Oracle® Application Server

Release Notes

10*g* Release 2 (10.1.2) for hp Tru64 UNIX

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Oracle Application Server Release Notes, 10*g* Release 2 (10.1.2) for hp Tru64 UNIX

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Preface

This preface includes the following topics:

Audience

This document is intended for users of Oracle Application Server 10*g*.

Documentation Accessibility

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Related Documents

For more information, see these Oracle resources:

- Oracle Application Server Documentation on Oracle Application Server Disk 1
- Oracle Application Server Documentation Library 10*g* Release 2 (10.1.2)

Conventions

The following text conventions are used in this document:

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

What's New in Oracle Application Server Release Notes?

This chapter provides a listing of new topics introduced with this version of *Oracle Application Server Release Notes*. The new topics are in the following chapters:

- Chapter 3, "Installation and Upgrade Issues"
- Chapter 4, "General Management and Security Issues"
- Chapter 5, "High Availability"
- Chapter 6, "Oracle Forms"
- Chapter 8, "Oracle HTTP Server"
- Chapter 14, "Oracle BPEL Process Manager"
- Chapter 15, "Oracle Application Server Integration B2B"
- Chapter 17, "Oracle Application Server Web Cache"
- Chapter 18, "Oracle Reports"
- Chapter 20, "Oracle Internet Directory"
- Chapter 23, "Oracle Application Server Single Sign-On"
- Chapter 25, "Oracle Enterprise Manager"

Chapter 3, "Installation and Upgrade Issues"

- Section 3.1.20, "Patch Required Prior to Running the Metadata Repository Creation Assistant on a 10.2 Real Application Cluster Database"
- Section 3.1.30, "OPatch Not Supported with OC4J Standalone Installations"
- Section 3.1.31, "Installing a Middle Tier Against Oracle Identity Management with Multimaster Replication"
- Section 3.1.34, "Additional Kernel Parameter Settings"
- Section 3.3.1, "WWU-01012 Error During Portal Repository Upgrade"
- Section 3.4.23, "Incorrect Shell Limit Settings"

Chapter 4, "General Management and Security Issues"

- Section 4.1.1, "Restoring OracleAS Portal Configuration Files"
- Section 4.1.2, "Set the PERL5LIB Environment Variable"

- Section 4.6.2, "Errors in Oracle Process Manager and Notification Server Administrator's Guide"
- Section 4.6.3, "Error in Oracle Application Server Administrator's Guide"
- Section 4.6.9, "Clarification of Steps for Changing Oracle HTTP Server Ports in Oracle Application Server Administrator's Guide"
- Section 4.6.13, "Correction to Cloning Procedure in Oracle Application Server Administrator's Guide"
- Section 4.6.14, "Correction to "KeepAlive" Line in Oracle Application Server Enterprise Deployment Guide"

Chapter 5, "High Availability"

- Section 5.5, "Distributed Identity Management is a Supported Topology"
- Section 5.6, "Correct Information for Application Server Guard clone_unpack_cmd parameter"
- Section 5.7, "Clarification of Clustering for OracleAS Integration B2B"

Chapter 6, "Oracle Forms"

- Section 6.1.2, "Backwards Compatibility with Earlier Releases"
- Section 6.1.4, "Oracle Forms Logout Behavior and Oracle Application Server Single Sign-On"
- Section 6.3.1, "Code in A Text Version of A Module Is in Hexadecimal"
- Section 6.3.2, "Obsolete Property FIXED_LENGTH"

Chapter 8, "Oracle HTTP Server"

- Section 8.2.4, "Using Oc4jCERTCHAINIndicator to Pass Client Certificate"

Chapter 14, "Oracle BPEL Process Manager"

The sections for technology adapters have been moved to the "Oracle Application Server Technology Adapters" chapter.

Chapter 15, "Oracle Application Server Integration B2B"

- Section 15.2.2, "Installation Documentation"

Chapter 17, "Oracle Application Server Web Cache"

- Section 17.1.2, ""Authentication Required" Error When Monitoring the OracleAS Web Cache Invalidation Port"
- Section 17.1.3, "Configuring the Load Balancer with the Ping URL for the Invalidation Port"
- Section 17.1.4, "DNS Round Robin in Front of an OracleAS Web Cache Cluster"
- Section 17.2.1, "Running webcached with Root Privilege"

1 Introduction

This chapter introduces Oracle Application Server Release Notes, 10*g* Release 2 (10.1.2). It includes the following topics:

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 (OTN) at:

`http://www.oracle.com/technology/documentation/`

Note: Oracle Business Intelligence Discoverer is not supported on Oracle Application Server 10g Release 2 (10.1.2) on hp Tru64 UNIX.

1.2 Purpose of this Document

This document contains the release information for Oracle Application Server 10*g* Release 2 (10.1.2). It describes differences between Oracle Application Server 10*g* Release 2 (10.1.2) and its documented functionality.

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

1.3 Operating System Requirements

Oracle Application Server installation and configuration will not complete successfully unless users meet the hardware and software pre-requisite requirements before installation. Refer to *Oracle Application Server Installation Guide* for a complete list of operating system requirements.

1.4 Certification Information

The latest certification information for Oracle Application Server 10*g* Release 2 (10.1.2) is available at:

https://metalink.oracle.com

1.5 Licensing Information

Licensing information for Oracle Application Server 10*g* Release 2 (10.1.2) is available at:

https://oraclestore.oracle.com/OA_HTML/ibeCZzpHome.jsp

Detailed information regarding license compliance for Oracle Application Server 10*g* Release 2 (10.1.2) is available at:

http://www.oracle.com/technology/products/ias/index.html

2

Upgrading Oracle Application Server

The upgrade of Oracle Application Server 10*g* (9.0.4) to 10*g* release 2 (10.1.2) involves upgrade of all the components from version 9.0.4 to 10.1.2.0.2. It is then followed by application of the 10.1.2.2 patch set.

In Oracle Application Server 10*g* release 2 (10.1.2) on hp Tru64 UNIX, it is mandatory to apply 10*g* release 2 (10.1.2) patch set 2 (10.1.2.2.0) after upgrading the software from Oracle Application Server release 10*g* (9.0.4) to Oracle Application Server 10*g* release 2 (10.1.2).

For more information about upgrade tools and processes, refer to *Oracle Application Server Upgrade and Compatibility Guide for UNIX*.

The Oracle Application Server 10*g* release 2 (10.1.2) patch set 2 (10.1.2.2.0) ships with the media pack. You can also download the patch set from Oracle*MetaLink* by using patch number 4960210 at

`https://metalink.oracle.com`

To apply the patch, you must follow the instructions provided in the `readme.html` file that is shipped with the patch.

Note:

- Oracle Business Intelligence Discoverer is not supported on Oracle Application Server 10*g* release 2 (10.1.2) on hp Tru64 UNIX. Therefore, ignore any upgrade steps listed for Oracle Business Intelligence Discoverer product and schema in *Oracle Application Server Upgrade and Compatibility Guide*.
- Oracle Application Server Portal 10.1.2.0.2 or 10.1.2.2 is no longer supported with Oracle Application Server 10*g* release 2 (10.1.2). Therefore, you must upgrade it to 10.1.4.1.0.

Only Oracle Application Server Portal 10*g* (10.1.4.1.0) is supported with the release of Oracle Application Server 10*g* release 2 (10.1.2) for hp Tru64 UNIX. You must follow the steps mentioned in the subsequent sections to upgrade to Oracle Application Server Portal 10*g* (10.1.4.1.0) from 9.0.4.

This section contains the following subsections:

2.1 Upgrade and Validation Tasks

The following sections describe the upgrade and validation tasks.

Step 1: Upgrading the Middle-Tier

The following steps describe the upgrade tasks:

1. Install the 10.1.2.0.2 Middle-Tier pointing to the 9.0.4 Infrastructure.
2. Run the Oracle Application Server Upgrade Assistant on Middle-Tier by using the `iasua.sh` command from the destination Oracle home location. For example:

   ```
   DESTINATION_ORACLE_HOME/upgrade/iasua.sh
   ```

   For more information about OracleAS Upgrade Assistant and Middle -Tier, refer to Section 4.4, "Task 3: Run the OracleAS Upgrade Assistant" and Chapter 4, "Upgrading the Middle-tier" respectively, of *Oracle Application Server Upgrade and Compatibility Guide*.

Step 2: Validating the Middle-Tier

The following steps describe the validation tasks:

1. Verify that the Middle-Tier components have been updated successfully by checking the URLs of specific applications and components on the upgrade instance.
2. Verify that the Oracle HTTP Server is accessible on the same host and port as in the previous release by entering the URL. For example,

   `http://midtierhost.mycompany.com:7777`
3. Verify that the URLs for the applications you worked with the previous release are accessible and functional.

Step 3: Upgrading Oracle Identity Management

Install 10.1.2.0.2 Infrastructure in the upgrade mode.

For more information, refer to Chapter 5, "Upgrading Identity Management Services" of *Oracle Application Server Upgrade and Compatibility Guide*.

Step 4: Validating Oracle Identity Management

To validate the installation, log in to Oracle Single Sign-On, Oracle Application Server Certificate Authority, and Oracle Delegated Administrative Services by using the `ORCLADMIN` user name. If you are able to log in successfully, then the OracleAS Single Sign-On connectivity, Oracle Application Server Certificate Authority, Oracle Internet Directory, and Oracle Delegated Administrative Services are properly functioning.

Step 5: Upgrading OracleAS Metadata Repository

Run the `mrua.sh` from OracleAS 10.1.2.0.2 OracleAS Metadata Repository Upgrade assistant CD from the *MRUA_CD_ROOT_DIRECTORY*`/mrua` location to upgrade the component schema version of OracleAS Metadata Repository to 10.1.2.0.2.

For more information, refer to Chapter 7, "Upgrading the OracleAS Metadata Repository" of *Oracle Application Server Upgrade and Compatibility Guide.*

Note: You must review the OracleAS Metadata Repository Upgrade Assistant logs and check for errors after running `mrua.sh`. Refer to Section 7.4.7,"Reviewing the MRUA Log Files" of *Oracle Application Server Upgrade and Compatibility Guide* for more information about reviewing the OracleAS Metadata Repository Upgrade Assistant (MRUA) logs.

Step 6: Validating OracleAS Metadata Repository

To verify the success of the OracleAS Metadata Repository upgrade, use the following SQL query:

```
SELECT comp_id,version,status FROM APP_REGISTRY
```

Note: You must ensure that the component OracleAS Single Sign-On version is 10.1.2.2.0, and that the Oracle Internet Directory, wireless schemas, and portal schemas are at version 10.1.2.0.2. After completing the upgrade and running the `utlrp.sql` command, there should not be any invalid database objects.

Step 7: Upgrading OracleAS Portal

If you are using OracleAS Portal 9.0.4.1, then you must upgrade to OracleAS Portal 10.1.4.1.

Run the `mrua.sh` command from the OracleAS Portal release 10.1.4 OracleAS Metadata Repository Upgrade assistant CD to upgrade the portal schema to 10.1.4 from the */MRUA_CD_ROOT_Directory*/`mrua` location.

Important:

- Oracle AS portal 10.1.2.0.2 or 10.1.2.2 is no longer supported in this release.
- You must check the `upgrade/temp/portal/upgrade.log` file for errors after upgrade. You cannot run OracleAS Portal until you have completed a successful upgrade. A successful upgrade has zero errors in the upgrade log file, `upgrade.log`. Any portals running after an upgrade that was not clean are not supported by Oracle.

For more information, refer to *Oracle Application Server Portal Installation and Upgrade Guide 10g Release 2 (10.1.4)*.

Step 8: Validating OracleAS Portal

The following steps describe the validation tasks:

1. To access the upgraded OracleAS Portal instance, specify the URL in a browser. The format of the URL has been changed in OracleAS Portal 10.1.4, which is as follows:

   `http://`*`host`*`:`*`port`*`/portal/pls/`*`portal_DAD`*

2. Verify that the portal schema version is 10.1.4.0, by using the following command:

   ```
   SELECT comp_id,version,status FROM APP_REGISTRY
   ```

Step 9: Applying 10.1.2.2 Patch Set on Middle-Tier and OracleAS Infrastructure

It is mandatory to apply Oracle Application Server 10.1.2.2 patch set (4960210) on OracleAS Infrastructure and Middle-Tier after the upgrade.

You must apply software update to each Middle-Tier installation before applying the OracleAS Metadata Repository update to OracleAS Metadata Repository used by each Middle-Tier. For more information about applying patch set, you may refer to `readme.html` in the patch.

Note: You must review OracleAS Metadata Repository Assistant logs after applying the 10.1.2.2 OracleAS Metadata Repository patch.

Step 10: Validating Middle-Tier and OracleAS Infrastructure

The following steps describe the validation tasks that should be carried out after applying the 10.1.2.2 patch set:

1. For Middle-Tier: Verify the Middle-Tier components and also, check the significant URLs.
2. For Oracle Identity Management: Test the functionality of OracleAS Single Sign-On connectivity, Oracle Delegated Admininstration Services and Oracle Application Server Certificate Authority.
3. For OracleAS Metadata Repository: Verify the success of the OracleAS Metadata Repository upgrade, use the following SQL query:

```
SELECT comp_id,version,status FROM APP_REGISTRY
```

Note:

- You must verify that the following version requirements are addressed by the upgrade process:

  - OracleAS Single Sign-On and Oracle Internet Directory are at version 10.1.2.2.0

  - Portal schema version is 10.1.4.1.0

  - Wireless schema version is 10.1.2.1.0

  After completing the upgrade and running the `utlrp.sql` command, there should not be any invalid database objects.

- Oracle Business Intelligence Discoverer is not supported on hp Tru64 UNIX. Therefore, any entry in the `APP_REGISTRY` schema can be ignored.

2.2 Post-Upgrade Tasks

Post-upgrade tasks are required to complete the upgrade process. The complete upgrade steps are documented in the *Oracle Application Server Upgrade and Compatibility Guide*. You must follow the steps based on the type of components, installation, and upgrade.

The following list describes some of the important post-upgrade steps:

1. Completing Middle-Tier Upgrade: Usually, the OracleAS Upgrade Assistant performs upgrade for Middle-Tier upgrade. However, some components might require manual adjustments. These components are Oracle HTTP Server, OracleAS Web Cache, Oracle Application Server Containers for J2EE, OracleAS Portal, OracleAS Wireless, and OracleAS Forms and Reports Services.

   Refer to Task 5 in Section 4.5, "Complete the Middle-Tier Upgrade" of *Oracle Application Server Upgrade and Compatibility Guide for UNIX* and follow the steps for the manual adjustments.

2. Completing Oracle Application Server HTTP Server Upgrade: If you make any changes related to usage of ports less than `1024`, `mod_sso`, configuration files on non-default locations, usage of custom files and directories, and so on, on Oracle HTTP Server, then you must perform some post-upgrade steps manually.

