out file is not created in the log inventory.

This is not an error.

An Error Message Appears in the oblog.log File After You Configure OHS WebGate

After you configure OHS WebGate and restart the servers, the following error message is displayed in oblog.log file in the Domain_Home/server/ohs1/logs/oblog.log directory:

2014/06/10@05:56:29.81679       14314   27      INIT    ERROR 0x000003B6      ../oblistrwutil.cpp:225 "Could not read file" filename^/scratch/aime/1213FMW/ASCORE/RC4BColocated/MW_HOME/webgate/ohs/config/oblog_config.xml
2014/06/10@05:56:43.14915       14313   9       INIT    ERROR 0x000003B6      ../oblistrwutil.cpp:225 "Could not read file" filename^/scratch/aime/1213FMW/ASCORE/RC4BColocated/MW_HOME/webgate/ohs/config/oblog_config.xml

To work around this issue, do the following:

1. Run:
   ```bash
cp Oracle_Home/webgate/ohs/config/oblog_config_wg.xml $ Oracle_Home/webgate/ohs/config/oblog_config.xml
   ```

2. Restart all the servers.

Configuring Oracle WebLogic Server to Access Oracle Internet Directory over SSL

If you want to configure Oracle WebLogic Server to access Oracle Internet Directory (OID) over SSL, then you need to obtain and add an OID server certificate to the WebLogic domain. The OID certificate is necessary for a successful SSL handshake and to successfully set up a connection from Oracle WebLogic Server to Oracle Internet Directory.
For information on obtaining the required certificate and adding it to the WebLogic Server store, see Enabling SSL Communication Between the Middle Tier and the Hardware Load Balancer in Enterprise Deployment Guide for Oracle SOA Suite.

Switching to Authentication Against an LDAP Directory (WebCenter Sites)

Use this procedure to switch WebCenter Sites to authentication against an external LDAP directory.

This procedure replaces Switching to Authentication Against an LDAP Directory in Installing and Configuring Oracle WebCenter Sites.

To switch WebCenter Sites to authentication against an external LDAP directory:

1. If the LDAP server is case-sensitive (Optional) set or change the value Modify the ldap.caseAware property value to true.

   The default value of ldap.caseAware is false. Login fails if you are using a case-sensitive LDAP server and this property is set to false. To modify the ldap.caseAware value to True:
   a. Log in to the WebCenter Sites Admin interface and navigate to Admin tree tab>System Tools>Property Management option.
   b. Search for ldap and change its value from False to True.
   c. Restart the Managed Server.

   **Note:**
   If the user data in LDAP is separated by a comma, data is not retrieved during Sites and LDAP integration. For example: test,user. To retrieve the data, you must change the dir.ini file syntax. The file is located in the ..sites/install directory from "syntax.escape=\ to syntax.escape=\#".

2. Access the LDAP Configurator at http://sites-host:sites-port/sites-context/ldapconfig, follow the instructions on the screen, and enter the values for your environment.

3. Restart the WebCenter Sites Managed Server and go to the same LDAP Configurator URL.

   Nothing is written to your LDAP Server. An LDIF file is created in the DOMAIN_HOME/wcsites/wcsites/config/ldap folder. This is the default install location of the WebCenter Sites application. Oracle recommends that you make all customizations and path modifications after a successful LDAP integration. The peopleparent, groupparent, username, and other fields are not prepopulated, as in the previous release.

4. (Optional) Modify the LDIF file located in DOMAIN_HOME/wcsites/wcsites/config/ with values appropriate for your environment.
Because the fields are not prepopulated, follow this example for ORACLEDIR:

```
ldap server type -- ORACLEDIR
ldap DSN -- dc=oracle,dc=com
ldap host -- localhost
ldap port -- 389
ldap username -- cn=orcladmin
ldap password -- password
ldap peopleParent -- cn=Users,dc=oracle,dc=com
ldap groupparent -- cn=Groups,dc=oracle,dc=com
```

If Oracle Virtual Directory is your LDAP authentication provider, WebCenter Sites generates an LDIF file. You can import the file to your Oracle Internet Directory server and then create an adapter in Oracle Virtual Directory to connect to the Oracle Internet Directory server. You cannot import an LDIF file directly to an Oracle Virtual Directory LDAP server because it does not have storage of its own.

5. Import the LDIF file into the external LDAP authentication provider.
6. Restart the Managed Server running this WebCenter Sites instance.

Additional Domain Configuration

Use the configuration wizard to update the newly created domain.

1. Restart the configuration wizard by issuing the command:
   `IGD_ORACLE_HOME/oracle_common/common/bin/config.sh`
   The configuration screen is displayed.
2. In the **Configuration Type** screen, select **Update an existing domain**.
3. In the **Domain Location** field, specify the Domain home directory (`IGD_ASERVER_HOME`).
4. Click **Next**.
5. On the **Templates** screen, select **Update Domain Using Custom Template**.
6. In the **Template location** field, specify:
   `IGD_ORACLE_HOME/soa/common/templates/wls/oracle.soa.classic.domain_template.jar`
7. Click **Next**.
8. On the **Gridlink Oracle RAC Component Schema** Page, click **Next**.
9. On the **JDBC Component Test Schema Test** screen, click **Next**.
10. On the **Advanced Configuration** screen, click **Next**.
11. On the **Configuration summary** screen, click **Next**.
12. Once the domain is extended, click **Next** on the **Configuration Progress** screen.
13. Click **Finish** on the **End of Configuration** screen.

Compatibility of Oracle Business Intelligence with Oracle Fusion Middleware

You must install Oracle Business Intelligence 12c (12.2.1.4.0) with Oracle Fusion Middleware 12.2.1.3.0.
You cannot install Oracle Business Intelligence 12.2.1.4.0 in the same Oracle home directory as Oracle Fusion Middleware 12.2.1.4.0.

**Documentation Errata**

There are no known issues at this time.
This chapter describes issues related to the Infrastructure upgrade. The following topics are covered in this chapter:

- Issues Related to Product Upgrade
- Issues Related to Product Patching

## Issues Related to Product Upgrade

This section contains the following topics:

- Incorrect Version Numbers After a Reduced Downtime Upgrade
  Depending on the upgrade procedure you use to upgrade to 12c (12.2.1.4.0), you may notice that the post-upgrade version number and copyright year remain the same in Oracle Enterprise Manager. This is not an error.

- SOA Upgrade from 12.2.1.x to 12.2.1.3.0 Fails with Reconfiguration-related Healthcare-UI
  If the SOA Suite domain reconfiguration fails due to Healthcare-UI validation, then delete the HealthCare-UI from the WebLogic Server deployment page.

- Error Detecting MDS Schema in IPM-only Domain

- Upgrade Assistant Fails to Load All Schemas Used by a Domain for Audit Schema Users

- BPM Composites Not Compiled After Upgrade

- Upgrade Assistant Cannot Read a Domain with Multi-Data Sources Defined

- Standard Workspace Dashboards Missing Participant Information After Upgrade

- SAXParseException May Occur During Reconfiguration

- Oracle SOA Suite 12c Does Not Support Non-Oracle Databases and Third-Party Application Servers

- MissingResourceException May Occur During Reconfiguration

- Analytics Data for 11g (11.1.1.7) Composites Created Without Roles Are Not Migrated to 12c

- Business Process Composer Appears to Freeze After Migration

- EDN-JMS Backlogged Events Do Not Migrate During Upgrade

### Incorrect Version Numbers After a Reduced Downtime Upgrade

Depending on the upgrade procedure you use to upgrade to 12c (12.2.1.4.0), you may notice that the post-upgrade version number and copyright year remain the same in Oracle Enterprise Manager. This is not an error.

