Oracle® Fusion Middleware

Release Notes

11g Release 1 (11.1.1) for IBM: Linux on System z

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Oracle Fusion Middleware Release Notes, 11g Release 1 (11.1.1) for IBM: Linux on System z

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Preface

This preface includes the following sections:

- Audience
- Documentation Accessibility
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- Conventions

Audience

This document is intended for users of Oracle Fusion Middleware 11*g*.

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 these Oracle resources:

- Oracle Fusion Middleware Documentation on Oracle Fusion Middleware Disk 1
- Oracle Fusion Middleware Documentation Library 11g Release 1 (11.1.1)
- Oracle Technology Network at
  http://www.oracle.com/technetwork/index.html.

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.

Part I

Oracle Fusion Middleware

Part I contains the following chapters:

1

Introduction

This chapter introduces Oracle Fusion Middleware Release Notes, 11g Release 1 (11.1.1). It includes the following topics:

- Section 1.1, "Latest Release Information"
- Section 1.2, "Purpose of this Document"
- Section 1.3, "System Requirements and Specifications"
- Section 1.4, "Memory Requirements"
- Section 1.5, "Certification Information"
- Section 1.6, "Downloading and Applying Required Patches"
- Section 1.7, "Licensing Information"

1.1 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 Technology Network at:

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

1.2 Purpose of this Document

This document contains the release information for Oracle Fusion Middleware 11g Release 1 (11.1.1). It describes differences between Oracle Fusion Middleware and its documented functionality.

Oracle recommends you review its contents before installing, or working with the product.

1.3 System Requirements and Specifications

Oracle Fusion Middleware installation and configuration will not complete successfully unless users meet the hardware and software pre-requisite requirements before installation.

For more information, see "Review System Requirements and Specifications" in the *Oracle Fusion Middleware Installation Planning Guide*

1.4 Memory Requirements

Oracle Fusion Middleware memory requirements for installation, configuration, and runtime are as follows:

1. Without a Database on the same server: Minimum 4 GB physical memory and 4 GB swap.

2. With a Database on the same server: Minimum 6 GB physical memory and 6 GB swap.

> **Note:** These minimum memory values are with the assumption that no user or operating system process is consuming any unusually high amount of memory. If such a condition exists, corresponding amount of additional physical memory will be required.

1.5 Certification Information

This section contains the following:

- Section 1.5.1, "Where to Find Oracle Fusion Middleware Certification Information"
- Section 1.5.2, "Certification Exceptions"
- Section 1.5.3, "JMSDELIVERYCOUNT Is Not Set Properly"
- Section 1.5.4, "Viewer Plugin Required On Safari 4 To View Raw XML Source"

1.5.1 Where to Find Oracle Fusion Middleware Certification Information

The latest certification information for Oracle Fusion Middleware 11g Release 1 (11.1.1) is available at the Oracle Fusion Middleware Supported System Configurations Central Hub:

http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-certification-100350.html

1.5.2 Certification Exceptions

This section describes known issues (exceptions) and their workarounds that are associated with Oracle Fusion Middleware 11g certifications. For a list of known issues that are associated with specific Oracle Fusion Middleware 11g Release 1 (11.1.1) components, see the Release Notes for the specific Oracle Fusion Middleware 11g Release 1 (11.1.1) component.

This section contains the following topics:

- Section 1.5.2.1, "Certification Information for Oracle Fusion Middleware 11g R1 with Oracle Database 11.2.0.1"
- Section 1.5.2.3, "Restrictions on Specific Browsers"

1.5.2.1 Certification Information for Oracle Fusion Middleware 11g R1 with Oracle Database 11.2.0.1

If you choose to configure Oracle Internet Directory with Database vault, do the following:

1. Apply patch 8897382 to fix bug 8897382.

> **Note:**   the following workaround is required only if the Oracle Fusion
> Middleware version is 11.1.1.1.0 (11gR1). This issue will be fixed in
> 11.1.1.2.0.

2. Apply the workaround for bug 8987186 by editing `<OH>/ldap/datasecurity/dbv_ oid_command_rules.sql` file and find the following declaration:

```
/declare
 begin
     dvsys.dbms_macadm.CREATE_COMMAND_RULE(
     command => 'CONNECT'
     ,rule_set_name => 'OID App Access'
     ,object_owner => 'ODS'
     ,object_name => '%'
     ,enabled => 'Y');
  commit;
 end;/
```

and change the line that is indicated in **bold**:

```
/declare
 begin
     dvsys.dbms_macadm.CREATE_COMMAND_RULE(
     command => 'CONNECT'
     ,rule_set_name => 'OID App Access'
     ,object_owner => '%'
     ,object_name => '%'
     ,enabled => 'Y');
 commit;
end;/
```

1.5.2.2 Excel Export Issue on Windows Vista Client

Vista prevents applets from creating files in the local file system if the User Account
Control (UAC) system is turned on. You can experience this problem if you have the
UAC setting enabled on Vista and if you use a component like Discoverer Plus. If you
start Discoverer Plus and if you try exporting a worksheet to a specified directory, the
exporting succeeds but you cannot see the exported file in the directory. The available
workarounds is to disable UAC and set protection mode to OFF. Refer to Bugs 8410655
and 7328867 for additional information.

1.5.2.3 Restrictions on Specific Browsers

1.5.2.3.1   Unable to View the Output of a JSPX Page in Internet Explorer 7

When a JSPX page is deployed and is then accessed using Internet Explorer 7 (IE7), the
XHTML source is displayed instead of the page contents. This occurs in both normal
and osjp.next modes.

The workaround is to instruct application users to access the application with Firefox
or Safari.

1.5.2.3.2   Java Plugin for Discoverer Plus Not Downloaded Automatically on Firefox   When you
attempt to connect to Discoverer Plus by using the Mozilla Firefox browser on a
computer that does not have Java 1.6 installed, Firefox does not download the JRE 1.6

plug-in automatically. Instead, Firefox displays the following message: "Additional plugins are required to display this page..."

The workaround is to download the JRE 1.6 plug-in by clicking the Install Missing Plugin link to install it manually.

1.5.3 JMSDELIVERYCOUNT Is Not Set Properly

When using AQ JMS with Oracle Database 11.2.0.1, JMXDELIVERYCOUNT is not set correctly.

The workaround is to apply patch 9932143 to Oracle Database 11.2.0.1. For more information, contact Oracle Support.

1.5.4 Viewer Plugin Required On Safari 4 To View Raw XML Source

You need a Safari plugin to view raw XML. If there is no plugin installed, you will see unformatted XML which will be difficult to read. This is because Safari applies a default stylesheet, which only displays the text nodes in the XML document.

As a workaround, go to **View > View Source** in the Safari menu bar to see the full XML of the metadata document. Also, selecting **File > Save** and choosing **XML Files** as the file type, will correctly save the XML metadata file with all the markup intact.

1.6 Downloading and Applying Required Patches

After you install and configure Oracle Fusion Middleware 11g Release 1 (11.1.1.4.0), there might be cases where additional patches are required to address specific known issues.

Complete the following steps to obtain a patch:

1. Log into the My Oracle Support web site at `https://myoraclesupport.com/`.

2. Click the Patches & Updates tab.

3. Use the Patch Search area to locate patches.

4. On the Patch Search Results page, select a patch and click Download to download the patch.

5. Install the patch by following the instructions in the README file that is included with the patch.

Table 1–1 lists some of the specific Oracle Fusion Middleware patches that were available at the time these release notes were published.

Table 1–1   Patches Required to Fix Specific Issues with Oracle Fusion Middleware 11g

Oracle Fusion Middleware Product or Component	Bug/Patch Number	Description
Oracle SOA Suite - Oracle BPM Worklist application	9901600	Unless you apply this patch, errors appear in the log files when you access the Event Driven page in the Oracle Business Process Management Worklist application.

Table 1–1 (Cont.) Patches Required to Fix Specific Issues with Oracle Fusion

Oracle Fusion Middleware Product or Component	Bug/Patch Number	Description
Oracle XDK for Java	10337609	This patch fixes the following issue.
		If you use the XSU utility to insert some data into the database, and the database connection had the connection property called `oracle.jdbc.J2EE13Compliant` set to "true", and the target column was some kind of numeric column, then it is possible for the insert to fail with a the following error:
		`java.lang.NumberFormatException`

1.7 Licensing Information

Licensing information for Oracle Fusion Middleware is available at:

http://oraclestore.oracle.com

Detailed information regarding license compliance for Oracle Fusion Middleware is available at:

http://www.oracle.com/technetwork/middleware/ias/overview/index.html

2

Oracle Fusion Middleware Administration

This chapter describes issues associated with Oracle Fusion Middleware administration. It includes the following topics:

- Section 2.1, "General Issues and Workarounds"
- Section 2.2, "Configuration Issues and Workarounds"
- Section 2.3, "Documentation Errata for the Oracle Fusion Middleware Administrator's Guide"

> **Note:** This chapter contains issues you might encounter while administering any of the Oracle Fusion Middleware products.
>
> Be sure to review the product-specific release note chapters elsewhere in this document for any additional issues specific to the products you are using.

2.1 General Issues and Workarounds

This section describes general issue and workarounds. It includes the following topics:

- Section 2.1.1, "Clarification About Path for OPMN"
- Section 2.1.2, "Fusion Middleware Control May Return Error in Mixed IPv6 and IPv4 Environment"
- Section 2.1.3, "Deploying JSF Applications"
- Section 2.1.4, "Limitations in Moving from Test to Production"
- Section 2.1.5, "Limitations in Moving Oracle Business Process Management from Test to Production Environment"
- Section 2.1.6, "Message Returned with Incorrect Error Message Level"

2.1.1 Clarification About Path for OPMN

OPMN provides the `opmnctl` command. The executable file is located in the following directories:

- *ORACLE_HOME*/opmn/bin/opmnctl: The opmnctl command from this location should be used only to create an Oracle instance or a component for an Oracle instance on the local system. Any opmnctl commands generated from this location should not be used to manage system processes or to start OPMN.

On Windows, if you start OPMN using the opmnctl start command from this location, OPMN and its processes will terminate when the Windows user has logged out.

- *ORACLE_INSTANCE*/bin/opmnctl: The opmnctl command from this location provides a per Oracle instance instantiation of opmnctl. Use opmnctl commands from this location to manage processes for this Oracle instance. You can also use this opmnctl to create components for the Oracle instance.

  On Windows, if you start OPMN using the opmnctl start command from this location, it starts OPMN as a Windows service. As a result, the OPMN parent process, and the processes which it manages, persist after the MS Windows user has logged out.

2.1.2 Fusion Middleware Control May Return Error in Mixed IPv6 and IPv4 Environment

If your environment contains both IPv6 and IPv4 network protocols, Fusion Middleware Control may return an error in certain circumstances.

If the browser that is accessing Fusion Middleware Control is on a host using the IPv4 protocol, and selects a control that accesses a host using the IPv6 protocol, Fusion Middleware Control will return an error. Similarly, if the browser that is accessing Fusion Middleware Control is on a host using the IPv6 protocol, and selects a control that accesses a host using the IPv4 protocol, Fusion Middleware Control will return an error.

For example, if you are using a browser that is on a host using the IPv4 protocol and you are using Fusion Middleware Control, Fusion Middleware Control returns an error when you navigate to an entity that is running on a host using the IPv6 protocol, such as in the following situations:

- From the Oracle Internet Directory home page, you select Directory Services Manager from the Oracle Internet Directory menu. Oracle Directory Services Manager is running on a host using the IPv6 protocol.

- From a Managed Server home page, you click the link for Oracle WebLogic Server Administration Console, which is running on IPv6.

- You test Web Services endpoints, which are on a host using IPv6.

- You click an application URL or Java application which is on a host using IPv6.

To work around this issue, you can add the following entry to the /etc/hosts file:

```
nnn.nn.nn.nn  myserver-ipv6 myserver-ipv6.example.com
```

In the example, *nnn.nn.nn.nn* is the IPv4 address of the Administration Server host, myserver.example.com.

2.1.3 Deploying JSF Applications

Some JSF applications may experience a memory leak due to incorrect Abstract Window Toolkit (AWT) application context classloader initialization in the Java class library. Setting the `oracle.jrf.EnableAppContextInit` system property to **true** will attempt eager initialization of the AWT application context classloader to prevent this leak from occurring. By default, this property is set to **false**.

2.1.4 Limitations in Moving from Test to Production

Note the following limitations in moving from test to production:

- If your environment includes Oracle WebLogic Server which you have upgraded from one release to another (for example from 10.3.4 to 10.3.5), the pasteConfig scripts fails with the following error:

```
Oracle_common_home/bin/unpack.sh line29:
WL_home/common/bin/unpack.sh No such file or directory
```

To work around this issue, edit the following file:

```
MW_HOME/utils/uninstall/WebLogic_Platform_10.3.5.0/WebLogic_Server_10.3.5.0_
Core_Application_Server.txt file
```

Add the following entries:

```
/wlserver_10.3/server/lib/unix/nodemanager.sh
/wlserver_10.3/common/quickstart/quickstart.cmd
/wlserver_10.3/common/quickstart/quickstart.sh
/wlserver_10.3/uninstall/uninstall.cmd
/wlserver_10.3/uninstall/uninstall.sh
/utils/config/10.3/setHomeDirs.cmd
/utils/config/10.3/setHomeDirs.sh
```

- When you are moving Oracle Virtual Directory, the Oracle instance name in the source environment cannot be the same as the Oracle instance name in the target environment. The Oracle instance name in the target must be different than the name in the source.

- After you move Oracle Virtual Directory from one host to another, you must add a self-signed certificate to the Oracle Virtual Directory keystore and EM Agent wallet on Host B. Take the following steps:

  a. Set the ORACLE_HOME and JAVA_HOME environment variables.

  b. Delete the existing self-signed certificate:

  ```
  $JAVA_HOME/bin/keytool -delete -alias serverselfsigned
    -keystore ORACLE_INSTANCE/config/OVD/ovd_component_
  name/keystores/keys.jks
    -storepass OVD_Admin_password
  ```

  c. Generate a key pair:

  ```
  $JAVA_HOME/bin/keytool -genkeypair
    -keystore ORACLE_INSTANCE/config/OVD/ovd_component_
  name/keystores/keys.jks
    -storepass OVD_Admin_password -keypass OVD_Admin_password -alias
  serverselfsigned
    -keyalg rsa -dname "CN=Fully_qualified_hostname,O=test"
  ```

  d. Export the certificate:

  ```
  $JAVA_HOME/bin/keytool -exportcert
    -keystore ORACLE_INSTANCE/config/OVD/ovd_component_
  name/keystores/keys.jks
    -storepass OVD_Admin_password -rfc -alias serverselfsigned
   -file ORACLE_INSTANCE/config/OVD/ovd_component_name/keystores/ovdcert.txt
  ```

  e. Add a wallet to the EM Agent:

  ```
  ORACLE_HOME/../oracle_common/bin/orapki wallet add
    -wallet ORACLE_INSTANCE/EMAGENT/EMAGENT/sysman/config/monwallet
    -pwd EM_Agent_Wallet_password -trusted_cert
    -cert ORACLE_INSTANCE/config/OVD/ovd_component_name/keystores/ovdcert.txt
  ```

f. Stop and start the Oracle Virtual Directory server.

g. Stop and start the EM Agent.

■ The copyConfig operation fails if you are using IPv6 and the Managed Server listen address is not set.

To work around this problem, set the Listen Address for the Managed Server in the Oracle WebLogic Server Administration Console. Navigate to the server. Then, on the Settings for server page, enter the Listen Address. Restart the Managed Servers.

■ When you are moving Oracle Platform Security and you are using an LDAP store, the LDAP store on the source environment must be running and it must be accessible from the target during the pasteConfig operation.

■ The movement scripts do not support moving Oracle Identity Manager to another environment, either through the movement scripts or manual steps. In addition, if Oracle Identity Manager is part of the source environment of other components, the movement scripts for that environment will fail. This restriction applies to all 11.1.1 releases of Oracle Identity Manager.

■ For Oracle Business Activity Monitoring, if there are remote servers in the test environment and you do not use shared disks, the copyConfig and pasteConfig scripts will fail. In addition, if Oracle BAM is part of the source domain that you are moving, the scripts will fail. For example, if Oracle BAM is part of a domain that contains the SOA Infrastructure and Oracle BPEL Process Manager, the copyConfig and pasteConfig scripts will fail.

To move components other than Oracle BAM move the BAM_t2p_registration.xml file from the following directory, into any other directory:

```
SOA_ORACLE_HOME/clone/provision
```

Then, to move Oracle BAM, take the following steps:

1. At the source, export the ORACLEBAM database schema, using the following commands (*ORACLE_HOME* is the Oracle home for the Oracle Database):

```
ORACLE_HOME/bin/sqlplus "sys/password as sysdba"
create or replace directory directory as 'path';
grant read,write on DIRECTORY directory to oraclebam;
exit;

ORACLE_HOME/bin/expdp userid=oraclebam/bam@connect_id
       directory=directory dumpfile=orabam.dmp
       schemas=oraclebam logfile=oraclebam_date.log
```

See Also: "Overview of Oracle Data Pump" and other chapters on Oracle Data Pump in *Oracle Database Utilities*

The Oracle BAM objects, such as reports, alerts, and data definitions from the source environment are exported.

2. At the target, import the ORACLEBAM database schema that you exported from the source environment, using the following commands (*ORACLE_HOME* is the Oracle home for the Oracle Database):

```
ORACLE_HOME/bin/impdp userid=system/password dumpfile=ORACLEBAM.DMP
   remap_schema=oraclebam:oraclebam TABLE_EXISTS_ACTION=replace
ORACLE_HOME/bin/sqlplus "sys/password as sysdba"
```

```
alter user oraclebam account unlock;
alter user oraclebam identified by bam;
```

Note that impdp may report the following errors:

– `ORA-00959: tablespace <source tablespace> does not exist.`

You can fix this error by creating the tablespace in the import database before the import or use REMAP_TABLESPACES to change the tablespace referenced in the table definition to a tablespace in the import database.

– You may see failure with restoring index statistics if you use an Oracle database version earlier than 11.2.0.2. You can work around this issue by rebuilding the index statistics after import.

3. Restart the Oracle Business Activity Monitoring Managed Server.

■ When you are moving Oracle Platform Security Services and the data is moving from LDAP to LDAP, the source and target LDAP domain component hierarchy must be same. If it is not, the Oracle Platform Security Services data movement will fail. For example, if the source is hierarchy is configured as `dc=us,dc=com`, the target LDAP must have the same domain component hierarchy.

■ Moving Oracle Access Manager may fail.

2.1.5 Limitations in Moving Oracle Business Process Management from Test to Production Environment

Note the following limitations when moving Oracle Business Process Management from a test environment to a production environment:

■ When you move Oracle Business Process Management from a test environment to a production environment as described in the Task "Move Oracle Business Process Management to the New Production Environment" in the *Oracle Fusion Middleware Administrator's Guide*, Oracle Business Process Management Organization Units are not imported.

To work around this issue, you must re-create the Organization Units in the production environment. In addition, if any Organization associations with the Calendar rule for the Role exist in the test environment, you must re-create them, using the Roles screen.

For information, see "Working with Organizations" in the *Oracle Fusion Middleware Modeling and Implementation Guide for Oracle Business Process Management.*

■ Oracle recommends that you move artifacts and data into a new, empty production environment. If the same artifacts are present or some data has been updated on the production environment, the procedure does not update those artifacts.

2.1.6 Message Returned with Incorrect Error Message Level

In Fusion Middleware Control, when you select a metadata repository, the following error messages are logged:

```
Partitions is NULL
Partitions size is 0
```

These messages are logged at the Error level, which is incorrect. They should be logged at the debug level, to provide information.

2.2 Configuration Issues and Workarounds

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

- Section 2.2.1, "Must Stop Oracle SOA Suite Managed Server Before Stopping soa-infra"
- Section 2.2.2, "Fusion Middleware Control Does Not Keep Column Preferences in Log Viewer Pages"
- Section 2.2.3, "Topology Viewer Does Not Display Applications Deployed to a Cluster"
- Section 2.2.4, "Changing Log File Format"
- Section 2.2.5, "SSL Automation Tool Configuration Issues"

2.2.1 Must Stop Oracle SOA Suite Managed Server Before Stopping soa-infra

Using Fusion Middleware Control, if you stop a Oracle SOA Suite Managed Server before you stop soa-infra, then you start the Managed Server, the soa-infra application is not restarted automatically. If you try to restart the soa-infra, you will received an error. When you encounter the problem, you cannot close the dialog box in the browser, so you cannot take any further actions in Fusion Middleware Control.

To avoid this situation, you should stop the Managed Server, which stops all applications, including the soa-infra application. To start the Managed Server and the soa-infra, start the Managed Server.

To close the browser dialog box, enter the following URL in your browser:

```
http://host:port/em
```

2.2.2 Fusion Middleware Control Does Not Keep Column Preferences in Log Viewer Pages

In Fusion Middleware Control, you can reorder the columns in the pages that display log files and log file messages. However, if you navigate away from the page and then back to it, the columns are set to their original order.

2.2.3 Topology Viewer Does Not Display Applications Deployed to a Cluster

In Fusion Middleware Control, the Topology Viewer does not display applications that are deployed to a cluster.

2.2.4 Changing Log File Format

When you change the log file format note the following:

- When you change the log file format from text to xml, specify the path, but omit the file name. The new file will be named log. xml.
- When you change the log file format from xml to text, specify both the path and the file name.

2.2.5 SSL Automation Tool Configuration Issues

The following issues have been observed when using the SSL Automation tool:

- The script creates intermediate files that contain passwords in clear text. If the script fails, these files might not be removed. After a script failure, delete all files under the `rootCA` directory.

- If Oracle Internet Directory password policy is enabled, passwords entered for wallet or keystore fail if they violate the policy.

- Before you run the script, you must have JDK 1.6 installed and you must have `JAVA_HOME` set in your environment.

- If the Oracle Virtual Directory configuration script fails, check the run log or enable debug for the shell script to view specific errors. If the error message looks similar to this, rerun the script with a new keystore name:

```
WLSTException: Error occured while performing cd : Attribute
oracle.as.ovd:type=component.listenersconfig.sslconfig,name=LDAP SSL
Endpoint,instance=%OVD_INSTANCE%,component=ovd1 not found
```

2.3 Documentation Errata for the *Oracle Fusion Middleware Administrator's Guide*

The following section describes documentation errata for the *Oracle Fusion Middleware Administrator's Guide*:

- Section 2.3.1, "Combining All Oracle Homes in a Single Inventory File"
- Section 2.3.2, "Correction to Link About Supported Databases for MDS."

2.3.1 Combining All Oracle Homes in a Single Inventory File

All Oracle homes in the Middleware home on the source environment must be registered in the same Oracle inventory. If you have installed multiple components under the same Middleware home, but used different Oracle inventory locations, the scripts are not able to detect all of the Oracle homes.

To work around this issue, take the following steps:

1. Create a new oraInst.loc pointing to the inventory to which you want to register, using the following commands:

```
cat oraInst.loc
        inventory_loc=new_oraInst_loc_location
        inst_group=g900
```

2. Detach the Oracle Home from its current inventory:

```
cd ORACLE_HOME/oui/bin
        ./detachHome.sh -invPtrLoc ORACLE_HOME/oraInst.loc
```

3. Attach the Oracle Home to the new inventory by passing new oraInst.loc created in step 1:

```
./attachHome.sh -invPtrLoc new_oraInst_loc_location
```

Do this for every Oracle home in the Middleware home.

4. Set the necessary dependencies between Oracle homes if required (for example most Oracle homes depend on oracle_common). The dependencies are required when you uninstall. You can check the existing dependencies from the old inventory by checking the file oraInventory/ContentsXML/inventory.xml. The following shows an example of the file:

```
<?xml version="1.0" standalone="yes" ?>
<!-- Copyright (c) 1999, 2010, Oracle. All rights reserved. -->
<!-- Do not modify the contents of this file by hand. -->
<VERSION_INFO>
   <SAVED_WITH>11.1.0.9.0</SAVED_WITH>
   <MINIMUM_VER>2.1.0.6.0</MINIMUM_VER>
</VERSION_INFO>
<HOME_LIST>
<HOME NAME="OH339778486" LOC="/scratch/oracle/11gMW/oracle_common" TYPE="O"
IDX="1">
   <REFHOMELIST>
       <REFHOME LOC="/scratch/oracle/11gMW/Oracle_WT1"/>
   </REFHOMELIST>
</HOME>
<HOME NAME="OH299443989" LOC="/scratch/oracle/11gMW/Oracle_WT1" TYPE="O"
IDX="2">
   <DEPHOMELIST>
       <DEPHOME LOC="/scratch/oracle/11gMW/oracle_common"/>
   </DEPHOMELIST>
</HOME>
</HOME_LIST>
<COMPOSITEHOME_LIST>
</COMPOSITEHOME_LIST>
</INVENTORY>
```

5. Run the following command to set up dependencies. Note that this is not mandatory for the movement scripts to work, but is needed when you uninstall.

```
./runInstaller -updateHomeDeps
"HOME_DEPENDENCY_LIST={/scratch/oracle/11gMW/Oracle_WT1:/scratch/oracle/11gMW/
oracle_common}" -invPtrLoc ~/oraInst.loc
```

2.3.2 Correction to Link About Supported Databases for MDS

The section "Databases Supported by MDS" in the *Oracle Fusion Middleware Administrator's Guide* contains an incorrect link to *Oracle Fusion Middleware System Requirements and Specifications*. The correct link is:

http://www.oracle.com/technetwork/middleware/ias/downloads/fusion-requirements-100147.html

2.3.3 Clarification of Move Plan Properties for Oracle WebCenter Content

For the Oracle WebCenter Content server or Oracle WebCenter Content: Records, you have two options for moving the component:

- copy: This option copies the entire source system, including configuration and data, to the target system. Although this is the default, Oracle does not recommend using this option because it moves test data, which might not be appropriate for your environment.

- init: This option initializes a new Content Server or Records instance in the target system. It does not move data.

3

Oracle Enterprise Manager Fusion Middleware Control

This chapter describes issues associated with Fusion Middleware Control. It includes the following topics:

- Section 3.1, "General Issues and Workarounds"
- Section 3.2, "Documentation Errata"

> **Note:** This chapter contains issues you might encounter while using Fusion Middleware Control to manage any of the Oracle Fusion Middleware products.
>
> Be sure to review the product-specific release note chapters elsewhere in this document for any additional issues specific to the products you are using.

3.1 General Issues and Workarounds

This section describes general issue and workarounds. It includes the following topic:

- Section 3.1.1, "Product Behavior After a Session Timeout"
- Section 3.1.2, "Fixing Errors Displayed When Selecting the TopLink Sessions Command in Fusion Middleware Control"
- Section 3.1.3, "Verifying the DISPLAY Variable to Correct Problems Displaying Graphics"
- Section 3.1.4, "Incomplete Information Available on the MDS Configuration Page"
- Section 3.1.5, "Exceptions When Starting Oracle Web Cache After Accessing Configuration Pages from Oracle Enterprise Manager Fusion Middleware Control"
- Section 3.1.6, "Table Display Problems When Using Some Language Variants"
- Section 3.1.7, "Problems When Internet Explorer 7 is Configured to Open Pop-Up Windows in a New Tab."
- Section 3.1.8, "Additional Fusion Middleware Control Release Notes"
- Section 3.1.9, "Problem with Performance Charts After Moving a Chart Region"
- Section 3.1.10, "Display Problems When Running JDK 160_18 on Intel Systems that Support the SSE4.2 Instruction Set"
- Section 3.1.11, "Adobe Flash Plugin Required When Displaying Fusion Middleware Control in the Apple Safari Browser"

3.1.1 Product Behavior After a Session Timeout

For security purposes, your sessions with the Fusion Middleware Control will time out after a predefined period of inactivity, and you will be asked to log in to the console again. In most cases, you are returned to the page you had displayed before the session timed out.

However, in some circumstances, such as when you are using the Fusion Middleware Control deployment wizards, you will not be returned the same location in the product after you log in. In those cases, you will have to navigate to the specific Fusion Middleware Control page you were using before the session timed out.

3.1.2 Fixing Errors Displayed When Selecting the TopLink Sessions Command in Fusion Middleware Control

In Fusion Middleware Control, you can view the Oracle TopLink management pages by selecting **TopLink Sessions** from the **Application Deployment** menu.

However, if you receive an error message when you select this command, you can remedy the problem by adding one or both of the following MBean system properties, as follows

On Windows operating systems:

```
rem set JAVA_OPTIONS=%JAVA_OPTIONS% -Declipselink.register.dev.mbean=true
rem set JAVA_OPTIONS=%JAVA_OPTIONS% -Declipselink.register.run.mbean=true
```

On UNIX operating systems:

```
JAVA_OPTIONS="${JAVA_OPTIONS} -Declipselink.register.dev.mbean=true"
JAVA_OPTIONS="${JAVA_OPTIONS} -Declipselink.register.run.mbean=true"
```

For more information, see the following URL on the Eclipse WIKI Web site:

```
http://wiki.eclipse.org/Integrating_EclipseLink_with_an_Application_Server_
(ELUG)#How_to_Integrate_JMX
```

3.1.3 Verifying the DISPLAY Variable to Correct Problems Displaying Graphics

The graphics subsystem for the Fusion Middleware Control generates some of its graphics on demand, and if the DISPLAY environment variable is set, Fusion Middleware Control tries to open the specified DISPLAY environment.