   Refer to Section, 4.6.3 "Completing the Oracle HTTP Server Upgrade" of *Oracle Application Server Upgrade and Compatibility Guide* for more information.

3. Completing Oracle Application Server Containers for J2EE (OC4J) Upgrade: You might need to make manual adjustments after the upgrade.

   Refer to Section, 4.6.4 "Completing the Oracle Application Server Containers for J2EE (OC4J) Upgrade" of *Oracle Application Server Upgrade and Compatibility Guide* for more information.

4. Completing OracleAS Web Cache Upgrade: If the ports used by OracleAS Web Cache is less than `1024` or the upgraded Middle-Tier is a part of the OracleAS Web Cache cluster, then you must follow the steps documented for OracleAS Web Cache upgrade in Section 4.6.5, "Completing the Upgrade of OracleAS Web Cache" of *Oracle Application Server Upgrade and Compatibility Guide*.

5. Completing OracleAS Portal Middle-Tier Upgrade: If the OracleAS Portal uses a different Oracle Internet Directory (OID) than the one that Middle-Tier is registered to, then you need to reconfigure the OracleAS Portal. If there are any changes in the source deployment property file of Java Portal Development Kits (JPDK), then you need to manually apply the changes to the destination files.

   Refer to Section, 4.6.6 "Completing the OracleAS Portal Middle Tier Upgrade" of *Oracle Application Server Upgrade and Compatibility Guide* for more information.

6. Completing Oracle Application Server Reports Services Upgrade: All the customized Reports files should be updated manually to the upgraded environment. You need to also enable the Reports Services Management in Oracle Application Server Control Console and register standalone Reports Servers with Oracle Process Manager and Notification Server (OPMN) and Enterprise Manager (EM).

   Refer to Section, 4.6.8 "Completing the Oracle Application Server Reports Services Upgrade" of *Oracle Application Server Upgrade and Compatibility Guide* for more information.

7. Oracle Application Server Forms Services Upgrade: If the OracleAS Forms Services `.EAR` file is deployed in any other default OC4J instances, such as OC4J, OracleAS Portal, and so on, then you need to redeploy it. If the `Forms*.Fmx` files are present in source Oracle home directory, then you must manually copy the file to the destination Oracle home directory.

   Refer to Section, 4.6.10 "Completing the Oracle Application Server Forms Services Upgrade" of *Oracle Application Server Upgrade and Compatibility Guide* for more information.

8. Oracle Identity Management Upgrade: You might need to manually update some of the Infrastructure components to complete the upgrade process. These components include Oracle Internet Directory, Oracle Single Sign-On, Oracle Certification Authority, OracleAS Wireless, and Oracle Enterprise Manager 10*g* Database Control.
9. Enabling Secure Socket Layer (SSL) for Oracle Identity Management Components: After the manual upgrade, you need to enable SSL for Oracle Single Sign-On and Oracle Delegated Administration Services.
10. Completing OracleAS Single Sign-On Upgrade: If the SSO server has custom configurations, third party authentication, customized login and password, and sign-off pages, then you must configure the SSO server manually.

See Also: For more information about how to update the components manually, refer to Task 5 in Section 5.6, "Complete the Oracle Identity Management Upgrade" of *Oracle Application Server Upgrade and Compatibility Guide for UNIX*.

Note: It is recommended that you review and run the full set of post-upgrade steps documented in *Oracle Application Server Upgrade and Compatibility Guide for UNIX*.

3

Installation and Upgrade Issues

This chapter describes installation and upgrade issues and their workarounds associated with Oracle Application Server. It includes the following topics:

3.1 Installation Issues

This section describes issues with installation of Oracle Application Server. It includes the following topics:

3.1.1 Missing Node File Location

The node file location is missing in Section 13.2.3, "Set Up Identical Hostnames on Both Production and Standby Sites" of *Oracle Application Server Installation Guide for hp Tru64 UNIX*. This section provides information on setting identical hostnames on middle tier using method 1.

The node file location should be `/etc/rc.config.d/netconf`.

3.1.2 Non-Availability of Oracle Business Intelligence Discoverer

Oracle Business Intelligence Discoverer is not supported on Oracle Application Server 10*g* Release 2 (10.1.2) on hp Tru64 UNIX. Therefore, Discoverer is not a part of the Oracle Business Intelligence and Oracle Forms and Reports installation types.

Also, there is no standalone release of Oracle Business Intelligence on Oracle Application Server 10*g* Release 2 (10.1.2) for hp Tru64 UNIX.

3.1.3 Applying Oracle Application Server 10*g* Release 2 (10.1.2) Patch Set 2 (10.1.2.2.0)

After installing Oracle Application Server 10*g* Release 2 (10.1.2) on hp Tru64 UNIX, it is mandatory to apply 10*g* Release 2 (10.1.2) patch set 2 (10.1.2.2.0) software update and OracleAS Metadata Repository update. The patch set is also required to upgrade the software.

You must apply the patch set to the following installation types:

- OracleAS Infrastructure and Middle-Tier
- Oracle Forms and Reports on standalone installation
- Oracle BPEL Process Manager and Oracle BPEL Process Analytics
- Oracle Application Server Integration InterConnect
- OracleAS Portal 10.1.4

You may download the patch set from *OracleMetaLink* by using patch number 4960210 at

`https://metalink.oracle.com`

3.1.4 Updating OracleAS Portal to Version 10.1.4

After installing Oracle Application Server 10*g* Release 2 (10.1.2) release on hp Tru64 UNIX, it is mandatory to upgrade OracleAS Portal to release 10.1.4. This is because Oracle AS Portal 10.1.2.0.2 or 10.1.2.2 will not be supported on Oracle Application Server 10*g* Release 2 (10.1.2) on hp Tru64 UNIX.

You must upgrade the portal schema using the OracleAS Metadata Repository Upgrade Assistant, which is shipped with Oracle Application Server 10*g* Release 2 (10.1.2.0.2).

After you upgrade the portal schema, you must install Oracle Application Server 10*g* Release 2 (10.1.2) patch set 2 (10.1.2.2.0), and it will update the schema versions to 10.1.4.1.0.

3.1.5 IPv6 Not Supported

This release of Oracle Application Server is not certified to run on machines that are configured with IPv6. You have to install and run this release of Oracle Application Server on machines that are configured with IPv4.

3.1.6 Do Not Use the Underscore Character in Host Name

Do not use the underscore character (_)as part of the host name for your Oracle Application Server installation. For example, `yourbusiness_name`.

3.1.7 Locales zh_TW.EUC and zh_TW in Traditional Chinese Environments Not Supported in the OracleAS Portal Component

If you try to install the OracleAS Portal component on a computer where the locale is set to zh_TW.EUC or zh_TW in Traditional Chinese environments, the installer will pause indefinitely because of the Java encoder behavior for these locales.

The workaround is to use the zh_TW.BIG5 locale in these environments. This requirement applies during installation only. After installation, you can reset the locale to the original locale.

3.1.8 Characters Dropped or Truncated

In locales where the `zh_CN.GB18030` character set is used, input and output operations cause some characters to be dropped or truncated due to a problem in the `sun.io.CharToByteGB18030` converter of the Java Developer Kit (JDK).

To avoid this problem, do not use `zh_CN.GB18030` as the character set for Oracle Internet Directory in your locale. Oracle recommends using the `zh_CN.GBK` or `zh_CN.GB2312` character sets.

3.1.9 Failure of File-Based Farm Repository Configuration Assistant

If you select **Stop**, and then select **Retry** during operation of the File-Based Farm Repository Configuration Assistant in the Oracle Universal Installer, the configuration assistant fails and displays the following message:

```
This instance is already a member of a farm. An Oracle Application Server instance
cannot be moved directly from one farm to another.
```

There is presently no workaround for this issue.

3.1.10 Response Files Created through the Record Mode Are Not Supported

If you want to run the installer with a response file (to perform a silent or non-interactive installation), you cannot use response files created through the `-record` command-line option in the installer, as described in the "Creating Response Files by Using the Record Mode in the Installer" section in the *Oracle Application Server Installation Guide*. Instead, you must use response files that were created from the provided response file templates; you replace the placeholder values in the template files with your own values.

3.1.11 Oracle Database 10g (10.1.0.5) Patch Set

Before you run OracleAS Metadata Repository Creation Assistant on an Oracle Database 10g (10.1.x) database, you must install the Oracle Database 10g (10.1.0.5) Patch Set. This patch is only available on the Oracle Database 10g (10.1.0.5) Patch Set CD in the Oracle Application Server 10g Release 2 (10.1.2.0.2) CD pack.

3.1.12 Non-English Welcome Pages URL Link Pages Incorrectly Coded

Non-English Oracle Internet Directory Welcome pages files have some of the URL links coded incorrectly. The incorrectly coded Welcome pages point to `.html` URL destinations instead of `.htm` URL destinations. You will receive a `Page Not Found` error message if you encounter this issue.

If you encounter this issue, change the URL extension in the address bar of your Web browser to `.htm` instead of `.html`.

3.1.13 Distributed OracleAS Metadata Repository and Oracle Internet Directory on Separate Computers Throws Error

If you have distributed infrastructure environment with an OracleAS Metadata Repository on computer 1, and an Oracle Internet Directory installation on computer

2, the Oracle Internet Directory will not allow registration of the OracleAS Metadata Repository and will throw an error message similar to the following:

```
MR Already registered.
The service name is already registered with the specified
Oracle Internet Directory by the database containing OracleAS Metadata Repository
on computer 2.
To continue with the registration, please remove existing registration in the
Oracle Internet Directory.
```

This problem occurs if both database SIDs are the same.

3.1.14 Welcome Link Coded Incorrectly

In the Forms and Reports Services Welcome pages, the Welcome link at the bottom of the pages is coded incorrectly. Users should use the Welcome tab at the top of the pages for navigation.

3.1.15 OracleAS Metadata Repository Creation Assistant Should Not Allow Loading into Oracle 10.1.0.4 Database

OracleAS Metadata Repository Creation Assistant allows loading into the Oracle 10.1.0.4 database; unfortunately, this should not be allowed by the program. The OracleAS Metadata Repository Creation Assistant program should perform a prerequisite check for this but it does not.

3.1.16 Installing 10.1.2.0.2 Middle Tiers Against an Existing Infrastructure

You can install 10*g* Release 2 (10.1.2.0.2) middle tiers against an existing Infrastructure. Specifically, during the 10.1.2.0.2 middle-tier installation procedure, specify the connection details for the existing 10*g* Release 2 (10.1.2.0.0) Identity Management, and 10.1.2.0.0 or 10*g* (9.0.4) OracleAS Metadata Repository as described in the Oracle Application Server Installation Guide.

The following are supported configurations with the 10.1.2.0.2 middle tier:

- 10.1.2.0.0 Identity Management and 10*g* (9.0.4) OracleAS Metadata Repository
- 10.1.2.0.0 Identity Management and 10.1.2.0.0 OracleAS Metadata Repository
- 10.1.2.0.2 Identity Management and 10.1.2.0.0 OracleAS Metadata Repository

For more information about compatibility issues between 10g Release 2 (10.1.2.0.2) and 10g Release 2 (10.1.2.0.0), see "Understanding Version Compatibility" in *Oracle Application Server Upgrade and Compatibility Guide*.

3.1.17 IBM WebSphere Required Patch Version 6.0.2

If you are using IBM WebSphere Application Server, install the following patch:
http://www-1.ibm.com/support/docview.wss?rs=180&uid=swg24009813

Doing so will help you avoid problems when using Oracle Industrial Telnet Server and (potentially) other products.

3.1.18 ORA-01031: Insufficient Privileges Error Message

After OracleAS Metadata Repository Creation Assistant is loaded, the log file contains the error ORA-01031: "insufficient privileges".

This error occurs during the loading of the OracleAS Syndication product, which is obsolete and is loaded for compatibility purposes. This error can safely be ignored.

3.1.19 Oracle Ultra Search Required (Oracle Database 10*g* Release 2 (10.2.x) only)

If you plan to install the OracleAS Metadata Repository on Oracle Database 10*g* Release 2 (10.2.x), then you must install Oracle Ultra Search on the database.

OracleAS Metadata Repository Creation Assistant checks if your database contains the `WKSYS` and `WKPROXY` schema. If your database does not contain them, OracleAS Metadata Repository Creation Assistant displays the following warning:

```
"The Database does not contain Ultra Search Schemas WKSYS and/or WKPROXY. Please
install them and try again. Refer to the
Database Install Guide and Ultra Search User Guide for more information."
```

If your database does not have Oracle Ultra Search installed, you can install it from the Oracle Database 10*g* Companion CD-ROM. See the *Oracle Database Companion CD Installation Guide* for details.

After installing Oracle Ultra Search, you need to load the schemas onto the database using the Database Configuration Assistant (DBCA). Refer to Oracle *MetaLink* (`https://www.metalink.oracle.com`) Note 337992.1 for loading Ultra Search schemas.

3.1.20 Patch Required Prior to Running the Metadata Repository Creation Assistant on a 10.2 Real Application Cluster Database

You must install ARU patch 7993184 before running the Metadata Repository Creation Assistant on a 10.2 Real Application Cluster Database. If you do not apply the patch, you will receive an error message during Oracle Ultra Search configuration.

To apply the patch:

1. Install the 10.2 Real Application Cluster database.
2. Create the database using the DBCA or during the installation.
3. Stop all Oracle Processes.
4. Install Oracle Ultra Search in the same Oracle home from the companion CD.
5. Apply ARU patch 7993184. Go to Oracle *MetaLink* (`https://www.metalink.oracle.com`) to obtain the ARU patch.
6. Invoke the DBCA to configure Oracle Ultra Search.
7. Run the Metadata Repository Creation Assistant.

3.1.21 Populate DB_DOMAIN Before Running Oracle Metadata Repository Creation Assistant on an Oracle 10.2 Database

The default installation option for Oracle Database 10*g* (Release 2) 10.2 does not populate the `DB_DOMAIN`. The OracleAS Metadata Repository Creation Assistant uses the value of `DB_DOMAIN` to construct the Oracle Application Server farm name as `$SID.$DB_DOMAIN`. You should ensure that the `DB_DOMAIN` is populated in the database with a valid value prior to running OracleAS Metadata Repository Creation Assistant. Failure to do will result in the default farm name of `REGRESS.RDBMS.DEV.US.ORACLE.COM`.

3.1.22 Installer Displays Incorrect Version Number

The installer for the OracleAS Metadata Repository Creation Assistant displays the incorrect version number for the OracleAS Metadata Repository. The installer displays (10.1.2.0.2); the version number displayed should be (10.1.2.0.3).

This issue can be ignored during installation.