After performing a successful reduced downtime upgrade, you will see incorrect copyright year and version numbers when accessing the Oracle Enterprise Manager.
These incorrect versions are a known issue and do not require running the upgrade again. You can safely ignore the following:

- The copyright version year will still show 2017 instead of 2019
- The version will be 12.2.1.3.0 and the runtime version will be 12.2.1.4.0

SOA Upgrade from 12.2.1.x to 12.2.1.3.0 Fails with Reconfiguration-related Healthcare-UI

If the SOA Suite domain reconfiguration fails due to Healthcare-UI validation, then delete the HealthCare-UI from the WebLogic Server deployment page.

Before deleting the HealthCare-UI, make sure that HealthCare-UI is not in active state. If HealthCare-UI is not in active state and the reconfiguration continues to fail at Healthcare-UI validation, then contact oracle support.

Error Detecting MDS Schema in IPM-only Domain

If the application extension framework (AXF) is configured along with Oracle Imaging and Process Management (Oracle I/PM), then the MDS datasource gets created in the domain. If AXF is not configured, then the MDS datasource will not be created in 11g domain.

Therefore, when domain assisted schema upgrade is used in UA, MDS schema will not be detected. You can continue the upgrade without the MDS datasource.

Upgrade Assistant Fails to Load All Schemas Used by a Domain for Audit Schema Users

When upgrading from 11g (11.1.1.7 or 11.1.1.9) to 12.2.1, the Upgrade Assistant fails to load schemas associated with the domain when All schemas used by a Domain is selected.

The following exception is logged:

Exception
----------
UPGAST- 00214 - Unable to connect to database as schema user <prefix>_IAU.
Listener refused the connection with the following error :

ORA-12504, TNS : Listener was not given the SID in CONNECT_DATA

Cause : The database connection failed for the specified reason.
Action : Correct the problem using information provided in the log file; then retry the operation. In particular if the indicated reason is "Login has timed out" verify that the host and port are correct and make sure the database is up and is configured for network access.

To work around this issue:

Restart the Upgrade Assistant, enter the 11g domain location, select Individually Selected Schemas, and select the correct _IAU, _SOAINFRA, and _OPSS schemas.
Selecting the SOA and OPSS schemas will ensure that Audit Services, User Messaging Service and MDS schemas are selected automatically.

BPM Composites Not Compiled After Upgrade

When upgrading from 11.1.1.9 to 12.2.1, Oracle Business Process Management (BPM) composites are not compiled post upgrade.

To compile the BPM composites after the upgrade, restart the Oracle SOA Server.

The following example shows the error that is received:

```
[soa_server1] [ERROR] []
Exception while loading process
  ORABPEL-01005
```

Failed to compile bpel generated classes.
failure to compile the generated BPEL classes for BPEL process
The class path setting is incorrect.
Ensure that the class path is set correctly. If this happens on the server side, verify that the custom classes or jars which this BPEL process is depending on are deployed correctly. Also verify that the run time is using the same release/version.

Upgrade Assistant Cannot Read a Domain with Multi-Data Sources Defined

If you receive the following error from the Upgrade Assistant, then you must edit the ua.bat script:

```
ConnectionHelper: CIE config framework not located/initialized.
```

Specifically, to workaround this error you must edit the `oracle_common/upgrade/bin/ua [ua.bat]` script and change the following jar file names:

- `cieCfg_wls_external_lib.jar` must be changed to `cieCfg_wls_lib.jar`
- `cieCfg_cam_external_lib.jar` must be changed to `cieCfg_cam_lib.jar`

Standard Workspace Dashboards Missing Participant Information After Upgrade

After an upgrade to 12c, the Performance Per Participant graph that is displayed on standard Workspace dashboards will only be available for new 12c instances and will not be available for in-flight, hybrid, or completed (closed) 11g instances. However, custom 12c Workspace dashboards will continue to display the participant information.

SAXParseException May Occur During Reconfiguration

The following exception appears in the `reconfig.log` file after invoking the Reconfiguration Wizard with `-log_priority=ALL`:

```
[org.xml.sax.SAXParseException; lineNumber: 3; columnNumber: 77; cvc-elt.1:
Cannot find the declaration of element 'stringSubsInfo'.]
```
You can ignore this exception.

**Oracle SOA Suite 12c Does Not Support Non-Oracle Databases and Third-Party Application Servers**

Instances that were created using a non-Oracle database cannot be migrated to Oracle Fusion Middleware 12c.

To migrate the closed instances from Oracle Fusion Middleware 11g to Oracle Fusion Middleware 12c, you must create a new 12c SOA domain using a supported Oracle database. Active 11g instances must be completed using the existing 11g server.

**MissingResourceException May Occur During Reconfiguration**

The following exception appears in the reconfig.log file after invoking the Reconfiguration Wizard with `-log_priority=ALL`:

```java
java.util.MissingResourceException: No bundle found for base name config-template
```

You can ignore this exception.

**Analytics Data for 11g (11.1.1.7) Composites Created Without Roles Are Not Migrated to 12c**

Analytics data for 11g (11.1.1.7) composites without any roles defined in them will not be migrated to 12c.

**Business Process Composer Appears to Freeze After Migration**

When you log into Oracle Business Process Composer after upgrading your environment from Release 11g (11.1.1.7) to Release 12c, process migration is launched. After migration finishes, a default space is created and projects are migrated. However, the composer appears to freeze.

As a workaround, log out of the composer, close the browser, and clear the browser cache. You can then log in again to continue working in the composer.

**EDN-JMS Backlogged Events Do Not Migrate During Upgrade**

Backlogged events in the EDN-JMS queue do not migrate when you upgrade from Oracle Fusion Middleware 11g to Oracle Fusion Middleware 12c.

Before you upgrade, check if there are any backlogged events in the JMS queue. After you finish upgrading, verify that these backlogged events are not in the queue.

You can verify if there are any backlogged events in the JMS queue via the Oracle WebLogic Server Administration Console:

1. From the **Domain Structure**, select **soainfra**, then **Services**, **Messaging**, **JMS Modules**, **SOAJMSModule**, and **EDNQueue**.
2. Select **Monitoring** tab.
3. Select **SOAJSModule** and **EDNQueue**, and then click **Show Messages**.

**Issues Related to Product Patching**

This section contains the following topic:

- **OPatch Does Not Restore Regenerated Libraries Even After User Quits the Patching Process**

**OPatch Does Not Restore Regenerated Libraries Even After User Quits the Patching Process**

If the OPatch postscript fails and users choose not to proceed with the patching process and quit, OPatch does not restore regenerated libraries correctly.

Check the OPatch log to determine whether or not library regeneration has occurred. If the library regeneration has occurred, apply the patch again. If the OPatch postscript fails again, choose `y` to proceed with the patching process. OPatch will not roll back the patch automatically this time; the user needs to roll back OPatch manually to restore the pre-patch environment.