If Fusion Middleware Control fails to start due to graphics errors, check to see whether the DISPLAY environment variable is set to a proper DISPLAY environment.

If the DISPLAY environment variable is set incorrectly, unset the DISPLAY environment variable. Then restart Fusion Middleware Control.

3.1.4 Incomplete Information Available on the MDS Configuration Page

After deploying a Oracle SOA Suite application that requires Oracle Metadata Services (MDS), in some rare circumstances, you may find that the MDS configuration page for the application does not contain complete information about the MDS repository.

To address this problem, use the Metadata Repositories page to register the repository again. For more information, see "Create and Register an MDS Repository" in the Fusion Middleware Control online help.

3.1.5 Exceptions When Starting Oracle Web Cache After Accessing Configuration Pages from Oracle Enterprise Manager Fusion Middleware Control

To start, stop, or restart Oracle Web Cache from Fusion Middleware Control, from the **Web Cache** menu, you can choose **Control**, and then **Start Up**, **Shut Down**, or **Restart**.

If you select **Shut Down**, and then **Start Up** on a configuration page, Fusion Middleware Control may return exception errors. If these errors occur in your environment, perform the operations from Web Cache Home page.

3.1.6 Table Display Problems When Using Some Language Variants

When you use Fusion Middleware Control in some non-English language environments, some of the tables on the component home pages display incorrectly. For example, some rows of the table appear to be merged and without content.

These issues can be safely ignored, since no data on the pages is hidden. The table cells that appear incorrectly do not contain performance data or other information.

3.1.7 Problems When Internet Explorer 7 is Configured to Open Pop-Up Windows in a New Tab

If you configure Microsoft Internet Explorer 7 so it always displays pop-up windows in a new browser tab, then you may experience problems using Fusion Middleware Control. For example, in some cases, Enteprise Manager content displays in a new tab as expected, but Fusion Middleware Control stops responding to mouse clicks. The only way to continue working is to close the tab.

To avoid this problem, use the Internet Options dialog box in Internet Explorer to disable the option for displaying pop-up windows in a new tab.

3.1.8 Additional Fusion Middleware Control Release Notes

Refer to Chapter 4, "Oracle Fusion Middleware Administration" for additional Fusion Middleware Control release notes.

Additional Fusion Middleware Control release notes are also included in the component chapters of the Release Notes.

3.1.9 Problem with Performance Charts After Moving a Chart Region

Oracle Enterprise Manager Fusion Middleware Control provides performance charts on many of the component home pages. For example, it provides charts that display the current response and load metrics, as well as the CPU and memory usage.

If you move one of these charts to a new location on the home page, then sometimes the Table View link (which provides a tabular view of the data) does not work properly and the chart might stop refreshing automatically.

To fix this problem, click the refresh icon at the top, right corner of the page to refresh the page.

3.1.10 Display Problems When Running JDK 160_18 on Intel Systems that Support the SSE4.2 Instruction Set

Some of the newer Intel-based computers support the SSE4.2 instruction set. If you are using the `160_18` version of the Java Development Kit (JDK) on one of these computers, then you might see some display issues in the Oracle Enterprise Manager Fusion Middleware Control.

This is related to the following issue on the Sun Developer Network (SDN):

http://bugs.sun.com/view_bug.do?bug_id=6875866

In particular, when using Fusion Middleware Control, you might experience some font size and alignment issues, and an error similar to the following appears in the server log file:

```
Servlet failed with Exception
java.lang.StringIndexOutOfBoundsException: String index out of range
```

To remedy this problem:

1. Locate and open the `setDomainEnv` configuration file in your Oracle WebLogic Server domain home.

   For example:

   `DOMAIN_HOME/bin/setDomainEnv.sh`

2. Add the following to the `JAVA_OPTIONS` entry in the `setDomainEnv` file and save your changes:

   `-XX:-UseSSE42Intrinsics`

   For example:

   ```
   JAVA_OPTIONS="${JAVA_OPTIONS} ${JAVA_PROPERTIES}
    -Dwlw.iterativeDev=${iterativeDevFlag} -Dwlw.testConsole=${testConsoleFlag}
    -Dwlw.logErrorsToConsole=${logErrorsToConsoleFlag} -XX:-UseSSE42Intrinsics"
   ```

3. Locate the following directory in your Oracle WebLogic Server domain home:

   `DOMAIN_HOME/servers/AdminServer/tmp/_WL_user/em/jmb4hf/public/adf/styles/cache/`

4. Delete the style sheets (.css) files from the directory.

5. Restart the Oracle WebLogic Server domain.

6. Clear the cache in your Web browser.

3.1.11 Adobe Flash Plugin Required When Displaying Fusion Middleware Control in the Apple Safari Browser

To use the Apple Safari browser to display Fusion Middleware Control, you must have the Adobe Flash browser plugin installed.

If you experience problems displaying graphics or other Fusion Middleware Control elements, download and install a newer version of the plugin from the Adobe Web site.

3.1.12 Unable to Access Fusion Middleware Control After Installing the Oracle Identity Management 11.1.1.4.0 Patch Set

After you install the Oracle Fusion Middleware 11*g* Release 1 (11.1.1.4.0) patch set, you might experience problems when accessing the Fusion Middleware Control pages used to manage the Oracle Identity Management components.

Specifically, an error similar to the following appears in the Administration Server log files:

```
[ACTIVE].ExecuteThread: '0' for queue: 'weblogic.kernel.Default
(self-tuning)'] [userId: <anonymous>] [ecid:
0000In^zrbUF8DQ6ubU4UH1D1qXF00000s,0] [APP: em] [[
oracle.adf.controller.ControllerException: ADFC-00025: The ADF controller has
not been successfully initalized.
```

If you experience this problem, restart the Administration Server. After the restart, you should be able to log in and access the Fusion Middleware Control pages.

3.1.13 Error Message on Deleting the Shared Folder After Scale-Out

If Oracle Essbase is configured, then the Shared Folder Path field is displayed in the Essbase Agents region on the Failover page of the Availability tab for the Business Intelligence node in Fusion Middleware Control.

You use the Shared Folder Path field when setting up a highly available Essbase deployment. The field specifies a shared location for Essbase configuration files, security files, and all applications and corresponding databases.

If you remove an existing value in the Shared Folder Path field and attempt to apply the change without specifying a replacement value, then the following error message is displayed:

OBI_SYSMAN_1261, "You must not delete the shared folder after a previous scaleout"

To continue, either specify a valid path to the shared location in the Shared Folder Path field, or discard the change.

3.1.14 Coreapplication Process for Oracle Business Intelligence Reported as Down in Fusion Middleware Control

In Fusion Middleware Control, the coreapplication process for Oracle Business Intelligence is erroneously displayed as not running (or "down") even when it is running (or "up"). For example, you might see an error message similar to the following one:

Restart All – Failed. Restart failed with 2 errors and 0 warnings. Problems reported by:coreapplication.

To work around this issue, wait for approximately five to ten minutes, then restart all processes in Fusion Middleware Control. The exact time to wait depends on the environment (for example, on the size of the repository and on the speed of the database connection).

3.1.15 Online Help Error Message in Enterprise Manager Log Files Can Be Ignored

When acessing specific topics in the online help table of contents for Oracle Enterprise Manager Fusion Middleware Control, an error message and a warning message might appear in the log files. These messages can be ignored.

Specifically, the following example shows an error messages that can appear in the `AdminServer-diagnostic.log` file. You can safely ignore these messages:

```
<Apr 15, 2012 12:58:15 PM PDT> <Error>
<oracle.help.web.rich.converter.RichTopicConverter> <BEA-000000> <JAR entry
loe.htm not found in
/scratch/pabharga/wls/oracle_common/doc/online_help/owcag/owcag_help.jar>
<Apr 15, 2012 12:58:15 PM PDT> <Warning>
<oracle.help.web.util.OHWLoggerUtils> <HELP-10055> <trying to access invalid
topic id owcag/loe.htm>
```

3.1.16 Incorrect or Missing Metrics Help Information

When you use Fusion Middleware Control to view metrics, you can obtain Help on the metrics. For this release, all metrics are described in *Oracle Enterprise Manager Oracle Fusion Middleware Metric Reference Manual*. Consult that manual for complete descriptions of metrics.

3.1.17 Error When Accessing the Entry Point URL for the NonJ2EEManagement Internal Application

When you apply an Oracle Fusion Middleware 11*g* patch set to an existing 11*g* Middleware home, you might be instructed to run the `upgradenonj2eeapp` script, which is required when you are patching Oracle Fusion Middleware 11*g* system components. For more information, see "Upgrading System Components" in the *Oracle Fusion Middleware Patching Guide*.

This script deploys an internal application called NonJ2EEManagement to your Oracle WebLogic Server domain. After you run the script, the NonJ2EEManagement application appears in the list of internal applications in Oracle Enterprise Manager Fusion Middleware Control.

If you attempt to navigate to the application home page of the NonJ2EEManagement application, and you click the URL for the entry point for the application, you will receive an error in your browser.

This is a known issue. The NonJ2EEManagement application, like many of the internal applications, does not have a valid context root or HTML entry point. It is used exclusively to facilicate the patching of system components in your Middleware home.

3.2 Documentation Errata

This section describes documentation errata. It includes the following topics:

- Section 3.2.1, "Search Unavailable for Some Embedded Administrator's Guides"
- Section 3.2.2, "Patching Section in the Fusion Middleware Control Online Help is Not Supported"

■ Section 3.2.3, "Help Topic for Secure Sockets Layer Tab Needs Updated Description for WebLogic CA Certificate"

3.2.1 Search Unavailable for Some Embedded Administrator's Guides

Search is unavailable for the following embedded administrator's guides in the Fusion Middleware Control help system:

■ *Oracle Fusion Middleware Administrator's Guide for Oracle Identity Federation*

■ *Oracle Fusion Middleware System Administrator's Guide for Content Server* for installations with Oracle Enterprise Content Management Suite

3.2.2 Patching Section in the Fusion Middleware Control Online Help is Not Supported

The Fusion Middleware Control online help system includes the contents of the *Oracle Fusion Middleware System Administrator's Guide for Oracle Business Intelligence Enterprise Edition*. In the Fusion Middleware Control online help, this guide includes Section 17.11, which describes patching the Oracle BI Presentation Catalog. This functionality is not supported in Release 11.1.1.5. The section is not included in the version of the guide that ships with Oracle BI EE or that is posted on the Oracle Technology Network.

3.2.3 Help Topic for Secure Sockets Layer Tab Needs Updated Description for WebLogic CA Certificate

An update is required in the Fusion Middleware Control help system for Oracle Business Intelligence. In the help topic for the Security page: Secure Sockets Layer tab, the Description for the WebLogic CA certificate element must include the following text:

Supported types are .der and .pem. Ensure that the certificate file has the correct extension.

4

Oracle Fusion Middleware High Availability and Enterprise Deployment

This chapter describes issues associated with Oracle Fusion Middleware high availability and enterprise deployment. It includes the following topics:

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> **Note:** This chapter contains issues you might encounter while configuring any of the any of the Oracle Fusion Middleware products for high availability or an enterprise deployment.
>
> Be sure to review the product-specific release note chapters elsewhere in this document for any additional issues specific to the products you are using.

4.1 General Issues and Workarounds

This section describes general issue and workarounds. It includes the following topics:

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- Section 4.1.8, "Installing Additional Oracle Portal, Forms, Reports, and Discoverer Instances After Upgrading Oracle Single Sign-On 10g to Oracle Access Manager 11g"

- Section 4.1.9, "JMS Instance Fails In a BI Publisher Cluster"

- Section 4.1.10, "Undelivered Records not Recovered During RAC Failover of Singleton SOA Server"

- Section 4.1.11, "Synchronous BPEL Process Issues"

4.1.1 Secure Resources in Application Tier

It is highly recommended that the application tier in the SOA Enterprise Deployment topology and the WebCenter Enterprise Deployment topology is protected against anonymous RMI connections. To prevent RMI access to the middle tier from outside the subset configured, follow the steps in "Configure connection filtering" in the Oracle WebLogic Server Administration Console Online Help. Execute all of the steps, except as noted in the following:

1. Do not execute the substep for configuring the default connection filter. Execute the substep for configuring a custom connection filter.

2. In the Connection Filter Rules field, add the rules that will allow all protocol access to servers from the middle tier subnet while allowing only http(s) access from outside the subnet, as shown in the following example:

```
nnn.nnn.0.0/nnn.nnn.0.0  * * allow
0.0.0.0/0 * * allow t3 t3s
```

4.1.2 Accessing Web Services Policies Page in Cold Failover Environment

In a Cold Failover Cluster (CFC) environment, the following exception is displayed when Web Services policies page is accessed in Fusion Middleware Control:

```
Unable to connect to Oracle WSM Policy Manager.
Cannot locate policy manager query/update service. Policy manager service
look up did not find a valid service.
```

To avoid this, implement one the following options:

- Create virtual hostname aliased SSL certificate and add to the key store.

- Add "-Dweblogic.security.SSL.ignoreHostnameVerification=true" to the JAVA_OPTIONS parameter in the startWeblogic.sh or startWeblogic.cmd files

4.1.3 Timeout Settings for SOA Request-Response Operations are Not Propagated in a Node Failure

In an active-active Oracle SOA cluster, when a node failure occurs, the timeout settings for request-response operations in receive activities are not propagated from one node to the other node or nodes. If a failure occurs in the server that scheduled these activities, they must be rescheduled with the scheduler upon server restart.

4.1.4 Very Intensive Uploads from I/PM to UCM May Require Use of IP-Based Filters in UCM Instead of Hostname-Based Filters

The "Adding the I/PM Server Listen Addresses to the List of Allowed Hosts in UCM" section in the *Oracle Fusion Middleware Enterprise Deployment Guide for Oracle Enterprise Content Management Suite* and the "Adding the I/PM Server Listen Addresses to the

List of Allowed Hosts in UCM" section in the *Oracle Fusion Middleware High Availability Guide* describe how to add hostname-based filters for Oracle I/PM managed server listen addresses to the list of allowed hosts in Oracle UCM.

When using hostname-based filters in Oracle UCM (`config.cfg` file) a high latency/performance impact may be observed in the system for very intensive uploads of documents from Oracle I/PM to Oracle UCM. This is caused by the reverse DNS lookup that is required in Oracle UCM to allow the connections from Oracle I/PM servers. Using hostname-based filters is recommended in preparation for configuring the system for Disaster Protection and to restore to a different host (since the configuration used is IP-agnostic when using hostname-based filters). However if the performance of the uploads needs to be improved, users can use instead IP-based filters. To do this:

1. Edit the file `/u01/app/oracle/admin/`*domainName*`/ucm_cluster/config/config.cfg` and remove or comment out:

   ```
   SocketHostNameSecurityFilter=localhost|localhost.mydomain.com|ecmhost1vhn1|ecmhost2vhn1

   AlwaysReverseLookupForHost=Yes
   ```

2. Add the IP addresses (listen address) of the WLS_IPM1 and WLS_IPM2 managed servers (ECMHOST1VHN1 and ECMHOST2VHN1, respectively) to the SocketHostAddressSecurityFilter parameter list as follows:

   ```
   SocketHostAddressSecurityFilter=127.0.0.1|0:0:0:0:0:0:0:1|X.X.X.X|Y.Y.Y.
   ```

   where X.X.X.X and Y.Y.Y.Y are the listen addresses of WLS_IPM1 and WLS_IPM2 respectively. Notice that 127.0.0.1 also needs to be added as shown above.

3. Restart the UCM servers.

4.1.5 Use srvctl in 11.2 Oracle RAC Databases to Set Up AQ Notification and Server-side TAF

Because of a known issue in 11.2 Oracle RAC databases, it is required to use `srvctl` to set up AQ notification and server-side TAF. Using DBMS_SQL packages will not work as expected.

Here is an example use of `srvctl`:

```
srvctl modify service -d orcl -s orclSVC -e SELECT -m BASIC -w 5 -z 5 -q TRUE
```

In the example:

orcl - Database Name

orclSVC - Service Name used by middleware component

SELECT - Failover type

BASIC - Failover method

5 - Failover delay

5 - Failover retry

TRUE - AQ HA notifications set to TRUE

Please refer to the Oracle 11.2 Oracle database documentation for detailed information about this command usage.

4.1.6 Failover Is Not Seamless When Creating Reports in Oracle BI Publisher

If you create a report in Oracle BI Publisher, and a Managed Server is failed over before the report is saved, the failover might not be seamless. For example, when you attempt to save the report, the system might not be responsive.

If this occurs, click one of the header links, such as **Home** or **Catalog**, to be redirected to the Oracle BI Publisher login page. Then, log in and create and save the report again.

4.1.7 Cannot Save Agent When Oracle Business Intelligence Managed Server Fails Over

If you create an agent in the Oracle Business Intelligence Web interface, and a Managed Server fails over before you save the agent, an error occurs when you try to save the agent.

To work around this issue, log out, then log back in to Oracle Business Intelligence and create the agent again.

4.1.8 Installing Additional Oracle Portal, Forms, Reports, and Discoverer Instances After Upgrading Oracle Single Sign-On 10*g* to Oracle Access Manager 11*g*

This issue occurs with Oracle Portal, Forms, Reports, and Discoverer 11g environments that have been upgraded from using Oracle Single-Sign On 10*g* to Oracle Access Manager 11*g* for authentication.

When performing subsequent Oracle Portal, Forms, Reports, and Discoverer 11*g* installations against the same environment where the initial Oracle Portal, Forms, Reports, and Discoverer 10*g* installation was upgraded to Oracle Access Manager, there are some requirements that must be met.

- For each subsequent Oracle Portal, Forms, Reports, and Discoverer 11*g* installation, you must maintain the original Oracle Single Sign-On 10*g* instance and keep it actively running--in addition to new Oracle Access Manager 11*g* instance--while the additional Oracle Portal, Forms, Reports, and Discoverer 11*g* installations are performed.

  This is necessary because Oracle Portal, Forms, Reports, and Discoverer 11*g* cannot be installed directly against Oracle Access Manager 11*g*.

- After the subsequent classic installs are completed, the Oracle Single Sign-On 10*g* to Oracle Access Manager 11*g* upgrade procedure must be performed again. For more information, including an upgrade roadmap, see the *Oracle Fusion Middleware Upgrade Guide for Oracle Identity and Access Management*.

  This procedure upgrades the new Oracle Portal, Forms, Reports, and Discoverer 11*g* instance to Oracle Access Manager 11*g*.

Note that these considerations apply only in an environment with Multiple Oracle Portal, Forms, Reports, and Discoverer 11*g* middle tiers that are installed or added to a your environment after the initial upgrade from Oracle Single Sign-On 10*g* to Oracle Access Manager 11*g*.

4.1.9 JMS Instance Fails In a BI Publisher Cluster

On rare occasions, a JMS instance is missing from a BI Publisher Scheduler cluster.

To resolve this issue, restart the BI Publisher application from the WebLogic Server Administration Console.

To restart your BI Publisher application:

1. Log in to the Administration Console.

2. Click **Deployments** in the Domain Structure window.

3. Select **bipublisher(11.1.1)**.

4. Click **Stop**.

5. After the application stops, click **Start**.

4.1.10 Undelivered Records not Recovered During RAC Failover of Singleton SOA Server

If there is a RAC failover in a singleton server in a SOA RAC environment, recovery of undelivered records that appear recoverable in EM will fail.

4.1.11 Synchronous BPEL Process Issues

On a SOA cluster, the following scenarios are not supported:

- Synchronous BPEL process with mid-process receive.

- Synchronous BPEL process calling asynchronous services .

- Callback from synchronous processes.

4.2 Configuration Issues and Workarounds

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

- Section 4.2.1, "Fusion Middleware Control May Display Incorrect Status"

- Section 4.2.2, "Accumulated BPEL Instances Cause Performance Decrease"

- Section 4.2.3, "Extra Message Enqueue when One a Cluster Server is Brought Down and Back Up"

- Section 4.2.4, "Duplicate Unrecoverable Human Workflow Instance Created with Oracle RAC Failover"

- Section 4.2.5, "No High Availability Support for SOA B2B TCP/IP"

- Section 4.2.6, "WebLogic Administration Server on Machines with Multiple Network Cards"

- Section 4.2.7, "Additional Parameters for SOA and Oracle RAC Data Sources"

- Section 4.2.8, "Message Sequencing and MLLP Not Supported in Oracle B2B HA Environments"

- Section 4.2.9, "Credentials not Propagated for Transport Protocols in B2B"

- Section 4.2.10, "Use Fully-Qualified Hostnames when Configuring Front-end Hosts in High Availability Configurations"

- Section 4.2.11, "Managed Server goes into Suspended Status After Oracle RAC Failover"

- Section 4.2.12, "Primary/Secondary Configuration Section of the Availability Tab is Not Visible"

4.2.1 Fusion Middleware Control May Display Incorrect Status

In some instances, Oracle WebLogic Fusion Middleware Control may display the incorrect status of a component immediately after the component has been restarted or failed over.

4.2.2 Accumulated BPEL Instances Cause Performance Decrease

In a scaled out clustered environment, if a large number of BPEL instances are accumulated in the database, it causes the database's performance to decrease, and the following error is generated: MANY THREADS STUCK FOR 600+ SECONDS.

To avoid this error, remove old BPEL instances from the database.

4.2.3 Extra Message Enqueue when One a Cluster Server is Brought Down and Back Up

In a non-XA environment, MQSeries Adapters do not guarantee the only once delivery of the messages from inbound adapters to the endpoint in case of local transaction. In this scenario, if an inbound message is published to the endpoint, and before committing the transaction, the SOA server is brought down, inbound message are rolled back and the same message is again dequeued and published to the endpoint. This creates an extra message in outbound queue.

In an XA environment, MQ Messages are actually not lost but held by Queue Manager due to an inconsistent state. To retrieve the held messages, restart the Queue Manager.

4.2.4 Duplicate Unrecoverable Human Workflow Instance Created with Oracle RAC Failover

As soon as Oracle Human Workflow commits its transaction, the control passes back to BPEL, which almost instantaneously commits its transaction. Between this window, if the Oracle RAC instance goes down, on failover, the message is retried and can cause duplicate tasks. The duplicate task can show up in two ways - either a duplicate task appears in worklistapp, or an unrecoverable BPEL instance is created. This BPEL instance appears in BPEL Recovery. It is not possible to recover this BPEL instance as **consumer**, because this task has already completed.

4.2.5 No High Availability Support for SOA B2B TCP/IP

High availability failover support is not available for SOA B2B TCP/IP protocol. This effects primarily deployments using HL7 over MLLP. For inbound communication in a clustered environment, all B2B servers are active and the address exposed for inbound traffic is a load balancer virtual server. Also, in an outage scenario where an active managed server is no longer available, the persistent TCP/IP connection is lost and the client is expected to reestablish the connection.

4.2.6 WebLogic Administration Server on Machines with Multiple Network Cards

When installing Oracle WebLogic Server on a server with multiple network cards, always specify a Listen Address for the Administration Server. The address used should be the DNS Name/IP Address of the network card you wish to use for Administration Server communication.

To set the Listen Address:

1. In the Oracle WebLogic Server Administration Console, select **Environment**, and then **Servers** from the domain structure menu.

2. Click the Administration Server.

3. Click **Lock and Edit** from the Change Center to allow editing.

4. Enter a Listen Address.

5. Click **Save**.

6. Click **Activate Changes** in the Change Center.

4.2.7 Additional Parameters for SOA and Oracle RAC Data Sources

In some deployments of SOA with Oracle RAC, you may need to set parameters in addition to the out-of-the-box configuration of the individual data sources in an Oracle RAC configuration. The additional parameters are:

1. Add property `oracle.jdbc.ReadTimeout=300000` (300000 milliseconds) for each data source.

   The actual value of the `ReadTimeout` parameter may differ based on additional considerations.

2. If the network is not reliable, then it is difficult for a client to detect the frequent disconnections when the server is abruptly disconnected. By default, a client running on Linux takes 7200 seconds (2 hours) to sense the abrupt disconnections. This value is equal to the value of the `tcp_keepalive_time` property. To configure the application to detect the disconnections faster, set the value of the `tcp_keepalive_time`, `tcp_keepalive_interval`, and `tcp_keepalive_probes` properties to a lower value at the operating system level.

   > **Note:** Setting a low value for the `tcp_keepalive_interval` property leads to frequent probe packets on the network, which can make the system slower. Therefore, the value of this property should be set appropriately based on system requirements.

For example, set `tcp_keepalive_time=600` at the system running the WebLogic Server managed server.

Also, you must specify the `ENABLE=BROKEN` parameter in the `DESCRIPTION` clause in the connection descriptor. For example:

```
dbc:oracle:thin:@(DESCRIPTION=(enable=broken)(ADDRESS_LIST=(ADDRESS=(PRO
TOCOL=TCP)(HOST=node1-vip.mycompany.com)(PORT=1521)))(CONNECT_DATA=(SERVICE_
NAME=example.com)(INSTANCE_NAME=orcl1)))
```

As a result, the data source configuration appears as follows:

```
<url>jdbc:oracle:thin:@(DESCRIPTION=(enable=broken)(ADDRESS_LIST=(ADDRESS=(PRO
TOCOL=TCP)(HOST=node1-vip.us.example.com)(PORT=1521)))(CONNECT_DATA=(SERVICE_
NAME=example.com)(INSTANCE_NAME=orcl1)))</url>
    <driver-name>oracle.jdbc.xa.client.OracleXADataSource</driver-name>
    <properties>
      <property>
        <name>oracle.jdbc.ReadTimeout</name>
        <value>300000</value>
      </property>
      <property>
        <name>user</name>
        <value>jmsuser</value>
      </property>
      <property>
        <name>oracle.net.CONNECT_TIMEOUT</name>
        <value>10000</value>
      </property>
    </properties>
```

4.2.8 Message Sequencing and MLLP Not Supported in Oracle B2B HA Environments

Message sequencing and MLLP are not supported in Oracle B2B high availability (HA) environments.

4.2.9 Credentials not Propagated for Transport Protocols in B2B

The Oracle FMW credential store maintains usernames and passwords that you define for Transport protocols. If you use the default file store for these credentials, changes you make to usernames and passwords do not propagate across nodes. You must use a central LDAP for these credentials to be synchronized across nodes in a cluster, as described in, and required by, the Oracle Fusion Middleware High Availability Guide and Enterprise Deployment Guides.

4.2.10 Use Fully-Qualified Hostnames when Configuring Front-end Hosts in High Availability Configurations

Oracle recommends using the full name of the host, including the domain name, when configuring front-end hosts in Oracle Fusion Middleware high availability configurations. Use the host's full name instead of using only the host name.

For example, if myhost is the name of a frontend host in a high availability configuration, set the frontend host URL to the fully-qualified hostname, such as myhost.mycompany.com as DNS or local host name resolution files (for example, /etc/hosts) define.

4.2.11 Managed Server goes into Suspended Status After Oracle RAC Failover

The Managed Server wls_ods(x) can enter a suspended status in the following situations:

- A database connection in the data source is wrong or not complete.

- The host is not a fully-qualified host for the database.

To correct the status of the Managed Server wls_ods(x):

1. Under the data source, verify that the database connection is correct and complete with the domain.

2. Under the data source, verify that the host name for the database is a fully-qualified hostname with the domain.

3. Verify the connection by selecting the Test button.

4.2.12 Primary/Secondary Configuration Section of the Availability Tab is Not Visible

During the system component scale out process, the Primary/Secondary Configuration section in the Availability tab of the Capacity Management page in Fusion Middleware Control may not be visible in the browser. This issue occurs when you perform the scale out process using Microsoft Internet Explorer version 7.0.5730.11.

To avoid this issue, do not use the browser Microsoft Internet Explorer version 7.0.5730.11 to scale out; use another browser such as Google Chrome.

4.2.13 Server Start Parameters Not Getting Set After Scaling Out the Oracle Business Intelligence Managed Server

After scaling out Oracle Business Intelligence, Server Start parameters are not getting set correctly. To work around this issue, update the Server Start parameters for the scaled out BI Managed Server to include the following:

```
-Dserver.group=obi arguments
```

4.2.14 Ensuring the Oracle HTTP Server Lock File is on a Local Drive

If you configure an Oracle instance for Oracle HTTP Server 11*g* on shared storage, such as NAS, NFS, or SAN storage, you must ensure that the lock file is created on a local drive instead of the shared drive. If you do not do this, Oracle HTTP Server might experience performance problems. Perform these steps to point the `LockFile` directive at a local fi le system:

1. Stop the OHS instances on `WEBHOST1` and `WEBHOST2`.

2. Open the file *ORACLE_INSTANCE*/config/OHS/*ohs_name*/httpd.conf in a text editor.

3. Find the `LockFile` directive, configured under both the `prefork` and `worker MPM` configuration blocks in the `httpd.conf` file. It looks like this:

```
LockFile ORACLE_INSTANCE/diagnostics/logs/COMPONENT_TYPE/COMPONENT_NAME/http_
lock
```

4. Change the `LockFile` directive under the appropriate MPM configuration to point to a local file system, for example:

```
LockFile /local_disk/path/http_lock
```

5. Restart Oracle HTTP Server.

6. Verify that the `http_lock` file exists in the directory specified by the `LockFile` directive.

4.2.15 Recreating OSSO Agents that Point to the Load Balancer URL

A high availability Classic environment typically has a load balancer in front of the Classic OHS instances. When you configure a classic instance with OAM 11g, the Configuration Wizard automatically configures an OSSO agent. The OSSO agent contains the individual Classic OHS instance URL. In a high availability cluster consisting of two Classic instances, the Configuration Wizard automatically configures two OSSO agents. Each OSSO agent contains the URL information of one Classic Webtier instance URL.