3.1.23 JAccelerator (Ncomp) Is Not Installed with OracleAS Metadata Repository 10.1.2.x

You will receive the following error message when you run the `catpatch.sql` script after Oracle Database 10.1.0.5 Patch Set application on OracleAS Metadata Repository 10.1.2.x:

```
"select dbms_java.full_ncomp_enabled from dual
ERROR at line 1: ORA-29558: JAccelerator (NCOMP) not installed. Refer to Install
Guide for instructions. ORA-6512: at "SYS.DBMS_JAVA", line 236."
```

You can ignore this error message. JAccelerator (Ncomp) is not installed with OracleAS Metadata Repository 10.1.2.x.

3.1.24 Installing Oracle Application Server Middle Tier against a Real Application Clusters Database when Some of the Nodes are Down

If you are installing an Oracle Application Server middle tier against a Metadata Repository located on a Real Application Clusters database and some of the nodes of the database are down, you must remove the nodes that are down from the database. Following installation of Oracle Application Server middle tier, these nodes can be added back to the database.

3.1.25 Additional Step Required When Installing OracleAS Web Cache on Multihomed (Multi-IP) Computers

If you specify the secondary hostname using the OUI_HOSTNAME parameter to start up the installer as outlined in the *Oracle Application Server Installation Guide*, and you are installing OracleAS Web Cache, the OPMN configuration assistant gives the following error:

```
The OPMN config assistant fails.
```

The log files located at *ORACLE_HOME*`/opmn/logs/WebCache~WebCacheAdmin~1` and *ORACLE_HOME*`/opmn/logs/WebCache~WebCache~1` contain the following error:

```
No matching CACHE element found in webcache.xml for current hostname
(primary_hostname) and ORACLE_HOME (/u00/product/as1012secondary)
webcache/webcache.xml contains:
      <CACHE NAME="secondary_hostname-WebCache" [...]
           HOSTNAME="secondary_hostname" [...]
```

To correct this error, perform the following steps:

1. Locate the `webcache.xml` file and open the file for editing.
2. Locate the following lines in the `webcache.xml` file:

```
<CACHE NAME="secondary_hostname-WebCache" [...]
    HOSTNAME="secondary_hostname" [...]
```

3. Replace the HOSTNAME of the CACHE element with the primary hostname:

```
<CACHE NAME="secondary_hostname-WebCache" [...]
    HOSTNAME="primary_hostname" [...]
```

3.1.26 Configuring OracleAS Web Cache to Work Within an OracleAS Cold Failover Cluster

Additional configuration steps are required to configure OracleAS Web Cache to work with a OracleAS Cold Failover Cluster.

Perform the following steps to configure OracleAS Web Cache. In these steps, `host1` is the virtual hostname of the active node and `host2` is the virtual hostname of the passive node.

1. Locate and open the `webcache.xml` file.
2. Locate the CACHE element:

```
<CACHE NAME="host1-WebCache" ORACLEHOME="/myoraclehome/oracle"
    HOSTNAME="host1" VOTES="1" CAPACITY="30" >
...
...
</CACHE>
```

3. Add a second CACHE element below the CACHE element you located. Copy and paste the first CACHE element below the first one:

```
<CACHE NAME="host1-WebCache" ORACLEHOME="/myoraclehome/oracle"
    HOSTNAME="host1" VOTES="1" CAPACITY="30" >
...
...
</CACHE>
<CACHE NAME="host1-WebCache" ORACLEHOME="/myoraclehome/oracle"
    HOSTNAME="host1" VOTES="1" CAPACITY="30" >
...
</CACHE>
```

4. Replace the hostname of the second CACHE element with the hostname of the passive node of your cluster:

```
<CACHE NAME="host1-WebCache" ORACLEHOME="/myoraclehome/oracle"
    HOSTNAME="host1" VOTES="1" CAPACITY="30" >
...
...
</CACHE>
<CACHE NAME="host1-WebCache" ORACLEHOME="/myoraclehome/oracle"
    HOSTNAME="host2" VOTES="1" CAPACITY="30" >
...
</CACHE>
```

5. Save the file.
6. Restart OracleAS Web Cache.

3.1.27 Steps to Add Support for New Database Release

Important: Before upgrading the database that hosts your Oracle Application Server Release 2 (10.1.2) Metadata Repository, be sure to verify that the database version is supported. Go to Table 4, "Oracle Application Server Certified Oracle Databases" in the Oracle Application Server Certification Information on OTN:

(http://www.oracle.com/technology/software/products/ias/files/as_certification_r2_101202.html)

To add support for a new database release to either the 10.1.2.0.2 or 10.1.4.0.0 versions of the OracleAS Metadata Repository Upgrade Assistant, complete the following steps:

1. Open the *$ORACLE_HOME*/mrua/mrua.xml in a text editor.

   If you are using the OracleAS Metadata Repository Upgrade Assistant CD ROM you must copy the contents of the CD to a writable directory to perform the edit.

2. Add the following entry to the *$ORACLE_HOME*/mrua/mrua.xml file. (In the following example RDBMS 10.2.0.2 is used):

   ```
   <Version ReleaseNumber="10.2.0.2" DisplayName="OracleAS supported database">
   </Version>
   ```

3. Save the edited *$ORACLE_HOME*/mrua/mrua.xml file and run MRUA.

4. Run the OracleAS Metadata Repository Upgrade Assistant.

3.1.28 Turkish Locale Does Not Display Correctly

When running the Oracle Universal Installer to install Oracle Application Server using the Turkish locale, the Configuration Assistant page will not display properly.

3.1.29 TEMP Tablespace Required for Metadata Repository Creation Assistant

The TEMP tablespace must exist in any database on which you run the Metatdata Repository Creation Assistant. If the TEMP tablespace does not exist, create it before you run the Metadata Repository Creation Assistant.

3.1.30 OPatch Not Supported with OC4J Standalone Installations

You cannot apply a patch to an OC4J standalone installation using OPatch. If you attempt to do so, you will get the following error:

```
None of the patch actions is applicable to the Oracle Home.
OPatch will not apply the patch, exiting...
```

3.1.31 Installing a Middle Tier Against Oracle Identity Management with Multimaster Replication

Oracle Application Server Installation Guide 10g Release 2 (10.1.2) contains a section titled "Installing Middle Tiers Against OracleAS Cluster (Identity Management) Configurations." The following is additional information about installing a middle tier against Oracle Identity Management (OID) with Multimaster Replication (MMR).

- If you have a geographically distributed MMR OID installation, the middle tiers should be installed in each location pointing to the local OID address.
- If MMR is used intrasite with a load balancer, then the middle tiers should be installed against the load balancer front-ending the two OIDs and the customer needs to configure the LDAP load balancer that they are using for OID so that it points to only one OID node. Once the installation is completed, the load balancer can be configured back to the way it was originally.

For more information, refer to Oracle*MetaLink* Note 370433.1 *Master Note: How to Setup and Configure MultiMaster Replication (MMR) with Identity Management (IM) Cluster in High Availability Env*.

3.1.32 Setting Font for Japanese Locale

Before starting Oracle Appliation Server Installation in Japanese Locale, ensure that the X-window envrionment supports jisx0208.1983-1 font.

If the font is not configured correctly, then the characters will appear as square boxes.

3.1.33 Installing on a Machine with a Virtual Hostname or Installing in a Package for High Availability Software

If you are installing OracleAS Infrastructure, and you are installing on a machine that uses a virtual hostname, you can specify the virtual hostname in the installer by selecting the High Availability and Replication option. See the following documentation for detailed installation instructions:

- If you are installing Oracle Identity Management and OracleAS Metadata Repository, see the section titled "OracleAS Cold Failover Cluster (Infrastructure): Details of Installation Steps" in Oracle Application Server Installation Guide 10g Release 2 (10.1.2) for your operating system.
- If you are installing Oracle Identity Management only, see the section titled "OracleAS Cold Failover Cluster (Oracle Identity Management): Details of Installation Steps" in Oracle Application Server Installation Guide 10g Release 2 (10.1.2) for your operating system.

3.1.34 Additional Kernel Parameter Settings

The additional kernel parameters settings required for the oracle user are as follows:

```
max_proc_per_user = 2408
max_threads_per_user = 8192
```

3.2 Oracle Application Server Companion CD 10g (10.1.2.0.2)

This section describes information pertaining to the Oracle Application Server Companion CD 10g (10.1.2.0.2). It includes the following topics:

3.2.1 System Requirements for Oracle Application Server Companion CD 10g

Table 3–1 lists the system requirements for the products on the Oracle Application Server Companion CD 10g (10.1.2.0.2):

Table 3–1 System Requirements

Product	Required Disk Space	Required Memory
Oracle Application Server Containers for J2EE	72 MB	512 MB
Oracle Application Server TopLink	258 MB	192 MB
Oracle Sensor Edge Server	284 MB	512 MB
Oracle HTTP Server with Apache 1.3	1.3 GB	512 MB
Oracle HTTP Server with Apache 2.0	1.29 GB	512 MB
OracleAS Web Cache	1.23 GB	512 MB

For operating system and hardware requirements, go to:

https://metalink.oracle.com.

3.2.2 Oracle Sensor Edge Server Administrator's Guide

The *Oracle Sensor Edge Server Administrator's Guide* (Part No. B14455-02) in the Oracle Application Server 10g Release 2 (10.1.2) documentation library is available on OTN (http://www.oracle.com/technology/products).

3.3 Upgrade Issues

This section describes issues with the upgrade of Oracle Application Server. It includes the following topics:

3.3.1 WWU-01012 Error During Portal Repository Upgrade

If your OracleAS Portal repository is configured in an Oracle Real Application Clusters (RAC) database, then your Portal repository upgrade to 10*g* Release 2 (10.1.2) can sometimes fail and the following error message will appear in the upgrade error log:

```
ERROR: WWU-01012: Upgrade completed with the following errors
###        177 : ERROR at line 1:
###        178 : ORA-38301: can not perform DDL/DML over objects in Recycle Bin
```

How To Work Around this Problem

If you receive this error, you can workaround the problem, as follows:

1. Connect to the database from SQL*Plus as the SYS user.
2. Run the following command:

   ```
   purge recyclebin;
   ```

3. Perform the upgrade again.

How To Avoid this Problem Before an Upgrade

To avoid this issue before you begin an upgrade of the Portal repository when it is stored in a RAC database:

1. Connect to the database from SQL*Plus as the SYS users.
2. Enter the following query:

   ```
   SELECT object_name, original_name, type, droptime FROM user_recyclebin;
   ```

   If the query returns '`no rows selected`', then no additional action is required.

   If the query returns any rows, then purge the recycle bin by running following SQL statement after connecting to Database from sqlplus as SYS:

   ```
   purge recyclebin;"
   ```

3. Perform the Portal repository upgrade as directed.

3.3.2 Login Link Inoperable

After you perform an upgrade of Oracle Application Server 10*g* from version 9.0.4 to version 10.1.2, the Oracle Enterprise Manager 10*g* login link on the welcome page no longer works. During installation, the port number specified for Oracle Enterprise Manager 10*g* for version 9.0.4 installation is not updated in the version 10.1.2 welcome pages.

There is presently no workaround for this issue.

3.3.3 Remaining OracleAS Infrastructure Instance in Farm

After you complete an upgrade of OracleAS Infrastructure in an OracleAS Farm, the pre-upgrade instance of the infrastructure still remains in the farm. Specifically, the pre-upgrade instance continues to show up on the Farm page in the Application Server Control Console. There is currently no way to remove the pre-upgrade instance. The remaining instance will not cause any operational problems with the upgraded infrastructure.

3.3.4 Problem Running the mod_osso Configuration Assistant When Upgrading an Oracle Internet Directory in a Partial Replication Environment

When you are upgrading Identity Management in an environment in which Oracle Internet Directory partial replication is used, a problem while running the upgrade with Oracle Universal Installer: the `mod_osso` Configuration Assistant may fail at the end of upgrade.

If this problem occurs, do not exit Oracle Universal Installer. Instead, leave the program running and perform the following workaround in a separate window:

1. Using a text editor, open the following file in the Oracle home of the replica you are upgrading:

   ORACLE_HOME`/config/infratool_mod_osso.properties`

2. Modify the contents of the file so it reads as follows:

   ```
   DCMRESYNC=oracle.ias.configtool.configimpl.DcmResync$0
   JAZN=oracle.security.jazn.util.JAZNConfigTool$0
   HTTPD=oracle.ias.configtool.configimpl.HttpdSsoConfig$0
   MODOSSO=oracle.ias.configtool.configimpl.SsoConfig$0
   ```

3. Save and close the `infratool_mod_osso.properties` file.
4. Return to Oracle Universal Installer and try to run the configuration assistant again.

3.3.5 Problems or Issues While Upgrading Specific Components

If you experience problems or issues while upgrading a particular application server component, refer to the component chapter in these release notes for more information.

For example, if you experience problems while upgrading Oracle Ultra Search, refer to Chapter 11, "Oracle Ultra Search".

3.3.6 Configuring OracleAS Portal After Upgrade

If OracleAS Portal is not configured in the source oracle home, it remains unconfigured after the upgrade to 10g Release 2 (10.1.2).

Note that you can choose to configure the OracleAS Portal after upgrading the middle tier or at the end of the entire upgrade process, after upgrading the OracleAS Metadata Repository.

To configure the Portal post upgrade, do following:

1. Modify the port entries in the following file:

   DESTINATION_ORACLE_HOME`/assistants/opca/ptlem.sh`

   Update the following port values in the `ptlem.sh` file with the corresponding source port values, as follows:

   - `http_port`, which is the Oracle HTTP Server port
   - `wc_invalid`, which is the Web Cache Invalidation port
   - `wc_admin`, which is the Web Cache Administration port
   - `em_port`, which is the Application Server Control port

You can obtain all these port values, except `http_port`, from Ports page in the Application Server Control Console.

To obtain the http_port value, check the contents of the following configuration file:

DESTINATION_ORACLE_HOME/Apache/Apache/conf/httpd.conf

2. Use the Application Server Control Console to configure the OracleAS Portal component.

   See Also: " Configuring Additional Components" in the Application Server Control online help

3. Run `ptlconfig` command to associate the OracleAS Portal repository with the upgraded middle tier, as follows:

   DESTINATION_ORACLE_HOME/portal/conf/ptlconfig -dad *portal_dad*

   Refer to the Oracle Application Server Portal Configuration Guide for more information about the iasconfig.xml and the ptlconfig tool.

If you have already configured OracleAS Portal using the Application Server Control Console, without updating the ports in the ptlem.bat file, then you must also perform the following task:

If you have already configured OracleAS Portal using the Application Server Control Console, without updating the ports in the `ptlem.sh` file, then you must also perform the following task:

1. Modify the port entries in the ptlem configuration file, as described previously in this section.
2. Backup the following Oracle Enterprise Manager configuration file:

   DESTINATION_ORACLE_HOME/sysman/emd/targets.xml

3. Remove the entry for the OracleAS Portal target you are about to reconfigure.

   You must review the entire entry that defines the OracleAS Portal target, starting with the `<Target TYPE="oracle_portal">` tag and ending with the `</Target> tag`.