For information on how to roll back a patch, see Using OPatch to Patch Oracle Fusion Middleware in *Patching with OPatch*. 
This chapter describes issues associated with Oracle Fusion Middleware administration. It includes the following topics:

- General Issues and Workarounds
- Configuration Issues and Workarounds
- Deprecated and Desupported Features
- Documentation Errata for Administering Oracle Fusion Middleware

General Issues and Workarounds

This section describes configuration issues and their workarounds. It includes the following topics:

- MDS purgeMetadata Command Can Take a Long Time
- Node Manager May Return An Error About ADR
- SSL Certificate Chain Is Required on Certain Browsers

MDS purgeMetadata Command Can Take a Long Time

When autopurge is not enabled or manual purge is not frequently executed, the MDS database repository may have a lot of older (non-tip) versions accumulated. In this situation, the next purge operation may take a very long time (possibly hours). You may need to terminate the purge operation to avoid affecting the system performance. Currently, it is not possible to terminate the purge operation using Oracle Fusion Middleware tools. Instead, you must terminate the operation at the database level.

To terminate the purge operation, contact the DBA. The DBA can identify the database session where the purgeMetadata operation is executing and kill the session to stop the purge. Note that MDS purges 300 documents in each iteration, commits the change, and repeats until all purgeable documents are processed. As a result, killing the database session does not affect already committed purge iterations.

Node Manager May Return An Error About ADR

In some circumstances, when you start a Managed Server from the Administration Console, an error similar to the following is logged on the Node Manager console. It indicates an issue while initializing Automatic Diagnostic Repository (ADR).

SEVERE: failure initializing ADR

oracle.dfw.common.DiagnosticsException: failure
loading adrci binary from the system path: null
Cause: DFW-40112: There was an error executing adrci commands; the following errors have been found "null"

You can ignore this error because Node Manager does not use ADR.
SSL Certificate Chain Is Required on Certain Browsers

When you configure SSL for Oracle HTTP Server, you may need to import the entire certificate chain (rootCA, Intermediate CA's and so on).

Certain browsers, for example Internet Explorer, require that the entire certificate chain be imported to the browsers for the SSL handshake to work. If your certificate was issued by an intermediate CA, you will need to ensure that the complete chain of certificates is available on the browser or the handshake will fail. If an intermediate certificate in the chain expires, it must be renewed along with all the certificates (such as OHS server) in the chain.

Configuration Issues and Workarounds

This section describes configuration issues and workarounds. It includes the following topic:

• Fusion Middleware Control Incorrectly Refers to Shared Service Tables

Fusion Middleware Control Incorrectly Refers to Shared Service Tables

The Service table page of Fusion Middleware Control contains a mention of shared service tables. Shared service tables are not supported.

Deprecated and Desupported Features

The following administrative feature is desupported beginning in 12c (12.2.1.3):

• Moving from test to production.

The scripts and procedures used to move your environment from a test to a production environment is no longer supported. However, if you want to change the network configuration, such as host name, network domain name, or IP address, you can use the chghost utility, as described in About Changing the Network Configuration in Administering Oracle Fusion Middleware.

Documentation Errata for Administering Oracle Fusion Middleware

The following lists the documentation errata for administration issues:

• Using WLST with the Lifecycle Management Tools

Using WLST with the Lifecycle Management Tools

Issue

In an SSL-only domain, to connect to a server using WLST, you must set some properties for the start, stop, and discovery actions to succeed.
For more information about setting the properties, see Using the WebLogic Scripting Tool in *Understanding the WebLogic Scripting Tool*.

For more information about the start, stop, and discovery actions, see Additional Information About Standard Actions in *Configuring Oracle Fusion Middleware Using Lifecycle Management Tools*. 
High Availability

This chapter describes the issues related to Oracle Fusion Middleware high availability. The following topics are covered in this chapter:

- EDG Not Using SOA Reference Configuration
- Issues Pertaining to Oracle BAM
- Incorrect Migration Policy In UMSJMSJDBCSTORE_AUTO_2 After OSB Extension

EDG Not Using SOA Reference Configuration

Starting with Fusion Middleware 12.2.1.4.0, SOA components use **SOA Reference Configurations**. New product Configuration Wizard templates have been defined for SOA products. The domains created with these new templates are automatically configured with optimizations and parameters that increase the resiliency and performance of the SOA servers.

These Reference Configuration templates have been adopted for SOA, OSB and B2B products. Their templates now include **Reference Configuration** in their names, and are the default templates listed in the Configuration Wizard for these products.

The previous SOA templates which do not implement these optimizations, have been renamed to **classic** templates. Although they are not shown in the Configuration Wizard, they are still available and located at:

$ORACLE_HOME/soa/common/templates/wls (SOA, B2B classic templates)

and

$ORACLE_HOME/osb/common/templates/wls (OSB classic template).

SOA Reference templates have NOT been verified in the SOA Enterprise Deployment Guide.

To create a SOA domain based on the classic templates, extend the infrastructure domain by selecting the SOA classic template:

1. In the templates screen, of the Configuration Wizard, select the radio button **Create Domain Using Custom Template**.
3. Continue with the domain configuration.

Subsequent extensions on a classic SOA domain (for B2B or OSB) must be done with classic templates and not with reference templates. To extend with OSB classic template, select the jar $ORACLE_HOME/osb/common/templates/wls/oracle.osb.classic.domain_template.jar. To extend with B2B classic template, select $ORACLE_HOME/soa/common/templates/wls/oracle.soa.b2b.classic.domain_template.jar. The rest of the components (BPM,
BAM, ESS and MFT) do not have reference configuration templates, so the default templates shown in Configuration Wizard for these products can be used to extend the SOA classic domain.

Issues Pertaining to Oracle BAM

This section contains the following topic:

• Configuring Oracle BAM After Scale Up
• BAM JNDI Foreign Providers Are Not Created When You Add BAM to a Domain With Dynamic SOA Cluster

Configuring Oracle BAM After Scale Up

Oracle BAM requires additional configuration steps after you configure the domain. See the topic Configuring BAM for High Availability in the 12.1.3 version of the Oracle Fusion Middleware High Availability Guide.

BAM JNDI Foreign Providers Are Not Created When You Add BAM to a Domain With Dynamic SOA Cluster

When adding BAM to the domain, some foreign JNDI providers are created. One of them, the BAMForeignJndiProvider is configured pointing to the SOA Cluster.

When the SOA Cluster is dynamic, that JNDI provider is not properly populated and the foreign JNDI providers are not created during the configuration wizard.

After extending the domain to add BAM, two Foreign JNDI Providers must be created in the domain: BAMForeignJNDIProvider and BPMForeignJNDIProvider.