In a high availability cluster, you must recreate an OSSO agent that points to the load balancer URL.

To recreate an OSSO agent that points to the load balancer URL:

1. From the OAM console, click **New OSSO Agent** to open the OSSO Wizard application.

2. Enter the following information:

   - **Name**: Enter any name

   - **Token Version**: Use the default setting, v3.0

   - **Base URL**: Enter the load balancer URL, for example
     `http://haqaedg04.us.example.com:7788`

   - **Admin ID**: Leave blank

   - **Admin Inf**: Leave blank

   - **Host Identifier**: Keep default value from the **Name** field.

   - **Auto Create Policies**: Check this setting to enable it.

3. Copy the `osso.conf` file of the new OSSO agent from the OAM server to the Classic Web Instances config directory.

4.2.16 Use Lower-Case Letters for GridLink Data Source RAC Service Name

When you create a GridLink data source in the Configuration Wizard, you must verify that the service name on the database uses lowercase letters only and is a qualified domain name. For example, *<mydbservice>*.`us.example.com`. The Service Name field is in the Configure GridLink RAC Component Schema screen.

> **Note:** The Oracle RAC Service name is defined on the database; it is not a fixed name. Oracle recommends that you register/add the RAC service name with the database domain name, for example, `us.example.com`

4.2.17 Additional Steps Needed for Oracle RTD Request Forwarding to Work Correctly

Due to an Oracle RTD issue related to request forwarding, the frontend URL must be the same as the backend URL for deployments that include Oracle RTD. To set the frontend URL for Oracle RTD, perform the steps listed in the following procedures at the point indicated in the Oracle Business Intelligence EDG task flow.

After performing the steps listed in Section 5.7, "Setting the Listen Address for bi_server1 Managed Server," set the frontend URL for the bi_server1 Managed Server, as follows:

1. Log in to the Administration Console.

2. In the Change Center, click **Lock & Edit.**

3. Expand the **Environment** node in the Domain Structure window.

4. Click **Servers**. The Summary of Servers page is displayed.

5. Select **bi_server1** in the Names column of the table. The settings page for bi_server1 is displayed.

6. Click the **Protocols** tab.

7. Click the **HTTP** tab.

8. Set the **Frontend Host** field to APPHOST1VHN1 (your bi_server1 Listen address).

9. Click **Save**, then click **Activate Changes**.

After performing the steps listed in Section 6.4.1, "Setting the Listen Address for the bi_server2 Managed Server," set the frontend URL for the bi_server2 Managed Server, as follows:

1. Log in to the Administration Console.

2. In the Change Center, click **Lock & Edit**.

3. Expand the **Environment** node in the Domain Structure window.

4. Click **Servers**. The Summary of Servers page is displayed.

5. Select **bi_server2** in the Names column of the table. The settings page for bi_server2 is displayed.

6. Click the **Protocols** tab.

7. Click the **HTTP** tab.

8. Set the **Frontend Host** field to APPHOST2VHN1 (your bi_server2 Listen address).

9. Click **Save**, then click **Activate Changes**.

4.2.18 Error INST-08075 Occurs When Scaling Out the BI System

When you are scaling out the BI System using the Oracle Business Intelligence Configuration Assistant, the following error occurs:

```
INST-08075: Weblogic Server 10.3.6.0 is installed but Weblogic Server
Temporary is used in the BI Domain.
```

To work around this error, perform the following steps:

1. Open *MW_HOME*/`registry.xml` for editing.

2. Locate the following line:

   ```
   <component name="WebLogic Server" version="10.3.6.0" InstallDir="ORACLE_
   BASE/fmw/wlserver_10.3">
   ```

3. Change the line to the following:

   ```
   <component name="WebLogic Server" version="Temporary" InstallDir="ORACLE_
   BASE/fmw/wlserver_10.3"
   ```

4. Save and close the file.

5. Return to the Oracle Business Intelligence Configuration Assistant and proceed past the Scale Out BI System Details screen.

6. Revert the entry in `registry.xml` back to `version="10.3.6.0"`.

4.2.19 First Defined RAC Instance Must Be Available On Domain Startup When Configuring with RAC Multi Data Source

When you configure the RAC data source for OPSS, Oracle recommends using an Oracle GridLink data source type. If you decide to use a RAC multi data source, you must ensure that the first RAC instance listed in the multi data source definition is available during the first domain startup. If you do not use the first RAC instance listed, configuration fails.

4.3 Testing Abrupt Failures of WebLogic Server When Using File Stores on NFS

If JMS messages and transaction logs are stored on an NFS-mounted directory, Oracle strongly recommends that you verify the behavior of a server restart after abrupt machine failures. Depending on the NFS implementation, different issues can arise post failover/restart.

To verify server restart behavior, abruptly shut down the node that hosts WebLogic servers while the servers are running.

- If you configured the server for server migration, it should start automatically in failover node after the failover period.

- If you did not configure the server for server migration, you can manually restart the WebLogic Server on the same host after the node completely reboots.

If Oracle WebLogic Server does not restart after abrupt machine failure, the following error entry may appear in server log files:

```
<MMM dd, yyyy hh:mm:ss a z> <Error> <Store> <BEA-280061> <The persistent
store "_WLS_server_soa1" could not be deployed:
weblogic.store.PersistentStoreException: java.io.IOException:
[Store:280021]There was an error while opening the file store file
"_WLS_SERVER_SOA1000000.DAT"
weblogic.store.PersistentStoreException: java.io.IOException:
[Store:280021]There was an error while opening the file store file
"_WLS_SERVER_SOA1000000.DAT"
        at weblogic.store.io.file.Heap.open(Heap.java:168)
        at weblogic.store.io.file.FileStoreIO.open(FileStoreIO.java:88)
...
java.io.IOException: Error from fcntl() for file locking, Resource
temporarily unavailable, errno=11
```

This error occurs when the NFSv3 system does not release locks on the file stores. WebLogic Server maintains locks on files that store JMS data and transaction logs to prevent data corruption that can occur if you accidentally start two instances of the same managed server. Because the NFSv3 storage device doesn't track lock owners, NFS holds the lock indefinitely if a lock owner crashes. As a result, after abrupt machine failure followed by a restart, subsequent attempts by WebLogic Server to acquire locks may fail.

If it is not reasonably possible to tune locking behavior in your NFS environment, use one of the following solutions to unlock the logs and data files:

- Use the WebLogic Server Administration Console to disable WebLogic file locking mechanisms for the default file store, a custom file store, a JMS paging file store, and a Diagnostics file store. To do this, see Considerations for Using File Stores on NFS in the *Oracle Fusion Middleware High Availability Guide*.

- Manually unlock the logs and JMS data files and start the servers by creating a copy of the locked persistence store file and using the copy for subsequent operations. See the following section Unlocking Logs and Data Files Manually.

Unlocking Logs and Data Files Manually

Manually unlock the logs and JMS data files and start the servers by creating a copy of the locked persistence store file and using the copy for subsequent operations. To create a copy of the locked persistence store file, rename the file then copy it back to its original name. The following sample steps assume that transaction logs are stored in the /shared/tlogs directory and JMS data is stored in the /shared/jms directory.

```
cd /shared/tlogs
mv _WLS_SOA_SERVER1000000.DAT _WLS_SOA_SERVER1000000.DAT.old
cp _WLS_SOA_SERVER1000000.DAT.old _WLS_SOA_SERVER1000000.DAT
cd /shared/jms
mv SOAJMSFILESTORE_AUTO_1000000.DAT SOAJMSFILESTORE_AUTO_1000000.DAT.old
cp SOAJMSFILESTORE_AUTO_1000000.DAT.old SOAJMSFILESTORE_AUTO_1000000.DAT
mv UMSJMSFILESTORE_AUTO_1000000.DAT UMSJMSFILESTORE_AUTO_1000000.DAT.old
cp UMSJMSFILESTORE_AUTO_1000000.DAT.old UMSJMSFILESTORE_AUTO_1000000.DAT
```

With this solution, the WebLogic file locking mechanism continues to protect against accidental data corruption if multiple instances of the same servers are accidently started. However, you must restart the servers manually after abrupt machine failures. File stores create multiple consecutively numbered.DAT files when they store large amounts of data. You may need to copy and rename all files when this occurs.

4.4 Documentation Errata

This section describes documentation errata. It includes the following topics:

- Section 4.4.1, "Documentation Errata for the Fusion Middleware High Availability Guide"

- Section 4.4.2, "Documentation Errata for the Fusion Middleware Enterprise Deployment Guide for Oracle Identity Management"

4.4.1 Documentation Errata for the Fusion Middleware High Availability Guide

This section contains Documentation Errata for *Oracle Fusion Middleware High Availability Guide*.

It includes the following topics:

- Section 4.4.1.1, "Latest Requirements and Certification Information"

- Section 4.4.1.2, "Error in Line to Add to mod_wl_ohs.conf File"

4.4.1.1 Latest Requirements and Certification Information

Several manuals in the Oracle Fusion Middleware 11g documentation set have information on Oracle Fusion Middleware system requirements, prerequisites,

specifications, and certification information. For the latest informationon these topics, see the following documents on Oracle Technology Network:

http://www.oracle.com/technology/software/products/ias/files/fusion_certification.html

This document contains information related to hardware and software requirements, minimum disk space and memory requirements, and required system libraries, packages, or patches. It also includes information on supported installation types, platforms, operating systems, databases, JDKs, and third-party products.

4.4.1.2 Error in Line to Add to mod_wl_ohs.conf File

In Chapter 5., "Configuring High Availability for Oracle SOA Suite," the line `<Location /DefaultToDoTaskFlow/>` should be `<Location /workflow/DefaultToDoTaskFlow/>` in the `mod_wl_ohs.conf` file. Instances of this line are in Sections 5.3.13 and 5.14.15.

4.4.2 Documentation Errata for the Fusion Middleware Enterprise Deployment Guide for Oracle Identity Management

This section contains documentation errata for *Oracle Fusion Middleware Enterprise Deployment Guide for Oracle Identity Management*.

It includes the following topics:

- Section 4.4.2.1, "Set -DDomainRegistrationEnabled=true when Starting Node Manager"

- Section 4.4.2.2, "Ignore Empty Section in the Oracle Virtual Directory Chapter"

- Section 4.4.2.3, "Installing Identity Management Sections Are Incorrectly Organized"

- Section 4.4.2.4, "Errors in Instructions for Using the Guide"

- Section 4.4.2.5, "LDIF File Error in Procedure for Creating Users and Groups for Oracle WebLogic Server"

- Section 4.4.2.6, "Run Additional emctl Commands When Extending the Domain with Oracle Internet Directory or Oracle Virtual Directory"

- Section 4.4.2.7, "Errors in Section 2.4, Shared Storage and Recommended Directory Structure"

4.4.2.1 Set -DDomainRegistrationEnabled=true when Starting Node Manager

The November 2010 edition of *Oracle Fusion Middleware Enterprise Deployment Guide for Oracle Identity Management* failed to mention that, prior to starting the Node Manager that controls the WebLogic Administration Server, you must set `-DDomainRegistrationEnabled=true`. For example:

```
export JAVA_OPTIONS=-DDomainRegistrationEnabled=true
```

4.4.2.2 Ignore Empty Section in the Oracle Virtual Directory Chapter

In the November 2010 edition of *Oracle Fusion Middleware Enterprise Deployment Guide for Oracle Identity Management*, Section 8.1.1 in Chapter 11, "Extending the Domain with Oracle Virtual Directory is an empty section." Please ignore it.

4.4.2.3 Installing Identity Management Sections Are Incorrectly Organized

In *Oracle Fusion Middleware Enterprise Deployment Guide for Oracle Identity Management* 11g Release 1 (11.1.1.5), Part Number E12035-07, Section 4.5.5, "Installing Oracle Identity Management," should be reorganized as follows:

- The content beginning with "Start the Oracle Fusion Middleware 11g Oracle Identity Management Installer" should be in a subsection, Section 4.5.5.1, entitled "Installing Oracle Identity Management 11.1.1.2."

- Section 4.5.6, "Upgrading the Oracle Homes for Oracle Identity Management from 11.1.1.2 to 11.1.1.5" should be Section 4.5.5.2.

4.4.2.4 Errors in Instructions for Using the Guide

Errors exist in Section 1.6, "Using This Guide." They should be corrected as follows:

- Step 11 should be:

  If you are using Oracle Access Manager, follow the steps in Chapter 12, "Extending the Domain with Oracle Access Manager 11g."

- Steps 11 through 18 should refer to chapters, not sections.

4.4.2.5 LDIF File Error in Procedure for Creating Users and Groups for Oracle WebLogic Server

The LDIF file in Step 2a of Section 11.4.4, "Creating Users and Groups for Oracle WebLogic Server," is missing some line breaks. It should appear as follows:

```
dn: cn=orclFAUserReadPrivilegeGroup,cn=Groups,dc=mycompany,dc=com
changetype: modify
add: uniquemember
uniquemember: cn=IDROUser,cn=Users,dc=mycompany,dc=com
```

4.4.2.6 Run Additional emctl Commands When Extending the Domain with Oracle Internet Directory or Oracle Virtual Directory

In the chapters "Extending the Domain with Oracle Internet Directory" and "Extending the Domain with Oracle Virtual Directory," you are instructed run

```
./emctl switchOMS ReposURL
```

to enable the local emagent to communicate with the WebLogic Administration Server using the virtual IP address. After you have run that command, you must also perform the following tasks:

- Force the agent to reload its configuration by issuing the command:

  ```
  ./emctl reload
  ```

- Check that the agent is using the correct Upload URL using the command:

  ```
  ./emctl status agent
  ```

4.4.2.7 Errors in Section 2.4, Shared Storage and Recommended Directory Structure

Table 2-3, Recommended Directory Structure, is missing some values in the Shared Storage column. The following table entries should have the value "Yes" in the **Shared Storage** column, indicating that these directories should be on shared storage:

- *IAM_ORACLE_HOME*

- *ASERVER_DOMAIN_HOME*

- *ASERVER_APP_HOME*

Part II

Oracle Development Tools

Part II contains the following chapters:

- Chapter 5, "Oracle JDeveloper and Oracle Application Development Framework (ADF)"

- Chapter 6, "Oracle TopLink"

5

Oracle JDeveloper and Oracle Application Development Framework (ADF)

The latest known issues associated with Oracle JDeveloper and Application Developer Framework (ADF) are available on the Oracle Technology Network (OTN) at: http://www.oracle.com/technetwork/developer-tools/jdev/index-101256.html.

For more information and technical resources for Oracle JDeveloper and Application Developer Framework (ADF), visit the product center on the Oracle Technology Network at: http://www.oracle.com/technetwork/developer-tools/jdev/overview/index.html.

6

Oracle TopLink

This chapter describes issues associated with Oracle TopLink. It includes the following topics:

- Section 6.1, "General Issues and Workarounds"

6.1 General Issues and Workarounds

This section describes general issue and workarounds. It includes the following topic:

- Section 6.1.1, "TopLink Object-Relational Issues"
- Section 6.1.2, "TopLink Workbench Issues"
- Section 6.1.3, "Oracle Database Extensions with TopLink"
- Section 6.1.4, "Allowing Zero Value Primary Keys"
- Section 6.1.5, "Managed Servers on Sybase with JCA Oracle Database Service"
- Section 6.1.6, "Logging Configuration with EclipseLink Using Container Managed JPA"
- Section 6.1.7, "Grid Cache requires CacheLoader"

6.1.1 TopLink Object-Relational Issues

This section contains information on the following issues:

- Section 6.1.1.1, "Cannot set EclipseLink log level in WLS System MBean Browser"
- Section 6.1.1.2, "Incorrect outer join SQL on SQLServer2005"
- Section 6.1.1.3, "UnitOfWork.release() not Supported with External Transaction Control"
- Section 6.1.1.4, "Returning Policy for UPDATE with Optimistic Locking"
- Section 6.1.1.5, "JDBC Drivers returning Timestamps as Strings"
- Section 6.1.1.6, "Unit of Work does not add Deleted Objects to Change Set"

6.1.1.1 Cannot set EclipseLink log level in WLS System MBean Browser

Use Oracle Enterprise Manager to set the EclipseLink log level; do not use the WLS System MBean Browser to complete this action.

6.1.1.2 Incorrect outer join SQL on SQLServer2005

TopLink generates incorrect outer join for SQL Server v2005. The outer join syntax
generated is correct for earlier versions of this database. To work around this
limitation, reconfigure the database compatibility (refer to the SQLServer
documentation for details). Alternatively, you can use a custom TopLink database
platform.

6.1.1.3 UnitOfWork.release() not Supported with External Transaction Control

A unit of work synchronized with a Java Transaction API (JTA) will throw an
exception if it is released. If the current transaction requires its changes to not be
persisted, the JTA transaction must be rolled back.

When in a container-demarcated transaction, call `setRollbackOnly()` on the
EJB/session context:

```
@Stateless
public class MySessionBean
{    @Resource
    SessionContext sc;

    public void someMethod()
    {
        ...
        sc.setRollbackOnly();
    }
}
```

When in a bean-demarcated transaction then you call `rollback()` on the
UserTransaction obtained from the EJB/session context:

```
@Stateless
@TransactionManagement(TransactionManagementType.BEAN)
public class MySessionBean implements SomeInterface
{
    @Resource
    SessionContext sc;

    public void someMethod()
    {
        sc.getUserTransaction().begin();
        ...
        sc.getUserTransaction().rollback();
    }
}
```

6.1.1.4 Returning Policy for UPDATE with Optimistic Locking

The returning policy, which allows values modified during INSERT and UPDATE to be
returned and populated in cached objects, does not work in conjunction with numeric
version optimistic locking for UPDATE. The value returned for all UPDATE operations is **1**
and does not provide meaningful locking protection.

Do not use a returning policy for UPDATE in conjunction with numeric optimistic
locking.

The use of returning policy for INSERT when using optimistic locking works correctly.

6.1.1.5 JDBC Drivers returning Timestamps as Strings

TopLink assumes that date and time information returned from the server will use `Timestamp`. If the JDBC driver returns a `String` for the current date, TopLink will throw an exception. This is the case when using a DB2 JDBC driver.

To work around this issue, consider using a driver that returns `Timestamp` (such as `COM.ibm.db2.jdbc.app.DB2Driver`) or change the policy to use local time instead of server time.

Another option is to use a query re-director on the `ValueReadQuery` used by the platform:

```
ValueReadQuery vrq = new ValueReadQuery(
    "SELECT to_char(sysdate, 'YYYY-MM-DD HH:MM:SS.SSSSS') FROM DUAL"
);
vrq.setRedirector(new TSQueryRedirector());
...
class TSQueryRedirector implements QueryRedirector
{
    public Object invokeQuery(DatabaseQuery query, Record arguments, Session session)
    {
        String value = (String)session.executeQuery(query);
        return ConversionManager.getDefaultManager().convertObject(
            value, java.sql.Timestamp.class
        );
    }
}
```

6.1.1.6 Unit of Work does not add Deleted Objects to Change Set

When accessing the change set of a Unit of Work to determine what has changed, objects that are pending deletion (such as `uow.deleteObject( )` and `uow.deleteAllObjects( )`) will not be returned from the result set.

The objects pending deletion are only available through the Unit of Work `getDeletedObjects` call.

6.1.2 TopLink Workbench Issues

This section contains information on the following issues:

- Section 6.1.2.1, "User Interface Issue"
- Section 6.1.2.2, "Accessibility"
- Section 6.1.2.3, "Running the TopLink Workbench on Windows OS"

6.1.2.1 User Interface Issue

When running TopLink Mapping Workbench using JDK 1.7, dialogs with a group box containing check boxes or radio buttons may display duplicated or truncated group box titles. There is no loss of functionality, and you should proceed as usual.

6.1.2.2 Accessibility

Due to an issue with Sun JDK 1.6, if NullPointExecption error dialog is generated when saving a file, the error dialog window is not in focus.

6.1.2.3 Running the TopLink Workbench on Windows OS

Due to an issue with certain configurations and versions of Windows operating systems, users that launch the TopLink Workbench with the `workbench.cmd` file may

receive a dialog that states: *Could not find the main class*. This occurs because the classpath specified contains a directory path which has periods in it. The workaround is to rename the offending directory or change the classpath to use directory paths which do not contain periods.

6.1.3 Oracle Database Extensions with TopLink

This section contains information on the following issue:

- Section 6.1.3.1, "Template JAR for Spatial and XDB Support in Oracle WebLogic Server"

6.1.3.1 Template JAR for Spatial and XDB Support in Oracle WebLogic Server

To fully support Oracle Spatial and Oracle XDB mapping capabilities (in both standalone Oracle WebLogic Server and the Oracle JDeveloper integrated WebLogic Server), you must use the `toplink-spatial-template.jar` and `toplink-xdb-template.jar` to extend the WebLogic Server domain to support Oracle Spatial and XDB, respectively.

To extend your WebLogic Server domain:

1. Download the `toplink-spatial-template.jar` (to support Oracle Spatial) and `toplink-xdb-template.jar` (to support Oracle XDB) files from:

   - http://download.oracle.com/otn/java/toplink/111110/toplink-spatial-template.jar

   - http://download.oracle.com/otn/java/toplink/111110/toplink-xdb-template.jar

2. Use Table 6–1, " To Support Oracle Spatial" or Table 6–2, " To Support Oracle XDB" to determine which files to copy.

Table 6–1   To Support Oracle Spatial

Copy this file	From...[1]	To...[2]
sdoapi.jar	`<ORACLE_DATABASE_HOME>`/md/jlib	`<WEBLOGIC_HOME>`/server/lib

[1] These are the default locations. Your actual location may vary depending on your specific environment, installed options, and version.

[2] When using Oracle JDeveloper integrated WebLogic Server, the `<WEBLOGIC_HOME>` is located within the `<JDEVELOPER_HOME>` directory.

Table 6–2   To Support Oracle XDB

Copy this file	From...[1]	To...[2]
xdb.jar	`<ORACLE_DATABASE_HOME>`/rdbms/jlib	`<WEBLOGIC_HOME>`/server/lib
xml.jar	`<ORACLE_DATABASE_HOME>`/lib	`<WEBLOGIC_HOME>`/server/lib
xmlparserv2.jar	`<ORACLE_DATABASE_HOME>`/lib	`<WEBLOGIC_HOME>`/server/lib
ori18n-mapping.jar [3]	`<ORACLE_DATABASE_HOME>`/jlib	`<WEBLOGIC_HOME>`/server/lib

[1] These are the default locations. Your actual location may vary depending on your specific environment, installed options, and version.

[2] When using Oracle JDeveloper integrated WebLogic Server, the `<WEBLOGIC_HOME>` is located within the `<JDEVELOPER_HOME>` directory.

[3] Use **orai18n-mapping.jar** for Oracle Database 11.2 and higher.

> **Note:** Although the actual JAR file may be named differently in your **From** directory, the file must be named as shown, when copied to the **To** directory.

3. Launch the Config Wizard (`<WEBLOGIC_HOME>`/`common/bin/config.sh` (or `.bat`).

4. Select **Extend an existing WebLogic domain**.

5. Browse and select your WebLogic Server domain.

   When using JDeveloper with integrated WebLogic Server, the typical WebLogic Server domain location may be similar to:

   - In Windows environments:
     `%APPDATA%\JDeveloper\systemXX.XX.XX.XX\DefaultDomain`

     where `XX.XX.XX.XX` is the unique number of the product build.

     For Windows platforms, you must enable the **Show hidden files and folders** folder option.

   - In non-Windows environments, the default location is under the current user's default home directory: `<$Home>`/`DefaultDomain`

   Refer to the Oracle JDeveloper documentation for details.

6. Select **Extend my domain using an existing extension template**.

7. Browse and select the required template JAR (**toplink-spatial-template.jar** for Oracle Spatial, **toplink-xdb-template.jar** for Oracle XDB).

8. Complete the remaining pages of the wizard.

6.1.4 Allowing Zero Value Primary Keys

By default, EclipseLink interprets *zero* as *null* for primitive types that cannot be null (such as `int` and `long`) causing zero to be an invalid value for primary keys. You can modify this setting by using the `allow-zero-id` property in the `persistence.xml` file. Valid values are:

- **true** – EclipseLink interprets zero values as *zero*. This permits primary keys to use a value of zero.

- **false** (default) – EclipseLink interprets zero as *null*.

Refer the *EclipseLink User's Guide* at http://wiki.eclipse.org/EclipseLink/UserGuide for more information.

6.1.5 Managed Servers on Sybase with JCA Oracle Database Service

When using a JCA service with the Oracle Database adapter in a cluster to perform database operations on a Sybase database, the managed nodes in the cluster process the messages and may attempt to perform duplicate operations.

Because supported versions of Sybase do not support Oracle TopLink record locking, Sybase allows the duplicate operation attempts.

6.1.6 Logging Configuration with EclipseLink Using Container Managed JPA

By default, EclipseLink users in container managed JPA will use the Oracle WebLogic Server logging options to report all log messages generated by EclipseLink. Refer to

"Configuring WebLogic Logging Services" in *Oracle® Fusion Middleware Configuring Log Files and Filtering Log Messages for Oracle WebLogic Server*.

To use the EclipseLink native logging configuration, add the following property to your `persistence.xml` file:

```
<property name="eclipselink.logging.logger" value="DefaultLogger"/>
```

6.1.7 Grid Cache requires CacheLoader

An `oracle.eclipselink.coherence.integrated.EclipseLinkJPACacheLoader` must be configured for entities configured as Grid Cache to ensure the necessary TopLink Grid wrapper class is generated.

Part III

Oracle WebLogic Server

Part III contains the following chapters:

7

Oracle WebLogic Server

This chapter describes issues associated with Oracle WebLogic Server. It includes the following topics:

> **Note:** For a list of bugs that are fixed in WebLogic Server 11*g* Release 1 (10.3.6), enter the following document ID in the Search Knowledge Base field. You must enter the entire document ID.
>
> 1302753.1

7.1 General Issues and Workarounds

This section describes the following issues and workarounds:

7.1.1 Multi-Byte Characters Display Incorrectly in Filenames When Using Safari

When using the Safari browser to download content, if a filename contains multi-byte characters, the characters are displayed as '------' in the filename.

Workaround

Set `UseHeaderEncoding` to `true` on the Managed Server. Use the following WLST commands to do so:

```
connect("admin_name", "admin_password", "t3://localhost:port")
edit()
```

```
startEdit()
cd("Servers/server_name/WebServer/server_name")
set("UseHeaderEncoding", "true")
save()
activate()
exit()
```

7.1.2 Oracle WebLogic Server Version Number

Oracle Fusion Middleware 11*g* contains Oracle WebLogic Server 11*g*. The version number of Oracle WebLogic Server is 10.3.6.

7.1.3 Oracle ojdbc14.jar File Has Been Changed to ojdbc6.jar

The Oracle `ojdbc14.jar` file has been changed to `ojdbc6.jar`, for use with JDK 5 or 6. As a result, any explicit references you make to `ojdbc14.jar` must be changed to `ojdbc6.jar`.

7.1.4 Strong Password Enforcement May Cause Issues With WLST Offline Scripts

With the implementation of strong password enforcement (8 character minimum with one numeric or special character) in this release of WebLogic Server, existing scripts could potentially encounter issues.

Workaround

Use either of the following workarounds to bypass the new password restrictions.

- Set the `BACKWARD_COMPAT_PW_CHECK` environment variable to `true`.

- Include the `-Dbackward.compat.pw.check=true` option when invoking WLST.

Oracle recommends that you change passwords to comply with the new password requirements, as this variable and option will be removed in a future release of WebLogic Server.

7.1.5 In Turkish Locale, MDS Initialization Fails

Any applications that use an MDS repository cannot be deployed or run with the JAXB version bundled with WebLogic Server as null values are returned for attributes named `id`.

Workaround

Start the server in English locale.

7.1.6 Administration Server Reports a 'Too Many Open Files' Message on the EM Console

The WebLogic Server Administration Server reports a `Too Many Open Files` message on the Enterprise Manager (EM) console when the maximum number of file descriptors configured for the Administration Server is less than 65535.

Workaround

Execute the following command to determine the maximum number of file descriptors currently configured:

```
cat /proc/sys/fs/file-max
```

If the value is less than 65535, perform the following steps:

1. Edit the file /etc/security/limits.conf with root permission:

   ```
   > sudo vi /etc/security/limits.conf
   ```

2. Append the following two lines, using a value of 65535 or greater:

   ```
   *              soft    nofile          65535
   *              hard    nofile          65535
   ```

3. Start a new terminal session.

4. Execute the `limit descriptors` command to verify that descriptors has been increased to the specified value (at least 65535).