   For example:

```
 <Target TYPE="oracle_portal"
         .
         .
         .
</Target>
```

   Before removing target entry for this portal, make sure that this target contains property `<Property NAME="portal_DAD" VALUE="portal"/>` and that its `OracleHome` property matches the destination middle tier Oracle home.

4. Save the `targets.xml` file.
5. Set the *ORACLE_HOME* environment variable to the destination Oracle home.
6. Run the `ptlem` script as follows:

   DESTINATION_ORACLE_HOME/assistants/opca/ptlem.sh

7. Check the log file for any errors:

```
DESTINATION_ORACLE_HOME/assistants/opca/install.log
```

8. Update the following OracleAS Portal configuration file with new port values for the `WebCacheComponent` and `EMComponent` elements:

   ```
   DESTINATION_ORACLE_HOME/portal/conf/iasconfig.xml
   ```

   You can obtain the required port numbers from the Ports page in the Application Server Control Console.

9. Run the `ptlconfig` command to associate the OracleAS Portal repository with the upgraded middle tier, as follows:

   ```
   DESTINATION_ORACLE_HOME/portal/conf/ptlconfig -dad portal_dad
      [-pw <portal schema password>]
   ```

10. Bounce `HTTP_Server` and `OC4J_Portal` from the Application Server Control Console.

Refer to the *Oracle Application Server Portal Configuration Guide* for more information about the `iasconfig.xml` configuration file and the `ptlconfig` tool.

3.3.7 Upgrading from Oracle Application Server 9.0.4 to 10*g* Release 2 (10.1.2) May Overwrite Custom Ordering of Categories in Oracle Delegated Administration Services

Upgrading Oracle Application Server from 9.0.4 to 10*g* Release 2 (10.1.2) may overwrite any customized ordering of categories that you have configured for Oracle Delegated Administration Services. If this occurs, you must use the Order Category window in the Oracle Internet Directory Self-Service Console to reorder your category list following the upgrade process.

3.3.8 During Upgrade, The Parameters Names Defined in formsweb.cfg are Considered Case-sensitive

If you have specified a user-defined configuration file using the `envFile` parameter in one of the application sections of `formsweb.cfg`, you must make sure that the case used to specify the parameter envFile must be the same case as described in the default application section of the file.

Otherwise, the user-defined configuration files will not be found or upgraded by the middle-tier OracleAS Upgrade Assistant.

3.3.9 Identity Management Not Starting Following Upgrade of Seed Database

A seed database is a database that was originally installed and configured automatically by the Oracle Application Server installation procedure. In most cases, there is no need to manually upgrade a seed database, except as part of an overall upgrade of the OracleAS Infrastructure components. The upgrade of the OracleAS Infrastructure components is documented in the *Oracle Application Server Upgrade and Compatibility Guide*.

However, it is possible to manually upgrade an Oracle Application Server seed database to a newer database version without upgrading your Oracle Application Server environment. When you finish upgrading the database, it is no longer referred a seed database; instead, it is sometimes referred to as a "customer" database. As a result, this manual upgrade procedure is sometimes referred to as the "seed-to-customer" database upgrade procedure.

Note that If you upgrade your seed database to Oracle Database 10g (10.1.0.4.2), the Distributed Configuration Management (DCM) daemon in the Oracle Application Server Identity Management instance may not start. This is due to an Oracle Notification Server (ONS) port conflict between the Identity Management instance and the upgrade 10g customer database. The ONS port of the Identity Management instance is already in use by the upgraded 10g database.

To work around this issue, update the local port file element in the following configuration file to a non-conflicting port value:

DATABASE_HOME\opmn\conf\ons.config

3.3.10 ORACLE_HOME Value Not Replaced In *workingDirectory* In formsweb.cfg

The OracleAS Upgrade Assistant does not replace any references to the *source ORACLE_HOME* with the *desination ORACLE_HOME* in the `workingDirectory` parameter in `formsweb.cfg`.

As a workaround, after running the OracleAS Upgrade Assistant, replace the references to the source *ORACLE_HOME* with the location of the destination *ORACLE_HOME* for the `workingDirectory` parameter in `formsweb.cfg`.

3.3.11 OracleAS Wireless Providers May Not Work After Upgrade

If you have configured geocoding, mapping, or routing providers for Oracle9*i* Application Server 9.0.2.x, these location-based services for OracleAS Wireless may not work after an upgrade to Oracle Application Server 10*g* Release 2 (10.1.2).

After the upgrade, you must manually remove all geocoding, mapping, and routing providers using the Application Server Control Console. Specifically, you can manage location-based services by using the **Location Services** link in the Component Configuration section of the Site Administration page, which is available from the OracleAS Wireless Home page in the Application Server Control Console.

For more information about location-based services for OracleAS Wireless, refer to Location Based Services for OracleAS Wireless on OTN at:

http://www.oracle.com/technology/products

3.3.12 New ODS Password After Oracle Identity Management Upgrade

The ODS password is required when you perform certain Oracle Internet Directory administration tasks, such as when you have to unlock a user account or configure security for the directory.

After you upgrade Oracle Identity Management to 10g Release 2 (10.1.2), the ODS password in the upgraded, destination Oracle home will no longer be the same as it was in the source Oracle home. Instead, the ODS password in the destination Oracle home is the same as the `ias_admin` password you provided for the new Oracle Application Server 10g Release 2 (10.1.2) instance during the upgrade procedure.

3.4 Documentation Errata

The section describes documentation errata in installation and upgrade documentation. It includes the following topics:

- Section 3.4.1, "Additional Information About Changing the SYS Password"
- Section 3.4.2, "Ultra Search Prerequisite Information Missing in Oracle Application Server Metadata Repository Creation Assistant User's Guide"

3.4.1 Additional Information About Changing the SYS Password

The *Oracle Application Server Metadata Repository Creation Assistant User's Guide* contains the following note:

"The value that you specify for password parameter sets the password for the SYS user. If you specify a different value from the current SYS password, you are changing the SYS password."

This note should be changed to:

"This value that you specify for password parameter sets the password for the SYS user. If you issue the ALTER USER statement to change the password for SYS after connecting to the database, both the password stored in the data dictionary and the password stored in the password file are updated. This parameter is mandatory."

The updated text matches the text in the *Oracle Database Administrator's Guide*.

3.4.2 Ultra Search Prerequisite Information Missing in Oracle Application Server Metadata Repository Creation Assistant User's Guide

In the *Oracle Application Server Metadata Repository Creation Assistant User's Guide*, Ultra Search is not listed as a prerequisite for Oracle Database 9.2.

This is incorrect; the Ultra Search must be configured in Oracle Database 9.2 before OracleAS Metadata Repository Creation Assistant can be run.

3.4.3 Additional Clarification for "compatible" Parameter in Oracle Application Server Metadata Repository Creation Assistant User's Guide

In the *Oracle Application Server Metadata Repository Creation Assistant User's Guide*, additional clarification is required for the `compatible` initialization parameter in (Table 1-7):

The `compatible` parameter must be specified using at least 4 decimal places. For example, "9.2.0.0" and "9.2.0.0.0" are both acceptable, but "9.2.0" is not acceptable.

3.4.4 Additional Steps for OracleAS Single Sign-On HA Configuration

Additional steps are required after OracleAS Infrastructure is installed with the OracleAS Cluster (Identity Management) option for OracleAS Single Sign-On. For more information refer to Chapter 23, "Oracle Application Server Single Sign-On".

3.4.5 Incorrect File Extensions in Installed Documentation

Documentation that is installed with Oracle Application Server 10*g* does not use standard file extensions to indicate the applicable language. For example, Chinese files (along with any other file that has an underscore in the extension) are not picked up.

To workaround this issue, change the following file extensions in the *ORACLE_HOME*`/ohs/htdocs` directory and all *ORACLE_HOME*`/ohs/htdocs` subdirectories:

- `zh_CN -> zh-CN`
- `pt_BR -> pt-BR`
- `es_ES -> es-ES`
- `fr_CA -> fr-CA`
- `zh_TW -> zh-TW`

3.4.6 Incorrect Path for OracleAS Upgrade Assistant Log File

Due to a typographical error, the *Oracle Application Server Quick Upgrade Guide* incorrectly identifies the path to the OracleAS Upgrade Assistant log file. The error occurs in the section on troubleshooting the middle-tier upgrade procedure.

The actual location of the OracleAS Upgrade Assistant log file is:

DESTINATION_ORACLE_HOME`/upgrade/log/iasua.log`

3.4.7 Incorrect Version Number on Forms and Reports CD-ROM

The upgrade.txt file on the Forms and Reports Services installation CD-ROM summarizes how you can upgrade to the Oracle Application Server 10*g* Release 2 (10.1.2.0.2) Forms and Reports Services installation type.

However, the version number included in that file is incorrect. All references to version 10.1.2.0.1 in that file should in fact be references to version 10.1.2.0.2.

3.4.8 Incorrect Copyright Information

The copyright date in the **Copyright Information** help topic incorrectly shows the copyright date range. The date range should be: **Copyright © 1996-2005, Oracle. All rights reserved.**

The link at the bottom of most of the help topics does indicate the proper trademark date range; it's only the copyright information topic itself that contains the incorrect copyright date range.

3.4.9 Incorrect Media Reference in Oracle Application Server Installation Guide

In the *Oracle Application Server Installation Guide* there are two incorrect references to installation media.

- OracleAS Guard can be installed as a standalone install kit located on OracleAS Utility media #2.

  should be:

  OracleAS Guard can be installed as a standalone install kit located on OracleAS Companion CD #2.

- OracleAS 10g (10.1.2.0.2) standalone install of OracleAS Guard is located on Utilities Disk 2.

  should be:

  OracleAS 10g (10.1.2.0.2) standalone install of OracleAS Guard is located on Companion CD Disk 2.

3.4.10 Invalid Instruction to Apply Database Patch

In Section1.5.2.2, "Oracle9*i* Release 2 (9.2.0.6) Real Application Clusters Databases" in *Oracle Application Server Metadata Repository Creation Assistant User's Guide 10g Release 2 (10.1.2) for UNIX*, the following information is displayed:

```
"If you are running a Release 2 (9.2.0.6) database in a Real Application Clusters
environment, you need to apply patch 3047933 (ARU 6662789) before you can load the
OracleAS Metadata Repository on your database."
```

This information is incorrect. There is no patch application required.

3.4.11 Oracle Developer Suite 10.1.2.0.2 Is Not Available with This Release

Although there are references to Oracle Developer Suite 10.1.2.0.2 in the documentation, note that Oracle Developer Suite 10.1.2.0.2 is not available with this release.

3.4.12 Incorrect OID Port for Silent Installations

In *Oracle Application Server Installation Guide*, the OID port used during a silent installation is mentioned as port 389. However, port 389 is a privileged port and requires root access. In a silent installation, root access is not granted until the installation is over. Therefore, if you use port 389, then the following occurs:

```
OID not able to startup
```

To avoid this error, do not use the OID port number mentioned in the silent installation example of the installation guide. A commonly used default non-SSL port selected by OUI for OID is 3060. For SSL, this port is 3131. However, in the response file, you only need to specify the non-SSL port.

3.4.13 Incorrect Response File Parameter Value

In Appendix B, "Silent Installation" of the *Oracle Application Server Metadata Repository Creation Assistant User's Guide*, section B.2.2.1.1, "Example Response File for Loading OracleAS Metadata Repository in a Database that Uses a File System", under the `[ADVANCED]` section the following requirement is shown:

```
SYSTEM_UNDO_TABLESPACE_REQUIREMENT_MET =false
```

the requirement should be:

```
SYSTEM_UNDO_TABLESPACE_REQUIREMENT_MET =true
```

3.4.14 Incorrect Environmental Variable Recommendation

Section 4.8.3, "Installing on Computers with Multiple Aliases" of the Oracle Application Server Installation Guide incorrectly recommends to use the *ORACLE_HOSTNAME* variable. If you use the environment variable *ORACLE_HOSTNAME* as indicated in the Oracle Application Server Installation Guide, Oracle Universal Installer will exit while copying files. Attempts to use other measures during installation, (for example, loopback adapter) will also fail. Before installing Oracle Application Server on the referenced configuration, set the *OUI_HOSTNAME* environment variable to the computer whose hostname you want to use.

3.4.15 Incorrect Directory Location

Section 4.2.2, "Installing from the Console or X Windows" of *Oracle Application Server Installation Guide* incorrectly specifies the file directory path as

```
/etc/pamd.d/xdm
```

It should be `/etc/pam.d/xdm`.

3.4.16 Invalid Limitation on Installing Oracle Application Server in an OracleAS Disaster Recovery Environment

Section 13.3.1, "Installing the OracleAS Infrastructure" in the Oracle Application Server Installation Guide reads:

"You must install the Oracle Identity Management and the OracleAS Metadata Repository components of OracleAS Infrastructure on the same node. You cannot distribute the components over multiple nodes."

This limitation is not true.

3.4.17 Incorrect Symbolic Link Creation Command

In the section 5.6, "Can I use symbolic links?" the commands for creating the symbolic link is incorrect. The correct command is:

```
mkdir /home/basedir
ln -s /home/basedir /home/linkdir
```

3.4.18 Incomplete Description of NUMBER Column in Oracle Application Server Upgrade and Compatibility Guide

Section 4.6.4.6.2, "CTS Compatibility and JDBC," in the *Oracle Application Server Upgrade and Compatibility Guide* provides information about CTS compatibility mode and Oracle JDBC. The information about the Oracle JDBC NUMBER type in this section is incomplete.

For the latest information concerning Oracle JDBC floating-poing compliance, see "IEEE 754 Floating Point Compliance" in the "Oracle JDBC Notes and Limitations" section of the *Oracle Database JDBC Developer's Guide and Reference*, which is part of the Oracle Database documentation library on the Oracle Technology Network (OTN):

`http://www.oracle.com/technology/documentation/index.html`

3.4.19 OracleAS Cluster (Identity Management) Installed Language

This is a correction to the *Oracle Application Server Installation Guide*, Section 12.5.4, Installing on High Availability Environments: OracleAS Cluster (Identity Management).

When installing OracleAS Cluster (Identity Management) on subsequent nodes:

1. Select an identical set of languages during the installation as for the first node.
2. Do not disable any languages installed for the first node before installing all of the required subsequent nodes. Disabling languages can result in failure of the Single Sign On Configuration Assistant.

3.4.20 Error in Oracle Application Server Metadata Repository Creation Assistant User Guide

In table I-9, "Schemas and Tablespaces" of the *Oracle Application Server Metadata Repository Creation Assistant User's Guide*, the row that starts with Oracle Enterprise Manager 10g is an error and should be ignored.