1. Create the BAMForeignJNDIProvider.
   a. Login to weblogic console. Navigate to domain > Environment > Services > Foreign JNDI Providers.
   b. Click New.
   c. Change the name to BAMForeignJNDIProvider and click next.
   d. Select SOA Cluster as the target. Click Finish. A Foreign JNDI Provider BAMForeignJNDIProvider will be created.
   e. Click BAMForeignJNDIProvider link. Under General tab, enter the following properties:
      - Initial Context Factory : weblogic.jndi.WLInitialContextFactory
      - Provider URL : URL for the BAM Servers example, t3://host1:9001,host2:9001
   f. Click Save.
   g. Click the Links tab. Create two links for each of the BAM persistence and configuration services as mentioned in the table below:
   h. Restart the SOA Server (This is required, otherwise, the foreign jndi doesnt work and you will run in to a stackoverflow error).
<table>
<thead>
<tr>
<th>Service</th>
<th>Local JNDI Name</th>
<th>Remote JNDI Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAM Config Service</td>
<td>ConfigSession#oracle.beam.config.common.ConfigSession</td>
<td>ConfigSession#oracle.beam.config.common.ConfigSession</td>
</tr>
<tr>
<td>UserMetadataService</td>
<td>UserMetadataService</td>
<td>UserMetadataService</td>
</tr>
<tr>
<td>TaskEvidenceService</td>
<td>TaskEvidenceServiceBean</td>
<td>TaskEvidenceServiceBean</td>
</tr>
<tr>
<td>RuntimeConfigService</td>
<td>RuntimeConfigService</td>
<td>RuntimeConfigService</td>
</tr>
<tr>
<td>BPMProcessModelService</td>
<td>ejb/bpm/services/ProcessModelServiceBean</td>
<td>ejb/bpm/services/ProcessModelServiceBean</td>
</tr>
<tr>
<td>BPMProcessMetadataService</td>
<td>ejb/bpm/services/ProcessMetadataServiceBean</td>
<td>ejb/bpm/services/ProcessMetadataServiceBean</td>
</tr>
<tr>
<td>BPMProcessDashboardService</td>
<td>ejb/bpm/services/ProcessDashboardServiceBean</td>
<td>ejb/bpm/services/ProcessDashboardServiceBean</td>
</tr>
<tr>
<td>BPMProcessAnalyticsServiceBean</td>
<td>ejb/bpm/services/ProcessAnalyticsServiceBean</td>
<td>ejb/bpm/services/ProcessAnalyticsServiceBean</td>
</tr>
<tr>
<td>BPMInstanceQueryService</td>
<td>ejb/bpm/services/InstanceQueryServiceBean</td>
<td>ejb/bpm/services/InstanceQueryServiceBean</td>
</tr>
<tr>
<td>BPMInstanceManagementService</td>
<td>ejb/bpm/services/InstanceManagementServiceBean</td>
<td>ejb/bpm/services/InstanceManagementServiceBean</td>
</tr>
<tr>
<td>BPMUserAuthenticationService</td>
<td>ejb/bpm/services/BPMUserAuthenticationServiceBean</td>
<td>ejb/bpm/services/BPMUserAuthenticationServiceBean</td>
</tr>
</tbody>
</table>

2. Create the **BPMForeignJNDIProvider**.

   a. Login to the weblogic console. Click **Foreign JNDI providers** link in home page.
   
   b. Click **New**. Change the name to **BPMForeignJNDIProvider** and click **next**.
   
   c. Select BAM cluster as the target. Click **Finish**. A Foreign JNDI Provider **BPMForeignJNDIProvider** is created.
   
   d. Click **BPMForeignJNDIProvider** link. Under General tab, enter the following properties:
      
      - **Initial Context Factor**: weblogic.jndi.WLInitialContextFactory
      - **Provider URL**: URL for the BPM Servers e.g t3://soahost1:8001,soahost2:8001
   
   e. Click **Save**.
   
   f. Click the **Links** tab. Create the links for each of the BPM service listed in the table below.
   
   g. Restart the BAM servers.
<table>
<thead>
<tr>
<th>Service</th>
<th>Local JNDI Name</th>
<th>Remote JNDI Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>TaskService</td>
<td>ejb/bpel/services/workflow/TaskServiceBean</td>
<td>ejb/bpel/services/workflow/TaskServiceBean</td>
</tr>
<tr>
<td>TaskMetadataService</td>
<td>ejb/bpel/services/workflow/TaskMetadataServiceBean</td>
<td>ejb/bpel/services/workflow/TaskMetadataServiceBean</td>
</tr>
</tbody>
</table>

Incorrect Migration Policy In UMSJMSJDBCSTORE_AUTO_2 After OSB Extension

If you are adding the OSB dynamic cluster to a domain containing a SOA dynamic cluster, where you already have changed the policy of the UMSJMSJDBCSTORE_AUTO_1 persistent store to something different from off, the UMSJMSJDBCSTORE_AUTO_2 created for OSB_Cluster will inherit that migration policy. This causes a configuration error because the OSB_Cluster doesn’t have any leasing configuration by default, and the AdminServer fails to start.

Admin server fails to start by displaying the following error:

```
weblogic.management.ManagementException: [Management:141266] Parsing failure in config.xml: The following failures occurred:
-- An attempt was made to set the migration-policy of JDBCStore UMSJMSJDBCStore_auto_2 to "On-Failure". Before automatic migration of any kind can be used, the MigrationBasis must be set in the ClusterMBean.
```

To correct this issue, follow the option mentioned below:

Manually correct the config.xml. Edit the domain config.xml.

- Look for the UMSJMSJDBCSTORE_AUTO_2 element that is targeted to the OSB Cluster.
- Set its <migration-policy> to off.
- For example:

  ```xml
  <jdbc-store>
    <name>UMSJMSJDBCStore_auto_2</name>
    ...
    <migration-policy>off</migration-policy>
    ....
  </jdbc-store>
  ```
Web Services

This chapter describes issues associated with Web services development, security, and administration, including Oracle Web Services Manager. It includes the following topics:

Note:

To resolve WebLogic Web Services issues, see Web Services and XML Issues and Workarounds in the Oracle Fusion Middleware Release Notes for Oracle WebLogic Server.

- Upgrade Fails When OWSM Data Source Is Configured as a Multi Data Source
- Using a Repository Backed by a Hardened Oracle Database
- Using Multibyte User Credentials with the wss_http_token_* Policy
- Performing a Bulk Upload of Policies
- Removing Post-Deployment Customizations
- Reviewing Localization Limitations
- Fusion Middleware Control Does Not List Policies When Two Servers Are SSL Enabled (Two-way SSL)
- Web Service Test Page Cannot Test Input Arguments Bound to SOAP Headers
- Possible Limitation When Using Custom Exactly-one Policies
- Security Policies Do Not Work on Subscriber Mediator Component
- Policy Table Might Not Show Attached Policies for Some Locales
- Restart Applications to Get an Accurate Policy Usage Count
- Performance Improvements In Web Services Policy Pages
- Bulk Attachment of Policies Is not Supported In the Current Release
- Fusion Middleware Control Returns You to the OWSM Policies Page After You Edit a Client Policy
- Domain Configuration Is Not Supported in Classpath Mode
- Avoiding XML Encryption Attacks
- USERNAME_ID_PROPAGATION Policies Deprecated
- Deprecated Commands for Oracle Infrastructure Web Services
- A Test Web Service Page Does Not Generate the Correct Date or Date Time Patterns When Importing a Locally Saved Payload
- A Test Web Service Page Does Not Save Loaded Payloads in the Correct Format
Upgrade Fails When OWSM Data Source Is Configured as a Multi Data Source

When you attempt to upgrade Oracle Weblogic and Oracle SOA Suite from 11g to 12c (12.1.3) and later, if the 11g instance uses a mds-owsm datasource that is configured to be a multi data source, the Upgrade Assistant fails with the following error:

```
WSM] [INCIDENT_ERROR] [] [upgrade.WSM.WSMPLUGIN] [tid: 63] [ecid: 235be93f-e646-47fb-b960-34947fed8f86-00000001,0] [[] oracle.ias.update.exception.UpgradeException: WSMERROR-00015: Failed to read the Oracle WSM datasource connection details.
at oracle.wsm.lifecycle.upgrade.impl.WSMUpgradePlugin.initializePluginData(WSMUpgradePlugin.java:227)
at oracle.wsm.lifecycle.upgrade.impl.WSMUpgradePlugin.upgrade(WSMUpgradePlugin.java:263)
at oracle.ias.update.plugin.Plugin.upgrade(Plugin.java:576)
at oracle.ias.update.plan.PlanStep.upgrade(PlanStep.java:377)
at oracle.ias.update.UpgradeDriver.doUpgrades(UpgradeDriver.java:947)
at oracle.ias.update.gui.UAUpgradeThread.run(UAUpgradeThread.java:41)
```

**Note:**

This error occurs even after you apply patch 19865550 to prevent a message warning you of an unsupported multi data source.