   ```
   > limit descriptors
   descriptors  65535
   ```

7.1.7 Availability of Sun JDK 6 U35-B52 for 10.3.5.0 Oracle WLS Generic Installation

Sun JDK 1.6.0.U35-B52 version is required for Oracle WebLogic Server 10.3.5.0 (PS4) generic installation on Linux x86-64, Microsoft Windows x64 (64-Bit), and Oracle Solaris platforms.

The mentioned version of JDK is not available for download from the Oracle Web site:

http://www.oracle.com/technetwork/indexes/downloads/index.html

Complete the following steps to download the required JDK version:

1. Go to My Oracle Support:

   https://support.oracle.com

2. Click the **Patches & Updates** tab.

3. Enter patch 12346791 in the **Patch Name or Number** field, under Patch Search.

4. Click **Search**.

5. Select and download the patch for the required platform by following the instructions in the README file included with the patch.

7.1.8 NoClassDefFoundError Occurs When JACC-enabled Oracle WebLogic Server Instance Runs with IBM JDK

Oracle WebLogic Server, Release 11.1.1.6 Java Authorization Contract for Containers (JACC) uses PrincipalComparator, which is not supported with IBM JDK. Therefore, when you run JACC-enabled Oracle WebLogic Server instance using IBM JDK, a NoClassDefFoundError occurs.

Workaround

Download and install patch13495664 from the My Oracle Support Web site.

7.2 Administration Console Issues and Workarounds

This section describes the following issues and workarounds:

- Section 7.2.1, "Cached JDBC Information is not Displayed"

- Section 7.2.2, "Pressing Browser Back Button Discards Context"

- Section 7.2.3, "Unsupported Work Manager Configurations Can Be Created"
- Section 7.2.4, "Server Status Table Reflects Inconsistent Information"
- Section 7.2.5, "Exceptions When Defining a Security Policy for an EJB"
- Section 7.2.6, "Administration Console Does Not Always Reflect External Changes Made in a Deployment Plan"
- Section 7.2.7, "Oracle OCI Driver Support"
- Section 7.2.8, "Data Takes a Long Time to Display on the Metric Browser Tab"

7.2.1 Cached JDBC Information is not Displayed

Information about cached JDBC statements is not displayed on the JDBC Monitoring pages.

7.2.2 Pressing Browser Back Button Discards Context

After a page flow completes in the Administration Console, it forwards to a different page, typically a table.

Pressing the browser Back button at this point results in an attempt to load the last JSP file in the completed assistant. At this point, all of the context for this assistant is discarded.

Workaround

Oracle recommends that you do not use the browser Back button to step back into an assistant once changes are cancelled or finished, and that you do not go back to a previous step in an assistant. Instead, use the navigation links and buttons in the Administration Console.

7.2.3 Unsupported Work Manager Configurations Can Be Created

The Administration Console permits the creation of Work Manager configurations that are not supported and do not function as intended. Incorrect Work Manager configurations may result in a number of exceptions being recorded in the server logs, most commonly 'Validation problems were found' exceptions while parsing deployment descriptors.

Workaround

Follow the guidelines described in the online help for Work Manager configurations. Specifically, you can only assign one request class to any given Work Manager, and that request class must be of the same or a broader scope than the Work Manager. You should not assign an application-scoped request class to a global Work Manager, and you should not create more than one application-scoped request class for an application-scoped Work Manager.

Correcting the Work Manager configurations to match the documented constraints resolves these issues.

7.2.4 Server Status Table Reflects Inconsistent Information

The Server Status table on the **Cluster: Monitoring: Summary** page includes two default columns: **Primary** and **Secondary Distribution Names**. These fields do not always reflect all of the replication statistics that are collected and displayed on the **Cluster: Monitoring: Failover** page, depending on the replication scenario.

Please refer to the **Cluster: Monitoring: Failover** page for definitive information.

7.2.5 Exceptions When Defining a Security Policy for an EJB

When defining security policies in the Administration Console for an EJB deployment that references types defined in a separate library deployment, exceptions can be observed if that library deployment is not available to the Console.

Workaround

All library deployments should be targeted at the WebLogic Server Administration Server as well as any Managed Servers needed to support referencing applications. This will ensure that when defining policies, the Console will have access to those library deployments so that referenced types can be class-loaded as needed.

7.2.6 Administration Console Does Not Always Reflect External Changes Made in a Deployment Plan

The Administration Console does not always reflect external changes made in a deployment plan. If a change is made in a deployment plan outside of the Console (for example, using Workshop, editing the plan text files directly, or updating a deployment with a new plan using WLST or webLogic.Deployer) while a Console user is also viewing that deployment plan, the Console user will not see those changes.

Workaround

Navigate to a configuration page for a different deployment, then navigate back to the original deployment again.

7.2.7 Oracle OCI Driver Support

The Oracle OCI driver is no longer explicitly listed as a preconfigured driver type in the Administration Console.

Workaround

The Oracle OCI driver remains a supported driver for application data connectivity, consistent with prior releases of Oracle WebLogic Server. However, users must now specify all required configuration properties manually, including the data base username.

7.2.8 Data Takes a Long Time to Display on the Metric Browser Tab

When using Internet Explorer 7 (IE 7) to display data on the Metric Browser tab of the Monitoring Dashboard, it takes an unusually long time for the data to display, and during this time, the page is unresponsive. The amount of time it takes to display data on this tab depends on the size of the domain.

Workaround

If you need to display data on the Monitoring Dashboard > Metric Browser tab, open the Administration Console in a supported web browser other than IE 7, such as Internet Explorer 8 or greater, Firefox 3 or greater, or Safari 4 or greater.

7.3 Apache Beehive Support Issues and Workarounds

There are no known Apache Beehive Support issues in this release of WebLogic Server.

7.4 Clustering Issues and Workarounds

This section describes the following issue and workaround:

- Section 7.4.1, "Threads Are Blocked on Cluster Messaging in Unicast Mode"

7.4.1 Threads Are Blocked on Cluster Messaging in Unicast Mode

When using Unicast mode for cluster communication, many threads are blocked on cluster messaging, which may result in cluster members having difficulty sending heartbeat messages. In this situation, some cluster members drop out from the cluster and may take some time to rejoin the cluster.

Workaround

Set the following system property to resolve this issue:

```
-Dweblogic.unicast.HttpPing=true
```

7.5 Configuration Issues and Workarounds

This section describes the following issues and workarounds:

- Section 7.5.1, "ASProvWorkflowException Occurs When Creating a WebLogic Domain"
- Section 7.5.2, "Directory For a Non-Existent Server Name Is Created"
- Section 7.5.3, "Abnormal Behavior in Terminal Window After Entering WebLogic Password"
- Section 7.5.4, "Creating and Updating Domains Takes Too Long"
- Section 7.5.5, "Password Field Is Not Editable When Configuring a New Domain"

7.5.1 ASProvWorkflowException Occurs When Creating a WebLogic Domain

In rare cases, if your installation environment contains existing JAVA_OPTIONS prior to starting a Fusion Middlware product installation, these may cause an ASProvWorkflowException, preventing the domain from being created.

Workaround

Prior to starting the Fusion Middleware product installation, clear the existing JAVA_OPTIONS. If you have an applicagtion in the environment that use these JAVA_OPTIONS, the applications may not work after clearing the options. In this case, save the existing JAVA_OPTIONS to a text file and investigate alternatives for running your other application.

7.5.2 Directory For a Non-Existent Server Name Is Created

If you attempt to connect to the WebLogic Server Administration Server with a non-existent server name, a directory for the non-existent server name is created under the *domain_name*/servers directory.

Workaround

Specify a valid server name when connecting to the Administration Server.

7.5.3 Abnormal Behavior in Terminal Window After Entering WebLogic Password

After pressing Ctrl-C to terminate the `startManagedWebLogic.sh` process immediately after entering the WebLogic password, abnormal behavior may be experienced in the terminal window. For example, when pressing Return, the prompt is tabbed instead of going to the next line, and any characters that are entered at the prompt are not displayed in the terminal.

Workaround

Either close the current xterm and start a new one, or enter `stty echo` into the xterm.

7.5.4 Creating and Updating Domains Takes Too Long

It can take a long time to create or update WebLogic Server domains when:

- Installing WebLogic Server on UNIX or Linux operating systems if the Server Examples are included in the installation.

- Using the WebLogic Server Configuration Wizard to create or update a domain.

- Using WLST to create or update a domain.

Workaround

Set the CONFIG_JVM_ARGS environment variable to the following value:

```
-Djava.security.egd=file:/dev/./urandom
```

7.5.5 Password Field Is Not Editable When Configuring a New Domain

On Linux systems, when creating a new domain in the Oracle Fusion Middleware Configuration Wizard, the **Password** and **Confirm Password** fields are sometimes not editable, and you cannot enter a password to create a domain.

Workaround

There are two ways to work around this issue:

- To work around the issue each time it happens, click the Close Window **X** button in the upper right corner of the Configuration Wizard. In the confirmation dialog that appears, click **No** to return to the Configuration Wizard. You can then enter and confirm the password for the domain.

- To fix this issue permanently:

  1. Kill all scim processes. For example:

     ```
     kill `pgrep scim`
     ```

  2. Modify (or create) the file `~/.scim/config` to include the following line (case-sensitive):

     ```
     /FrontEnd/X11/Dynamic = true
     ```

  3. If you are running VNC, restart the VNC server.

  4. Run the Configuration Wizard again.

7.6 Connector (Resource Adapter) Issues and Workarounds

There are no known Connector (Resource Adapter) issues in this release of WebLogic Server.

7.7 Console Extensions Issues and Workarounds

There are no known Extensions issues in this release of WebLogic Server.

7.8 Core Server and Core Work Manager Issues and Workarounds

This section describes the following issues and workarounds:

7.8.1 Threads Become Stuck While Waiting to Get a Connection

When a machine that is hosting one of the Managed Servers is abruptly shut down, a network cable is pulled, or its network interface card has issues, and any server attempts communication with that managed server, threads become stuck waiting to get a connection.

Workaround

This can currently be resolved by using a private flag:

```
-Dweblogic.client.SocketConnectTimeoutInSecs
```

and setting an appropriate timeout value that will release the thread attempting to make the connection and allow the request to fail quickly.

7.8.2 Using IPv6-Formatted Addresses

When using an IPv6-formatted address for WebLogic Server, the URL should include square brackets ('[' and ']') for the host address. Otherwise, WLST may fail to connect to the running server.

Workaround

Add square brackets to the host address. For example:

```
t3://[fe80:0:0:0:203:baff:fe2f:59e5]:9991
```

7.8.3 Server Cannot Be Started After a Whole Server Migration

If the WebLogic Server Administration Server is down when a Whole Server Migration occurs for a clustered server, and the server migrates to a machine on which it was never run before, the server cannot be started on the new machine.

Workaround

Use one of the following workarounds for this issue:

- Ensure that the Administration Server is up when the server migration is being performed.

- Use a shared disk/NFS for all the migratable servers in the cluster.

7.8.4 Object State is not Retained After Renaming Field

When FastSwap is enabled in a J2EE application, you can make certain types of changes to Java classes during development and expect to see the change without re-deploying, with all instance states of the Java object being retained.

One type of change that does NOT retain the object state is that when a field name is changed, it is treated as follows:

- the field with old name is deleted

- the field with new name is added

Thus, in this case, any state in the old field is not carried over to the renamed field.

Using the Workshop or FastSwap ant task, you may see a `FastSwap operation completed successfully` message, even when an instance field name change causes a value reset.

Workaround

You should expect an instance value to be reset when you change a field name.

7.8.5 Forcing Unicast Messages To Be Processed in Order

The following conditions can cause very frequent JNDI updates, and as a result, JMS subscribers may encounter a `java.naming.NameNotFoundException`:

1. Unicast messaging is being used for cluster communication.

2. The JMS topic connection is set with `setReconnectPolicy("all")`.

3. JMS durable subscribers on topic are created and removed very frequently.

Workaround

To fix this issue, a new property, `MessageOrderingEnabled`, has been added to the `ClusterMBean`. This property forces unicast messages to be processed in strict order. By default, this property is not enabled. To enable the property, add the following line manually to the `<cluster>` element in `config.xml`.

`<message-ordering-enabled>true</message-ordering-enabled>`

7.8.6 Servers Configured to Listen on a Host Name Are Listening on a Different Host Name After Startup

When using a host name to specify configuring the listen address on the WebLogic Server Administration Server or a Managed Server, machines that are configured with multiple Ethernet cards may listen on a different host name after startup. For example:

- The machine has 3 Ethernet cards

- Card 1 is mapped to `hostname1-s` (DNS registered host name)

- Card 2 is mapped to `hostname1-i` (DNS registered host name)

- Card 3 is mapped to `hostname1` (actual node's host name)
- You configure the server to listen on `hostname1`
- After starting the server, it is listening on `hostname1-s` because Windows resolves the actual node's host name to the first enabled Ethernet card address

Workaround

Use one of the following three workarounds for this issue:

1. Use the IP address, instead of the host name, as the listen address of the WebLogic Server Administration Server. On Managed Servers, use the IP address as the listen address, or configure the actual physical host name to the first Ethernet card in the machine.

2. Add the following entry to the C:\Windows\system32\drivers\etc\hosts file on the machine:

   `<ip_address> <hostname>`

3. Change the order of the network cards in the machine so that the card with the actual node's host name is Card 1.

7.8.7 Administration Server or Node Manager Cannot Track the Status of a Managed Server

If you start a managed server by providing an incorrect WebLogic Server Administration Server URL from the command line (that is, the Administration Server cannot be reachable at the provided URL), the managed server will start in Managed Server Independence (MSI) mode.

In this case, neither the Administration Server nor Node Manager can track the status of the managed server. The Administration Console will show the status of the managed server as UNKNOWN, but the server will actually be RUNNING in MSI mode.

7.8.8 Multicast Traffic Observed to be Unreliable During or After a Network Partition

During or after a network partition that causes a server migration to take place, multicast traffic has been observed to be unreliable. For example, one node may be receiving multicast traffic, but traffic originating from this node is not received on other nodes in the network. As a result, the migrated servers are not added to the cluster because their heartbeats were not received.

Workaround

Currently, the only known workaround is to use unicast cluster messaging.

7.9 Deployment Issues and Workarounds

This section describes the following issues and workarounds:

- Section 7.9.1, "security-permission Element is not Available in weblogic-application.xml"
- Section 7.9.2, "Extraneous String Values Interpreted as File Specification"
- Section 7.9.3, "java.lang.NoClassDefFoundError is Displayed"

7.9.1 security-permission Element is not Available in weblogic-application.xml

The `security-permission` element is available in the `weblogic.xml` and `weblogic-ejb-jar.xml` deployment descriptors, but is not available in the `weblogic-application.xml` descriptor. Therefore, in an Enterprise application, you can only apply security policies to JAR files that are EJBs or Web applications.

7.9.2 Extraneous String Values Interpreted as File Specification

The weblogic.Deployer tool interprets any extraneous string values between command-line arguments as a file specification. For example, if you enter the command:

```
java weblogic.Deployer -activate -nostage true -name myname -source
c:\myapp\mymodule
```

the tool attempts to activate a file specification named true, because the `-nostage` option takes no arguments and `true` is an extraneous string value.

7.9.3 java.lang.NoClassDefFoundError is Displayed

While using the WebLogic Server Administration Console with applications or EJBs deployed on a Managed Server that depend on a deployed library, you may encounter a `java.lang.NoClassDefFoundError`.

Workaround

The WebLogic Server Administration Console needs access to any shared library deployments so that Java data types and annotations can be processed. Therefore, all shared library deployments should always be targeted to the WebLogic Server Administration Server in addition to any Managed Servers or clusters.

7.9.4 The restore Method Does Not Update the DConfig Bean With Plan Overrides

The restore method does not correctly update the DConfig Bean with the plan overrides. For example, given the following steps:

```
DeployableObject dObject =
    WebLogicDeployableObject.createDeployableObject(new File(appName));
DeploymentConfiguration dConfig =
    WebLogicDeploymentManager.createConfiguration(dObject);
dConfig.restore(new FileInputStream(new File(plan)));
```

the plan does not correctly override the DConfig Bean.

Workaround

Specify the plan when initializing the configuration for the application. For example:

```
helper = SessionHelper.getInstance(
    SessionHelper.getDisconnectedDeploymentManager());
helper.setApplication(app);
helper.setPlan(new File(plan));
helper.initializeConfiguration();
```

7.9.5 config-root <*directory*> not found Warning Is Displayed When Applying a Plan

If you use the Administration Console to make configuration changes to an application, a deployment plan will be generated. If external descriptors are generated as part of the deployment plan, they are placed in the config root plan directory. This directory will be set in the deployment plan 'config-root' attribute.

If no external descriptors are required, the config root directory will not be created, and a warning is displayed when you apply the deployment plan. This results in the following warning in the server output:

```
<Warning <WWebLogicDescriptorWL> <BEA-2156000><"config-root" C:\deployments\plan
was not found>.
```

Workaround

Create the plan directory manually.

7.9.6 Deployment Task Fails When a Large Application File Is Deployed

When a large application file is deployed using the `upload` option, the deployment task fails with the following error:

```
java.lang.OutOfMemoryError: Java heap space
```

To resolve this issue, a new system property, `weblogic.deploy.UploadLargeFile`, has been added. If you see this issue, include this flag in the `java` command you use to launch a deployment client.

If you are using the WebLogic Server patch releases 10.3.2, 10.3.3, or 10.3.4, this flag is not needed.

7.9.7 Application State Is Not Updated If the Server Starts in MSI Mode

A managed server will start in MSI mode if the WebLogic Server Administration Server is not available when the managed server starts. If you start the Administration Server later, the managed server will connect to the Administration Server. However, the state of each application deployed to the managed server is not updated to reflect the state of the applications on the managed server. Each application's state is displayed as NEW or PREPARED in the WebLogic Server Administration Console.

Workaround

There are two workarounds for this issue:

- Start the Administration Server before starting the managed server, or

- Redeploy the application after starting the Administration Server.

7.9.8 Attempting to Redeploy an Application Fails if the Application is Already Deployed Using a Different Source File Location

If you initially deployed an application using one source file location, then attempt to redeploy the application using a new location for the source file, the deployment fails with the following exception:

```
New source location <new_source_file_path> cannot be configured deployed to
configured application, <application_name>. The application source is at
original_source_file_path. Changing the source location is not allowed for a
previously attempted deployment. Try deploying without specifying the source.
```

This is due to a WebLogic Server deployment restriction. Once you specify the source file for a deployment, you cannot change it on a redeployment.

Workaround

Undeploy the application before attempting to redeploy it using a new source file location.

7.10 EJB Issues and Workarounds

This section describes the following issues and workarounds:

- Section 7.10.1, "Primary Key in Oracle Table is CHAR"
- Section 7.10.2, "No Available Annotation That Enables Creation of a Clusterable Timer"
- Section 7.10.3, "Kodo's MappingTool Cannot Generate Schemas"
- Section 7.10.4, "Extensions to the JPA Metadata Model Can Only Be Specified Via Annotations"
- Section 7.10.5, "Lookup Method Injection Not Supported by Spring"
- Section 7.10.6, "Deserializing a JDO PersistenceManagerFactory in a Managed Environment May Fail"
- Section 7.10.7, "Indexes Not Always Created During Schema Creation"
- Section 7.10.8, "OpenJPA throws an exception when @Id fields are also annotated as @Unique"
- Section 7.10.9, "Cache Hit and Miss Counts May Rise Unexpectedly"
- Section 7.10.10, "Open JPA Tries to Create a Table Even if the Table Exists"
- Section 7.10.11, "EJB Applications Fail During Serialization"
- Section 7.10.12, "Non-Transactional Message-Driven Bean Container Can Fail to Provide Reproducible Behavior For Foreign Topics"

7.10.1 Primary Key in Oracle Table is CHAR

The primary key in an Oracle table is a CHAR but the query field in the SQL table is a VARCHAR2.

Workaround

Change the database schema from CHAR to VARCHAR2. Using CHAR as a primary key is not recommended for the Oracle database.

7.10.2 No Available Annotation That Enables Creation of a Clusterable Timer

There is no annotation for EJB3 beans or `Ejbgen` that enables creation of a clusterable timer.

Workaround

Create a weblogic-ejb-jar.xml file and put the `<timer-implementation>` element and corresponding values into the file.

7.10.3 Kodo's MappingTool Cannot Generate Schemas

Kodo's MappingTool cannot generate schemas for classes that use BLOBs in their primary key. BLOBs can be used in a primary key, but the schema must be defined manually. Note that support for BLOB columns in primary keys is not mandated by either the JDO or JPA specifications.

7.10.4 Extensions to the JPA Metadata Model Can Only Be Specified Via Annotations

Extensions to the JPA metadata model can only be specified via annotations, and not via a structure similar to the orm.xml file defined by the specification.

Workaround

To specify Kodo-specific metadata for your object model, either:

■   use the Kodo-specific annotations, or

■   convert your XML-based metadata to the JDO metadata format, which does support XML specification of extensions.

7.10.5 Lookup Method Injection Not Supported by Spring

The Weblogic Spring injection extension model doesn't support lookup method injection.

7.10.6 Deserializing a JDO PersistenceManagerFactory in a Managed Environment May Fail

Deserializing a JDO `PersistenceManagerFactory` in a managed environment may fail. The exception states that the `javax.jdo.PersistenceManagerFactoryClass` property is missing. Note that serializing a `PersistenceManagerFactory` should not generally be necessary in a managed environment.

7.10.7 Indexes Not Always Created During Schema Creation

Indexes declared at the class level are not always created during schema creation.

Workaround

Create the indexes manually after running the schema generation tools.

7.10.8 OpenJPA throws an exception when @Id fields are also annotated as @Unique

OpenJPA throws an exception when `@Id` fields are also annotated as `@Unique` in some databases. Database primary keys are unique by definition. Some databases implement this by creating a unique index on the column.

Workaround

Do not specify both `@Id` and `@Unique` on a single field.

7.10.9 Cache Hit and Miss Counts May Rise Unexpectedly

The cache hit and miss counts may rise unexpectedly when manipulating entities without version data. The extra cache access occurs when the EntityManager closes and all contained entities are detached. Entities without version fields appear to the system to be missing their version data, and the system responds by checking their version in the cache before detachment.

Workaround

Entities with version fields or other version strategies do not cause extra cache access.

7.10.10 Open JPA Tries to Create a Table Even if the Table Exists

When using the MySQL database, and OpenJPA is configured to automatically run the mapping tool at runtime and create tables within the default schema (for example):

```
<property name='openjpa.jdbc.SynchronizeMappings' value='buildSchema'/>
<property name='openjpa.jdbc.Schema' value='MySQL database name' />
```

OpenJPA will try to create the table even if the table already exists in the database. A PersistenceException will be thrown to indicate that the table already exists and the table creation statement fails.

Workaround

To avoid this problem, if you are using the MySQL database, don't configure OpenJPA to automatically run the mapping tool at runtime and specify the default schema at the same time.

7.10.11 EJB Applications Fail During Serialization

EJB applications that use IIOP and send JPA entities from the server to the client will fail during deserialization if the entities are Serializable (but not Externalizable) and do not declare a `writeObject()` method.

Workaround

Add a `writeObject()` method to such entity classes. The write object can be trivial:

```
private void
writeObject(java.io.ObjectOutputStream out)
   throws IOException {
  out.defaultWriteObject();
}
```

7.10.12 Non-Transactional Message-Driven Bean Container Can Fail to Provide Reproducible Behavior For Foreign Topics

When using multi-threaded processing for non-transactional topic Message-Driven Beans (MDBs) that specify a foreign topic (non-WebLogic) JMS, the MDB container can fail to provide reproducible behavior. For example, if a `runtimeException` is thrown in the `onmessage()` method, the container may still acknowledge the message.

Workaround

Set the `max-beans-in-free-pool` attribute to 1 in the deployment descriptor.

7.11 Examples Issues and Workarounds

This section describes the following issues and workarounds:

- Section 7.11.1, "Security Configuration in medrec.wls.config"
- Section 7.11.2, "HTML File not Created for StreamParser.java File"
- Section 7.11.3, "Warning Message Appears When Starting Medrec or Samples Domain"

7.11.1 Security Configuration in medrec.wls.config

The `medrec.wls.config` target in *SAMPLES_HOME*/server/medrec/setup/build.xml has a known issue with respect to security configuration.

7.11.2 HTML File not Created for StreamParser.java File

The `../xml/stax` example contains two files with the same root but different extensions: `StreamParser.java` and `StreamParser.jsp`. The samples viewer build, however, creates just one corresponding HTML file, rather than two for each type of file. In this case only the `StreamParser.jsp` file has an equivalent HTML file; the `StreamParser.java` file does not.

The problem occurs because of a setting in the build.xml file that controls the behavior of `java2html` to generate the files for the documentation.

When using `java2html`, the `useShortFileName="true"` parameter crops off the file extensions for the source files to create the file names for the HTML output files. If two files have the same name and different file extensions, whichever HTML file is generated last will overwrite previous ones.

Workaround

Set the `useShortFileName` parameter to "false". This setting generates HTML files with the file extensions included in the name. The drawback to this solution is that every link that points to the HTML output file needs to be revised, regardless of whether the files in question were affected by the bug.

7.11.3 Warning Message Appears When Starting Medrec or Samples Domain

When you start the medrec or samples domains, you may see a warning message similar to this:

```
<Warning> <WorkManager> <BEA-002919> <Unable to find a WorkManager with name
weblogic.wsee.mdb.DispatchPolicy. Dispatch policy
weblogic.wsee.mdb.DispatchPolicy will map to the default WorkManager for the
application bea_wls_async_response>
```

This warning message appears in the standard output of the Console while starting a WebLogic Server sample application with an asynchronous Web Service deployed.

Workaround

The warning is harmless and can be ignored.

7.12 HTTP Publish/Subscribe Server Issues and Workarounds

This section describes the following issues and workarounds:

- Section 7.12.1, "Authentication and Authorization of the Local Client is not Supported"
- Section 7.12.2, "Event Messages Published by Local Clients Cannot Be Received"
- Section 7.12.3, "Event Messages Published By Local Clients Do Not Go Through Filters"

7.12.1 Authentication and Authorization of the Local Client is not Supported

The HTTP Publish/Subscribe server does not support authentication and authorization of the local client. The local client has full permissions to operate on channels of the HTTP Publish/Subscribe server, which means the local client can create/delete channels and publish/subscribe events from channels.

7.12.2 Event Messages Published by Local Clients Cannot Be Received

In a clustering environment, event messages published by a local client on a server can be received only by subscribed clients connected to the same server. These messages cannot be received by subscribed clients connected to other servers in the cluster.

7.12.3 Event Messages Published By Local Clients Do Not Go Through Filters

Event messages published to a channel by a local client will not go through the Message Filters configured to that channel.

7.13 Installation Issues and Workarounds

This section describes the following issues and workarounds:

- Section 7.13.1, "Sybase JDBC Drivers Not Downloaded with Upgrade Installation"
- Section 7.13.2, "Improper Rollback to Previous Installation May Occur After Exiting an Upgrade Installation Prematurely"
- Section 7.13.3, "WebLogic Server Installer Fails With Insufficient Disk Space Error"
- Section 7.13.4, "Installation Fails with Fatal Error"
- Section 7.13.5, "Oracle Weblogic Server Installation Does Not Install Automatic Diagnostic Repository Binaries"

7.13.1 Sybase JDBC Drivers Not Downloaded with Upgrade Installation

The Oracle WebLogic Server 11*g* Release 1 installer does not download the Sybase JDBC drivers. When you try to upgrade an existing WebLogic Server 10.3 installation using the latest installer, it does not remove the Sybase JAR files from the original installation. The installer upgrades only the `weblogic.jar` file.

The Sybase JAR files (jconn2.jar, jconn3.jar, and jConnect.jar) in the /server/lib or /server/ext/jdbc/sybase directories are removed from the manifest classpath in the upgraded weblogic.jar file. Therefore, if the classpath of a WebLogic Server application does not include Sybase JAR files and only includes weblogic.jar then after the upgrade installation, the application will throw a ClassNotFoundException.

To work around this issue, explicitly add Sybase JAR files in the WebLogic Server application classpath.

7.13.2 Improper Rollback to Previous Installation May Occur After Exiting an Upgrade Installation Prematurely

When using an Upgrade installer or Smart Update to upgrade an existing WebLogic Server 10.3.x installation to WebLogic Server 10.3.4, if you abort the upgrade before completion, the installation should automatically roll back to the prior installation. This may not always occur, resulting in an unusable installation.

7.13.3 WebLogic Server Installer Fails With Insufficient Disk Space Error

The WebLogic Server installer can fail with an insufficient disk space error, even when there is a large amount of available disk space on the file system or disk.

Workaround

Use the -Dspace.detection property in the installation command to disable the available space check. For example:

```
java -Xmx1024M -Dspace.detection=false -jar installer_file_name
-mode=silent -silent_xml=silent.xml
```

or

```
wls1034_linux.bin -Dspace.detection=false
```

7.13.4 Installation Fails with Fatal Error

The installer does not verify whether sufficient disk space is available on the machine prior to completing the installation. As a result, if an installation cannot be completed due to insufficient space, the installer displays the following error message and exits:

```
Fatal error encountered during file installation. The installer will now
cleanup and exit!
```

Workaround

If this problem occurs, restart the installer using the following command:

```
server103_linux32.bin -log=log.out -log_priority=debug
```

The preceding command generates a log of the installation procedure, providing details about the exact cause of the failure. If the cause is indeed insufficient space, the log file indicates it explicitly.