3.4.21 Incorrect Patch Information

In *Oracle Application Server Installation Guide for hp Tru64 UNIX*, the Patch Kit requirements are given as follows:

- `Tru64 UNIX V5.1B Patch Kit 2 (T64V51BB22AS0002-20030415)` or later
- `T64KIT0020879-V51BB22-E-20031125`
- `T64KIT0019662-V51BB22-E-20030818`
- `T64KIT0021665-V51BB22-E-20040220`
- `T64KIT0021681-V51BB22-E-20040223`

In addition to these patches, you must install the following patches to complete the installation:

- On top of Patch Kit 2 : `T64KIT0024070-V51BB22-20041027`
- On top of Patch Kit 3 : `T64KIT0023582-V51BB24-E-20040913`
- On top of Patch Kit 4 : `T64KIT0023584-V51BB25-E-20040913`
- On top of Patch Kit 5 : None

Note: Oracle Universal Installer checks for Patch Kit 5 as a minimum requirement. Therefore, it is recommended that you install Patch Kit 5.

3.4.22 Information About ADF Configuration Assistant Missing

Table A-1, "Forms and Reports Configuration Assistants" of *Oracle Application Server Forms and Reports Services Installation Guide* does not include the information about ADF configuration assistant.

For more information on the log file location and description, refer to the second table "Oracle Application Server Configuration Assistants" in the appendix chapter "Configuration Assistants" of *Oracle Application Server Installation Guide*.

3.4.23 Incorrect Shell Limit Settings

Section 4.4.1, "Kernel Parameter Settings for OracleAS Web Cache" and Section 4.5, "Set Shell Limits for the oracle User" of *Oracle Application Server Installation Guide for hp Tru64 UNIX* incorrectly states that the shell limit of `nofile` parameter must be set to `65536`. However, you must set the shell limit of `nofile` parameter to `4096`.

Section 4.5, "Set Shell Limits for the oracle User" also states that you must set the shell limit of the `noproc` parameter. However, the `noproc` parameter is not supported on hp Tru64 UNIX platform.

4

General Management and Security Issues

This chapter describes management and security issues associated with Oracle Application Server. It includes the following topics:

4.1 General Issues and Workaround

This section describes general management and security issues. It includes the following topic:

4.1.1 Restoring OracleAS Portal Configuration Files

In order to restore OracleAS Portal configuration files, do the following:

1. Use the following commands to restore the instance:

   ```
   bkp_restore.sh -m backup_instance_online
   bkp_restore.sh -m restore_instance -t time_stamp
   ```

   In the preceding command, *time_stamp* is the time stamp on the backup that you are using for the restore procedure.

2. Use the following command to restore the configuration files:

   ```
   bkp_restore.sh -m restore_config -t time_stamp -F noDCM
   ```

In the preceding command, *time_stamp* is the time stamp on the backup that you are using for the restore procedure. This should be the same time stamp as the one used in step 1.

4.1.2 Set the PERL5LIB Environment Variable

Before running the bkp_restore.pl script on an Oracle Application Server Metadata Repository Creation Assistant database, set the PERL5LIB environment variable to the path of the Oracle Application Server Metadata Repository Creation Assistant database Perl directory.

4.1.3 Flash Recovery Area Outside of the Oracle Home will not be Recreated during LOHA

If the flash recovery area is outside of the Oracle home of an infrastructure metadata repository installation, then the directory will not be recreated during an Loss of Host Automation (LOHA) recovery. To avoid this issue, save the information when taking the Oracle home image backup on the original host, then make the directory available on the new host with the same read/write permissions as the original host.

4.1.4 Error Message when Backing Up Database

An error message similar to the following may be displayed when backing up a database that does not have an OracleAS Portal application registered:

```
perl bkp_restore.pl -m backup_cold_incr
Performing cold incremental backup ...
Checking for portal registration ...
Error encountered while querying database for portal registration !!!
See
/private/iasinst/work/db300/backup_restore/logs/2007-05-24_16-03-29_portal.tmp
for more info.
Incremental cold database backup completed successfully !!!
```

This message can be ignored.

4.1.5 Error Message When Executing opmnctl Commands

When you execute either an `opmnctl stopall` or `opmnctl startall` command, the oidctl log file contains the following error message:

```
*** Instance Number already in use. ***
*** Please try a different Instance number. ***
```

This error message can be safely ignored.

This error message occurs in Oracle Application Server Infrastructure installations with Oracle Internet Directory.

4.2 Starting and Stopping Release 10.1.2.0.0

The *Oracle Application Server Administrator's Guide* Release 10.1.2 describes how to start and stop instances using the `runstartupconsole` command. However, this command is not available in releases earlier than Release 10.1.2.0.2. The following sections describe how to start and stop with Release 10.1.2.0.0:

- Section 4.2.1, "Starting OracleAS Infrastructure"

- Section 4.2.2, "Stopping OracleAS Infrastructure"
- Section 4.2.3, "Starting a Middle-Tier Instance"
- Section 4.2.4, "Stopping a Middle-Tier Instance"

4.2.1 Starting OracleAS Infrastructure

To start all processes in a Release 10.1.2.0.0 OracleAS Infrastructure, follow the procedure in this section. This procedure applies to all OracleAS Infrastructure types:

- Oracle Identity Management and OracleAS Metadata Repository: Follow both steps to start Oracle Identity Management and OracleAS Metadata Repository.
- OracleAS Metadata Repository only: Follow only Step 1 to start OracleAS Metadata Repository. You do not need to perform the second step of starting Oracle Identity Management because you do not need OPMN or the Application Server Control Console in a OracleAS Metadata Repository-only installation.
- Oracle Identity Management only: Follow only Step 2 to start Oracle Identity Management. Make sure the OracleAS Metadata Repository that supports Oracle Identity Management (residing in another Oracle home) is already started.

To start OracleAS Infrastructure:

1. If your OracleAS Infrastructure contains OracleAS Metadata Repository, start it as follows:
   a. Set the *ORACLE_HOME* environment variable to the OracleAS Infrastructure Oracle home.
   b. Set the *ORACLE_SID* environment variable to the OracleAS Metadata Repository SID (default is `orcl`).
   c. Start the Net Listener:

      ```
      ORACLE_HOME/bin/lsnrctl start
      ```

   d. Start the OracleAS Metadata Repository instance:

      ```
      ORACLE_HOME/bin/sqlplus /nolog
      SQL> connect SYS as SYSDBA
      SQL> startup
      SQL> quit
      ```

   e. Start the Oracle Enterprise Manager 10*g* Database Control:

      ```
      ORACLE_HOME/bin/emctl start dbconsole
      ```

2. If your OracleAS Infrastructure contains Oracle Identity Management, start it as follows:
   a. Start components:

      ```
      ORACLE_HOME/opmn/bin/opmnctl startall
      ```

      This command starts OPMN and all OPMN-managed processes such as DCM, Oracle HTTP Server, OC4J instances, and Oracle Internet Directory.
   b. Start the Application Server Control Console:

      ```
      ORACLE_HOME/bin/emctl start iasconsole
      ```

4.2.2 Stopping OracleAS Infrastructure

To stop all processes in a Release 10.1.2.0.0 OracleAS Infrastructure, follow the procedure in this section. This procedure applies to all OracleAS Infrastructure types:

- Oracle Identity Management and OracleAS Metadata Repository: Follow both steps to stop Oracle Identity Management and OracleAS Metadata Repository.
- OracleAS Metadata Repository only: Follow only step 2 to stop OracleAS Metadata Repository.
- Oracle Identity Management only: Follow only step 1 to stop Oracle Identity Management.

To stop OracleAS Infrastructure:

1. If your OracleAS Infrastructure contains Oracle Identity Management, stop it as follows:
   a. Stop the Application Server Control Console:

      ```
      ORACLE_HOME/bin/emctl stop iasconsole
      ```

   b. Stop components:

      ```
      ORACLE_HOME/opmn/bin/opmnctl stopall
      ```

      This command stops OPMN and all OPMN-managed processes such as DCM, Oracle HTTP Server, OC4J instances, and Oracle Internet Directory.
2. If your OracleAS Infrastructure contains OracleAS Metadata Repository, stop it as follows:
   a. Set the `ORACLE_HOME` environment variable to the OracleAS Infrastructure Oracle home.
   b. Set the `ORACLE_SID` environment variable is set to the OracleAS Metadata Repository SID (default is `orcl`).
   c. Stop the OracleAS Metadata Repository instance:

      ```
      ORACLE_HOME/bin/sqlplus /nolog
      SQL> connect SYS as SYSDBA
      SQL> shutdown
      SQL> quit
      ```

   d. Stop the Net Listener:

      ```
      ORACLE_HOME/bin/lsnrctl stop
      ```

   e. Stop the Oracle Enterprise Manager 10*g* Database Control:

      ```
      ORACLE_HOME/bin/emctl stop dbconsole
      ```

4.2.3 Starting a Middle-Tier Instance

To start all processes in a Release 10.1.2.0.0 middle-tier instance, follow the procedure in this section. This procedure applies to all middle-tier instance types.

To start a middle-tier instance:

1. If the middle-tier instance uses OracleAS Infrastructure services, such as Oracle Identity Management or OracleAS Metadata Repository, make sure they are started.
2. Start components:

```
ORACLE_HOME/opmn/bin/opmnctl startall
```

This command starts OPMN and all OPMN-managed processes such as DCM, Oracle HTTP Server, OC4J instances, and OracleAS Web Cache, Forms, and Reports.

3. Start the Application Server Control Console:

```
ORACLE_HOME/bin/emctl start iasconsole
```

4.2.4 Stopping a Middle-Tier Instance

To start all processes in a Release 10.1.2.0.0 middle-tier instance, follow the procedure in this section. This procedure applies to all middle-tier instance types.

To stop a middle-tier instance:

1. Stop the Application Server Control Console:

```
ORACLE_HOME/bin/emctl stop iasconsole
```

2. Stop components:

```
ORACLE_HOME/opmn/bin/opmnctl stopall
```

This command stops OPMN and all OPMN-managed processes such as DCM, Oracle HTTP Server, OC4J instances, and OracleAS Web Cache, Forms, and Reports.

4.3 Port Change Issues

This section describes issues related to port changes. It includes the following topic:

- Section 4.3.1, "Additional Step Needed After Changing Oracle HTTP Server Listen Port"

4.3.1 Additional Step Needed After Changing Oracle HTTP Server Listen Port

After you change the Oracle HTTP Server Listen Port, you should update `portlist.ini` with the new port number. This will avoid potential problems if you later associate the middle tier with an OracleAS Infrastructure or change the OracleAS Infrastructure associated with the middle tier. The `portlist.ini` file is located in the following directory:

```
ORACLE_HOME/install
```

4.4 Cloning Issues

This section describes issues related to cloning Oracle Application Server instances. It includes the following topics:

- Section 4.4.1, "Considerations for Cloning Oracle Ultra Search"
- Section 4.4.2, "Considerations for Cloning OracleAS Forms and Reports Services"

4.4.1 Considerations for Cloning Oracle Ultra Search

When you clone an OracleAS Portal instance that has SSL enabled, the Ultra Search Administration link on the Services portlet and Application Server Control Console page point to the URLs for the source instance, not the cloned instance.

To work around this problem, edit the following file and update the PortalListeningHostPort property with the correct port number:

Oracle_Home/sysman/emd/targets.xml

The port number can be found in the following file:

Oracle_Home/install/portlist.ini

4.4.2 Considerations for Cloning OracleAS Forms and Reports Services

The following describes important information about cloning OracleAS Forms and Reports Services (installed from a separate CD):

- If you clone OracleAS Forms and Reports Services and then associate it with an OracleAS Infrastructure, the cloned instance is not part of a farm. To make the instance part of a farm, use the following command in the cloned Oracle home:

  ```
  dcmctl joinfarm
  ```

Information about cloning OracleAS Forms and Reports Services in the Oracle Application Server Administrator's Guide is not entirely correct. The section "Considerations for Cloning OracleAS Forms and Reports Services" states:

- "Before you run the `prepare_clone.pl script`, you must update the `ias.properties` file in the source Oracle home, changing the value of `DatabaseManagedClusterSupport` from false to true, as shown in the following example:

  `DatabaseManagedClusterSupport=true`"

- This information is correct only if OracleAS Forms and Reports Services is associated with a Metadata Repository.

  If OracleAS Forms and Reports Services is not associated with a Metadata Repository, the value of `DatabaseManagedClusterSupport` should be false.

4.5 Deployment Issues

This section describes other management issues. It includes the following topics:

4.5.1 Use Trusted Certificates When Enabling SSL Between mod_oc4j and OC4J

You must use trusted certificates on both ends when enabling SSL between mod_oc4j and OC4J.

Otherwise, you will get the following error when accessing the HTTPS port:

```
500 Internal Server Error
```

4.5.2 Benign Decoding Errors When Running ldapaddmt

Chapter 11, "Changing from a Test to a Production Environment," in *Oracle Application Server Administrator's Guide* contains steps for migrating Oracle Internet Directory data to a production environment.

These steps include running the `ldapaddmt` command, and examining the `add.log` file. The `add.log` file may contain a `'Decoding Error'` message. This is benign and can be ignored.

4.5.3 Missing Files During restore_config Operation

Running `restore_config` may result in missing files messages such as:

```
Could not copy file /OracleAS/Devkit_1129/testdir/ to
/OracleAS/Devkit_1129/backup_restore/cfg_bkp/2004-12-01_03-26-22.
```

During a `restore_config` operation, a temporary configuration backup is taken so that, if the restore fails, the temporary backup can be restored returning the instance to the same state as before the restore.If some files are deleted (including files/directories specified in config_misc_files.inp) before a restore operation, then, during the temporary backup, messages are displayed indicating that certain files are missing. These error/warning messages should be ignored since the missing files are restored as part of the `restore_config` operation.

4.5.4 Performance Improvement on Multiple Processors Systems

If you have installed Oracle Application Server on a system with multiple processors, you may see a performance benefit from enabling parallel garbage collection by adding `-XX:+UseParallelGC` to the `jvm` options. Refer to the following Web site for more information:

(`http://java.sun.com/developer/technicalArticles/Programming/turbo/index.html`)

4.6 Documentation Errata

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

4.6.1 Errors in the *Distributed Configuration Management Administrator's Guide*

The *Distributed Configuration Management Administrator's Guide* contains the following documentation errors:

- In the "Tips:" listing in Section 2.2.6, "Removing an Oracle Application Server Instance From a DCM-Managed OracleAS Cluster":

  "See leaveCluster for instructions on removing a DCM-Managed OracleAS Cluster from an Oracle Application Server Instance ..."

  should be:

  "See leaveCluster for instructions on removing an Oracle Application Server Instance from a DCM-Managed OracleAS Cluster..."