To work around this issue, perform the following steps:

1. Modify the mds-owsm data source, changing it from a multi data source to a generic data source.
2. Run the Upgrade Assistant.
3. Once the upgrade completes successfully, if necessary, modify the data source back to its original configuration.

Using a Repository Backed by a Hardened Oracle Database

Oracle Web Services Manager uses an MDS repository to store metadata such as policies, assertion templates, and policy usage data.

Oracle Web Services Manager 12c (12.2.1) is certified to work with a repository backed by a hardened Oracle Database.

See Managing the OWSM Repository in Securing Web Services and Managing Policies with Oracle Web Services Manager

Using Multibyte User Credentials with the wss_http_token_* Policy

In this release, multibyte user credentials are not supported for the wss_http_token_* policies. If multibyte user credentials are required, use a different policy, such as wss_username_token_* policy. For more information about the available policies, see Predefined Policies in Securing Web Services and Managing Policies with Oracle Web Services Manager.

Performing a Bulk Upload of Policies

When you perform a bulk import of policies to the MDS repository, if the operation does not succeed initially, retry the operation until the bulk import succeeds.

For the most part, this can occur for an Oracle RAC database when the database is switched during the metadata upload. If there are $n$ databases in the Oracle RAC database, then you may need to retry this operation $n$ times.

For more information about bulk import of policies, see Migrating Policies in the Administering Web Services.

Removing Post-Deployment Customizations

When the connections.xml file is changed after deployment by using the AdfConnection MBean, the complete connection is saved as a customization. This means that changes to the connection in a redeployed application are overwritten by the customization.

When you use Fusion Middleware Control to make changes to an application's connections.xml file after deployment, a new connections.xml file is created as a customization and stored in the MDS repository. This customization persists for the life of the application. Therefore, if you redeploy the application, the customized connections.xml file continues to be applied as a customization on the application.

To allow the redeployed application's connections.xml file to be applied without the prior customization (from Fusion Middleware Control), you must explicitly remove the connections.xml customizations from the MDS repository.
For example, if you deploy an application with a Web services data control, then use Fusion Middleware Control to attach the `username_token_client_policy`, and subsequently detach the policy. Then, you return to JDeveloper to edit the application and attach the `http_token_client_policy`, and redeploy the application. When you view the application using Fusion Middleware Control, you see that it is not using the `http_token_client_policy` that you attached. That is because it is using the customized `connections.xml` file that you previously created using Fusion Middleware Control.

If you remove the `connections.xml` customizations from the MDS repository, the application will use its own `connections.xml` file.

### Reviewing Localization Limitations

The following information is supported in English only in this release of Oracle Enterprise Manager:

- All fields in the policy and assertion template except the `orawsp:displayName` field.
- If using the `?orawsd1` browser address, the `orawsp:description` field.

### Fusion Middleware Control Does Not List Policies When Two Servers Are SSL Enabled (Two-way SSL)

When a Managed Server is Two-way enabled SSL (for example, a SOA server hosting OWSM Policy Manager over Two-way SSL) and the Administration Server hosting Fusion Middleware Control is correctly configured to access the Two-way SSL-enabled Managed Server, Fusion Middleware Control still does not list the OWSM policies.

### Web Service Test Page Cannot Test Input Arguments Bound to SOAP Headers

For Web services that have any input arguments bound to SOAP headers, the Test Web Service page in the Fusion Middleware Control console cannot show the message. Therefore, such operations cannot be tested with the Test Web Service page.

For example, if the input for a multi-part WSDL is viewed through Fusion Middleware Control, and one input argument is bound to a SOAP header, the composite instance fails with the following exception because the other part of the message was missing in the input:

```
ORAMED-01203:[No Part]No part exist with name "request1" in source message
```

To resolve such an issue, select XML View for Input Arguments and edit the payload to pass input for both parts of the WSDL.
Possible Limitation When Using Custom Exactly-one Policies

In some cases, there can be a limitation when using custom Exactly-one policies. For a set of assertions within the exactly-one policy, if a request message satisfies the first assertion, then the first assertion gets executed and a response is sent accordingly. However, this may not be the desired behavior in some cases because the request may be intended for the subsequent assertions.

For example, you may have a client policy that has `Timestamp=ON` and a service exactly-one policy that has a `wss11 username token` with message protection assertions: the first has `Timestamp=OFF`; the second has `Timestamp=ON`. Therefore, the first assertion in the service exactly-one policy is not expecting the Timestamp in the request, yet the second assertion does expect it. In this case, the first assertion gets executed and the response is sent with no Timestamp. However, the client-side processing then fails because it expects the Timestamp that was sent in the request.

This limitation can exist with any cases where a client policy expects a greater number of elements to be signed and a service policy does not.

Security Policies Do Not Work on Subscriber Mediator Component

Component Authorization `denyall` policy does not work at subscriber mediator component. Authorization policy works for other normal mediator component cases.

Policy Table Might Not Show Attached Policies for Some Locales

The Directly Attached Polices table may not display the attached policies for the following locales: `zh-cn`, `zh-tw`, `ja`, `pt-br`, `es`, `fr`, `ko`.

This issue may occur when you attach a policy to the Web service endpoint in the Web service application in Fusion Middleware Control.

As a workaround, enlarge the columns.

Restart Applications to Get an Accurate Policy Usage Count

If a policy that is being referred to by a Web Service is deleted and then reimported, then its usage count is not correct and applications must be restarted to obtain an accurate usage count.

Performance Improvements In Web Services Policy Pages

Performance improvements have been made to the Web Services Policy pages in Fusion Middleware Control by removing the unnecessary role query.
Bulk Attachment of Policies Is not Supported In the Current Release

Attaching one or more policies to one or more Web services by using the bulk attachment feature is not supported in the current release. Use the Policy Set feature instead. For more information on Policy Sets, see Attaching Policies Globally Using Policy Sets Using WLST and Schema Reference for Policy Sets in Securing Web Services and Managing Policies with Oracle Web Services Manager.

Fusion Middleware Control Returns You to the OWSM Policies Page After You Edit a Client Policy

When you generate client policies in Enterprise Manager, the Generate Client Policies page appears and the generated policies are shown as not saved. After you save the policies, and then edit one of them, you are returned to the OWSM Policies page. This is an error in Enterprise Manager. You should be returned to the Generate Client Policies page.

To edit additional policies, use the search feature in the OWSM Policies page to locate the client policy that you wish to edit.

For more information, see Generating Client Policies from a WSDL in Securing Web Services and Managing Policies with Oracle Web Services Manager.

Domain Configuration Is Not Supported in Classpath Mode

If the Policy Manager URL is configured as a classpath, then domain-level configuration is not supported. All domain-level configuration information is stored in the OWSM repository, and not in the JAR file that is included in the classpath. For information about configuring the Policy Manager URL, see the following sections in Securing Web Services and Managing Policies with Oracle Web Services Manager:

- Configuring the Policy Manager Connection Using Fusion Middleware Control
- Configuring the Policy Manager Connection Using WLST

If you wish to manage domain-level configuration, configure the Policy Manager URL to specify a remote domain or use auto mode. After you have configured the new Policy Manager URL mode, you must restart the server for it to take effect.