7.13.5 Oracle Weblogic Server Installation Does Not Install Automatic Diagnostic Repository Binaries

Impacted Release: 10.3.6.0

While installing Oracle WebLogic Server 11*g* (10.3.6.0), Automatic Diagnostic Repository binaries are not installed in the wlserver_10.3/server/adr directory.

The workaround is to download and install patch 16078704 from the My Oracle Support website. Refer to Section 1.6, "Downloading and Applying Required Patches."

7.14 Java EE Issues and Workarounds

This section describes the following issues and workarounds:

7.14.1 FastSwap May Relax the Access Modifiers of Fields and Methods

FastSwap may relax the access modifiers of fields and methods. Private and protected members may be made public at runtime. This changes the behavior of reflection and may affect reflection-based frameworks such as Struts.

7.14.2 FastSwap Does Not Support Redefinition of the Entity Bean and ejbClass

FastSwap does not support redefinition of the Entity bean and ejbClass (Session/MDB). Therefore, any updates to entity classes will cause redefinition errors.

Workaround

After updating an entity class, redeploy the application.

7.14.3 Classpath Order Is Not Guaranteed When There Are Multiple JARs in an EAR File

When you have an EAR file containing separate JAR files, and two or more of those JAR files have a class with the same name, it is not possible to predict from which of those JAR files WebLogic Server will instantiate the class. This is not an issue if the classes are the same, but if they are different implementations, the results are unpredictable.

Workaround

Currently there is no known workaround for this issue.

7.15 JDBC Issues and Workarounds

This section describes the following issues and workarounds:

7.15.1 Call To setTransactionIsolation() May Fail When Using the JDBC Driver for MS SQLServer

When using the JDBC driver for MS SQLServer, a call to `setTransactionIsolation()` may fail in a transactional context if `getTransactionIsolation()` is called first.

7.15.2 An Attempt to Access a Remote 10.3.2 or Later WLS Data Source Fails

A new system property, `-Dweblogic.jdbc.remoteEnabled`, has been added to JDBC in Oracle WebLogic Server 10.3.2. For compatibility with prior releases of WebLogic Server, the default setting of this property is `true`. When this property is set to `false`, remote JDBC access is turned off, and such access results in an exception.

Remote access may occur explicitly in an application, or implicitly during a global (XA/JTA) transaction with a participating non-XA data source that is configured with the LLR, 1PC or Emulate XA global transaction option. The following enumerates the cases when an exception will be thrown, and work-arounds for each case (if any).

An exception occurs in the following cases. A workaround (if any) for a given case is provided.

■ When a stand-alone client application uses any type of data source.

■ When an application that is hosted on WebLogic Server uses any type of data source, and the data source is not configured (targeted) locally. A potential workaround is to target the data source locally.

■ When accessing a same named non-XA data source with a transaction option of LLR, 1PC or Emulate XA on multiple WebLogic Server instances in the same global transaction. In this case, there are two potential work-arounds:

   – Change data sources to use XA instead (this may lower performance), or

   – For the 1PC/emulateXA types, change the application to ensure the data source is accessed from a single server.

■ When accessing a non-XA data source with the LLR transaction option on a server that is different than the transaction coordinator. For server-initiated transactions, the coordinator location is chosen based on the first participating resource in the transaction. In this case, there are two potential work-arounds: (a) change the data source to use XA instead (this may lower performance); or (b) change the application to ensure data source access on the transaction coordinator, as described in "Optimizing Performance with LLR" in Oracle Fusion Middleware Programming JTA for OracleWebLogic Server. The latter may not be possible in some cases; for example, when an MDB application receives messages from a remote WebLogic JMS server, the transaction coordinator will always be the WebLogic server that's hosting the JMS server, but it may not be possible to move the MDB application to the same WebLogic server.

   – Change the data source to use XA instead (this may lower performance), or

   – Change the application to ensure data source access on the transaction coordinator, as described in "Optimizing Performance with LLR" in *Oracle Fusion Middleware Programming JTA for Oracle WebLogic Server*. This workaround may not be possible in some cases. For example, when an MDB application receives messages from a remote WebLogic JMS server, the transaction coordinator will always be the WebLogic Server instance that is hosting the JMS server, but it may not be possible to move the MDB application to the same WebLogic Server instance.

7.15.3 ORA-01591 Errors Occur on SOA Servers Configured to Use Multiple Oracle RAC Nodes

On SOA servers using multiple Oracle RAC database nodes, when WebLogic Server multi data sources are configured for XA and load balancing, ORA-10591 errors can occur.

Workaround

Download and apply Oracle RAC database patch 7675269 for Linux x86, Oracle Release 11.1.0.7.0. You can download this patch from My Oracle Support. Alternatively, you can download and apply patch set 9007079 for Linux x86, Oracle Release 11.1.0.7.0, which includes the patch 7675269.

7.16 JMS Issues and Workarounds

This section describes the following issues and workarounds:

- Section 7.16.1, "Deployment Descriptor Validation Fails"
- Section 7.16.2, "Exception When Multiple Producers Use the Same Client SAF Instance"
- Section 7.16.3, "Multi-byte Characters are not Supported in Store File and Directory Names"
- Section 7.16.4, "Generation of the Default UOO Name Has Changed"
- Section 7.16.5, "Testing Abrupt Failures of WebLogic Server When Using File Stores on NFS"
- Section 7.16.6, "JMS Message Consumers Will Not Always Reconnect After a Service Migration"
- Section 7.16.7, "Forcing Unicast Messages To Be Processed in Order"

7.16.1 Deployment Descriptor Validation Fails

Deployment descriptor validation fails when descriptor validation is enabled, and an EAR file contains only JMS modules.

Workaround

Make sure that there is at least one J2EE specification-compliant module in the EAR.

7.16.2 Exception When Multiple Producers Use the Same Client SAF Instance

When multiple JMS producers use the same JMS Client SAF instance (within a single JVM), depending on the timing of the JMS SAF client creation, you might receive the following exception:

```
Error getting GXA resource [Root exception is weblogic.jms.common.JMSException:
weblogic.messaging.kernel.KernelException: Error getting GXA resource]
```

Workaround

When using multiple JMS SAF client producers, try introducing a small delay between the creation of each new client.

7.16.3 Multi-byte Characters are not Supported in Store File and Directory Names

There is no support for multi-byte characters in WebLogic Store file and directory names. For instance, when the WebLogic Server name has multi-byte characters, the default store cannot be created, and WebLogic Server will not boot.

Workaround

Create WebLogic Server instances without multi-byte characters in the path name and use that path name for the default store configuration. Do not use multi-byte characters in the Weblogic Server name.

7.16.4 Generation of the Default UOO Name Has Changed

WebLogic Server 10.3.4 contains a fix for configurations that set a default unit-of-order (UOO) on a JMS regular destination, distributed destination, or template. This fix ensures that the default unit-of-order name stays the same even after a restart of the destination's host JMS server. The default UOO name is now based on the domain, JMS server, and destination names.

7.16.5 Testing Abrupt Failures of WebLogic Server When Using File Stores on NFS

Oracle strongly recommends verifying the behavior of a server restart after abrupt machine failures when the JMS messages and transaction logs are stored on an NFS mounted directory. Depending on the NFS implementation, different issues can arise post failover/restart. For more information, see Section 6.3, "Testing Abrupt Failures of WebLogic Server When Using File Stores on NFS."

7.16.6 JMS Message Consumers Will Not Always Reconnect After a Service Migration

JMS message consumers will not always reconnect after a service migration when an application's `WLConnection.getReconnectPolicy()` attribute is set to `all`. If the consumers do not get migrated, either an exception is thrown or `onException` will occur to inform the application that the consumer is no longer valid.

Workaround

The application can refresh the consumer either in the exception handler or through `onException`.

7.16.7 Forcing Unicast Messages To Be Processed in Order

Certain conditions can cause very frequent JNDI updates, and as a result, JMS subscribers may encounter a `java.naming.NameNotFoundException`. For more information, see Section 7.8.5, "Forcing Unicast Messages To Be Processed in Order."

7.17 JNDI Issues and Workarounds

There are no known JNDI issues in this release of WebLogic Server.

7.18 JSP and Servlet Issues and Workarounds

This section describes the following issues and workarounds:

- Section 7.18.1, "Deployment Plans Cannot Be Used To Override Two Descriptors"

- Section 7.18.2, "Spring Dependency Injection Not Supported on JSP Tag Handlers"

- Section 7.18.3, "503 Error When Accessing an Application With a Valid sessionid"

7.18.1 Deployment Plans Cannot Be Used To Override Two Descriptors

Deployment plans cannot be used to override the following two descriptors during deployment of a Web application or a Web module:

WEB-INF/classes/META-INF/persistence.xml and
WEB-INF/classes/META-INF/persistence-configuration.xml. Deployment plans can
otherwise be used to override any descriptor.

Workaround

Package WEB-INF/classes/META-INF/persistence.xml and
WEB-INF/classes/META-INF/persistence-configuration.xml (if present) along with
related class files into a JAR file. The JAR file must then be placed in the WEB-INF/lib
directory of the Web application or Web module. A deployment plan can be used to
override the two descriptors in such a JAR file.

7.18.2 Spring Dependency Injection Not Supported on JSP Tag Handlers

With the Spring extension model enabled, WebLogic Server 10.3 or later does not
support Spring Dependency Injection (DI) on JSP tag handlers for performance
reasons.

Currently, WebLogic Server supports Spring DI on most Web components, for
example, servlets, filters and listeners. Spring DI is not, however, presently supported
on JSP tag handlers for performance reasons.

7.18.3 503 Error When Accessing an Application With a Valid sessionid

When a session is persistent and an older version of a servlet context is retired,
accessing the application with a valid `sessionid` will cause a 503 error.

For example, the session-persistent type of a versioned Web application is 'file'. A user
can access the application successfully. Later, version 2 of the application is redeployed
and version 1 is retired. If the same user accesses the application, they will get a 503
error.

7.19 JTA Issues and Workarounds

There are no known JTA issues in this release of WebLogic Server.

7.20 Java Virtual Machine (JVM) Issues and Workarounds

This section describes the following issues and workarounds:

- Section 7.20.1, "1.4 Thin Client Applet Cannot Contact WebLogic Server"
- Section 7.20.2, "Applications Running on Some Processors May Experience Intermittent Time Issues"
- Section 7.20.3, "JRockit JVM Appears to Freeze When Doing Long Array Copies"
- Section 7.20.4, "Serial Version UID Mismatch"
- Section 7.20.5, "JVM Stack Overflow"
- Section 7.20.6, "Using AWT libraries May Cause a JVM Crash"
- Section 7.20.7, "XML Schema Validation Error"

7.20.1 1.4 Thin Client Applet Cannot Contact WebLogic Server

Due to a known Sun Microsystems VM bug (513552), a 1.4 Thin Client Applet cannot
contact WebLogic Server 9.0 or later. This is because the VM does not distinguish
correctly between a client and a server connection. The VM creates a server-type

connection and caches it. It then attempts to make a client-type connection, finds the cached connection and tries to use that, but then encounters an error because clients are not allowed to use server connections.

7.20.2 Applications Running on Some Processors May Experience Intermittent Time Issues

Applications that run on RH Linux on Intel G5 processors and that also directly or indirectly use system time calls may experience intermittent time issues if the ClockSource is set to tsc (the default). The standard POSIX C gettimeofday() call, and consequently also the Java System.currentTimeMillis() and java.util.Date() calls can intermittently return a value that is approximately 4400 seconds in the future, even in a single-threaded application.

This issue is not unique to WebLogic or Java, but applies to any application running on RH Linux on Intel G5 processors. Issues can occur for applications that either explicitly make a time call using standard Java, or explicitly by using any time-based application server services.

Possible symptoms include, but are not limited to, premature transaction timeouts, unexpected expiration of JMS messages, and incorrectly scheduled timers.

If you're interested in a standalone reproducer for this problem, contact Oracle and reference bug number 8160147.

Workaround

There is no known official patch for Linux. Instead, change the clock source from tsc to hpet. After making this modification on test systems, exceptions due to invalid System.currentTimeMillis()/gettimeofday() return values were no longer seen. To change the system clock from tsc to hpet on a trial basis, perform the following steps as root:

1. Disable ntpd (if running)

2. Echo 'hpet' > /sys/devices/system/clocksource/clocksource0/current_ clocksource

3. Enable ntpd

Note that this change will not survive a reboot. For more information, please see: http://www.gossamer-threads.com/lists/linux/kernel/813344

7.20.3 JRockit JVM Appears to Freeze When Doing Long Array Copies

The JRockit JVM appears to freeze when doing long array copies as part of unlimited forward rolling. This can happen when multiple server reboots occur due to Out Of Memory conditions.

Workaround
When booting the servers, include the following JRockit JVM flag:

```
-XXrollforwardretrylimit:-1
```

7.20.4 Serial Version UID Mismatch

A Serial Version UID Mismatch issue is encountered if you deploy an application on a latest JVM, but compiled with previous Service Release of IBM Java 6 JDK.

Workaround

To be compatible with the serialization of previously compiled applications, modify the *BEA_HOME*/wlserver_10.3/common/bin/commEnv.sh file to include the following command:

```
JAVA_OPTIONS="$JAVA_OPTIONS
-Dcom.sun.xml.namespace.QName.useCompatibleSerialVersionUID=1.0"
```

If you intend to deploy new applications with previously compiled applications, they must be recompiled as necessary to have the same Serial Version UID.

7.20.5 JVM Stack Overflow

You might encounter a JVM stack overflow error or exception while running WebLogic Server. This issue applies to Oracle Enterprise Linux 4, 5, 5.1 on AMD64 and 64-bit Xeon platforms.

Workaround

Increase the stack size from the default 128k to 256k.

7.20.6 Using AWT libraries May Cause a JVM Crash

You might encounter a JVM crash when using GUI libraries such as AWT or javax.swing (which often delegates to AWT).

Workaround

Start the server using the following flag:

```
-Djava.awt.headless=true
```

7.20.7 XML Schema Validation Error

An xml schema factory validation error is encountered when IBM JDK fails to return the platform default schema factory because of a preconfigured property file format.

Workaround

Modify the *BEA_HOME*/wlserver_10.0/common/bin/commEnv.sh file to include the following command:

```
JAVA_OPTIONS="$JAVA_OPTIONS
-Djavax.xml.validation.SchemaFactory:http://www.w3.org/2001/XMLSchema=org.apache.x
erces.jaxp.validation.XMLSchemaFactory"
```

7.21 Monitoring Issues and Workarounds

This section describes the following issue and workaround:

- Section 7.21.1, "MBean Attributes Not Explicitly Marked as @unharvestable Appear as Harvestable"

- Section 7.21.2, "Events Generated By the JVM Level Are Not Generated at Low Volume"

- Section 7.21.3, "WLDF Performance Issues Can Occur When JVM Events Are Enabled"

7.21.1 MBean Attributes Not Explicitly Marked as @unharvestable Appear as Harvestable

The `@unharvestable` tag is not being honored at the interface level. If MBean attributes are not explicitly marked as `@unharvestable`, they are considered to be harvestable and will appear as harvestable in the WebLogic Administration Console.

Workaround

You can explicitly mark MBean attributes as `@unharvestable`.

7.21.2 Events Generated By the JVM Level Are Not Generated at Low Volume

In WebLogic Server 10.3.3, the default WLDF diagnostic volume setting was Off. As of WebLogic Server 10.3.4, the default diagnostic volume setting is Low Volume, and events generated by the JVM level are not being generated at the Low Volume setting in WebLogic Server 10.3.4 (JVM-level events were generated at the Low Volume setting in WebLogic Server 10.3.3). The JVM-level events are still generated at the High Volume and Medium Volume settings in WebLogic Server 10.3.4.

Workaround

Use one of the following workarounds to cause the JVM-level events to be generated:

- Increase the WLDF diagnostic volume to the Medium or High level.
- Use JRMC, JRCMD, or the JRockit command line settings to activate a separate flight recording in the WebLogic Server instance. By doing so, JVM will cause JVM events to be present at all WLDF diagnostic volume settings (Off, Low, Medium, and High).

7.21.3 WLDF Performance Issues Can Occur When JVM Events Are Enabled

When JVM events are enabled, WLDF performances issues may occur in the following situations:

- If there are no other JRockit flight recordings enabled, performance can degrade when the WLDF diagnostic volume is set to Medium or High level.
- If other JRockit flight recordings are enabled, performance can degrade at all WLDF diagnostic volume levels (Off, Low, Medium, and High).

7.22 Node Manager Issues and Workarounds

There are no known Node Manager issues in this release of WebLogic Server.

7.23 Operations, Administration, and Management Issues and Workarounds

There are no known Operations, Administration, and Management issues in this release of WebLogic Server.

7.24 Oracle Kodo Issues and Workarounds

There are no known Oracle Kodo issues in this release of WebLogic Server.

7.25 Protocols Issues and Workarounds

There are no known Protocols issues in this release of WebLogic Server.

7.26 RMI-IIOP Issues and Workarounds

This section describes the following issue and workaround:

- Section 7.26.1, "Ant 1.7 rmic Task Incompatibility"

7.26.1 Ant 1.7 rmic Task Incompatibility

Calls to the Ant version 1.7 `rmic` task automatically add a `-vcompat flag`, which is not compatible with `rmic` for Oracle WebLogic Server.

Workaround

Use either of the following workarounds if your rmic call is of the form:

```
rmic classname="com.bea.crmsimulation.legacyra.LegacyAdapter"
   base="${module_location}/core-legacy-ra/classes"
   classpath="${core.classes}" compiler="weblogic" />
```

- Add a `stubversion`

  ```
  <rmic classname="com.bea.crmsimulation.legacyra.LegacyAdapter"
     base="${module_location}/core-legacy-ra/classes"
     classpath="${core.classes}" compiler="weblogic"
     stubversion="1.2"/>
  ```

- Remove the `compiler` flag

  ```
  <rmic classname="com.bea.crmsimulation.legacyra.LegacyAdapter"
     base="${module_location}/core-legacy-ra/classes"
     classpath="${core.classes}"
  ```

7.27 Security Issues and Workarounds

This section describes the following issues and workarounds:

- Section 7.27.1, "StoreBootIdentity Works Only if the Appropriate Server Security Directory Exists"
- Section 7.27.2, "Boot Time Failure Occurs With SecurityServiceException"
- Section 7.27.3, "Authentication Failure After Upgrading a Domain From WLS 6.1"
- Section 7.27.4, "InvalidParameterException Message Generated and Displayed"
- Section 7.27.5, "Enabling Both the Authentication and Passive Attributes In SML 2.0 Service Provider Services Is an Invalid Configuration"
- Section 7.27.6, "Running the WebLogic Full Client in a Non-Forked VM"
- Section 7.27.7, "Random Number Generator May Be Slow on Machines With Inadequate Entropy"

7.27.1 StoreBootIdentity Works Only if the Appropriate Server Security Directory Exists

The option `-Dweblogic.system.StoreBootIdentity` works only if the appropriate server security directory exists. This directory is usually created by the Configuration Wizard or upgrade tool.

However, the appropriate server security directory could be absent in domains checked into source-control systems.

7.27.2 Boot Time Failure Occurs With SecurityServiceException

A WebLogic Server instance can experience a boot time failure with a `SecurityServiceException` when the RDBMS Security Data Store is configured for a DB2 database using the DB2 driver supplied with WebLogic Server.

Workaround

When RDBMS Security Data Store is using the `AlternateId` connection property for a DB2 database, you must also set the additional property `BatchPerformanceWorkaround` as `true` when using the DB2 driver supplied with WebLogic Server.

7.27.3 Authentication Failure After Upgrading a Domain From WLS 6.1

After upgrading a domain from WLS 6.1, the WebLogic Server instance will not boot due to an authentication failure.

Workaround

A system user password must be set up in the WLS 6.1 domain before or after the upgrade process in order for the WebLogic Server instance to boot properly.

7.27.4 InvalidParameterException Message Generated and Displayed

After you configure either the Identity Provider or Service Provider services for SAML 2.0 and attempt to publish the SAML 2.0 services metadata file, an `InvalidParameterException` message may be generated and displayed in the Administration Console.

Workaround

When configuring the SAML 2.0 federation services for a WebLogic Server instance, be sure to enable all binding types that are available for the SAML role being configured. For example, when configuring SAML 2.0 Identity Provider services, you should enable the POST, Redirect, and Artifact bindings. When configuring SAML 2.0 Service Provider services, enable the POST and Artifact bindings. Optionally, you may choose a preferred binding.

7.27.5 Enabling Both the Authentication and Passive Attributes In SML 2.0 Service Provider Services Is an Invalid Configuration

When configuring SAML 2.0 Service Provider services, enabling both the Force Authentication and Passive attributes is an invalid configuration that WebLogic Server is unable to detect. If both these attributes are enabled, and an unauthenticated user attempts to access a resource that is hosted at the Service Provider site, an exception is generated and the single sign-on session fails.

Note that the Force Authentication attribute has no effect because SAML logout is not supported in WebLogic Server. So even if the user is already authenticated at the Identity Provider site and Force Authentication is enabled, the user is not forced to authenticate again at the Identity Provider site.

Avoid enabling both these attributes.

7.27.6 Running the WebLogic Full Client in a Non-Forked VM

If the WebLogic Full Client is running in a non-forked VM, for example by means of a `<java>` task invoked from an Ant script without the `fork=true` attribute, the following error might be generated:

```
java.lang.SecurityException: The provider self-integrity check failed.
```

This error is caused by the self-integrity check that is automatically performed when the RSA Crypto-J library is loaded. (The Crypto-J library, `cryptoj.jar`, is in the `wlfullclient.jar` manifest classpath.)

This self-integrity check failure occurs when the client is started in a non-forked VM and it uses the Crypto-J API, either directly or indirectly, as in the following situations:

- The client invokes the Crypto-J library directly.

- The client attempts to make a T3S connection, which triggers the underlying client SSL implementation to invoke the Crypto-J API.

When the self-integrity check fails, further invocations of the Crypto-J API fail.

Workaround

When running the full client in a `<java>` task that is invoked from an Ant script, always set the `fork` attribute to `true`.

For more information about the self-integrity check, see "How a Provider Can Do Self-Integrity Checking" in How to Implement a Provider in the Java™ Cryptography Architecture, available at the following URL:

http://download.oracle.com/javase/6/docs/technotes/guides/security/crypto/HowToImplAProvider.html#integritycheck

7.27.7 Random Number Generator May Be Slow on Machines With Inadequate Entropy

In order to generate random numbers that are not predictable, SSL security code relies upon "entropy" on a system. Entropy is activity such as mouse movement, disk IO, or network traffic. If entropy is minimal or non-existent, then the random number generator will be slow, and security operations may time out. This may disrupt activities such as booting a Managed Server into a domain using a secure admin channel. This issue generally occurs for a period after startup. Once sufficient entropy has been achieved on a JVM, the random number generator should be satisfied for the lifetime of the system.

For further information, see Sun bugs 6202721 and 6521844 at:

http://bugs.sun.com/bugdatabase/view_bug.do?bug_id=6202721

http://bugs.sun.com/bugdatabase/view_bug.do?bug_id=6521844

Workaround

On low-entropy systems, you can use a non-blocking random number generator, providing your site can tolerate lessened security. To do this, add the `-Djava.security.egd=file:///dev/urandom` switch or `file:///dev/./urandom` to the command that starts the Java process. Note that this workaround may not be appropriate for all production environments because it uses pseudo-random numbers instead of genuine random numbers.

Complete the following steps to increase the entropy of a kernel:

1. Run the following command to verify the entropy of the kernel:

```
cat /proc/sys/kernel/random/entropy_avail
```
2. Download the rng-tools package from the yum server

> **Note:** To download the rng-tools package, the server must connect to the appropriate yum update server on the network.

3. Run the following command to install the rng-tools package:

```
yum install rng-tools
```
4. Create a file rndg in the etc/sysconfig/ directory and add the following line in the file:

```
EXTRAOPTIONS= "-r /dev/urandom"
```
5. Verify if the entropy of the kernel has increased.

7.28 SNMP Issues and Workarounds

There are no known SNMP issues in this release of WebLogic Server.

7.29 Spring Framework on WebLogic Server Issues and Workarounds

This section describes the following issues and workarounds:

- Section 7.29.1, "OpenJPA ClassFileTranformer Does Not Work When Running on JRockit"
- Section 7.29.2, "petclinic.ear Does Not Deploy on WebLogic Server"

7.29.1 OpenJPA ClassFileTranformer Does Not Work When Running on JRockit

The OpenJPA ClassFileTranformer does not work when running WebLogic Server on JRockit.

Workaround
Use an alternative method of applying enhancements at build time through an OpenJPA enhancer compiler; do not use the LoadTimeWeaver.

7.29.2 petclinic.ear Does Not Deploy on WebLogic Server

For the SpringSource petclinic sample, the petclinic.war deploys without any problems. The petclinic.ear will not deploy on WebLogic Server because it is not packaged correctly. A request has been sent to SpringSource to fix the petclinic.ear packaging.

7.30 System Component Architecture (SCA) Issues and Workarounds

There are no known SCA issues in this release of WebLogic Server.

7.31 Upgrade Issues and Workarounds

This section describes the following issue:

- Section 7.31.1, "Domains Created on WebLogic Server 10.3.1 Cannot Be Run on WebLogic Server 10.3"

7.31.1 Domains Created on WebLogic Server 10.3.1 Cannot Be Run on WebLogic Server 10.3

If you create a domain using WebLogic Server 10.3.1, then roll back to WebLogic Server 10.3, you will not be able to start the servers that you created in that domain. This is a known restriction, as the `config.xml` file contains references to newer schema definitions (`xmlns.oracle.com`) that did not exist in WebLogic Server 10.3.

7.32 Web Applications Issues and Workarounds

This section describes the following issues and workarounds:

- Section 7.32.1, "Administration Console Fails to Implement session-timeout Changes"

- Section 7.32.2, "Connection Pool Connection Reserve Timeout Seconds Value is Overridden"

- Section 7.32.3, "Database Connections Become Unstable When a PoolLimitSQLException Occurs"

- Section 7.32.4, "Web Page Fails to Open When Accessing It Using the SSL Port"

7.32.1 Administration Console Fails to Implement session-timeout Changes

If the `session-timeout` is configured in the `web.xml` file, any changes made to change the `session-timeout` using the Administration Console do not take effect.

Workaround

Use a deployment plan to override the `session-timeout` setting.

7.32.2 Connection Pool Connection Reserve Timeout Seconds Value is Overridden

When using a JDBC session, the value of Connection Reserve Timeout Seconds for a connection pool is changed to be one of the following:

- the JDBC connection timeout seconds, which is defined in the session descriptor (either in `weblogic.xml` or `weblogic-application.xml`)

- the default value of 120 seconds

Workaround

Configure `jdbc-connection-timeout-secs` in the session descriptor.

7.32.3 Database Connections Become Unstable When a PoolLimitSQLException Occurs

When a `PoolLimitSQLException` occurs during a JDBC persistence session, connections to the database become unstable, and may fail with recovery or fail without recovery. This results in the loss of session data. Either an older session or null is returned.

7.32.4 Web Page Fails to Open When Accessing It Using the SSL Port

When accessing a Web page using the SSL port, the page fails to open and the following error is reported:

```
Secure Connection Failed
```

```
An error occurred during a connection to <hostname>.

You have received an invalid certificate. Please contact the server
administrator or email correspondent and give them the following information:

Your certificate contains the same serial number as another certificate
issued by the certificate authority. Please get a new certificate containing a
unique serial number.
```

Workaround

The following workaround can be used for Firefox.

If you have received this error and are trying to access a web page that has a self-signed certificate, perform the following steps in Firefox:

1. Go to **Tools** > **Options** >**Advanced** > **Encryption tab** > **View Certificates**.

2. On the **Servers** tab, remove the certificates.

3. On the **Authorities** tab, find the Certificate Authority (CA) for the security device that is causing the issue, and then delete it.

If you are using Internet Explorer or other web browsers, you can ignore the Warning page that appears and continue to the web page.

7.33 WebLogic Server Scripting Tool (WLST) Issues and Workarounds

This section describes the following issues and workarounds:

- Section 7.33.1, "Permission Denied Error Occurs for WLST Offline Logging"
- Section 7.33.2, "Property Names Containing '.' Characters Are Not Supported by loadProperties"
- Section 7.33.3, "Invalid cachedir Created by Jython Causes WLST to Error Out"
- Section 7.33.4, "WLST returnType='a' Option Returns Child Management Objects"

7.33.1 Permission Denied Error Occurs for WLST Offline Logging

When there are multiple processes, owned by different filesystem users, that are performing concurrent WLST offline operations, a `FileNotFoundException`, `Permission Denied` error may occur.

Workaround

To avoid collisions on log file names, set the following property in the environment prior to invoking `wlst.sh` *script_name*:

```
export WLST_PROPERTIES="-Dwlst.offline.log=./logs/filename.log"
```

Substitute a unique name for *filename*. You must you use a unique name for each log file to ensure that there will be no log file name collisions.