- In the "Important:" listing and the paragraph before step1 in section 2.2.11.3, "Setting Up Keystore Information File on Each Instance in the OracleAS File-based Farm":

  "repository host instance OracleAS File-Based Farm"

  should be:

  "repository host instance for OracleAS File-Based Farm (or repository host instance of OracleAS File-Based Farm) "

- In the paragraph before the "Tip:" listing in section 2.3.2, "Deleting an OC4J Instance":

  "`nameOfOC4JInstance` is the identifier for the new OC4J instance"

  should be:

  "`nameOfOC4JInstance` is the identifier for the OC4J instance you want to delete"

- In the paragraph before the "Note:"listing in Section 2.4.1, "Log File Location and Naming":

  "the `log.xml` file is renamed to `log1-N.xml`, and a new `log.xml` file is created."

  should be:

  "the `log.xml` file is renamed to `logN+1.xml`, and a new `log.xml` file is created."

- In the first paragraph in section 2.2.7, "Exporting and Importing Configurations From a File-based Repository":

  "This section explains how to save and restore a repository and move an Oracle Application Server Instance from one repository to another."

  should be:

  "This section explains how to save and restore a repository."

4.6.2 Errors in *Oracle Process Manager and Notification Server Administrator's Guide*

The *Oracle Process Manager and Notification Server Administrator's Guide* contains the following documentation errors:

- In Section 1.12, "Security", the following sentence is incomplete:

  "This is expected OPMN behavior Oracle Application Server;"

  should be:

  "This is expected OPMN behavior;"

- In the `<dependencies>` lisitng in Section 3.2, "opmn.xml Element and Attribute Descriptions" the following sentence is incorrectly shown twice:

  "OPMN will create an aggregate dependency list at the process-set level that contains all dependencies defined at or above it. If duplicate dependencies are defined at different levels, then duplicate checks on the dependency will be made before starting a process."

- In Section 4.4, "Oracle HTTP Server Attribute Descriptions", the following paragraph is shown twice:

  "The number of Oracle HTTP Server Instances to start. Only valid value is 1".

4.6.3 Error in Oracle Application Server Administrator's Guide

Oracle Application Server Administrator's Guide lists the following supported types for backup and recovery:

- J2EE and Web Cache
- J2EE Standalone
- Portal and Wireless
- Business Intelligence and Forms
- Infrastructure (Identity Management and Metadata Repository)
- Infrastructure (Identity Management only)
- Infrastructure (Metadata Repository only)
- OracleAS TopLink (Standalone or installed into a middle-tier Oracle home)
- Oracle BPEL Process Analytics
- Oracle Content Management Software Development Kit
- Integration B2B
- Business Intelligence CD
- Cold Failover Cluster (Infrastructure)
- Cold Failover Cluster (Middle Tier)

- Identity Management (Oracle Internet Directory + Single Sign-On)
- Identity Management (Oracle Internet Directory)
- Identity Management (Single Sign-On)
- Identity Management High Availability
- MRCA 10.1.0.x (Real Application Clusters Database)
- MRCA 9.2.0.x

The correct is list is as follows:

- J2EE and Web Cache
- J2EE Standalone
- Portal and Wireless
- Business Intelligence and Forms
- Infrastructure (Identity Management and Metadata Repository)
- Infrastructure (Identity Management only)
- Infrastructure (Metadata Repository only)
- OracleAS TopLink (Standalone or installed into a middle-tier Oracle home)
- Oracle BPEL Process Analytics
- Oracle Content Management Software Development Kit
- Integration B2B
- Business Intelligence CD
- Cold Failover Cluster (Infrastructure)
- Cold Failover Cluster (Middle Tier)
- Identity Management (Oracle Internet Directory + Single Sign-On)
- Identity Management (Oracle Internet Directory)
- Identity Management (Single Sign-On)
- Identity Management High Availability
- MRCA 10.1.0.x (Real Application Clusters Database and non-Real Application Clusters Database)
- MRCA 10.2 (Real Application Clusters Database and non-Real Application Clusters Database)
- MRCA 9.2.0.x

4.6.4 No runstartupconsole command to Start and Stop Instances

The Oracle Application Server Administrator's Guide describes how to start and stop Application Server instances using the runstartupconsole command. This command is not supported for 10.1.2.0.2. Use the procedures in the following sections to start and stop instances.

- Section 4.6.4.1, "Starting OracleAS Infrastructure"
- Section 4.6.4.2, "Stopping OracleAS Infrastructure"
- Section 4.6.4.3, "Starting a Middle-Tier Instance"

- Section 4.6.4.4, "Stopping a Middle-Tier Instance"

4.6.4.1 Starting OracleAS Infrastructure

This section describes how to start all processes in an OracleAS Infrastructure. The procedure applies to all OracleAS Infrastructure types:

- Oracle Identity Management and OracleAS Metadata Repository: Follow both steps to start Oracle Identity Management and OracleAS Metadata Repository.
- OracleAS Metadata Repository only: Follow only Step 1 to start OracleAS Metadata Repository. You do not need to perform the second step of starting Oracle Identity Management because you do not need OPMN or the Application Server Control Console in a OracleAS Metadata Repository-only installation.
- Oracle Identity Management only: Follow only Step 2 to start Oracle Identity Management. Make sure the OracleAS Metadata Repository that supports Oracle Identity Management (residing in another Oracle home) is already started.

To start OracleAS Infrastructure:

1. If your OracleAS Infrastructure contains OracleAS Metadata Repository, start it as follows:
   a. Set the ORACLE_HOME environment variable to the OracleAS Infrastructure Oracle home.
   b. Set the ORACLE_SID environment variable to the OracleAS Metadata Repository SID (default is `orcl`).
   c. Start the Net Listener:

      ```
      ORACLE_HOME/bin/lsnrctl start
      ```

   d. Start the OracleAS Metadata Repository instance:

      ```
      ORACLE_HOME/bin/sqlplus /nolog
      SQL> connect SYS as SYSDBA
      SQL> startup
      SQL> quit
      ```

   e. Start the Oracle Enterprise Manager 10*g* Database Control:

      ```
      emctl start dbconsole
      ```

2. If your OracleAS Infrastructure contains Oracle Identity Management, start it as follows:
   a. Start components:

      ```
      opmnctl startall
      ```

      This command starts OPMN and all OPMN-managed processes such as DCM, Oracle HTTP Server, OC4J instances, and Oracle Internet Directory.
   b. Start the Application Server Control Console:

      ```
      emctl start iasconsole
      ```

      Alternatively, on Windows, you can start the Application Server Control Console using the Windows Services control panel. The name of the service for the Application Server Control uses the following format:

      ```
      OracleOracleHomeNameASControl
      ```

See the Oracle Application Server Administrator's Guide for more information.

Alternatively, on Windows, you can start the Infrastructure from the Programs menu: **Start** > **Programs** > **Oracle Application Server Infrastructure** - *Infra_name* > **Start** ***instanceName***.

4.6.4.2 Stopping OracleAS Infrastructure

This section describes how to stop all processes in OracleAS Infrastructure. The procedure applies to all OracleAS Infrastructure types:

- Oracle Identity Management and OracleAS Metadata Repository: Follow both steps to stop Oracle Identity Management and OracleAS Metadata Repository.
- OracleAS Metadata Repository only: Follow step 2 only to stop OracleAS Metadata Repository.
- Oracle Identity Management only: Follow step 1 only to stop Oracle Identity Management.

To stop OracleAS Infrastructure:

1. If your OracleAS Infrastructure contains Oracle Identity Management, stop it as follows:
   a. Stop the Application Server Control Console:

      ```
      emctl stop iasconsole
      ```

      Alternatively, on Windows, you can stop the Application Server Control Console using the Services control panel. See the Oracle Application Server Administrator's Guide for more information.

   b. Stop components:

      ```
      opmnctl stopall
      ```

      This command stops OPMN and all OPMN-managed processes such as DCM, Oracle HTTP Server, OC4J instances, and Oracle Internet Directory.
2. If your OracleAS Infrastructure contains OracleAS Metadata Repository, stop it as follows:
   a. Set the ORACLE_HOME environment variable to the OracleAS Infrastructure Oracle home.
   b. Set the ORACLE_SID environment variable is set to the OracleAS Metadata Repository SID (default is `orcl`).
   c. Stop the OracleAS Metadata Repository instance:

      ```
      ORACLE_HOME/bin/sqlplus /nolog
      SQL> connect SYS as SYSDBA
      SQL> shutdown
      SQL> quit
      ```

   d. Stop the Net Listener:

      ```
      ORACLE_HOME/bin/lsnrctl stop
      ```

   e. Stop the Oracle Enterprise Manager 10*g* Database Control:

      ```
      emctl stop dbconsole
      ```

Alternatively, on Windows, you can stop the Infrastructure from the Programs menu: **Start** > **Programs** > **Oracle Application Server Infrastructure** - *Infra_name* > **Stop** ***instanceName***.

4.6.4.3 Starting a Middle-Tier Instance

To start a middle-tier instance:

1. If the middle-tier instance uses OracleAS Infrastructure services, such as Oracle Identity Management or OracleAS Metadata Repository, make sure they are started.
2. Start components:

   ```
   opmnctl startall
   ```

   This command starts OPMN and all OPMN-managed processes such as DCM, Oracle HTTP Server, OC4J instances, and OracleAS Web Cache, OracleAS Forms Services, and OracleAS Reports Services.
3. Start the Application Server Control Console:

   ```
   emctl start iasconsole
   ```

   Alternatively, on Windows, you can start the Application Server Control Console using the Services control panel. See the Oracle Application Server Administrator's Guide for more information.

Alternatively, on Windows, you can start the middle tier from the Programs menu: **Start** > **Programs** > **Oracle Application Server** - ***Oracle_Home*** > **Start** > ***instanceName***.

4.6.4.4 Stopping a Middle-Tier Instance

To stop a middle-tier instance:

1. Stop the Application Server Control Console:

   ```
   emctl stop iasconsole
   ```

   Alternatively, on Windows, you can stop the Application Server Control Console using the Services control panel. See the Oracle Application Server Administrator's Guide for more information.
2. Stop components:

   ```
   opmnctl stopall
   ```

   This command stops OPMN and all OPMN-managed processes such as DCM, Oracle HTTP Server, OC4J instances, and OracleAS Web Cache, OracleAS Forms Services, and OracleAS Reports Services.

Alternatively, on Windows, you can stop the middle tier from the Programs menu: **Start** > **Programs** > **Oracle Application Server** - ***Oracle_Home*** > **Stop** > ***instanceName***.

4.6.5 Incorrect Reference in Oracle Application Server Concepts Guide

Section 7.2, " Oracle Application Server Infrastructure Architecture" in the *Oracle Application Server Concepts Guide* contains the following reference:

"Some of the most frequently used deployment topologies for both Oracle Application Server Infrastructure itself and for applications which use Oracle Application Server Infrastructure are discussed in Chapter 12, "Recommended Topologies"".

The reference should be to Chapter 12, "Enterprise Deployments".

4.6.6 Incorrect Default Value for start-mode Element in Oracle HTTP Server opmn.xml file

The `id="start-mode"` default value for the `opmn.xml` file listed in the Oracle HTTP Server chapter of the Oracle Process Manager and Notification Server Administrator's Guide is incorrectly listed as `ssl-enabled`. The default value for id="start-mode" is `ssl-disabled`.

4.6.7 Incorrect Step in Oracle Application Server Administrator's Guide

Oracle Application Server Administrator's Guide contains the following error:

- In Section 22.2.6 "Restoring Infrastructure Configuration Files," task 1 is incorrect. The step should not be included in the procedure.

4.6.8 Incorrect Port Numbers in Oracle Application Server Administrator's Guide

Appendix D of the Oracle Application Server Administrator's Guide lists the default port numbers for Oracle Application Server. For the following ports, the information is incorrect:

- Application Server Control Console RMI
- Oracle Management Agent
- Oracle Internet Directory (SSL)

For the correct ports, refer to the Oracle Application Server Installation Guide.

4.6.9 Clarification of Steps for Changing Oracle HTTP Server Ports in Oracle Application Server Administrator's Guide

In the Oracle Application Server Administrator's Guide, Section 4.3.3, "Changing the Oracle HTTP Server Listen Ports" does not specify the shell used for UNIX in the examples and thus could be confusing.

The commands are shown using csh. If you are using another shell, such as bash, the syntax might be slightly different. For example, using the bash shell, the command in Task 2 would be:

```
alias portconfig='$ORACLE_HOME/jdk/bin/java -cp \
$ORACLE_HOME/sysman/webapps/emd/WEB-INF/lib/emd.jar:\
$ORACLE_HOME/dcm/lib/dcm.jar:\
$ORACLE_HOME/sso/lib/ossoreg.jar \
oracle.sysman.ias.sta.tools.PortConfigCmdLine \!*'
```

Also, in Task 2, the command that begins `alias portconfig` should be entered on one line. It is shown on multiple lines to make it easier to read.

4.6.10 Procedure in Oracle Application Server Administrator's Guide Also Refers to Standalone Forms and Reports

In the Oracle Application Server Administrator's Guide, Section 8.2.2, "Changing the Hostname, Domain Name, or IP Address of a Middle-Tier Installation," refers to a Forms:Reports standalone installation, in addition to the middle-tier installation types listed in the section.

4.6.11 "retry" Attribute Not Valid for <ping> Element

Chapter 6, "opmn.xml Common Configuration", of the Oracle Process Manager and Notification Server Administrator's Guide lists `retry` as one of the attributes of the `<ping>` element. This is incorrect: the `retry` attribute cannot be used with the `<ping>` element.

You can set up a custom ping command in the `opmn.xml` file. For details, see chapter 10, "Configuring Custom Process", in the Oracle Process Manager and Notification Server Administrator's Guide.

4.6.12 Default Ping Timeout Value in OPMN Is 30 Seconds, Not 20

The *Oracle Process Manager and Notification Server Administrator's Guide* incorrectly states that the default ping timeout value is 20 seconds. It is actually 30 seconds.

4.6.13 Correction to Cloning Procedure in Oracle Application Server Administrator's Guide

In the Oracle Application Server Administrator's Guide, Section 10.4.2, "Preparing the Source," step 3 shows an example of how to archive and compress the source on UNIX. This example will not archive and compress any "dot files," i.e., files whose names start with a period, in the source directory. The correct commands are:

```
cd Source_Oracle_Home
cd ..
tar cf - Source_Oracle_Home | gzip > oracleas.tar.gz
```

To extract the files, replace the example in step 2 of Section 10.4.3, "Cloning the Instance," with the following commands:

```
gunzip < Dir_Containing_Tar/oracleas.tar.gz | tar xf -
mv Source_Oracle_Home_Name Destination_Oracle_Home_Name
```

4.6.14 Correction to "KeepAlive" Line in *Oracle Application Server Enterprise Deployment Guide*

In Section 9.2.3.4, "Updating the httpd.conf File," of the *Oracle Application Server Enterprise Deployment Guide*, the `KeepAlive` line in step 7 should be:

```
KeepAlive Off
```

not

```
KeepAlive off
```

The `O` in `Off` should be in uppercase.

4.6.15 Additional Database Option Requirement

In additon to the required options listed in Table 8, "Required Database Options"in Section 1.5.9, "Database Options" in the *Oracle Application Server Repository Creation Assistant User's Guide*, you must also include Oracle XML DB. If you do not have all of the required options, OracleAS RepCA will not run properly.