Avoiding XML Encryption Attacks

In past releases, OWSM sent different fault codes (for example, FailedAuthentication, InvalidSecurityToken, and FailedCheck) for different error cases In the current release, this default behavior has been changed. OWSM now sends the InvalidSecurity fault code for all error cases. This has been done to avoid XML encryption attacks. An encryption attack is possible if the service sends different fault codes for different types of errors (for example, FailedAuthentication, InvalidSecurityToken, FailedCheck, and so on). This default behavior can be changed by setting the domain-wide agent property use.unified.fault.code to false. However, this is not recommended, because it might allow XML encryption...
attacks. The default value for this property, "true", will cause OWSM to send the InvalidSecurity fault code for all error cases. For more information on the use.unified.fault.code property, see Configuring Security Policy Enforcement Using WLST in Securing Web Services and Managing Policies with Oracle Web Services Manager.

USERNAME_ID_PROPAGATION Policies Deprecated

The following USERNAME_ID_PROPAGATION policies are deprecated in Release 12c (12.2.1):

wss10_username_id_propagation_with_msg_protection_client_policy
wss10_username_id_propagation_with_msg_protection_service_policy

For details about these policies, see "Oracle Web Services Manager Predefined Policies" in Securing Web Services and Managing Policies with Oracle Web Services Manager.

Deprecated Commands for Oracle Infrastructure Web Services

Table 6-1 lists the WLST commands for Oracle Infrastructure Web Services (or clients) that were available in Oracle Fusion Middleware 11g release and which have been deprecated in 12c (12.1.2). In addition, the table lists the new WLST command equivalent and provides an example of how you can update your code to use the new command.

For more information about the WLST commands, see Web Services Custom WLST Commands in WLST Command Reference for Infrastructure Components.

<table>
<thead>
<tr>
<th>Deprecated Command (11g)</th>
<th>Recommended Command (12c)</th>
<th>Updating Your Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>abortRepositorySession</td>
<td>abortWSMSession</td>
<td>11g Release (for Repository operations): wls:/jrfServer_domain/serverConfig&gt; abortRepositorySession()</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12c Release (for both Repository and PolicySubject operations): wls:/jrfServer_domain/serverConfig&gt; abortWSMSession()</td>
</tr>
<tr>
<td>Deprecated Command (11g)</td>
<td>Recommended Command (12c)</td>
<td>Updating Your Code</td>
</tr>
<tr>
<td>-------------------------</td>
<td>---------------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>attachPolicySet</td>
<td>setWSMPolicySetScope</td>
<td>11g Release:</td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>wls://jrfServer_domain/serverConfig&gt;attachPolicySet('Domain('base_domain')')</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td>12c Release:</td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>wls://jrfServer_domain/serverConfig&gt;setWSMPolicySetScope('Domain(&quot;base_domain&quot;)')</code></td>
</tr>
<tr>
<td>attachPolicySetPolicy</td>
<td>attachWSMPolicy</td>
<td>11g Release (for both Repository and PolicySubject operation on policy set):</td>
</tr>
<tr>
<td></td>
<td>attachWSMPolicies</td>
<td><code>wls://jrfServer_domain/serverConfig&gt;attachPolicySetPolicy('oracle/wss_username_token_service_policy')</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td>12c Release:</td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>wls://jrfServer_domain/serverConfig&gt;attachWSMPolicy('oracle/wss_username_token_service_policy')</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>wls://wls-domain/serverConfig&gt;attachWSMPolicies(['oracle/wss_username_token_client_policy','oracle/log_policy'])</code></td>
</tr>
<tr>
<td>beginRepositorySession</td>
<td>beginWSMSession</td>
<td>11g Release (for Repository operations):</td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>wls://jrfServer_domain/serverConfig&gt;beginRepositorySession()</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td>12c Release (for both Repository and PolicySubject operations):</td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>wls://jrfServer_domain/serverConfig&gt;beginWSMSession()</code></td>
</tr>
<tr>
<td>clonePolicySet</td>
<td>cloneWSMPolicySet</td>
<td>11g Release:</td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>wls://jrfServer_domain/serverConfig&gt;clonePolicySet ('myNewPolicySet', 'myPolicySet')</code></td>
</tr>
<tr>
<td></td>
<td></td>
<td>12c Release:</td>
</tr>
<tr>
<td></td>
<td></td>
<td><code>wls://jrfServer_domain/serverConfig&gt;cloneWSMPolicySet ('myNewPolicySet', 'myPolicySet')</code></td>
</tr>
<tr>
<td>Deprecated Command (11g)</td>
<td>Recommended Command (12c)</td>
<td>Updating Your Code</td>
</tr>
<tr>
<td>-------------------------</td>
<td>---------------------------</td>
<td>-------------------</td>
</tr>
</tbody>
</table>
| commitRepositorySession | commitWSMSession          | 11g Release (for Repository operations):  
|                         |                           | wls:/jrfServer_domain/serverConfig>  
|                         |                           | commitRepositorySession()            |
|                         |                           | 12c Release (for both Repository and  
|                         |                           | PolicySubject operations):           |
|                         |                           | wls:/jrfServer_domain/serverConfig>  
|                         |                           | commitWSMSession()                   |
| createPolicySet         | createWSMPolicySet        | 11g Release:       |
|                         |                           | wls:/jrfServer_domain/serverConfig>  
|                         |                           | createPolicySet('myPolicySet', 'ws-service', 'Domain("base_domain")') |
|                         |                           | 12c Release:       |
|                         |                           | wls:/jrfServer_domain/serverConfig>  
|                         |                           | createWSMPolicySet ('myPolicySet', 'ws-service', 'Domain("base_domain")') |
| deletePolicySet         | deleteWSMPolicySet        | 11g Release:       |
|                         |                           | wls:/jrfServer_domain/serverConfig>  
|                         |                           | deletePolicySet('myPolicySet')       |
|                         |                           | 12c Release:       |
|                         |                           | wls:/jrfServer_domain/serverConfig>  
|                         |                           | deleteWSMPolicySet ('myPolicySet')   |
| describeRepositorySession | describeWSMSession     | 11g Release (for Repository operations):  
|                         |                           | wls:/jrfServer_domain/serverConfig>  
|                         |                           | describeRepositorySession()          |
|                         |                           | 11g Release (for PolicySubject  
|                         |                           | operations):                         |
|                         |                           | N/A                               |
|                         |                           | 12c Release (for both Repository and  
|                         |                           | PolicySubject operations):           |
|                         |                           | wls:/jrfServer_domain/serverConfig>  
|                         |                           | describeWSMSession()                 |
### Table 6-1  (Cont.) Deprecated Commands for Oracle Infrastructure Web Services

<table>
<thead>
<tr>
<th>Deprecated Command (11g)</th>
<th>Recommended Command (12c)</th>
<th>Updating Your Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>detachPolicySet</td>
<td>detachWSMPolicy</td>
<td><strong>11g Release</strong> (for both Repository and PolicySubject operation on policy set): wls:/jrfServer_domain/serverConfig&gt; detachPolicySet ('oracle/wss_username_token_service_policy')</td>
</tr>
<tr>
<td></td>
<td>detachWSMPolicies</td>
<td>12c Release: wls:/jrfServer_domain/serverConfig&gt; detachWSMPolicy('oracle/wss_username_token_service_policy') wls:/wls-domain/serverConfig&gt; detachWSMPolicies(['oracle/log_policy','oracle/wss_username_token_client_policy'])</td>
</tr>
<tr>
<td>displayPolicySet</td>
<td>displayWSMPolicySet</td>
<td><strong>11g Release</strong>: wls:/jrfServer_domain/serverConfig&gt; displayPolicySet('myPolicySet')</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12c Release: wls:/jrfServer_domain/serverConfig&gt; displayWSMPolicySet ('myPolicySet')</td>
</tr>
<tr>
<td>enablePolicySet</td>
<td>enableWSMPolicySet</td>
<td><strong>11g Release</strong>: wls:/jrfServer_domain/serverConfig&gt; enablePolicySet(true)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12c Release: wls:/jrfServer_domain/serverConfig&gt; enableWSMPolicySet (true)</td>
</tr>
</tbody>
</table>
### Table 6-1  (Cont.) Deprecated Commands for Oracle Infrastructure Web Services