7.33.2 Property Names Containing '.' Characters Are Not Supported by loadProperties

The WLST `loadProperties` command does not support loading a property with a name that contains "." characters. For example, if the property `myapp.db.default` is present in the property file, WLST throws a name exception:

```
Problem invoking WLST - Traceback (innermost last):
```

```
    File "<iostream>", line 7, in ?
    File "<iostream>", line 4, in readCustomProperty
NameError: myapp
```

This is a system limitation of Python and the `loadProperties` command. WLST reads the variable names and values and sets them as variables in the Python interpreter. The Python interpreter uses "." as a delimiter to indicate module scoping for the namespace, or package naming, or both. Therefore, the properties file fails because `myapp.db.default.version=9i` is expected to be in the `myapp.db.default` package. This package does not exist.

Workaround

Use variable names that do not have periods. This will allow you to load the variables from the property file and refer to them in WLST scripts. You could use another character such as "_" or lowercase/uppercase character to delimit the namespace.

As an alternative, you can set variables from a properties files. When you use the variables in your script, during execution, the variables are replaced with the actual values from the properties file. For example:

```
myapp.py
var1=10
var2=20
import myapp
print myapp.var1
10
print myapp.var2
20
```

This will work for one level of namespaces (`myapp.var1`, `myapp.var2`). It will not work for top level variables that share the same name as the namespace (for example, `myapp=oracle` and `myapp.var1=10`). Setting the `myapp` variable will override the `myapp` namespace.

If you need multiple levels, then you can define a package namespace using directories. Create a myapp/db/default directory with a `vars.py` file as follows:

```
var1=10
var2=20
```

Then import:

```
import myapp.db.default.vars
print myapp.db.default.vars.var1
10
```

You may need to add `__init__.py` files to the subdirectories. Refer to the Python documentation for more information on packages:

http://docs.python.org/tut/node8.html

7.33.3 Invalid cachedir Created by Jython Causes WLST to Error Out

The default `cachedir` created by Jython 2.2 is not a valid directory. If you are using Jython directly from `weblogic.jar`, this causes WLST to error out.

Workaround

There are two workarounds for this issue:

- When invoking WLST, specify the `-Dpython.cachedir=<valid_directory>` parameter, or

- Install Jython 2.2.1 separately instead of using the partial Jython that is included in `weblogic.jar`.

7.33.4 WLST returnType='a' Option Returns Child Management Objects

The WLST `returnType='a'` option should only return attributes from the specified directory. Instead it also returns child management objects. For example:

```
ls('Server')
drw-    AdminServer
drw-    worker01

ls('Server', returnMap='true', returnType='a')
drw-    AdminServer
drw-    worker01

ls('Server', returnMap='true',returnType='c')
drw-    AdminServer
drw-    worker01
```

The `ls` with `returnType='a'` should not list any child management objects, but `AdminServer` and `worker01` are children.

Workaround

When processing the output from `ls(returnType='a')`, check to see if the returned entry is a directory.

7.34 Web Server Plug-Ins Issues and Workarounds

This section describes the following issue:

- Section 7.34.1, "MOD_WLS_OHS Does Not Fail Over"

7.34.1 MOD_WLS_OHS Does Not Fail Over

Currently, `mod_wl` and `mod_wl_ohs` only support container level failover and not application level failover. `mod_wl_ohs` continues to route requests to a down application as long as the managed server is up and running. In the clustered case, requests continue to go to the container where the original session started even when the application is shutdown, typically resulting in the http error 404.

7.35 Web Services and XML Issues and Workarounds

This section describes the following issues and workarounds:

- Section 7.35.1, "weblogic.wsee.jaxws.mdb.DispatchPolicy WorkManager Cannot Be Found"

- Section 7.35.2, "Multiple Resize Buffer Calls Occur"

- Section 7.35.3, "Troubleshooting Problems When Applying the WebLogic Advanced Web Services for JAX-WS Extension Template"

- Section 7.35.4, "Sparse Arrays and Partially Transmitted Arrays Are Not Supported"

7.35.1 weblogic.wsee.jaxws.mdb.DispatchPolicy WorkManager Cannot Be Found

In some situations, warning messages are logged indicating that the weblogic.wsee.jaxws.mdb.DispatchPolicy WorkManager cannot be found, although this WorkManager is targeted to one or more of the Managed Servers in the domain.

Workaround

Use one of the following workarounds to resolve this issue.

- To prevent these warning messages, start the WebLogic Server instance with the -Dweblogic.wsee.skip.async.response=true flag. See *Programming Advanced*

Features of JAX-RPC Web Services for Oracle WebLogic Server for more information on this flag.

- Manually target the `weblogic.wsee.jaxws.mdb.DispatchPolicy` WorkManager to the Administration Server.

7.35.2 Multiple Resize Buffer Calls Occur

When executing Web services client calls where Message Transmission Optimization Mechanism (MTOM) attachments are processed for send, multiple resize buffer calls occur..

Workaround

There is a patch available to resolve this issue. This patch can be applied only to WebLogic Server 10.3.4. It provides the system property `jaxws.transport.streaming`, which enables or disables streaming at the transport layer for a Web services client. Set this property to `true` for CPU-intensive applications that are running on a WebLogic Server instance that is participating in Web services interactions as a client, and is sending out large messages.

To obtain the patch, do one of the following:

- Contact My Oracle Support and request the patch for bug 9956275, or
- Download the patch from My Oracle Support and install it using Smart Update per the instructions in the following My Oracle Support document:

  1302053.1

  Search for Oracle patch number 9956275 or Smart Update patch 7Z5H.

7.35.3 Troubleshooting Problems When Applying the WebLogic Advanced Web Services for JAX-WS Extension Template

After upgrading from WebLogic Server 10.3.4 to 10.3.5, when creating or extending a domain using the WebLogic Advanced Web Services for JAX-WS Extension template (`wls_webservices_jaxws.jar`), you may encounter an exception during the execution of the final.py script. For complete details and a workaround, see "Troubleshooting Problems When Applying the WebLogic Advanced Services for JAX-WS Extension Template" in *Getting Started With JAX-WS Web Services for Oracle WebLogic Server*.

7.35.4 Sparse Arrays and Partially Transmitted Arrays Are Not Supported

WebLogic Server does not support Sparse Arrays and Partially Transmitted Arrays as required by the JAX-RPC 1.1 Spec.

7.35.5 WSDL Compiler Does Not Generate Serializable Data Types

The Web Service Description Language (WSDL) compiler does not generate serializable data types, so data cannot be passed to remote EJBs or stored in a JMS destination.

7.35.6 Use of Custom Exception on a Callback

WebLogic Server does not support using a custom exception on a callback that has a package that does not match the target namespace of the parent Web Service.

Workaround

Make sure that any custom exceptions that are used in callbacks are in a package that matches the target namespace of the parent Web service.

7.35.7 Cannot Use JMS Transport in an Environment That Also Uses a Proxy Server

You cannot use JMS transport in an environment that also uses a proxy server. This is because, in the case of JMS transport, the Web Service client always uses the t3 protocol to connect to the Web Service, and proxy servers accept only HTTP/HTTPS.

7.35.8 clientgen Fails When Processing a WSDL

`clientgen` fails when processing a WSDL that uses the complex type `http://www.w3.org/2001/XMLSchema{schema}` as a Web Service parameter.

7.35.9 JAX RPC Handlers in Callback Web Services Are Not Supported

WebLogic Server 9.2 and later does not support JAX RPC handlers in callback Web Services.

Workaround

If JAX RPC handlers were used with Web Services created with WebLogic Workshop 8.1, then such applications must be redesigned so that they do not use callback handler functionality.

7.35.10 Message-level Security in Callback Web Services Is Not Supported

WebLogic Server 9.2 and later does not support message-level security in callback Web Services.

Workaround

Web Services created with WebLogic Workshop 8.1 that used WS-Security must be redesigned to not use message-level security in callbacks.

7.35.11 Handling of Java Method Arguments or Return Parameters That Are JAX-RPC-style JavaBeans

WebLogic Server does not support handling of Java method arguments or return parameters that are JAX-RPC-style JavaBeans that contain an `XmlBean` property. For example, applications cannot have a method with a signature like this:

```
void myMethod(myJavaBean bean);
```

where `myJavaBean` class is like:

```
public class MyJavaBean {
  private String stringProperty;
  private XmlObject xmlObjectProperty;

  public MyJavaBean() {}
  String getStringProperty() {
    return stringProperty;
  }
  void   setStringProperty(String s) {
    stringProperty = s;
  }
```

```
XmlObject getXmlObjectProperty() {
  return xmlObjectProperty;
  }
void      getXmlObjectProperty(XmlObject x) {
  xmlObjectProperty = x;
}
}
```

Workaround

Currently there is no known workaround for this issue.

7.35.12 IllegalArgumentException When Using a Two-Dimensional XML Object in a JWS Callback

Using a two dimensional `XmlObject` parameter (`XmlObject[][]`) in a JWS callback produces an `IllegalArgumentException`.

Workaround

Currently there is no known workaround for this issue.

7.35.13 Using SoapElement[] Results in Empty Array

Using `SoapElement[]` as a Web Service parameter with `@WildcardBinding(className="javax.xml.soap.SOAPElement[]", binding=WildcardParticle.ANYTYPE)` will always result in an empty array on the client.

Workaround

Do not use the `@WildcardBinding` annotation to change the default binding of `SOAPElement[]` to `WildcardParticle.ANYTYPE`. The `SOAPElement[]` default binding is set to `WildcardParticle.ANY`.

7.35.14 FileNotFound Exception When a Web Service Invokes Another Web Service

When Web Service A wants to invoke Web Service B, Web Service A should use the `@ServiceClient` annotation to do this. If Web Service B needs a custom policy file that is not attached to the WSDL for Web Service B, then Web Service A will fail to run. Web Service A will look for the policy file at `/Web-Inf/classes/policies/`*filename*`.xml`. Since no policy file exists at that location, WebLogic Server will throw a 'file not found' exception.

Workaround

Attach the custom policy file to Web Service B, as in this example:

```
@Policy(uri="CustomPolicy.xml",
        attachToWsdl=true)
public class B {
  ...
}
```

7.35.15 Client Side Fails to Validate the Signature on the Server Response Message

When the security policy has one of these Token Assertions, the client side may fail to validate the signature on the server response message.

```
<sp:WssX509PkiPathV1Token11/>
```

```
<sp:WssX509Pkcs7Token11/>
<sp:WssX509PkiPathV1Token10/>
<sp:WssX509Pkcs7Token10/>
```

In addition, when there are more than two certifications in the chain for X509 certification for <sp:WssX509Pkcs7Token11/> or <sp:WssX509Pkcs7Token10/> Token Assertion, the server side may fail to validate the signature on the incoming message.

A policy such as the following policy is not supported, unless the entire certificate chain remains on the client side.

```
<sp:AsymmetricBinding>
   <wsp:Policy>
      <sp:InitiatorToken>
         <wsp:Policy>
            <sp:X509Token
               sp:IncludeToken='. . ./IncludeToken/AlwaysToRecipient'>

            <wsp:Policy>
               <sp:WssX509Pkcs7Token11/>
            </wsp:Policy>
         </sp:X509Token>
      </wsp:Policy>
      </sp:InitiatorToken>
      <sp:RecipientToken>
      <wsp:Policy>
      <sp:X509Token sp:IncludeToken='. . ./IncludeToken/Never'>
            <wsp:Policy>
               <sp:WssX509Pkcs7Token11/>
            </wsp:Policy>
         </sp:X509Token>
      </wsp:Policy>
      </sp:RecipientToken>
. . .
      </wsp:Policy>
   </sp:AsymmetricBinding>
```

Workaround

Use either of the following two solutions:

1. Configure the response with the `<sp:WssX509V3Token10/>` Token Assertion, instead of `WssX509PkiPathV1Token11/>`. The policy will look like this:

```
<sp:AsymmetricBinding>
   <wsp:Policy>
     <sp:InitiatorToken>
        <wsp:Policy>
        <sp:X509Token sp:IncludeToken='. . ./IncludeToken/AlwaysToRecipient'>
           <wsp:Policy>
              WssX509PkiPathV1Token11/>
           </wsp:Policy>
        </sp:X509Token>
        </wsp:Policy>
     </sp:InitiatorToken>
     <sp:RecipientToken>
        <wsp:Policy> sp:IncludeToken='. . ./IncludeToken/Never'>
        <sp:X509Token
           <wsp:Policy>
              <sp:WssX509V3Token10/>
           </wsp:Policy>
        </sp:X509Token>
```

```
            </wsp:Policy>
          </sp:RecipientToken>
    . . .
        </wsp:Policy>
      </sp:AsymmetricBinding>
```

2. Configure the response with the `WssX509PkiPathV1Token11/>` token assertion, but include it in the message. The policy will look like this:

```
<sp:AsymmetricBinding>
  <wsp:Policy>
    <sp:InitiatorToken>
       <wsp:Policy>
       <sp:X509Token sp:IncludeToken='. . ./IncludeToken/AlwaysToRecipient'>
       <wsp:Policy>
          WssX509PkiPathV1Token11/>
       </wsp:Policy>
       </sp:X509Token>
    </wsp:Policy>
    </sp:InitiatorToken>
    <sp:RecipientToken>
       <wsp:Policy>
       <sp:X509Token sp:IncludeToken='. . ./IncludeToken/AlwaysToInitiator'>
          <wsp:Policy>
             WssX509PkiPathV1Token11/>
           </wsp:Policy>
       </sp:X509Token>
       </wsp:Policy>
    </sp:RecipientToken>
    . . .
    </wsp:Policy>
  </sp:AsymmetricBinding>
```

When there are multiple certifications in the X509 Certificate chain, `WssX509PkiPathV1Token11/>` or `<sp:WssX509PkiPathV1Token10/>` should be used, instead of `<sp:WssX509Pkcs7Token11/>` or `<sp:WssX509Pkcs7Token10/>`.

7.35.16 xmlcatalog Element Entity Cannot Be a Remote File or a File in an Archive

For the `xmlcatalog` element in `build.xml`, the location of an entity must be a file on the local file system. It cannot be a remote file (for example, `http:`) or a file in an archive (for example, `jar:`).

Workaround

If necessary, define the remote element as an entity in a catalog file instead.

7.35.17 Catalog File's public Element Is Not Supported When Using XML Catalogs

The `public` element in a catalog file is not supported when using the XML Catalogs feature. It is not supported to be consistent with JAX-WS EntityResolver implementation. WebLogic Server only supports defining the `system` element in a catalog file.

7.35.18 Local xmlcatalog Element Does Not Work Well

The local `xmlcatalog` element does not work well due to an Ant limitation.

Workaround

In the ant `build.xml` file, you have to define a local element above a `clientgen(wsdlc)` task when you are in the same target, or define the element out of any targets.

7.35.19 JAXRPC Client Does Not Encode the HTTP SOAPAction Header With Multi-byte Characters

The WebLogic Server Web Service JAXRPC client doesn't encode the HTTP SOAPAction header with multi-byte characters, but WebLogic Server only supports ASCII for HTTP headers.

Workaround

Change the SOAP action to ASCII in the WSDL.

7.35.20 External Catalog File Cannot Be Used in the xmlcatalog Element of clientgen

An external catalog file cannot be used in the `xmlcatalog` element of a `clientgen` task. For example, this snippet of an ant build file will not work:

```
<clientgen ...
  <xmlcatalog>
    <catalogpath>
      <pathelement location='wsdlcatalog.xml'/>
    </catalogpath>
  </xmlcatalog>
```

This is a limitation of the Ant XML Catalog.

Workaround

Resource locations can be specified either in-line or in an external catalog file(s), or both. In order to use an external catalog file, the `xml-commons` resolver library (`resolver.jar`) must be in your classpath. External catalog files may be either plain text format or XML format. If the `xml-commons` resolver library is not found in the classpath, external catalog files, specified in `<catalogpath>` paths, will be ignored and a warning will be logged. In this case, however, processing of inline entries will proceed normally.

Currently, only `<dtd>` and `<entity>` elements may be specified inline. These correspond to the OASIS catalog entry types PUBLIC and URI respectively.

7.35.21 Exceptions When Running Reliable Messaging Under Heavy Load

When running a Web services reliable messaging scenario under heavy load with file based storage that has the `Direct-Write` synchronous write policy setting, you may encounter IO exceptions similar to the following in the WebLogic Server log:

```
weblogic.store.PersistentStoreRuntimeException: [Store:280029]The
persistent store record <number> could not be found
```

or

```
Could not load conversation with id uuid:<some ID> -> Conversation read
failed:
    ...
    weblogic.wsee.jws.conversation.StoreException:
      Conversation read failed: id=uuid:<some ID>
        weblogic.store.PersistentStoreException: [Store:280052]The
```

```
persistent store was not able to read a record.
   java.io.OptionalDataException
```

These exceptions are known to occur only when using Web Services reliable messaging. They indicate a failure to read a record from the file store and are considered 'fatal' data access errors.

The underlying issue causing these errors will be addressed in a future release.

Workaround

The following workarounds are available for this issue:

- Change the file store synchronous write policy to `Direct-Write-With-Cache`

  or

- Change the file store synchronous write policy to `Cache-Flush`.

  or

- Keep the Direct-Write synchronous write policy and add the following Java system property to your WebLogic server startup scripts:

  `-Dweblogic.store.AvoidDirectIO=true`

> **Note:** The `-Dweblogic.store.AvoidDirectIO` system property has been deprecated in WebLogic Server 10.3.4. Oracle recommends configuring the store synchronous write policy to `Direct-Write-With-Cache` instead.

The `Direct-Write-With-Cache` option may improve performance; it creates additional files in the operating system's temporary directory by default.

The `Cache-Flush` and `AvoidDirectIO` workarounds may lead to some performance degradation; it may be possible to reduce or eliminate the degradation by configuring a different block-size for the file store.

For important information about these settings and additional options, see "Tuning File Stores" in *Oracle Fusion Middleware Performance and Tuning for Oracle WebLogic Server*.

7.35.22 ClassNotFound Exception Occurs When Using wseeclient.jar

Stand-alone JAX-WS clients are not supported in this release.

Workaround

Use the client-side JAX-WS 2.1 that is integrated with the Java Standard Edition Release 6 (JDK 1.6), Update 4 and later. This requires using the JAX-WS API instead of any WebLogic Server specific APIS.

Current releases of JDK 1.6 are available for download at http://java.sun.com/javase/downloads/index.jsp. For information about writing a standalone JAX WS 2.1 client application, see the *JAX-WS Users Guide* on the JAX-WS 2.1 Reference Implementation Web site at http://jax-ws.java.net/2.2.6/docs/ch03.html.

7.35.23 Incomplete Configuration When Adding Advanced Web Services Component to SOA Domain

An incomplete configuration can result when you use the Configuration Wizard to add the WebLogic Server Advanced Web Services component to a newly created SOA domain. If you create a cluster that contains only the default 'out-of-the-box' soa_server1 server definition, the resulting cluster does not include the resources needed to run WebLogic Server Web Services in that cluster.

Workaround

Use either of the following workarounds for this issue:

1. While running Configuration Wizard, create a second server in the cluster:

    a. On the **Select Optional Configuration** screen, select **Managed Servers, Clusters, and Machines**.

    b. On the **Configure Managed Servers** screen, add a managed server.

    c. On the **Assign Servers to Clusters** screen, add this server to the cluster in which the default soa_server1 server resides.

2. On the **Configuration Wizard Target Services to Servers or Clusters** screen, target Web Services resources (for example, WseeJmsServer, WseeJmsModule) to the cluster.

Either of these workarounds will cause the Configuration Wizard to apply the resources for the WebLogic Server Advanced Web Services component to the cluster.

7.35.24 WS-AT Interoperation Issues With WebSphere and WebLogic Server

Web Services Atomic Transactions (WS-AT) 1.1 interoperation using WebSphere as the client and either WebLogic Server or JRF as the service does not work.

WS-AT 1.1 interoperation does work when WebSphere is the service and either WebLogic Server or JRF is the client. In this case, interoperation works only if you have WebSphere 7 with Fix/Feature Pack 7.

7.36 WebLogic Tuxedo Connector Issues and Workarounds

This section describes the following issue and workaround:

■ Section 7.36.1, "View Classes are not Set on a Per Connection Basis"

7.36.1 View Classes are not Set on a Per Connection Basis

View classes are not set on a per connection basis.

A shared WebLogic Tuxedo Connector hash table can cause unexpected behavior in the server if two applications point to the same VIEW name with different definitions. There should be a hash table for the view classes on the connection as well as for the Resource section.

Workaround

Ensure that all VIEW classes defined across all your WebLogic Workshop applications are consistent, meaning that you have the same VIEW name representing the same VIEW class.

7.37 Documentation Errata

This section describes documentation errata:

- Section 7.37.1, "Japanese Text Displays in Some Search Results Topics Avitek Medical Records"
- Section 7.37.2, "HTML Pages For Downloaded Libraries Do Not Display Properly"
- Section 7.37.3, "Evaluation Database Component Is Not Listed For silent.xml"
- Section 7.37.4, "Instructions for Reliable SOAP Messaging Code Example Are Incorrect"

7.37.1 Japanese Text Displays in Some Search Results Topics Avitek Medical Records

The samples viewer **Search** function may sometimes return topics that display the Japanese and English versions of some Avitek Medical Records topics simultaneously.

7.37.2 HTML Pages For Downloaded Libraries Do Not Display Properly

After extracting the WebLogic Server documentation library ZIP files that are available from http://www.oracle.com/technetwork/middleware/weblogic/documentation/index.html, the HTML pages may not display properly in some cases for the following libraries:

- E12840_01 (WebLogic Server 10.3.0 documentation library)
- E12839_01 (Weblogic Server 10.3.1 documentation library)
- E14571_01 (WebLogic Server 10.3.3 documentation library)

Workarounds

For library E12840-01, after extracting the E12840_01.zip library file, if the HTML pages are not formatting correctly, perform the following steps:

1. Go to the directory in which you extracted the zip file.
2. Locate the /global_resources directory in the directory structure.
3. Copy the /global_resources directory to the root directory of the same drive.

For libraries E12839-01 and E14571-01, this issue occurs only on Windows operating systems. If the HTML pages of the extracted library are not formatting correctly, try extracting the ZIP file using another extraction option in your unzip utility. For example, if you are using 7-Zip to extract the files, select the **Full pathnames** option. Note that you cannot use the Windows decompression utility to extract the library ZIP file.

7.37.3 Evaluation Database Component Is Not Listed For silent.xml

In the *WebLogic Server Installation Guide*s for WebLogic Server 10.3.3 and 10.3.4, the Evaluation Database is not listed as an installable component in Table 5-1 of Chapter 5, "Running the Installation Program in Silent Mode.:" The following entry should be included in the Component Paths row:

```
WebLogic Server/Evaluation Database
```

The Evaluation Database component is automatically installed if the Server Examples component is included in silent.xml. Therefore, it does not have to be explicitly included in silent.xml. If, however, you do not install the Server Examples, but you

want to install the Evaluation Database, you must include `WebLogic Server/Evaluation Database` in `silent.xml`.

7.37.4 Instructions for Reliable SOAP Messaging Code Example Are Incorrect

The instructions for the "Configuring Secure and Reliable SOAP Messaging for JAXWS Web Services" example are a copy of the instructions for the "Using Make Connection and Reliable Messaging for JAX-WS Web Service" example.

The correct instructions for the "Configuring Secure and Reliable SOAP Messaging for JAXWS Web Services" example are provided here.

7.37.4.1 About the Example

This example shows how to configure secure, reliable messaging for JAX-WS Web services. The example includes the following WebLogic Web services:

- Web service whose operations can be invoked using reliable and secure SOAP messaging (*destination endpoint*).

- Client Web service that invokes an operation of the first Web service in a reliable and secure way (*source endpoint*).

Overview of Secure and Reliable SOAP Messaging

Web service reliable messaging is a framework that enables an application running on one application server to reliably invoke a Web service running on another application server, assuming that both servers implement the WS-RelicableMessaging specification. Reliable is defined as the ability to guarantee message delivery between the two endpoints (Web service and client) in the presence of software component, system, or network failures.

WebLogic Web services conform to the WS-ReliableMessaging 1.2 specification (February 2009) and support version 1.1. This specification describes how two endpoints (Web service and client) on different application servers can communicate reliably. In particular, the specification describes an interoperable protocol in which a message sent from a *source endpoint* (or client Web service) to a *destination endpoint* (or Web service whose operations can be invoked reliably) is guaranteed either to be delivered, according to one or more delivery assurances, or to raise an error.

WebLogic Web services use WS-Policy files to enable a destination Web service to describe and advertise its reliable SOAP messaging capabilities and requirements. WS-Policy files are XML files that describe features such as the version of the WS-ReliableMessaging specification that is supported, the source Web service retransmission interval, the destination Web service acknowledgment interval, and so on.

Overview of the Example

This example uses JWS annotations to specify the shape and behavior of the Web services. It describes additional JWS annotations to enable reliable and secure SOAP messaging in the destination Web service and to reliably invoke an operation from the source Web service in a secure way.

The destination `ReliableEchoService` Web service has two operations that can be invoked reliably and in a secure way: `echo` and `echoOneway`. The JWS file that implements this Web service uses the `@Policies` and `@Policy` JWS annotations to specify the WS-Policy file, which contains the reliable and secure SOAP messaging assertions.

The source `ClientService` Web service has one operation for invoking the echo operations of the `ReliableEchoService` Web service reliably and in a secure way within one conversation: `runTestEchoWithRes`. The JWS file that implements the ClientService Web service uses the `@WebServiceRef` JWS annotation to specify the service name of the reliable Web service being invoked.

To generate the Web services, use the `jwsc` WebLogic Web service Ant task, as shown in the build.xml file. The `jwsc` target generates the reliable and secure Web service and the `jwsc-client-app` target creates the source Web service that invoke the echo operations of the `ReliableEchoService` Web service. The `jwsc` Ant task compiles the JWS files, and generates the additional files needed to implement a standard J2EE Enterprise Web service, including the Web service deployment descriptors, the WSDL file, data binding components, and so on. The Ant task automatically generates all the components into an Enterprise Application directory structure that you can then deploy to WebLogic Server. This example uses the wldeploy WebLogic Ant task to deploy the Web service.

The `jwsc-client-app` target also shows how you must first execute the `clientgen` Ant task to generate the JAX-WS stubs for the destination `ReliableEchoService` Web service, compile the generated Java source files, and then use the `classpath` attribute of `jwsc` to specify the directory that contains these classes so that the `ClientServiceImpl.java` class can find them.

The `WsrmJaxwsExampleRequest.java` class is a standalone Java application that invokes the `echo` operation of the source Web service. The client target of the `build.xml` file shows how to run `clientgen`, and compile all the generated Java files and the `WsrmJaxwsExampleRequest.java` application.

7.37.4.2 Files Used in This Example

Directory Location: *MW_HOME*/wlserver_
10.3/samples/server/examples/src/examples/webservices/wsrm_jaxws/wsrm_
jaxws_security

MW_HOME represents the Oracle Fusion Middleware home directory.

File	Description
ClientServiceImpl.java	JWS file that implements the source Web service that reliably invokes the echo operation of the `ReliableEchoService` Web service in a secure way.
ReliableEchoServiceImpl.java	JWS file that implements the reliable destination Web service. This JWS file uses the `@Policies` and `@Policy` annotation to specify a WS-Policy file that contains reliable and secure SOAP messaging assertions.
client/WsrmJaxwsExampleRequest.java	Standalone Java client application that invokes the source WebLogic Web service, that in turn invokes an operation of the `ReliableEchoervice` Web service in a reliable and secure way.
ws_rm_configuration.py	WLST script that configures the components required for reliable SOAP messaging. Execute this script for the WebLogic Server instance that hosts the reliable destination Web service. The out-of-the-box Examples server has already been configured with the resources required for the source Web service that invokes an operation reliably.

File	Description
configWss.py	WLST script that configures the components required for secure SOAP messaging. Execute this script for the WebLogic Server instance that hosts the source Web service. Remember to restart the source WebLogic Server after executing this script.
configWss_Service.py	WLST script that configures the components required for secure SOAP messaging. Execute this script for the WebLogic Server instance that hosts the destination Web service. Remember to restart the destination WebLogic Server after executing this script.
certs/serverKeyStore.jks	Server-side key store used to create the server-side `BinarySecurityToken` credential provider.
certs/clientKeyStore.jks	Client-side key store used to create the client-side `BinarySecurityToken` credential provider.
jaxws-binding.xml	XML file that describes the package name of the generated code and indicate the client side code needs to contain asynchronous invocation interface.
build.xml	Ant build file that contains targets for building and running the example.

7.37.4.3 Prepare the Example

This section describes how to prepare the example.

Prerequisites

Before working with this example:

1. Install Oracle WebLogic Server, including the examples.

2. Start the Examples Server.

3. Set up your environment.

Configure the Destination WebLogic Server Instance (Optional)

The default configuration for this example deploys both the source and destination Web services to the Examples server. You can use this default configuration to see how the example works, but it does not reflect a real life example of using reliable and secure SOAP messaging in which the source Web service is deployed to a WebLogic Server that is *different* from the one that hosts the destination Web service. This section describes how to set up the real life example.