5
High Availability

This chapter describes issues related to highly available topologies. This chapter contains the following issues:

5.1 OracleAS Disaster Recovery: Discover Topology Command

If you run the `discover topology` command on a node that contains more than one Oracle home, and one of the Oracle homes is invalid for some reason (that is, the Oracle home does not appear in the Oracle Universal Installer), the `discover topology` command generates a warning:

```
ASGCTL> discover topology oidpass=welcome1
Discovering topology on host "hasun1" with IP address "123.45.67.89"

hasun1:7890
 Connecting to the OID server on host "hasun12vip1.mydomain.com"
   using SSL port "636" and username "orcladmin"
 Getting the list of databases from OID
 Gathering database information for SID "orcl" from host
                                                "hasun12vip1.mydomain.com"
 Getting the list of instances from OID
 Gathering instance information for "immr.hasun12vip1.mydomain.com" from host
                                                "hasun12vip1.mydomain.com"
 Gathering instance information for "asmid.haqadr01.mydomain.com" from host
                                                "haqadr01.mydomain.com"
      **********  WARNING  **********
hasun1: -->ASG_IAS-15779: Error getting instance information for instance
 "asmid.haqadr01.mydomain.com" from host "haqadr01.mydomain.com".  This instance
 will be excluded from the topology.xml file
drmt: -->ASG_IAS-15632: The home that contains instance
 "asmid.haqadr01.mydomain.com" could not be found
drmt: -->ASG_DUF-4950: An error occurred on host "drmt" with IP "130.35.45.23" and
```

```
 port "7890"
      ********  END WARNING  ********
The topology has been discovered. A topology.xml file has been written to each
home in the topology.
```

To work around this issue, delete the entry for the invalid Oracle home from the `Inventory.xml` file in the `oraInventory` directory, then rerun the `discover topology` command.

5.2 OracleAS Disaster Recovery: Real Application Clusters Database Supported

Table 1-3 in the *Oracle Application Server High Availability Guide* incorrectly stated that OracleAS Disaster Recovery does not support OracleAS Infrastructure in active-active topologies. OracleAS Disaster Recovery does support OracleAS Infrastructure in active-active topologies, as well as active-passive topologies. In OracleAS Infrastructure active-active topologies, the OracleAS Metadata Repository runs on a Real Application Clusters database.

The following table shows the updated Table 1-3 (bold text shows the updates):

Table 5–1 Service level requirements and architecture choices

Business Requirements			**Architecture Choices**	
Local High Availability	**Scalability**	**Disaster Recovery**	**Instance Redundancy**	**Disaster Recovery**
N	N	N	Base	N
Y	N	N	Active-passive	N
N	Y	N	Active-active	N
N	N	Y	Base	Y
Y	Y	N	Active-active	N
Y	N	Y	Active-passive	Y
N	Y	Y	Active-active (middle tier) Base (Infrastructure)	Y
Y	Y	Y	Active-active (middle tier) Active-passive **and active-active** (Infrastructure)	Y

Note: OracleAS Disaster Recovery supports the base, active-passive, and active-active Infrastructure architectures. For additional scalability in a base, active-passive, or active-active architecture, extra computing power can be added to the infrastructure hardware (for example, high capacity CPUs, more memory)

5.3 Availability Requirement Details

Chapter 13 OracleAS Disaster Recovery, Section 13.10, Runtime Operations -- OracleAS Guard Switchover and Failover Operations of the 10.1.2.0.2 *Oracle Application Server High Availability Guide*, states the following, "A site switchover is

performed for planned outages of the production site. Both the production and standby sites have to be available during the switchover."

The term "available" means that the following components must be up and running:

- Listener
- DSA
- Database

5.4 Cloning Infrastructure Using OracleAS Guard Not Supported

The following information should be included in Chapter 13 OracleAS Disaster Recovery, Section 13.8, OracleAS Guard Operations -- Standby Site Cloning of One or More Production Instances to a Standby System, of the 10.1.2.0.2 *Oracle Application Server High Availability Guide*:

OracleAS Guard does not support the cloning of any Infrastructure installations, including Identity Management only, Collocated IM and Metadata Repository, or MR on its own.

5.5 Distributed Identity Management is a Supported Topology

The "Supported Topologies" section in the *Oracle Application Server High Availability Guide* for 10*g* Release 2 (10.1.2) and later releases did not mention whether a distributed Identity Management configuration (Oracle Internet Directory and Directory Integration Platform on one host and Oracle Single Sign-On and Delegated Administration Services on a second host) is a supported topology for Oracle Application Server Disaster Recovery.

Similarly, the "Supported Topologies" section in the *Oracle Application Server Disaster Recovery Guide* for 10*g* Release 2 (10.1.2.3) also did not mention whether a distributed Identity Management configuration is a supported topology for Oracle Application Server Disaster Recovery.

The distributed Identity Management configuration is a supported Oracle Application Server Disaster Recovery topology.

5.6 Correct Information for Application Server Guard clone_unpack_cmd parameter

The *Oracle Application Server Disaster Recovery Guide* for 10*g* Release 2 (10.1.2.3) provided incorrect information about the Oracle Application Server Guard `clone_unpack_cmd` parameter in the "Configuring Oracle Application Server Guard and Other Relevant Information" section.

The following information about the Oracle Application Server Guard `clone_unpack_cmd` parameter is correct and replaces the information in the *Oracle Application Server Disaster Recovery Guide* for 10*g* Release 2 (10.1.2.3):

`clone_unpack_cmd` - this optional parameter specifies the tar command for Oracle Application Server Guard to use when unpacking the jar file created during a clone instance or clone topology operation. For example, by default on UNIX platforms Oracle Application Server Guard uses the version of tar returned by the `which tar` command to unpack clone instance and clone topology jar files. You can use the clone_unpack_cmd parameter to specify a different version of tar and the tar command parameters for Oracle Application Server Guard to use to unpack these jar files.

Value: string, tar command and parameters to use when unpacking a jar file created during a cloning operation. For example:

```
clone_unpack_cmd = /sys/prod/software/tar -xpf
```

5.7 Clarification of Clustering for OracleAS Integration B2B

In the *Oracle Application Server High Availability Guide*, Section 5.6, "OracleAS Integration B2B", contains this paragraph:

"This tier consists of Oracle HTTP Server and the OC4J transport servlet instances. The servlets are deployed in OC4J containers and can utilize the high availability properties of the containers. They can be grouped together into OracleAS Clusters (OC4J) and be synchronized by DCM for consistent configuration. The OC4J instances are load balanced by mod_oc4j."

Some points to note:

- The transport servlet is different from the B2B server.
- While you can use DCM to keep the configuration of the transport servlet consistent across multiple OC4J instances, you cannot use DCM to cluster the B2B servers. The B2B servers run outside OC4J as Java applications, and they are not under the control of DCM.

6 Oracle Forms

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

6.1 General Issues and Workarounds

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

6.1.1 Forms Dual Monitor Certification

Using a dual monitor configuration with Oracle Forms is now supported.

6.1.2 Backwards Compatibility with Earlier Releases

For information about upgrading from Oracle6*i* Forms, see the "Upgrading to Oracle AS Forms Services" chapter in *Oracle Application Server Forms Services Deployment Guide*. For information about changed or obsolete features, see the *Migrating Forms Applications from Forms6i Guide.*

For information about upgrading from Oracle9*i* Forms, you can use the Upgrade Assistant. See the *Oracle Application Server Upgrade and Compatibility Guide for UNIX*.

Additional information about backward compatibility is Meta*Link* Note 113987.1 at:

`https://metalink.oracle.com`

Regardless from which version of Oracle Forms you are upgrading, you will need to recompile your applications and restart Oracle Forms.

6.1.3 Unix Issues and Workarounds

On Unix platforms, if you relink Forms executables after installation (for example, because you are applying a one-off patch) the permissions on newly created executables will not necessarily be the same as the originals. Use `chmod` to change them manually.

6.1.4 Oracle Forms Logout Behavior and Oracle Application Server Single Sign-On

Forms applications use Oracle Application Server Single Sign-On only for obtaining database connection authentication. Once this connection is made, interaction with Oracle Application Server Single Sign-On no longer occurs. Exiting a Forms application will not perform an Oracle Application Server Single Sign-On logout. Conversely, logging out of an Oracle Application Server Single Sign-On session will not terminate an active Forms session. The database session will exist until the Forms Runtime (e.g. frmweb.exe) on the server terminates, usually by explicitly exiting the form.

6.2 Configuration Issues and Workarounds

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

6.2.1 EM_MODE Needs To Be 1 to Enable Grid Control to Collect Metrics

The EM_MODE parameter in `formsweb.cfg` needs to be set to `1` for Grid Control to collect metrics. This parameter is set to `0` by default. You will need to restart the Enterprise Manager Agent.

6.2.2 Grid Control Reports Forms 10.1.2.0.2 Targets as Down after Web Cache Is Disabled

After disabling Web Cache, Grid Control reports Forms targets as down, which is false. As a workaround, in the `targets.xml` file in `%ORACLE_HOME%/sysman/emd`, change the target property with the `NAME="ServletUrl"` to read from the HTTP listener port instead of the Web Cache port.

6.2.3 Non-Internet Explorer Browser Proxy Settings when Using One-Button-Run

If you encounter a FORBIDDEN error when using One-Button-Run with any of the supported Browsers other than Internet Explorer, verify if 127.0.0.1 (localhost) is in the proxy settings for your browser. If 127.0.0.1 is not in the exceptions list, then add it. This ensures that the browser will bypass the proxy server.

6.2.4 Change to Default Setting for FORMS_RESTRICT_ENTER_QUERY Environment Variable

The environment setting FORMS_RESTRICT_ENTER_QUERY has a default value of `TRUE`. This setting disallows users from using QUERY-WHERE functionality until it is set to `FALSE`.

6.2.5 PJC Wizard Now Part of Oracle Forms

With Oracle Forms 10.1.2 and higher, the Forms PJC Wizard is part of the standard Forms installation. The PJC Wizard works with JDeveloper 10*g* (10.1.2) that is part of Oracle Developer Suite 10*g*. For versions of JDeveloper that are obtained from OTN, the PJC wizard is available as a separate Jar file to download and place into your JDeveloper installation.

6.2.6 Exception When Clicking Other Items While Inputting Multibyte Characters

In CJK languages, the Forms client may stop responding when clicking another item while inputting text through inline IME. As a workaround, disable the inline IME. See section 4.10.2, "Inline IME Support" in *Oracle Application Server Forms Services Deployment Guide*. This issue will be fixed in a future patch set.

6.2.7 JDK 1.4.2_06 Plug-in Not Installed When Running a Form on the Web for the First Time

The **Install JDK 1.4.2** dialog appears when running a Form on the Web for the first time. When you click **Install**, the JDK 1.4.2 Plug-in is installed instead of the JDK 1.4.2_06 Plug-in. If you are attempting to use the JDK 1.4.2 plugin from Internet Explorer, and it is not currently installed on your machine, it will download the wrong version. The workarounds are:

- Modify `formsweb.cfg` by finding:

  ```
  jpi_codebase=http://java.sun.com/products/plugin/autodl/jinstall-1_4_
  2-windows-i586.cab#Version=1,4,2,06
  ```

  and change it to:

  ```
  jpi_codebase=http://java.sun.com/products/plugin/autodl/
  jinstall-1_4_2_06-windows-i586.cab#Version=1,4,2,06.
  ```

- Run the Form (for the first time) from Netscape, which will go to the correct location for the download.
- Go to the correct location and manually install the JDK 1.4.2_06 Plug-in.

6.2.8 CLOB Data Cannot be Retrieved When Query Data More Than Max Width

When using Japanese NLS_LANG (JA16SJIS, JA16EUC etc.) if the queried CLOB data is longer than the maximum length (240 bytes by default) of the Text Item corresponding to this CLOB data, the query fails at runtime. The issue is that the CLOB data is correctly truncated with the maximum length of the Text Item (240 bytes by default) in English NLS_LANG, but not in Japanese NLS_LANG.

This issue may also raise error message `"FRM-40505"`or `"FRM-92101"` depending on your platform.

As a workaround, extend the maximum length of the Text Item to fit the length of the CLOB data.

6.2.9 FRM-92102 Existing Sessions Disconnect When User Added To JAZN

The FRM-92102 error appears and existing Forms sessions disconnect after adding a new user to JAZN (**OC4J_BI_FORMS** | **Applications** | **formsapp** | **Security**). Thus, if you're adding new JAZN users to the OC4J_BI_Forms instance, you should do this while no Forms session is running.

6.2.10 Monitoring CPU Usage and Response Time

On the System Component Tables in Enterprise Manager, the CPU and Memory statistics are collected every minute, by default. Note that this potentially can mean that any CPU spikes will not be displayed. In addition, if Forms server processes are dormant, awaiting client activity or requests, it is perfectly normal for the CPU usage to report 0.0%.

On the Forms Overview page, the CPU and Memory statistics are gathered each time the page is rendered when you click the Overview Tab or when you click the refresh icon next to the timestamp. However, due to an operating system restriction, if the Response Time from the Forms Servlet is less than 16ms, it will display as 0.00ms.

6.3 Documentation Errata

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

6.3.1 Code in A Text Version of A Module Is in Hexadecimal

In the topic "About Converting Modules from Binary to Text Format", it states:

"The text version of a module is a human-readable file that describes its objects and code."

It should read:

"The text version of a module is a human-readable file that describes its objects and PL/SQL code translated into hex."

6.3.2 Obsolete Property FIXED_LENGTH

The FIXED_LENGTH property, as mentioned in the online help, is obsolete. It is mentioned as a property of the SET_ITEM_PROPERTY Built-in, and in the PL/SQL and Forms Reserved Words.

6.3.3 Invalid Parameters

In the *Oracle Forms Services Deployment Guide*, the following parameters are invalid:

- `archive_ie` (parameter)
- `baseHTMLie` (parameter)
- `IE` (parameter)
- `frmall.cab` (file)

6.3.4 Error in Unix Script in Migration Assistant Guide

In *Oracle® Forms Migrating Forms Applications From Forms 6i 10g (10.1.2.0.2) for Windows and UNIX*, in Chapter 2, *Using the Oracle Forms Migration Assistant*, the sample UNIX script says:

```
for file in $*
do
   frmplsqlconv.sh module=$ff
done
```

This small script does not work in Unix. The corrected script is:

```
for file in $*
do
   frmplsqlconv.sh module=$file
done
```

6.3.5 Enabling Single Sign-On Description Assumes a new Application

In Chapter 6, the section titled "Enabling OracleAS Single Sign-On for an Application" describes correctly the steps to add this parameter to the configuration section of a chosen application. However, if you change an existing section such as the default, the steps are slightly different as the parameter already exists.