<table>
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<tr>
<th>Deprecated Command (11g)</th>
<th>Recommended Command (12c)</th>
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</tr>
</thead>
<tbody>
<tr>
<td>enablePolicySetPolicy</td>
<td>enableWSMPolicy</td>
<td>11g Release: wls:/wls-domain/serverConfig&gt;enablePolicySetPolicy('oracle/log_policy',false)</td>
</tr>
<tr>
<td></td>
<td>enableWSMPolicies</td>
<td>12c Release: wls:/wls-domain/serverConfig&gt;enableWSMPolicy('oracle/log_policy',false)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>wls:/wls-domain/serverConfig&gt;enableWSMPolicies(['oracle/log_policy', 'oracle/wss_username_token_client_policy'], true)</td>
</tr>
<tr>
<td>exportRepository</td>
<td>exportWSMRepository</td>
<td>11g Release: wls:/jrfServer_domain/serverConfig&gt;exportRepository ('/tmp/repo.zip')</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12c Release: wls:/jrfServer_domain/serverConfig&gt;exportWSMRepository ('/tmp/repo.zip')</td>
</tr>
<tr>
<td>importRepository</td>
<td>importWSMArchive</td>
<td>11g Release (for repository documents): wls:/jrfServer_domain/serverConfig&gt;importRepository ('/tmp/repo.zip')</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12c Release (for repository documents): wls:/jrfServer_domain/serverConfig&gt;importWSMArchive ('/tmp/repo.zip')</td>
</tr>
<tr>
<td>listPolicySets</td>
<td>listWSMPolicySets</td>
<td>11g Release: wls:/wls-domain/serverConfig&gt;listPolicySets('sca-reference')</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12c Release: wls:/wls-domain/serverConfig&gt;listWSMPolicySets('sca-reference')</td>
</tr>
<tr>
<td>Deprecated Command (11g)</td>
<td>Recommended Command (12c)</td>
<td>Updating Your Code</td>
</tr>
<tr>
<td>-------------------------</td>
<td>---------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>migrateAttachments</td>
<td>migrateWSMAttachments</td>
<td><strong>11g Release:</strong></td>
</tr>
</tbody>
</table>
|                         |                           | wls:/jrfServer_domain/serverConfig>
migrateAttachments()    | **12c Release:**  |
|                         |                           | wls:/jrfServer_domain/serverConfig>
migrateWSMAttachments() |
| modifyPolicySet         | selectWSMPolicySet        | **11g Release:**  |
|                         |                           | wls:/jrfServer_domain/serverConfig>
modifyPolicySet('myPolicySet') | **12c Release:**  |
|                         |                           | wls:/jrfServer_domain/serverConfig>
selectWSMPolicySet ('myPolicySet') |
| resetWSMPolicyRepository| restWSMRepository         | **11g Release:**  |
|                         |                           | wls:/jrfServer_domain/serverConfig>
resetWSMPolicyRepository() | **12c Release:**  |
|                         |                           | wls:/jrfServer_domain/serverConfig>
resetWSMRepository()    |
| setConfiguration        | setWSMConfiguration       | **11g Release:**  |
|                         |                           | wls:/jrfServer_domain/serverConfig>
setConfiguration('/WLS/myDomain') | **12c Release:**  |
|                         |                           | wls:/jrfServer_domain/serverConfig>
displayWSMConfiguration('WLS/base_domain') |
| setPolicySetConstraint  | setWSMPolicySetConstraint | **11g Release:**  |
|                         |                           | wls:/jrfServer_domain/serverConfig>
setPolicySetConstraint ('HTTPHeader("VIRTUAL_HOST_TYPE","external")') | **12c Release:**  |
|                         |                           | wls:/jrfServer_domain/serverConfig>
setWSMPolicySetConstraint ('HTTPHeader("VIRTUAL_HOST_TYPE","external")') |
<table>
<thead>
<tr>
<th>Deprecated Command (11g)</th>
<th>Recommended Command (12c)</th>
<th>Updating Your Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>setPolicySetDescription</td>
<td>setWSMPolicySetDescription</td>
<td>11g Release:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>wls:/jrfServer_domain/serverConfig&gt; setPolicySetDescription ('Global policy set for web service endpoint.')</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12c Release:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>wls:/jrfServer_domain/serverConfig&gt; setWSMPolicySetDescription ('Global policy set for web service endpoint.')</td>
</tr>
<tr>
<td>setWebServicePolicyOverride</td>
<td>setWSMPolicyOverride</td>
<td>11g Release:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>wls:/jrfServer_domain/serverConfig&gt; setWebServicePolicyOverride ('/base_domain/server1/HelloWorld#1_0','j2wBasicPolicy','web','[<a href="http://namespace%5D/WssUsernameService','JRFUsernamePort','oracle/wss_username_token_service_policy','reference.priority','10">http://namespace]/WssUsernameService','JRFUsernamePort','oracle/wss_username_token_service_policy','reference.priority','10</a>')</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12c Release:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>wls:/jrfServer_domain/serverConfig&gt; setWSMPolicyOverride ('oracle/wss_username_token_service_policy','reference.priority','10')</td>
</tr>
<tr>
<td>setPolicySetPolicyOverride</td>
<td>setWSMPolicyOverride</td>
<td>11g Release (for both Repository and PolicySubject operation on policy set):</td>
</tr>
<tr>
<td></td>
<td></td>
<td>wls:/jrfServer_domain/serverConfig&gt; setPolicySetPolicyOverride ('oracle/wss_username_token_service_policy','reference.priority','10')</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12c Release:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>wls:/jrfServer_domain/serverConfig&gt; setWSMPolicyOverride ('oracle/wss_username_token_service_policy','reference.priority','10')</td>
</tr>
</tbody>
</table>
Table 6-1  (Cont.) Deprecated Commands for Oracle Infrastructure Web Services

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</tr>
</thead>
<tbody>
<tr>
<td>upgradeWSMPolicyRepository</td>
<td>upgradeWSMRepository</td>
<td>11g Release: \n  wls:/jrfServer_domain/serverConfig&gt; upgradeWSMPolicyRepository()</td>
</tr>
<tr>
<td>validatePolicySet</td>
<td>validateWSMPolicySet</td>
<td>11g Release: \n  wls:/jrfServer_domain/serverConfig&gt; validatePolicySet ('myPolicySet')</td>
</tr>
<tr>
<td>12c Release: \n  wls:/jrfServer_domain/serverConfig&gt; validateWSMRepository()</td>
<td>12c Release: \n  wls:/jrfServer_domain/serverConfig&gt; validateWSMPolicySet ('myPolicySet')</td>
<td></td>
</tr>
</tbody>
</table>

A Test Web Service Page Does Not Generate the Correct Date or Date Time Patterns When Importing a Locally Saved Payload

In Fusion Middleware Control, when you test a SOAP web service on the Test Web Service page, the **Import Payload** option does not generate the correct date/date time type patterns when importing a payload XML file, as follows:

- Tree View – The date time value is always formatted to a US pattern, such as Tue Dec 30 00:00:00 PST 2014, when the correct pattern should be YYYY-MM-ddTHH:mm:ss or YYYY-MM-dd.
- XML View – The server time zone is always incorrectly appended to the date, such as 2014-12-30-08:00, which is not part of the imported value.