The example includes WebLogic Server Scripting Language (WLST) scripts that are used to configure:

- Store-and-forward (SAF) service agent

- File store

- JMS server

- JMS module

- JMS subdeployment

- JMS queues

- Logical store

- Credential provider for Security Context Token

- Credential provider for Derived Key

- Credential provider for x.509

- KeyStores for Confidentiality and Integrity

- PKI CreditMapper

Follow these steps if you want to deploy the secure and reliable destination Web service to a different WebLogic Server instance:

1. If the managed WebLogic Server to which you want to deploy the reliable JAX-WS Web service does not exist, create it.

2. Change to the *SAMPLES_ HOME*\server\examples\src\examples\webservices\wsrm_jaxws\wsrm_ jaxws_security directory, where *SAMPLES_HOME* refers to the main WebLogic Server examples directory, such as c:\Oracle\Middleware\wlserver_ 10.3\samples.

3. Edit the build.xml file and update the following property definitions to ensure that the reliable JAX-WS Web service is deployed to the destination WebLogic Server:

```
<property name="wls.service.server" value="destinationServerName" />
<property name="wls.service.hostname" value="destinationHost" />
<property name="wls.service.port" value="destinationPort" />
<property name="wls.service.username" value="destinationUser" />
<property name="wls.service.password" value="destinationPassword" />
```

Substitute the italicized terms in the preceding properties with the actual values for your destination WebLogic Server. The default out-of-the-box build.xml sets these properties to the Examples server.

Build and Deploy the Example

To build and deploy the example:

1. Change to the *SAMPLES_ HOME*\server\examples\src\examples\webservices\wsrm_jaxws\wsrm_ jaxws_security directory, where *SAMPLES_HOME* refers to the main WebLogic Server examples directory, such as c:\Oracle\Middleware\wlserver_ 10.3\samples.

2. Run the WLST script that configures the destination WebLogic Server by executing the config.ws.reliable.service target of the build.xml file from the shell where you set your environment:

```
prompt> ant config.ws.reliable.service
```

3. Execute the following command to configure JAX-WS Web service Security from the shell where you set your environment:

```
prompt> ant config.wss
```

4. If you have configured a different destination WebLogic Server (that is, the destination server is not the Examples server), copy the certs\serverKeyStore.jks file to the domain directory of your destination server.

5. Restart both your client and destination WebLogic Server to activate the MBean changes.

6. Execute the following command from the shell where you set your environment:

```
prompt> ant build
```

This command compiles and stages the example. Specifically, it compiles both the source and destination Web services. It also compiles the standalone `WsrmJaxwsExampleRequest` application that invokes the source Web service, which in turn invokes the reliable destination Web service.

7. Execute the following command from the shell where you set your environment:

```
prompt> ant deploy
```

This command deploys, by default, both the source and destination Web services to the wl_server domain of your WebLogic Server installation. If you have configured a different destination WebLogic Server and updated the build.xml file accordingly, then the reliable JAX-WS Web service is deployed to the configured destination server.

7.37.4.4 Run the Example

To run the example, follow these steps:

1. Complete the steps in the Prepare the Example section.

2. In your development shell, run the `WsrmJaxwsExampleRequest` Java application using the following command from the main example directory (*SAMPLES_HOME*\server\examples\src\examples\webservices\wsrm_jaxws\wsrm_jaxws_security):

```
prompt> ant run
```

This command runs the standalone `WsrmJaxwsExampleRequest` application that invokes the source Web service, which in turn invokes the reliable destination JAX-WS Web service.

3. To test the reliability of the Web service, stop the destination WebLogic Server, and then rerun the `WsrmJaxwsExampleRequest` application. When you restart the destination WebLogic Server and the reliable Web service is deployed, you should see that the operation is also automatically invoked.

Check the Output

If your example runs successfully, the following messages display in the command shell from which you ran the `WsrmJaxwsExampleRequest` application:

```
Trying to override old definition of task clientgen

run:
    [java]
    [java]
    [java] #########################################
    [java]     In testEcho_AsyncOnServerClient_ServiceBuffered...
    [java]     On-Server / Async / Buffered case
    [java]     2011/06/160 03:30:29.938
    [java] #########################################
    [java]
    [java]
    [java] Client addr:http://localhost:9001/wsrm_jaxws_sc_example_client/Clien
tService
    [java] ---[HTTP request - http://localhost:9001/wsrm_jaxws_sc_example_clien
t/ClientService]---
    [java] Content-type: text/xml;charset=utf-8
    [java] Soapaction: ""
    [java] Accept: text/xml, multipart/related, text/html, image/gif, image/jpe
```

```
g, *; q=.2, */*; q=.2
     [java] <?xml version='1.0' encoding='UTF-8'?><S:Envelope xmlns:S="http://sc
hemas.xmlsoap.org/soap/envelope/"><S:Body><ns2:runTestEchoWithRes xmlns:ns2="htt
p://example.wsrm_jaxws/"><arg0>Foo bar</arg0><arg1>localhost</arg1>
<arg2>8001</arg2><arg3>C:\Oracle\Middleware\wlserver_10.3\samples\server\
examples\src\examples\webservices\wsrm_jaxws_security\certs</arg3>
</ns2:runTestEchoWithRes></S:Body></S:Envelope>--------------------
     [java]
     [java] ---[HTTP response - http://localhost:9001/wsrm_jaxws_sc_example_clie
nt/ClientService - 200]---
     [java] Transfer-encoding: chunked
     [java] null: HTTP/1.1 200 OK
     [java] Content-type: text/xml;charset=utf-8
     [java] X-powered-by: Servlet/2.5 JSP/2.1
     [java] Date: Thu, 09 Jun 2011 07:30:33 GMT
     [java] <?xml version='1.0' encoding='UTF-8'?><S:Envelope xmlns:S="http://sc
hemas.xmlsoap.org/soap/envelope/"><S:Body><ns2:runTestEchoWithResResponse xmlns:
ns2="http://example.wsrm_jaxws/"><return>[2011/06/160 03:30:33.953] ## Making Ec
ho Requests (ASYNC/BUFFERED) ##
     [java] [2011/06/160 03:30:42.703] *** On first good invoke ***
     [java] [2011/06/160 03:30:42.703] echo returned: Foo bar expected: Foo bar
     [java] [2011/06/160 03:30:42.922] echo returned: foo bar 2 expected: foo ba
r 2
     [java] [2011/06/160 03:30:43.031] echo returned: foo bar 3 expected: foo ba
r 3
     [java] [2011/06/160 03:30:43.031] ## Done Making Echo Requests (ASYNC/BUFFE
RED) ##
     [java] </return></ns2:runTestEchoWithResResponse></S:Body>
</S:Envelope>--------------------
     [java]
     [java] [2011/06/160 03:30:33.953] ## Making Echo Requests (ASYNC/BUFFERED)
##
     [java] [2011/06/160 03:30:42.703] *** On first good invoke ***
     [java] [2011/06/160 03:30:42.703] echo returned: Foo bar expected: Foo bar
     [java] [2011/06/160 03:30:42.922] echo returned: foo bar 2 expected: foo ba
r 2
     [java] [2011/06/160 03:30:43.031] echo returned: foo bar 3 expected: foo ba
r 3
     [java] [2011/06/160 03:30:43.031] ## Done Making Echo Requests (ASYNC/BUFFE
RED) ##
     [java]

BUILD SUCCESSFUL
Total time: 2 minutes 33 seconds
```

The following messages display in the command window from which you started as the client WebLogic Server (that hosts the reliable source Web service):

```
Service addr:http://localhost:7001/wsrm_jaxws_sc_example/ReliableEchoService
    [2011/06/180 01:33:40.906] ## Making Echo Requests (ASYNC/BUFFERED) ##

    [2011/06/180 01:33:40.906] In invokeEchoAsync, invoking echo with request: Foo
bar

    [2011/06/180 01:33:40.906] In invokeEchoAsync, waiting for response to
request: Foo bar ...

    SignInfo mismatch  Algo mismatch http://www.w3.org/2000/09/xmldsig#rsa-sha1
VS.
    http://www.w3.org/2000/09/xmldsig#hmac-sha1 Refs: Msg size =1#Signature_
prfr5thF
```

```
    y2vRPbpC, Policy size =3 #unt_w7HSTtcGcebXFWEr, #Timestamp_XIXttwj9Yq2XO7Tj,
#Bo
    dy_81D2x3V7iTNyy1I5,
    STR type mismatch Actual
KeyInfo:{http://docs.oasis-open.org/wss/2004/01/oasis-2

00401-wss-wssecurity-secext-1.0.xsd}KeyIdentifier|http://docs.oasis-open.org/wss
    /oasis-wss-soap-message-security-1.1#ThumbprintSHA1,  StrTypes size=1
:{http://d

ocs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd}Refere
    nce||http://docs.oasis-open.org/ws-sx/ws-secureconversation/200512/dk,
    Security Token mismatch, token type
=http://docs.oasis-open.org/ws-sx/ws-securec
    onversation/200512/dk and actual
ishttp://docs.oasis-open.org/wss/2004/01/oasis-
    200401-wss-x509-token-profile-1.0#X509v3
    <WSEE:15>There is no information on the incoming SOAP message.
    <SmartPolicySelect or.getSmartPolicyBlueprint:501>
    testing..................


    [2011/06/180 01:33:41.718] In ClientServiceImpl.onEchoResponse(request:
    examplesServer: 4b1c0f3e575dfa8c:7291c50f:130d9cbaace:-7fb8)

    [2011/06/180 01:33:41.718] Done with ClientServiceImpl.onEchoResponse(request:
    examplesServer: 4b1c0f3e575dfa8c:7291c50f:130d9cbaace:-7fb8): Foo bar

    [2011/06/180 01:33:41.718] *** On first good invoke ***

    [2011/06/180 01:33:41.734] echo returned: Foo bar expected: Foo bar

    [2011/06/180 01:33:41.734] In invokeEchoAsync, invoking echo with request: foo
bar 2

    [2011/06/180 01:33:41.750] In invokeEchoAsync, waiting for response to
request: foo bar 2 ...

    <WSEE:15>There is no information on the incoming SOAP message.
    <SmartPolicySelect or.getSmartPolicyBlueprint:501>
    testing..................


    [2011/06/180 01:33:41.984] In ClientServiceImpl.onEchoResponse(request:
    examplesServer: 4b1c0f3e575dfa8c:7291c50f:130d9cbaace:-7fae)

    [2011/06/180 01:33:41.984] Done with ClientServiceImpl.onEchoResponse(request:
    examplesServer: 4b1c0f3e575dfa8c:7291c50f:130d9cbaace:-7fae): foo bar 2

    [2011/06/180 01:33:41.984] echo returned: foo bar 2 expected: foo bar 2

    [2011/06/180 01:33:42.000] In invokeEchoAsync, invoking echo with request: foo
bar 3

    [2011/06/180 01:33:42.015] In invokeEchoAsync, waiting for response to
request: foo bar 3 ...

    <WSEE:31>There is no information on the incoming SOAP message.
    <SmartPolicySelect or.getSmartPolicyBlueprint:501>
    testing..................
```

```
[2011/06/180 01:33:42.187] In ClientServiceImpl.onEchoResponse(request:
examplesServer:4b1c0f3e575dfa8c:7291c50f:130d9cbaace:-7fab)

[2011/06/180 01:33:42.328] Done with ClientServiceImpl.onEchoResponse(request:
examplesServer:4b1c0f3e575dfa8c:7291c50f:130d9cbaace:-7fab): foo bar 3

[2011/06/180 01:33:42.328] echo returned: foo bar 3 expected: foo bar 3

[2011/06/180 01:33:42.328] ## Done Making Echo Requests (ASYNC/BUFFERED) ##

<WSEE:46>There is no information on the incoming SOAP message.
<SmartPolicySelect or.getSmartPolicyBlueprint:501>
```

The following messages display in the command window from which you started the
destination WebLogic Server (that hosts the reliable destination Web service):

```
  %% Echoing: Foo bar %%
  %% Echoing: foo bar 2 %%
  %% Echoing: foo bar 3 %%
```

If you deploy both the source and destination Web services to the same Server, the
following messages display in the command window from which you started your
client and destination WebLogic Server:

```
Service addr:http://localhost:7001/wsrm_jaxws_sc_example/ReliableEchoService
[2011/06/180 01:33:40.906] ## Making Echo Requests (ASYNC/BUFFERED) ##

[2011/06/180 01:33:40.906] In invokeEchoAsync, invoking echo with request: Foo
bar

[2011/06/180 01:33:40.906] In invokeEchoAsync, waiting for response to
request: Foo bar ...

SignInfo mismatch  Algo mismatch http://www.w3.org/2000/09/xmldsig#rsa-sha1
VS.
http://www.w3.org/2000/09/xmldsig#hmac-sha1 Refs: Msg size =1#Signature_
prfr5thF
y2vRPbpC, Policy size =3 #unt_w7HSTtcGcebXFWEr, #Timestamp_XIXttwj9Yq2XO7Tj,
#Bo
dy_81D2x3V7iTNyy1I5,
STR type mismatch Actual
KeyInfo:{http://docs.oasis-open.org/wss/2004/01/oasis-2

00401-wss-wssecurity-secext-1.0.xsd}KeyIdentifier|http://docs.oasis-open.org/wss
/oasis-wss-soap-message-security-1.1#ThumbprintSHA1,  StrTypes size=1
:{http://d

ocs.oasis-open.org/wss/2004/01/oasis-200401-wss-wssecurity-secext-1.0.xsd}Refere
nce||http://docs.oasis-open.org/ws-sx/ws-secureconversation/200512/dk,
Security Token mismatch, token type
=http://docs.oasis-open.org/ws-sx/ws-securec
onversation/200512/dk and actual
ishttp://docs.oasis-open.org/wss/2004/01/oasis-
200401-wss-x509-token-profile-1.0#X509v3
%% Echoing: Foo bar %%
<WSEE:15>There is no information on the incoming SOAP message.
<SmartPolicySelect or.getSmartPolicyBlueprint:501>
testing..................
```

```
[2011/06/180 01:33:41.718] In ClientServiceImpl.onEchoResponse(request:
examplesServer: 4b1c0f3e575dfa8c:7291c50f:130d9cbaace:-7fb8)

[2011/06/180 01:33:41.718] Done with ClientServiceImpl.onEchoResponse(request:
examplesServer: 4b1c0f3e575dfa8c:7291c50f:130d9cbaace:-7fb8): Foo bar

[2011/06/180 01:33:41.718] *** On first good invoke ***

[2011/06/180 01:33:41.734] echo returned: Foo bar expected: Foo bar

[2011/06/180 01:33:41.734] In invokeEchoAsync, invoking echo with request: foo
bar 2

[2011/06/180 01:33:41.750] In invokeEchoAsync, waiting for response to
request: foo bar 2 ...

%% Echoing: foo bar 2 %%
<WSEE:15>There is no information on the incoming SOAP message.
<SmartPolicySelect or.getSmartPolicyBlueprint:501>
testing...................


[2011/06/180 01:33:41.984] In ClientServiceImpl.onEchoResponse(request:
examplesServer: 4b1c0f3e575dfa8c:7291c50f:130d9cbaace:-7fae)

[2011/06/180 01:33:41.984] Done with ClientServiceImpl.onEchoResponse(request:
examplesServer: 4b1c0f3e575dfa8c:7291c50f:130d9cbaace:-7fae): foo bar 2

[2011/06/180 01:33:41.984] echo returned: foo bar 2 expected: foo bar 2

[2011/06/180 01:33:42.000] In invokeEchoAsync, invoking echo with request: foo
bar 3

[2011/06/180 01:33:42.015] In invokeEchoAsync, waiting for response to
request: foo bar 3 ...

%% Echoing: foo bar 3 %%
<WSEE:31>There is no information on the incoming SOAP message.
<SmartPolicySelect or.getSmartPolicyBlueprint:501>
testing...................

[2011/06/180 01:33:42.187] In ClientServiceImpl.onEchoResponse(request:
examplesServer:4b1c0f3e575dfa8c:7291c50f:130d9cbaace:-7fab)

[2011/06/180 01:33:42.328] Done with ClientServiceImpl.onEchoResponse(request:
examplesServer:4b1c0f3e575dfa8c:7291c50f:130d9cbaace:-7fab): foo bar 3

[2011/06/180 01:33:42.328] echo returned: foo bar 3 expected: foo bar 3

[2011/06/180 01:33:42.328] ## Done Making Echo Requests (ASYNC/BUFFERED) ##

<WSEE:46>There is no information on the incoming SOAP message.
<SmartPolicySelect or.getSmartPolicyBlueprint:501>
```

Part IV

Oracle WebCenter Portal

Part IV contains the following chapter:

- Chapter 8, "Oracle WebCenter Portal"

8

Oracle WebCenter Portal

This chapter describes issues associated with Oracle WebCenter Portal. It includes the following topics:

- Section 8.1, "General Issues and Workarounds"
- Section 8.2, "Documentation Errata"

8.1 General Issues and Workarounds

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

- Section 8.1.1, "Support for Discussions Server from Jive Software"
- Section 8.1.2, "Oracle WebCenter Portal's Pagelet Producer Failover Support"
- Section 8.1.3, "Option to Create a Portal Resource Displayed for Design-Time Task Flows"
- Section 8.1.4, "SQL Query with NCHAR Data Type Throws Exception"
- Section 8.1.5, "Setting Up WNA-Based SSO Using JDK 1.6.22 Produces an Error"
- Section 8.1.6, "Configuring the REST Server Post-Installation"
- Section 8.1.7, "Resources in Framework Application Disappear after Redeployment of Application"
- Section 8.1.8, "Style Sheets Not Loaded Correctly for Sample WSRP Producer Test Pages through Oracle HTTP Server"
- Section 8.1.9, "Cannot Customize or Personalize a JSF Portlet"
- Section 8.1.10, "Fallback Support for Custom Translations"
- Section 8.1.11, "Spaces Do Not Display Correct Language When the Spaces Application is Accessed Using OAM"
- Section 8.1.12, "Announcement Publication Format can be Incorrect in Thai"
- Section 8.1.13, "Favorite Based on Seeded Page Lost When Language Preference Changed from en-US"
- Section 8.1.14, "The Run as Servlet Link on Producer Test Page Does Not Work for JSF Portlet"
- Section 8.1.15, "Using OpenSocial Pagelets to Post Activities to User's Activity Stream"
- Section 8.1.16, "Accessing Owners' Profile Information Using the OpenSocial API"

- Section 8.1.17, "Granting View Document Permissions to Public and Authenticated Users for a Hierarchical Space"

- Section 8.1.18, "Issues when Using the Russian or Swedish Language"

- Section 8.1.19, "Conditions for Deleting Messages from the Activity Stream"

- Section 8.1.20, "Configuring Web Services Security for Discussions Server"

- Section 8.1.21, "Unable to View Entire Content on iPad as Scrollbars Not Displayed"

- Section 8.1.22, "RSS Links Not Working Properly on iPad"

- Section 8.1.23, "Cannot Upload Content Using iPad"

- Section 8.1.24, "Cannot Copy Text Displayed on Pages"

- Section 8.1.25, "Embedded Images Not Rendered"

- Section 8.1.26, "Unable to Check Out a Document When Using Firefox First Time"

- Section 8.1.27, "Navigating in the Preferences Dialog in Internet Explorer 9 (Accessibility Issue)"

- Section 8.1.28, "Web Clipping Portlet is Deprecated"

- Section 8.1.29, "Messages Displayed During Import or Export Appear Incomplete (Accessibility Issue)"

- Section 8.1.30, "Deployment Fails Because Versioned Applications Are Not Supported"

- Section 8.1.31, "Some Formatting Lost in Rich Text Editor When Shifting from Rich Text or HTML to Wiki Markup"

- Section 8.1.32, "Unable to Access All Nodes in a Large Navigation Model"

8.1.1 Support for Discussions Server from Jive Software

Oracle supports the embedded discussions server from Jive Software. Use the supplied task flows that come with WebCenter Portal to call this discussions server. Any custom development against APIs in the Jive Web Service layer are subject to review by Oracle and may not be supported.

There are a limited set of beta features that Jive Software delivers as part of the discussions server that Oracle does not recommend and cannot yet support.

Documentation for Jive Forums is included for reference only. Jive software installations and upgrades outside of the WebCenter Portal product installation are not supported.

8.1.2 Oracle WebCenter Portal's Pagelet Producer Failover Support

Oracle WebCenter Portal's Pagelet Producer supports failover in a clustered configuration. However, the in-flight data (unsaved or pending changes) is not preserved. On failover, administrators must reestablish their administrative session. End users may also need to reestablish the session if the proxy is required to have a state. If SSO is configured, credentials are automatically provided, and the session is reestablished.

8.1.3 Option to Create a Portal Resource Displayed for Design-Time Task Flows

You can bring runtime task flows into JDeveloper, edit them, and export them back to the deployed application. However, Oracle recommends that you not expose task flows created in JDeveloper as portal resources. When you create an ADF task flow inside the `/oracle/webcenter/portalapp` folder, the context menu on the task flow definition file displays the Create Portal Resource option. Do not use this option to expose a design-time task flow as a portal resource. Task flows typically involve multiple files. When you export a new task flow from JDeveloper, all files may not be exported properly, and this may result in the task flow being broken post-deployment.

8.1.4 SQL Query with NCHAR Data Type Throws Exception

When using a SQL data control, you may encounter an error if the query contains a column with the `NCHAR` data type. As a workaround, you can use the `to_char(NCHAR_ COLUMN NAME)` function.

8.1.5 Setting Up WNA-Based SSO Using JDK 1.6.22 Produces an Error

Setting up Windows Native Authentication-based single sign-on using SUN JDK 1.6.22 produces an error. Use the jrockit JDK instead of the Sun JDK, or contact Oracle Support to get a backport request for bug 10631797.

8.1.6 Configuring the REST Server Post-Installation

For certain features of the WebCenter Portal REST server to work correctly when using a REST client like the Oracle WebCenter Portal iPhone application, the flag `WLForwardUriUnparsed` must be set to `ON` for the Oracle WebLogic Server Plugin that you are using.

- If you are running Apache in front of WebLogic Server, add this flag to `weblogic.conf`.

- If you are running Oracle HTTP Server (OHS) in front of WebLogic Server, add this flag to `mod_wl_ohs.conf`.

The examples below illustrate the possible configurations for both of these cases.

For more information about how to configure WebLogic Server Plugins, see *Oracle Fusion Middleware Using Web Server 1.1 Plug-Ins with Oracle WebLogic Server*.

Example 1: Using `<location /rest>` to apply the flag only for `/rest` URIs (recommended)

```
<Location /rest>
  # the flag below MUST BE set to "On"
  WLForwardUriUnparsed    On

  # other settings, example: WebLogicCluster or WebLogicHost & WebLogicPort

  # set the handler to be weblogic
  SetHandler weblogic-handler
</Location>
```

Example 2: Applying the flag to all URIs served by Oracle WebLogic Server

```
<IfModule mod_weblogic.c>
   # the flag below MUST BE set to "On"
  WLForwardUriUnparsed    On

  # other settings, example: WebLogicCluster or WebLogicHost & WebLogicPort
```

```
        WebLogicCluster johndoe02:8005,johndoe:8006
        Debug ON
        WLLogFile            c:/tmp/global_proxy.log
        WLTempDir            "c:/myTemp"
        DebugConfigInfo      On
        KeepAliveEnabled ON
        KeepAliveSecs  15
</IfModule>
```

8.1.7 Resources in Framework Application Disappear after Redeployment of Application

If a Framework application has been customized at runtime to add new resources through the Resource Manager, those new resources are lost after a new deployment or a redeployment of the same application.

Any new pages created at runtime that use the lost resources are still available even though the resources themselves are no longer available in the Resource Manager.

This issue happens when the application version or the redeployment version is changed during the redeployment of the application, either using Fusion Middleware Control or WLST. It can also happen on redeployment when the generic-site-resources.xml file has been changed at design time (for example, by creating new resources).

This issue occurs because the generic-site-resources.xml file is overwritten on redeployment.

To work around this issue, you must manually add the mds-transfer-config.xml file to the application.

> **Note:** Any resources created at design time must be manually added to the runtime application before redeploying the application.

1. Download the mds-transfer-config.xml file from the following location:

   https://support.oracle.com/oip/faces/secure/km/DownloadAttachment.jspx?attachid=1343209.1:mdstransferconfig

2. Extract the MAR file (for example AutoGeneratedMar.mar) from the EAR file.

3. In the extracted MAR file directory, create a new directory, called META-INF, and copy the mds-transfer-config.xml file to the new directory.

4. Update the MAR file with META-INF\mds-transfer-config.xml, for example:

   ```
   jar -uvf AutoGeneratedMar.mar META-INF\mds-transfer-config.xml
   ```

5. Update the EAR file with the updated MAR file:

   ```
   jar -uvf YourApp.ear AutoGeneratedMar.mar
   ```

6. Redeploy YourApp.mar.

8.1.8 Style Sheets Not Loaded Correctly for Sample WSRP Producer Test Pages through Oracle HTTP Server

If Oracle HTTP Server is used as a front end for the Sample WSRP Portlets producer, the style sheets for the WSRP Producer Test Pages of the WSRP Tools and Rich Text

Editor portlet producers are not loaded properly in Mozilla Firefox or Google Chrome. However, the style sheets do load properly in Internet Explorer. Functionality of the portlets is not affected.

8.1.9 Cannot Customize or Personalize a JSF Portlet

When clicking **OK** after customizing or personalizing a JSF portlet (that is, a portlet created using the Oracle JSF Portlet Bridge), the portlet does not respond and displays a timeout message. This is caused by performing an edit action and changing the portlet mode in a single operation. End users can work around this issue by clicking **Apply** (instead of **OK**) to perform the edit action first, then clicking **Return** to change the portlet mode back to View mode.Portlet developers can avoid the issue occurring by editing the code for the generated Edit Defaults mode (in the `edit_defaults.jspx` file) and Edit mode (in the `edit.jspx` file) and removing the code for the **OK** button so that end users are forced to use the **Apply** button instead.

8.1.10 Fallback Support for Custom Translations

There is no fallback support for custom translations. For example, if you create a custom translations file named `scope-resource-bundle_fr.xlf` and the space language setting is country-specific (fr-FR), the custom translation file is not used because Spaces is looking for `scope-resource-bundle_fr-FR.xlf`.As a workaround, copy `_fr xlf` and include the country specification in the names of the custom translation files (for example, `scope-resource-bundle_fr-FR.xlf`).

8.1.11 Spaces Do Not Display Correct Language When the Spaces Application is Accessed Using OAM

When users access the Spaces application through OAM, spaces do not display the language selected on the OAM login page. The Spaces application does not use the same `xlf` file name standard as OAM.

8.1.12 Announcement Publication Format can be Incorrect in Thai

When the display language is set to Thai, the announcement publication format can be incorrect. This happens when announcements are opened to edit and are then saved, even if nothing in the announcement itself is updated.

8.1.13 Favorite Based on Seeded Page Lost When Language Preference Changed from en-US

If you add a seeded page, such as the Activities page, to your list of Favorites, and then change your preferred application language from en-US using Preferences, the favorite seeded page cannot be found.

8.1.14 The Run as Servlet Link on Producer Test Page Does Not Work for JSF Portlet

You can create a JSF portlet (that is, a portlet that uses the Oracle JSF Portlet Bridge) using the Create JSR 286 Java Portlet Wizard by selecting the **Generate ADF-Faces JSPX** implementation method on the third step of the wizard.

If you create a JSF portlet in this way, you may find that clicking the **Run as Servlet** link on the portlet's Producer Test Page produces an error. The portlet itself, however, runs correctly.

To avoid this issue, add the ADF Page Flow scope to the project that contains the portlet. For information, see the section "Adding and Removing Technology Scopes" in *Oracle Fusion Middleware Developer's Guide for Oracle WebCenter*.

8.1.15 Using OpenSocial Pagelets to Post Activities to User's Activity Stream

Pagelets based on OpenSocial gadgets are not able to post activities to a user's activity stream. To implement a temporary solution, grant User Profile 'edit' permission to Oracle WebCenter Portal's Pagelet Producer using the following WLST/WSAdmin command:

```
grantPermission(appStripe="pagelet-producer",
principalClass="oracle.security.jps.internal.core.principals.JpsAuthenticatedRoleI
mpl", principalName="authenticated-role",
permClass="oracle.webcenter.peopleconnections.profile.security.ProfilePermission",
permTarget="/oracle/webcenter/peopleconnections/profile/s8bba98ff_4cbb_40b8_beee_
296c916a23ed/.*", permActions="view,edit")
```

After running the command, restart the Pagelet Producer server.

8.1.16 Accessing Owners' Profile Information Using the OpenSocial API

To access owners' Profile/Activities/Friends information using the OpenSocial API with Oracle WebCenter Portal's Pagelet Producer, you must target the `WebCenterDS` data source to the `WC_Portlet` managed server as described in the *Oracle Fusion Middleware Administrator's Guide for Oracle WebCenter*. After saving this configuration, Activities and Friends information can be fetched, but Profile information is not returned. To access Profile information, restart the `WC_Portlet` managed server.

8.1.17 Granting View Document Permissions to Public and Authenticated Users for a Hierarchical Space

When you grant the `View Document` permission to the `Public-User` and `Authenticated-User` roles on a hierarchical space, equivalent "Read" permissions are not set correctly in Content Server. If you want public users and authenticated users to have `View Document` permissions on a space, you do not need to grant the permission to both the roles separately. When you grant the `View Document` permission to public users, authenticated users inherit the `View Document` permission automatically.