**Workaround:**
Clear the imported date and date time values, and then manually enter the correct values before you submit the payload.

A Test Web Service Page Does Not Save Loaded Payloads in the Correct Format

In Fusion Middleware Control, when you test a SOAP web service on the Test Web Service page, the **Save Payload** option incorrectly saves the loaded payload in Server Locale format (ISO-8859-1) instead of in UTF-8 format.
Using the Automatic Policy Configuration for STS May Not Result in a Compatible Policy for a Web Service Client

Using the automatic policy configuration for STS (Security Token Service) in OWSM may not result in a compatible policy.

**Workaround:**

Manually configure the STS config policy from a web service client, as described in “Manually Configuring the STS Config Policy From the Web Service Client: Main Steps” in Securing Web Services and Managing Policies with Oracle Web Services Manager.

Incompatible Policies Are Listed for Web Services and Clients Using SOAP Over JMS Transport

In Fusion Middleware Control, when you attach OWSM policies to web services and clients that use SOAP over JMS transport, the list of available policies includes policies that are not compatible.

See, "Which OWSM Policies Are Supported for Web Services and Clients That Use SOAP Over JMS Transport" in Securing Web Services and Managing Policies with Oracle Web Services Manager.

NoSuchObjectException When the Server Hosting WSM-PM is Shut Down

When the server on which the wsm-pm application is running in a WebLogic domain is shut down before servers on other domains are shut down, you will see an exception as follows:

```
<Error> <oracle.wsm.resources.policymanager>
<WSM-02313> <The documents used by a policy subject cannot be recorded due to underlying error "Exception during invoke."
java.rmi.NoSuchObjectException: Exception during invoke.
```

This error occurs when agents on other domains try to continue to talk to wsm-pm and are unable to do so.

This is expected behavior when wsm-pm is not available due to shutdown of the WebLogic server where it is deployed. No user action is needed.

NullPointerException After Stopping the WebCenter Portal Managed Server

After you stop the WebCenter Portal Managed Server, the following error message may appear:
Failed while destroying filter: OWSM Security Filter.
java.lang.NullPointerException

There is no impact to functionality, and no user action is needed.

ConnectException when the Server Hosting WSM-PM is Down

When the server on which the wsm-pm application is running in a WebLogic domain is shut down before servers on other domains are shut down, you see an exception as follows:

java.rmi.ConnectException

This error occurs if the wsm-pm application is unreachable.

This is expected behavior when wsm-pm is not available due to shutdown of the WebLogic server where it is deployed. No user action is needed.

The Repository Write Timestamp Cannot Be Retrieved When the Server Hosting WSM-PM Is Shut Down

When you shut down the server on which the wsm-pm application is deployed before you shut down the Administration Server, you see the following exception:

The repository write timestamp cannot be retrieved due to underlying error

This is expected behavior. No user action is needed.

Harmless Warning Message When You Create Policy Sets

When you create policy sets for resource type of SOAP Web Service or SOAP Web Service Client with non-security policy references attached, you will see a warning message:

"Non-Security policies do not apply to Java EE Web Services."

This warning message can be ignored.

About Difference between Installed and Upgraded Configuration Files

The following domain configuration files appear different in a new 12.2.1 install compared to an upgraded WebCenter Portal:

config/fmwconfig/audit-store.xml
config/fmwconfig/jps-config.xml
config/fmwconfig/jps-config-jse.xml

This occurs because, during upgrade, the configuration is moved to wsm-config.xml but not removed from the original files including jps-config.xml. There is no impact to functionality and the variation can be safely ignored.
Oracle Infrastructure Web Service Applications Built in 11g Containing WebServiceRef Annotation Fails

Oracle Infrastructure Web Services do not support the WebServiceRef annotation. In Release 11g, generated example code included this annotation. If you included this generated example code in your applications, they built and ran successfully because the annotation was ignored. In the CDI implementation in Java EE 7 in 12c (12.2.1), all annotations are processed. As a result, any applications built in Release 11g that contain these generated example classes ([Service]PortClient.java) fails.

Note that Oracle Infrastructure Web Service applications built in 12c do not contain this annotation and do not exhibit this problem.

**Workaround**

Use one of the following solutions:

- **Remove the WebServiceRef annotation from the generated source code in the application or library.**

  In the 11g Oracle Infrastructure Web Service WSA generated example client classes, the class name is always <Port Name>Client.java. You can remove the annotation by:
  
  - Searching within your source code to find terms such as “*Client.java”, or
  - Writing a helper class to search the JAR/WAR/EAR code. For example:

    ```java
    private final static Class DefaultAnnotationTypeClass =
    javax.xml.ws.WebServiceRef.class;
    private void findAnnotation(Class targetClass, Class
    annotationTypeClass)
    throws Exception {
        if (targetClass == null || annotationTypeClass == null) {
            return;
        }
        if (targetClass.getAnnotation(annotationTypeClass) != null) {
            throw new Exception("Found " + annotationTypeClass + " in class "
            + targetClass.getName());
        }
        for (Field field : targetClass.getDeclaredFields()) {
            if (field != null && field.getAnnotation(annotationTypeClass) !=
            null) {
                throw new Exception("Found " + annotationTypeClass + " in
class " + targetClass.getName());
            }
        }
    }
    ...
    findAnnotation( userPortClientClass , DefaultAnnotationTypeClass );
    ```

- **For each WAR /JAR file, providing a beans.xml that disables CDI annotation scanning for the application. The necessary beans.xml snippet to turn off CDI annotation scanning is as follows:**

  ```xml
  <beans xmlns="http://xmlns.jcp.org/xml/ns/javaee"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://xmlns.jcp.org/xml/ns/javaee"
  ```
WADL for OPSS and OWSM REST API Is Not Generated from the Browser

WADL for OPSS REST APIs and OWSM REST APIs is not generated from the browser because of the loading of the XSL stylesheet.

Workaround

Instead of generating WADL from the browser by visiting URLs such as the following, use the Mozilla REST client to visit these URLs:

http://myhost.mydomain.com:7001/idaas/platform/admin/v1/application.wadl
http://myhost.mydomain.com:7001/idaas/webservice/admin/v1/application.wadl

The response will give the XML contents of WADL.

Disable XML External Entity Expansion (XXE) When Using MDDS API

If you are using the MDDS API, disable XXE in the WSDL by setting the oracle.j2ee.ws.mdds.preventXXE option to Boolean.TRUE as shown in the following example:

modelFactory.setOption("oracle.j2ee.ws.mdds.preventXXE", Boolean.TRUE);

java.security.NoSuchAlgorithmException When Using the FIPS 140 Algorithms

When using the FIPS 140 algorithms, the following error message may appear:

java.security.NoSuchAlgorithmException: Cannot find any provider
  supporting RSA/ECB/OAEPWithSHA-1AndMGF1Padding
  at javax.crypto.Cipher.getInstance(Cipher.java:529)

This is a known issue. No user action is needed.