If you want to revoke `View Document` permissions from public users but grant `View Document` permissions to authenticated users, then revoke the permission from the `Public-User` role and add it for the `Authenticated-User` role.

8.1.18 Issues when Using the Russian or Swedish Language

In the Spaces application when the language is set to Russian, you cannot perform certain user management tasks for spaces, including adding a new user to a space, inviting a registered user to a space, and modifying or revoking a user's role assignment.

If the language is set to Swedish, the Roles page under Spaces Administration is not accessible.

8.1.19 Conditions for Deleting Messages from the Activity Stream

Users can delete only messages from the Activity Stream that were entered from the Publisher task flow and include a link. (In other words, messages in the Activity

Stream that were not entered via the Publisher and do not include a link cannot be deleted.)Users can delete only messages with a link from the Activity Stream. Other activity stream entries, such as notifications of page creations, cannot be deleted.

8.1.20 Configuring Web Services Security for Discussions Server

In Release 11.1.1.7.0, discussions server is shipped with no message protection for Web Service interaction between discussions server and Spaces; this allows you to use discussions server without any further configuration. However, after patching your Oracle WebCenter 11.1.1.4.0 or earlier version, if you encounter WS-Security-related errors, you must reconfigure the discussions server security settings. For information, see the "Configuring Security Policies for Spaces, Discussions, and Portlet Producer Web Service End Points" section in *Oracle Fusion Middleware Patching Guide*.

8.1.21 Unable to View Entire Content on iPad as Scrollbars Not Displayed

The Apple iOS platform does not display scrollbars. When you view a page on an iPad, content may appear truncated because scrollbars are not displayed. Also, iFrame components ignore dimensions on iPad. To view the entire content area, use the two-finger scroll gesture on your iPad.

8.1.22 RSS Links Not Working Properly on iPad

The Apple iOS platform renders RSS links by loading them through the site `reader.mac.com`. If the WebCenter Portal instance is not accessible outside your firewall, RSS links cannot be viewed.

8.1.23 Cannot Upload Content Using iPad

The Apple iOS platform does not support a native file system browser. Therefore, you cannot upload content from an iPad. All upload actions, such as publish, upload, and share are disabled or hidden when you access WebCenter Portal from an iPad.

8.1.24 Cannot Copy Text Displayed on Pages

If you access a page through an iPad, you cannot copy the text displayed on the page. This is a limitation from the Apple iOS platform.

8.1.25 Embedded Images Not Rendered

The Mail task flow does not render embedded images. If an email contains inline images, they are shown as attachments, and not within the message body.

8.1.26 Unable to Check Out a Document When Using Firefox First Time

The first time you access WebCenter Portal using the Mozilla Firefox browser, and attempt to open a document using Desktop Integration over an SSL or HTTPS connection, you will receive a warning that the certificate is not trusted, even if the environment has a valid certificate. You can open the document, but cannot check in or check out the document from within a Microsoft Office application. However, subsequent use of Desktop Integration through the Firefox browser will work as expected and you will be able to check documents in and out from within a Microsoft Office application.

8.1.27 Navigating in the Preferences Dialog in Internet Explorer 9 (Accessibility Issue)

When using only the keyboard in WebCenter Portal in Internet Explorer 9, on the General Preferences page in the Preferences dialog, the Expression Editor dialog loses cursor focus after a value is changed using the down arrow key. The cursor focus goes back to the General Preferences page instead of the Expression Editor dialog. To work around this issue, use Internet Explorer 8 or any other supported browser like Safari 23.x or Firefox 10.x.

8.1.28 Web Clipping Portlet is Deprecated

The Web Clipping portlet is deprecated in Release 11g (11.1.1.7.0) and should not be used. Instead, create a clipper pagelet using Oracle WebCenter Portal's Pagelet Producer.

8.1.29 Messages Displayed During Import or Export Appear Incomplete (Accessibility Issue)

While accessing WebCenter Portal: Spaces using Internet Explorer 10, progress messages displayed during import or export space appear incomplete. To workaround this issue, click the browser compatibility icon next to the address bar to enable browser compatibility.

8.1.30 Deployment Fails Because Versioned Applications Are Not Supported

Application versioning is no longer supported by default for ADF applications. Upon initial deployment, an existing 11.1.1.6.0 (or earlier) or new application (11.1.1.7.0 or later) deploys successfully regardless of the application's versioning. However, when redeploying an unversioned application from JDeveloper 11.1.1.7.0 to a WebLogic Server where a versioned instance of that application is already running, deployment will fail. This is because the server is already running a versioned instance and WebLogic Server does not allow deploying an unversioned instance of the same application. You will see an error message like this:

```
Weblogic Server Exception:
weblogic.management.ManagementException: [Deployer:149082]You cannot deploy
application 'Application1_application1' without version. The application was
previously deployed with version 'V2.0'.
```

To resolve this issue, undeploy the versioned application first and then deploy the unversioned application.

8.1.31 Some Formatting Lost in Rich Text Editor When Shifting from Rich Text or HTML to Wiki Markup

In the Rich Text Editor, if you switch from the Rich Text or HTML pane to the Wiki Markup pane, you might encounter formatting issues. For example, only the image source and title properties or attributes are saved when switching to Wiki Markup.

8.1.32 Unable to Access All Nodes in a Large Navigation Model

If you have a navigation model with many nodes, depending on the page template used for your portal, you may not be able to access all those nodes when you render that navigation model in a page. If there are more nodes than fit in the area of the page template used for navigation, a >> icon provides access to a drop-down list of the remaining nodes. However, if this drop-down list is longer than the available screen

size, you will not be able to access the nodes at the end of the list. For example, this situation may arise if you are using a page template where the navigation is displayed in a bar along the top of the page.

To work around this issue, consider using a different page template that displays navigation down the side of the page. Alternatively, you can use folders in your navigation model to group similar nodes together and reduce the number of nodes displayed at any one level of the navigation model.

8.2 Documentation Errata

This section describes documentation errata. It includes the following topic:

- Section 8.2.1, "Oracle SES Active Connection"
- Section 8.2.2, "Extending the Spaces Application Using JDeveloper"
- Section 8.2.3, "Using Spaces Extension Samples Whitepaper"
- Section 8.2.4, "Microsoft Exchange Server 2010 Not Supported"
- Section 8.2.5, "Presence Servers Supported for the IMP Service"

8.2.1 Oracle SES Active Connection

In *Oracle Fusion Middleware Administrator's Guide for Oracle WebCenter*, in "Table 22-3 Oracle SES Connection - Name", the definition of Active Connection should read as follows:

"Select to use the Oracle SES instance defined on this connection as your search platform for your WebCenter Portal application. While you can register multiple Oracle SES connections for an application, only one connection is used—the default (or active) connection."

8.2.2 Extending the Spaces Application Using JDeveloper

If you want to develop custom resources or build custom shared libraries for the Spaces application (11.1.1.7.0) you *must* use Oracle JDeveloper 11.1.1.7.0 to develop your extensions.

In *Oracle Fusion Middleware Developer's Guide for Oracle WebCenter*, section "Downloading a Workspace for Spaces Development" incorrectly states to use Oracle JDeveloper 11.1.1.6.0. Specifically, step 2 should read as follows:

"Step 2 Download and install Oracle JDeveloper 11g (11.1.1.7.0).

Oracle JDeveloper 11g (11.1.1.7.0) is available for download from: `http://www.oracle.com/technetwork/developer-tools/jdev/downloads/index.html`"

8.2.3 Using Spaces Extension Samples Whitepaper

In *Oracle Fusion Middleware Developer's Guide for Oracle WebCenter*, section "Deploying Your Own Custom Code and Task Flows in Shared Libraries" incorrectly refers to the accompanying whitepaper as "Using Spaces Extension Samples (11.1.1.6.0)". For WebCenter Portal 11.1.1.7.0, you must refer to the whitepaper "Using Spaces Extension Samples (11.1.1.7.0)".

8.2.4 Microsoft Exchange Server 2010 Not Supported

In *Oracle Fusion Middleware Administrator's Guide for Oracle WebCenter*, the "Configuring Microsoft Exchange Server 2007 or 2010 for WebCenter Portal" section and the "Third-Party Product Integration" appendix incorrectly specify Microsoft Exchange Server 2010 as a supported mail server. Microsoft Exchange Server 2010 is not certified for use with Oracle WebCenter Portal.

8.2.5 Presence Servers Supported for the IMP Service

In *Oracle Fusion Middleware Administrator's Guide for Oracle WebCenter* the "Microsoft Live Communications Server (LCS) Prerequisites" section and the "Third-Party Product Integration" appendix do not provide complete product details about the presence servers supported by the Instant Messaging and Presence (IMP) service. You can configure any of the following servers as the communication server for the IMP service:

- Microsoft Office Live Communications Server (LCS) 2005 R2
- Microsoft Office Communications Server (OCS) 2007 SP1
- Microsoft Lync 2010

Part V

Oracle SOA Suite and Business Process Management Suite

Part V contains the following chapters:

9

Oracle SOA Suite, Oracle BPM Suite, and Common Functionality

To view the latest known issues associated with Oracle SOA Suite, BPM Suite, and related SOA technologies, go to Oracle Technology Network (OTN) at `http://www.oracle.com/technetwork/middleware/docs/soa-aiafp-known issuesindex-364630.html`. These known issues documents include the following products:

- Oracle Adapter for Oracle Applications (Oracle E-Business Suite Adapter)
- Oracle AIA Foundation Pack
- Oracle Application Adapters for Oracle WebLogic Server
- Oracle Application Server Legacy Adapters
- Oracle B2B
- Oracle BPEL Process Manager
- Oracle Business Activity Monitoring
- Oracle Business Process Management
- Oracle Business Rules
- Oracle Complex Event Processing
- Oracle Enterprise Repository
- Oracle Human Workflow
- Oracle Mediator
- Oracle Service Bus
- Oracle SOA Suite and Oracle BPM Suite Common Functionality
- Oracle Technology Adapters

10

Web Services Development, Security, and Administration

This chapter describes issues associated with Web services development, security, and administration, including Oracle Web Services Manager.

It includes the following topics:

- Section 10.1, "Using Multibyte User Credentials with wss_http_token_* Policy"
- Section 10.2, "Performing a Bulk Upload of Policies"
- Section 10.3, "Reviewing Policy Configuration Override Values After Detaching a Client Policy"
- Section 10.4, "Removing Post-deployment Customizations"
- Section 10.5, "Reviewing Localization Limitations"
- Section 10.6, "When Using WLST to Import a Security Policy, the Same Policy May Be Repeatedly Imported"
- Section 10.7, "Identity in WSDLs Is Not Used for Enforcement with ADF DC Applications"
- Section 10.8, "Fusion Middleware Control Does Not List Policies When Two Servers Are SSL Enabled (Two-way SSL)"
- Section 10.9, "Web Service Test Page Cannot Test Input Arguments Bound to SOAP Headers"
- Section 10.10, "When Adding SAML Issuer From Fusion Middleware Control the jps-config.xml File Is Incorrectly Updated"
- Section 10.11, "Patching of Patch Set 1 WebLogic Server Web Services Attached to Custom Polices With Patch Set 3 Oracle WSM Policy Manager"
- Section 10.12, "Custom Policy Fails When an Empty Subject Is Passed"
- Section 10.13, "Possible Limitation When Using Custom Exactly-one Policies"
- Section 10.14, "Ignore "Services Compatibility" Error for Security Policies Used Between Oracle WSM and WebLogic Server"
- Section 10.15, "Compatible Policies Not Returned When Using JDeveloper Wizard to Attach Oracle WSM Policies to Web Service Client"
- Section 10.16, "SAML Bearer Token Policies Now Signed by Default"
- Section 10.17, "Security Policies Do Not Work on Subscriber Mediator Component"
- Section 10.18, "Policy Table Might Not Show Attached Policies for Some Locales"

- Section 10.19, "Manual Step Required to Uptake Changes in Predefined Policy"

- Section 10.20, "Usage Tracking Not Enabled for WebLogic Web Service Client"

- Section 10.21, "Do Not Attach a Permitall and Denyall Policy to the Same Web Service"

- Section 10.22, "Additional Quotes in Fusion Middleware Control for Run-time Constraint Input from WLST"

- Section 10.23, "Scoped Configuration Override Persists for Subsequent References to the Same Policy"

- Section 10.24, "New Default Settings for Policies"

- Section 10.25, "Restart Applications to Get an Accurate Policy Usage Count"

- Section 10.26, "Kerberos Policy Enforcement Throws an "Unable to Obtain Password from User" Error"

- Section 10.27, "The migrateAttachments WLST Command Fails for WebLogic JAX-WS Web Services"

- Section 10.28, "A Null Pointer Exception Could be Thrown When Verifying a SOAP Message Signature"

- Section 10.29, "checkWSMstatus() WLST Command Fails Against a Domain When wsm-pm Targets Multiple Servers"

- Section 10.30, "Performance Improvements in Web Services Policy Pages"

- Section 10.31, "Cross-Domain Policy Manager Configuration is Not Supported in this Release"

- Section 10.32, "The setWebServicePolicyOverride WLST Command Does Not Apply to JAVA EE (WebLogic) Web Services"

> **Note:** For WebLogic Web Services, see Section 7.35, "Web Services and XML Issues and Workarounds."

10.1 Using Multibyte User Credentials with 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 Appendix B "Predefined Policies" in the *Oracle Fusion Middleware Security and Administrator's Guide for Web Services*.

10.2 Performing a Bulk Upload of Policies

When performing 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 *Oracle Fusion Middleware Security and Administrator's Guide for Web Services*.

10.3 Reviewing Policy Configuration Override Values After Detaching a Client Policy

If you attach a policy to a client, override policy configuration values, and subsequently detach the policy, the policy configuration override values are not deleted. When attaching new policies to this client, ensure that you review the policy configuration override values and update them appropriately.

10.4 Removing Post-deployment Customizations

When the connections.xml file is changed after deployment 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 the its own connections.xml file.

10.5 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 `?orawsdl` browser address, the `orawsp:description` field.

- In the System MBean browser, the **Description** field in the `oracle.wsm.upgrade` Mbean.

10.6 When Using WLST to Import a Security Policy, the Same Policy May Be Repeatedly Imported

When WLST is used to import a security policy, be aware that the same policy may be repeatedly imported.

10.7 Identity in WSDLs Is Not Used for Enforcement with ADF DC Applications

For ADF DC applications, the identity extension in a WSDL (for example, the certificate published in the WSDL), cannot be used as a recipient certificate for message protection policies. Instead, either the recipient key alias (declarative configuration override) or the default recipient key alias specified in the policy are used.

10.8 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 Oracle WSM 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 Oracle WSM policies.

10.9 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.

10.10 When Adding SAML Issuer From Fusion Middleware Control the jps-config.xml File Is Incorrectly Updated

In release 11*g* R1 (11.1.1.1.0), when you try to add or edit a trusted issuer from the Fusion Middleware Control console, then the `jps-config.xml` file is incorrectly updated. As a workaround for this issue, Oracle recommends upgrading to 11*g* R1 Patch Set 2 (11.1.1.3.0).

10.11 Patching of Patch Set 1 WebLogic Server Web Services Attached to Custom Polices With Patch Set 3 Oracle WSM Policy Manager

Due to a new feature in 11*g* R1 Patch Set 2 (11.1.1.3.0), the "Shared policy store for Oracle Infrastructure Web services and WebLogic Server Web services", WebLogic Server Web services now utilize the Policy Manager by default to retrieve policies from the MDS repository. In Patch Set 1, WebLogic Server Web services used classpath mode by default.

After patching your Oracle Fusion Middleware 11*g* R1 software installation to Patch Set 2, if you have attached a *custom* Oracle WSM policy to a WebLogic Server Web

service, you need to make sure your custom policy is stored in the MDS repository. Note that only custom policies in use need to be migrated. All seed policies will be available in the MDS repository out-of-the-box.

To migrate policies to the Metadata Services (MDS) repository, see "Maintaining the MDS Repository" in the *Security and Administrator's Guide for Web Services*.

10.12 Custom Policy Fails When an Empty Subject Is Passed

If an empty subject is passed to a custom policy, it fails with a generic error. To work around this issue, you can create and set an `anonymousSubject` inside the execute method of the custom step. For example:

```
javax.security.auth.Subject subject =
oracle.security.jps.util.SubjectUtil.getAnonymousSubject();
context.setProperty(oracle.wsm.common.sdk.IMessageContext.SECURITY_
SUBJECT,subject)
```

Note that in this example the context is of Type `oracle.wsm.common.sdk.IContext`

10.13 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.

10.14 Ignore "Services Compatibility" Error for Security Policies Used Between Oracle WSM and WebLogic Server

Fusion Middleware Control may display a false error message when verifying compatibility of service policies. This incompatibility message is shown when using Enterprise Manager to attach an Oracle WSM Security client policy. Upon clicking the **Check Services Compatibility**, a message states that policies are incompatible despite the fact that these might be compatible.

Workaround:

If WSM policies are attached at the Web service endpoint, use the corresponding client policy. For example, if the service has wss11_saml_or_username_token_with_ message_protection_service_policy, wss11_saml_token_with_message_protection_ client_policy or wss11_username_token_with_message_protection_client_policy will work at the client side. If non-WSM policies are attached to the Web Service, see the *Interoperability Guide for Oracle Web Services Manager* for information about the corresponding client policy and attach it.

10.15 Compatible Policies Not Returned When Using JDeveloper Wizard to Attach Oracle WSM Policies to Web Service Client

During design time, the JDeveloper Wizard's option for **Attaching Oracle WSM Policies to Web Service Clients** might not return any compatible policies. This can occur due to one of the following reasons:

- There are no compatible client policies corresponding to the service policies published in the WSDL.

- In some cases, when you are trying to determine the compatible client policies in version 11.1.1.4 of JDeveloper running with Fusion Middleware Control Enterprise Manager that correspond to the service policies published in the WSDL of the Web service in version 11.1.1.3 or earlier.

Workaround:

Disable the **Show only the compatible client policies for selection** option in the JDeveloper Wizard. This will list all the client policies.

If Oracle WSM policies *are attached* to the Web service, use the corresponding client policy. For example, if the service has the policy wss11_saml_or_username_token_with_message_protection_service_policy, it is safe to assume that wss11_saml_token_with_message_protection_client_policy or wss11_username_token_with_message_protection_client_policy will work at the client side.

If WSM policies are *not attached* to the Web service, refer to the *Interoperability Guide for Oracle Web Services Manager* for instructions on determinant the corresponding client policy and attaching it.

10.16 SAML Bearer Token Policies Now Signed by Default

A new property, `saml.enveloped.signature.required`, is available when configuring wss_saml_token_bearer_over_ssl policies (both client and service). In releases prior to 11.1.1.4, the SAML bearer token was unsigned by default. In the 11.1.1.4 release and later, the SAML bearer token is signed because the default value for the `saml.enveloped.signature.required` property is `true`.

To retain the behavior of the releases prior to 11.1.1.4, set the `saml.enveloped.signature.required` property to `false` in both the client and service policies. The SAML bearer token is signed using the domain sign key, but it can be overridden using the `keystore.sig.csf.key` property set in the bearer client policy.

The affected policies are:

- wss_saml20_token_bearer_over_ssl_client_policy

- wss_saml_token_bearer_over_ssl_client_policy

- wss_saml20_token_bearer_over_ssl_service_policy

- wss_saml_token_bearer_over_ssl_service_policy

10.17 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.

10.18 Policy Table Might Not Show Attached Policies for Some Locales

Select the Web service application in Fusion Middleware Control and navigate to the Web service endpoint. Attach a policy to the endpoint in the Attach/Detach page. Sometimes the Directly Attached Polices table might not display the attached policies for the following locales: zh-cn, zh-tw, ja, pt-br, es, fr, ko.

As a workaround, enlarge the columns.

10.19 Manual Step Required to Uptake Changes in Predefined Policy

The oracle/wss11_saml_or_username_token_with_message_protection_service_policy now includes five assertions as described in "Configuring a Policy With an OR Group" in *Oracle Fusion Middleware Security and Administrator's Guide for Web Services*:

- wss_saml_token_bearer_over_ssl (new)
- wss_username_token_over_ssl (new)
- wss_http_token_over_ssl (new)
- wss11_saml_token_with_message_protection (existing)
- wss11_username_token_with_message_protection (existing)

To take advantage of these additional assertions, you need to upgrade the Oracle WSM policies in the repository using the `resetWSMPolicyRepository(false)` WLST command. Note that executing this command will upgrade all of the predefined policies to the latest version provided in 11.1.1.6. For additional information, see "Upgrading the Oracle WSM Policies in the Repository" in *Oracle Fusion Middleware Security and Administrator's Guide for Web Services*.

10.20 Usage Tracking Not Enabled for WebLogic Web Service Client

In this release, usage tracking and analysis is not provided for WebLogic Java EE Web service clients.

10.21 Do Not Attach a Permitall and Denyall Policy to the Same Web Service

Although you can attach multiple authorization policies to the same Web service, you should not attach both a permitall and denyall policy. If you do so, however, the combination validates successfully in this release.

Workaround:

Do not attach a permitall and denyall policy to the same Web service. For more information about authorization policies, see "Authorization Policies and Configuration Steps" in Oracle Fusion Middleware Security and Administrator's Guide for Web Services.

10.22 Additional Quotes in Fusion Middleware Control for Run-time Constraint Input from WLST

When you specify a run-time constraint using WLST, as described in "Specifying Run-time Constraints in Policy Sets" in *Oracle Fusion Middleware Security and Administrator's Guide for Web Services*, you must specify the constraint using quotes, for example `setPolicySetConstraint('HTTPHeader("VIRTUAL_HOST_TYPE",`

"external")'). If you then use Fusion Middleware Control to view and edit the policy set constraint, the constraint is shown with the quotes in the Constraint Name and Constraint Value fields. You need to remove the quotes in these fields.

10.23 Scoped Configuration Override Persists for Subsequent References to the Same Policy

When using a scoped configuration override for the server side identity/encryption key (keystore.enc.csf.key) with a message protection policy, the override value is stored in the policy. Because the policy is cached, any subsequent references to this policy by other services will contain the override value. Therefore, the results will not be as expected.

Two examples of this scenario are as follows:

- An Oracle Infrastructure Web service has an attached message protection service policy. Both the service identity (service public encryption key, keystore.enc.csf.key) and the service message protection policy are advertised in the service WSDL. If the service encryption key is overwritten, using the global `setPolicySetOverride` command for example, then the scoped overwritten value for the keystore.enc.csf.key property that was intended for the specific attachment/reference of the initial service may affect other services attachments/references to the same policy.

- A SOA service composite has an attached message protection service policy and both the service identity (server public encryption key `keystore.enc.csf.key`) and the service message protection policy are advertised in the service WSDL. If the service encryption key is overwritten, for example, using JDeveloper to override `keystore.enc.csf.key` while building the service composite, then the scoped overwritten value for the `keystore.enc.csf.key` property that was intended for the specific attachment/reference of the initial service may affect other services attachments/references to the same policy.

Workaround

The recommended workaround is to perform a cache refresh when possible. For example, if a policy attachment/reference has a scoped override for the property `keystore.enc.csf.key` and it has been enforced or advertised once, the cached policy contains the override, however the original policy in the repository is not affected. To clear the override you can refresh the cache using methods such as restarting the server, redeploying the application, modifying the policy using Fusion Middleware Control, and so on.

In some scenarios, however, a cache refresh is not feasible. For example, if a service with a policy attachment/reference has a scoped override for the property `keystore.enc.csf.key` and it is enforced before other services that reference the same policy in a flow of execution that does not allow time for a manual cache refresh, then the policy in the cache referenced by the subsequent services contains the configuration override. For example, in an asynchronous service where the same policy is attached to both the asynchronous request and the asynchronous callback client, and only the asynchronous request attachment/reference has the override (the asynchronous callback does not), the asynchronous callback policy enforcement happens after the asynchronous request. In this case, the callback client accesses the policy in the cache that contains the configuration override. Since there is no opportunity to refresh the cache, there is no workaround available.

10.24 New Default Settings for Policies

For the following predefined policies, the default values for the `Nonce Required` and `Creation Time Required` settings are set to `False` in this release (these settings were `True` in past releases):

- `wss_saml_or_username_token_over_ssl_service_policy`

- `wss_username_token_over_ssl_service_policy`

- `wss11_saml_or_username_token_with_message_protection_service_policy`

Users should take into consideration that the nonce and created elements in the username token will be ignored by the service policy. This change, however, will not impact the security of your Web service. If you wish to maintain the old behavior, create a copy of the policy and set the values to `True`, as described in "Creating a Web Service Policy from an Existing Policy" in *Oracle Fusion Middleware Security and Administrator's Guide for Web Services*.

For more information about the policies, see "Predefined Policies" in *Oracle Fusion Middleware Security and Administrator's Guide for Web Services*.

> **Note:** If policy advertisement is configured to use WS-SecurityPolicy version 1.3, as described in "Policy Advertisement" *Oracle Fusion Middleware Security and Administrator's Guide for Web Services*, then no compatible client policy will be returned, but the runtime will be compatible. With default advertisement (for example, wssp1.1), client compatibility will operate as expected.

10.25 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 re-imported, then its usage count will not be correct and application(s) must be restarted to obtain an accurate usage count.

10.26 Kerberos Policy Enforcement Throws an "Unable to Obtain Password from User" Error

This issue can occur if a Java EE client and service are using different keytabs, and both the client and the service are in same server. In this case, When the client invokes a Java EE service which is protected with Kerberos authentication policy, an "Unable to Obtain Password from User" error can be thrown. The error is thrown because the Krb5LoginModule implementation provided by the JDK caches only a single keytab.

To work around this issue, put the client and the service principal into a single keytab. This issue is not limited only to client and service pairs, but also to two Java EE clients running in same server. Thus, in all such cases, only a single keytab should be created that contains all of the required principals.

10.27 The migrateAttachments WLST Command Fails for WebLogic JAX-WS Web Services

The `migrateAttachments` WLST command migrates direct (local) policy attachments that are identical to the external global policy attachments that would otherwise be attached to each policy subject in the current domain.

In PS6, the `migrateAttachments` command will fail and throw an exception if the WebLogic Server JAX-WS Web service is deployed into the current domain.

> **Note:** If the current domain does not have any deployed WebLogic JAX-WS Web services, then this command will work correctly.

To work around this problem, follow these steps:

1. Run the `listWebServices(detail='true')` command.

   For more information about this command, see "listWebServices" in *Oracle Fusion Middleware WebLogic Scripting Tool Command Reference.*

2. From the output of the `listWebServices` command, determine which Web services have the same directly attached policies as the global policy attachments.

3. Run the `detachWebServicePolicy` command to remove the directly attached policies for each Web service or Web service client identified in Step 2.

   For more information about this command, see "detachWebServicePolicy" in *Oracle Fusion Middleware WebLogic Scripting Tool Command Reference.*

4. Run the `listWebServiceClients(detail='true')` command.

   For more information about this command, see "listWebServiceClients" in *Oracle Fusion Middleware WebLogic Scripting Tool Command Reference.*

5. From the output of the `listWebServiceClients` command, determine which Web service clients have the same directly attached policies as the global policy attachments.

6. Run the `detachWebServicePolicy` command to remove the directly attached policies for each Web service client identified in Step 5.

10.28 A Null Pointer Exception Could be Thrown When Verifying a SOAP Message Signature

A Null Pointer Exception could be thrown when verifying the SOAP message signature. This issue can be seen especially with message protection policies that use higher algorithm suites, where the default XML namespace is defined in the SOAP message. In the following example, `http://www.oracle.com/sb/qa/config` is the default namespace:

```
<soapenv:Envelope  xmlns:soapenv="http://schemas.xmlsoap.org/soap/envelope/"
xmlns="http://www.oracle.com/sb/qa/config">
   <soap:Header></soap:Header>
   <soapenv:Body></soapenv:Body>
</soapenv:Envelope>
```

To work around this issue, do not use the default XML namespace in the SOAP message.

10.29 checkWSMstatus() WLST Command Fails Against a Domain When wsm-pm Targets Multiple Servers

The agent check does not perform correctly for scenarios where `wsm-pm` is targeted to multiple servers or in a cluster. Also, the agent check does not perform correctly if the `t3` port and HTTP port are different.

To perform an agent check for these scenarios, you must explicitly provide the value of the `address` argument. The `address` argument must be a valid HTTP URL with the host name and the port name of the server on which `wsm-pm` is running.

10.30 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.

10.31 Cross-Domain Policy Manager Configuration is Not Supported in this Release

Configuration to a Policy Manager in a remote domain is not supported in this release. Therefore, the procedures to connect to a remote Policy Manager, described in the following topics in *Oracle Fusion Middleware Security and Administrator's Guide for Web Services*, are not recommended in a production environment:

- Configuring a Web Service on a Remote Policy Manager and Tuning the Policy Cache

- Configuring Web Service Policy Retrieval

10.32 The setWebServicePolicyOverride WLST Command Does Not Apply to JAVA EE (WebLogic) Web Services

In this release, the `setWebServicePolicyOverride` command, as described in "Web Services Custom WLST Commands" in *Oracle Fusion Middleware WebLogic Scripting Tool Command Reference*, applies to Oracle Infrastructure Web Services and SOA composites only. The `wls` module type is not supported.