In this case, Step 5 becomes is where you select the parameter and enter a new value.

6.3.6 Incorrect Key Mapping

In Section 4.11.1.2.1 of Oracle Application Server Forms Services Deployment Guide, the description for Mapping F2 is written as:

To map F2, change the default entry for F2, "List Tab Pages", to another key. Here is an example of the default entry:

```
113: 0 : "F2" : 95 : "List Tab Pages"
```

This must be explicitly changed to another key mapping such as the following:

```
113: 8 : "F2" : 95 : "List Tab Pages"
```

The last line should read as:

```
113: 8 : "Alt+F2" : 95 : "List Tab Pages"
```

6.3.7 Incomplete JVM Pooling Example

In section 7.5.12 of *Oracle Application Server Forms Services Deployment Guide*, there is a sample formsweb.cfg configuration. The last named section is written as:

```
[salesApp]
form=sales.fmx
userid=sales/salespw@orcl
```

However, this example should read as:

```
[salesApp]
form=sales.fmx
userid=sales/salespw@orcl
jvmcontroller=
```

6.3.8 Incorrect Script Tag Names

In section 9.2.2 of *Oracle Application Server Forms Services Deployment Guide*, the script tag is written as:

```
<SCRIPT SRC="/oracle_smp_EndUserMonitoring/oracle_smp_
EndUserMonitoring.js"></SCRIPT>
```

It should read as:

```
<SCRIPT SRC="/oracle_smp_chronos/oracle_smp_chronos.js"></SCRIPT>
```

6.3.9 Incorrect Default Threshold Setting Description

In section 9.2.5 of *Oracle Application Server Forms Services Deployment Guide*, the default threshold description is written as:

The default unreasonable threshold is set to 60,000 milliseconds, which may be too small for Oracle Forms Applications. You may want to change this default to 1 minute.

The correct description should read:

The default unreasonable threshold is set to 60,000 milliseconds, which may be too small for Oracle Forms Applications. You may want to change this default to 1 hour.

6.3.10 Incorrect Parameter Names in URL

In section 9.3.1 of *Oracle Application Server Forms Services Deployment Guide*, the `EndUserMonitoringURL` parameter is written as:

```
Set EndUserMonitoringURL=http://computername:7777/oracle_smp_
EndUserMonitoring/oracle_smp_EndUserMonitoring_sdk.gif
```

It should read as:

```
EndUserMonitoringURL=http://<hostname>:<webcache port number>/oracle_smp_
chronos/oracle_smp_chronos_sdk.gif
```

Without the correct `EndUserMonitoringURL` parameters, End User Monitoring will not work.

6.3.11 Missing Kernel Parameters for OracleAS Metadata Repository

Oracle Application Server Forms and Reports Services Installation Guide does not include the kernel parameters for OracleAS Metadata Repository.

For the correct list of these kernel parameters and the procedure to set them, refer to "Section 4.4.2 Kernel Parameter Settings for OracleAS Metadata Repository" in *Oracle Application Server Installation Guide*.

7

Oracle Application Server Containers for J2EE

This chapter describes issues with Oracle Application Server Containers for J2EE (OC4J). It includes the following topics:

7.1 OC4J Bugs Fixed in 10.1.2.0.2

The following OC4J-related bugs have been resolved in 10.1.2.0.2:

- BUG 4373794 - OC4J 10.1.2 - FATAL ERROR CODE ENHANCEMENT - This fix is described in this document at "Fatal Error Code Enhancement" on page 7-8.
- BUG 4226465 - MULTIPLE CONNECTION POOLS EXIST FOR SAME DATA SOURCE - This resolves code bug 4226465 and documentation bug 4373802. This fix is described in this document at "Fixed Connection Pool Problems" on page 7-9.

7.2 Configuration Issues and Workarounds

This section describes configuration issues and their workarounds for Oracle Application Server Containers for J2EE (OC4J). It includes the following topics:

7.2.1 Remove the Tomcat Examples

OC4J ships the Tomcat examples by default. Many of the Tomcat examples do not conform to the Oracle Secure Coding Standards. Oracle recommends that you remove the Tomcat examples except when used in demonstration and testing environments.

7.2.2 Oracle JDBC-OCI Driver Upgrade in the Oracle Application Server

It is not possible to upgrade to an arbitrary Oracle JDBC-OCI driver version due to client library compatibility constraints. Upgrading to OCI driver versions with matching Oracle Client libraries that are installed within the Oracle Application Server 10*g* (10.1.2) is supported. For example, Oracle JDBC 10.1.x drivers are supported, but the Oracle JDBC 9.2.x drivers are not.

Where the use of JDBC-OCI within the Oracle Application Server is supported, it is also necessary for the `opmn.xml` entry for each OC4J instance to propagate appropriate *`ORACLE_HOME`* and library path values to its startup environment.

The environment variable *`ORACLE_HOME`* is common to all platforms, but the name of the environment variable that specifies the library path is different depending on the operating systems:

- `LD_LIBRARY_PATH` for Solaris and Linux
- `LIBPATH` for AIX
- `SHLIB_PATH` for HP-UX, HP Itanium and HP Tru64 UNIX
- `PATH` for Windows

The generic syntax for specifying the library paths in `opmn.xml` looks like this:

```
<variable_id="LIB_PATH_VARIABLE" value="LIB_PATH_VARIABLE_VALUE"/>
```

where *`LIB_PATH_VARIABLE`* should be replaced with the appropriate platform-specific variable name that specifies the library path, and

`LIB_PATH_VARIABLE_VALUE`

should be replaced with that variable's value.

Here is an example, assuming the Solaris Operating system:

```
   <process-type id="OC4J_SECURITY" module-id="OC4J">
     <environment>
       <variable id="ORACLE_HOME"
 value="/u01/app/oracle/product/inf10120"/>
       <variable
         id="LD_LIBRARY_PATH"
         value="/u01/app/oracle/product/inf10120/lib"
       />
     </environment>
     ...
```

7.2.3 OC4J Out of Memory Errors

If the OC4J default JVM heap size is too small for applications that you deploy, then you may see Out Of Memory errors from your OC4J processes. If you review the log files for the OC4J Instance in the directory`$ORACLE_HOME/opmn/logs`, you may find errors similar to the following:

```
java.lang.OutOfMemoryError
```

To work around this problem, increase the specified heap memory by changing the Java command line options for the OC4J Instance.

Using Application Server Control Console, go to the OC4J instance homepage and perform the following steps:

1. Stop the OC4J Instance.
2. Drill down to the Server Properties page.
3. In the Command Line Options area of the Server Properties page, under the heading Multiple VM Configuration, set the Java Options.

   For example, enter the following to set the JVM heap sizes to 512 Megabytes:

   ```
   -Xmx512m
   ```

4. Use the Apply button to apply the changes.
5. Start the OC4J instance.

For more information, see the *Oracle Application Server Performance Guide*.

7.2.4 JDK 1.3 With OC4J 10.1.2.0.2

In order to use JDK 1.3, which is not shipped with OC4J 10.1.2, modify JDK 1.3 as follows:

1. Download and install JAAS1.0_01 from http://java.sun.com/javase/technologies/security/
2. Drop `jaas.jar` from the JAAS1.0_01 distribution into `jre/lib/ext`
3. Add the following lines into `jre/lib/security/java.security`.

   ```
   #These two lines are Oracle-specific definitions
   #
   auth.policy.provider=oracle.security.jazn.spi.PolicyProvider
   @ login.configuration.provider=oracle.security.jazn.spi.LoginConfigProvider
   ```

7.2.5 Configuring Maximum Connections with Oracle HTTP Server

In standalone OC4J, you can configure the maximum number of connections by using the `<max-http-connections>` subelement of `<application-server>` in the `server.xml` file. (This is documented in the *Oracle Application Server Containers for J2EE User's Guide*.)

Now there is also a `<max-ajp-connections>` subelement of `<application-server>` to configure a maximum number of connections for use with Oracle HTTP Server. For example:

```
<application-server>
   ...
   <max-ajp-connections value="10000" max-connections-queue-timeout="10"
                        close-idle-connection="allow">
        http://optional.redirect.url/page.jsp
   </max-ajp-connections>
   ...
<application-server>
```

The (optional) value of the element indicates a `redirect-URL`, the usage of which is described as follows.

Attributes of <max-ajp-connections>:

- value: The maximum number of connections allowed. The default value is -1, for no limit. (0 is a reserved value.)
- max-connections-queue-timeout: How many seconds to wait for the number of connections to drop below the maximum number. If a connection is attempted when the maximum number of connections has been reached, and there are still no available connections after the timeout expires, then appropriate action is taken depending on other settings. The default is 0 seconds.
- close-idle-connection: A setting of allow (the default) makes a new connection possible by allowing the least-recently used (LRU) idle connection to be closed if the maximum number of connections has been reached and the queue timeout has expired. Use deny to disallow the LRU idle connection to be closed.
- socket-backlog: The number of connections to queue up before denying connections at the socket level. The default is 30. This is inherited from <max-http-connections> functionality, but has no particular use in addition to other <max-ajp-connections> attribute settings; there should be no reason to use a value other than the default.

There are three possible responses when a connection is being attempted after the maximum number of connections has been reached and the timeout has expired:

- If close-idle-connection="allow", the connection listener will close the oldest open idle connection by closing the client socket (but the working thread is allowed to finish its work). This allows the attempted connection to be accepted.
- If close-idle-connection="deny" and a redirect-URL is specified in the <max-ajp-connections> element value (as shown in the preceding example), then the connection listener will reject the attempted connection with a 302 Moved Temporarily HTTP response. (The client system is expected to immediately retry the alternate URL.) The client socket of the attempted connection is then closed.
- If close-idle-connection="deny" and no redirect-URL is specified, then the connection listener will reject the attempted connection and send a 503 Service Unavailable HTTP response. The client socket of the attempted connection is then closed.

7.2.6 Use of '/' for Context Root

Specification of "/" for the context root when deploying an application to OC4J is supported now. This includes support by Application Server Control and admin_client.jar.

Background: The 10.1.3.1 release of the *Oracle Containers for J2EE Configuration and Administration Guide* states that "Specifying a root setting of "/" will override the OC4J default Web application. This setting or a null setting is not allowed by the admin_client.jar utility when binding a Web application to the Web site."

Now, however, a root setting of "/" *is* allowed. You can use this as the context root when deploying an application. The following example uses admin_client.jar to deploy a WAR file and bind to "/".

```
% java -jar admin_client.jar deployer:oc4j:localhost oc4jadmin welcome1 \
  -deploy -file d:how-to-rolling-upgrade-web-v1.war -deploymentName h2ru_2 \
  -bindAllWebApps -contextRoot "/"
```

Be aware that if an EAR file includes an `application.xml` file that has the context root set to "/", such as in the following example, then "/" will be the default context root when the application is deployed using either Application Server Control or `admin_client.jar`.

```
<application>
  <display-name>How-To Rolling Upgrade</display-name>
  <module>
    <web>
      <web-uri>how-to-rolling-upgrade-web.war</web-uri>
      <context-root>/</context-root>
    </web>
  </module>
</application>
```

Attributes of `<max-ajp-connections>`:

Note: Because the default ping URL for Oracle HTTP Server is also "/", using "/" as the context root when you deploy an application may result in the following issues:

- Pings intended for Oracle HTTP Server go directly to OC4J instead.
- Extraneous `HEAD` requests appear in the `*-web-access.log` file.

You can avoid these issues by placing the following directive:

```
Oc4jMountCopy off
```

Into the following file:

ORACLE_HOME/Apache/Apache/conf/dms.conf

7.2.7 Use of the http.file.allowAlias Property

By default, OC4J now ships with the `http.file.allowAlias` property set to `false`. This setting prevents the use of symbolic links. Oracle strongly recommends that this setting not be changed to `true`, which might allow JSP source code to be visible to end users in some circumstances.

Instead of changing the property setting, you can use one of the following workarounds:

- Temporarily switch from using the OC4J lightweight HTTP listener to front ending the OC4J application through Oracle HTTP Server, so that browsers access the pages indirectly through MOD_OC4J and Apache JServ Protocol (AJP), rather than directly through HTTP
- Replace all symbolic links in an application with the names of the real files they represent.

  You can use a shell script to automate the replacement of symbolic links. For example:

```
#!/bin/ksh

PROGNAME="${0##*/}"
LN_EXTN="ln"

function displaySyntax
```

```
{
echo "${PROGNAME}! SYNTAX: ${PROGNAME} <some_dir_path>"
exit 1
}

if [[ $# < 0 ]]
then
displaySyntax
fi

DIR="$1"

if [[ ! -d ${DIR} ]]
then
displaySyntax
fi

find ${DIR} -type l|while read filepath
do
echo "FIXING: ${filepath} (=> ${filepath}.${LN_EXTN})"
mv ${filepath} ${filepath}.${LN_EXTN}
cp -L ${filepath}.${LN_EXTN} ${filepath}
done
```

This example KSH script would be invoked on LINUX as follows:

```
$ fixLinks <web_module_root>
```

The script will recurse through any directory and, for any file it finds that is a symbolic link, will rename each link with an additional `.ln` extension and then place a copy of the link target in the original location where the link was found.

7.3 Enterprise Java Beans

This section describes issues with Enterprise Java Beans (EJB). It includes the following topics:

7.3.1 Deprecated orion-ejb-jar.xml Attributes

The following `orion-ejb-jar.xml` attributes are deprecated in releases 9.0.4.1 and 10.1.2 and will be removed in release 10.1.3:

- `max-instances-per-pk`
- `min-instances-per-pk`
- `disable-wrapper-cache`
- `disable-wrapper-cache`

In addition, the following `locking-mode` attribute setting is deprecated:

- `locking-mode="old_pessimistic"`

7.3.2 Big EAR File Deployment Runs Out of Memory

`OutOfMemory` exceptions occur when deploying EAR files with a large number of EJBs.

As part of the deployment process, wrapper code classes are generated for each EJB. The size of these classes is proportional to the number of business methods on the bean. As a performance optimization, OC4J compiles all wrapper code classes in one compiler invocation. An error can occur if the amount of generated wrapper code is too much for available memory.

A workaround is to direct the deployment process to compile each EJB module's wrapper code individually. You can do this by starting OC4J with the `ejbdeploy.batch` system property and setting it to `false`, as in the following example:

```
-Dejbdeploy.batch=false
```

Note: This workaround should only be used when this specific exception occurs.

This workaround may result in an increased deployment time for the application.

7.3.3 EJB Wrapper Code Compilation Fails When Running in zh_CN.GB18030 Locale

EJB wrapper code compilation fails when running in zh_CN.GB18030 locale. When running in zh_CN.GB18030 locale, parts of the EJB wrapper source code may be generated with missing characters. This causes compilation errors. The missing characters in the generated source code are due to a Sun bug documented at:

`http://bugs.sun.com/bugdatabase/view_bug.do?bug_id=4954023`

The workaround is to use a different locale. See the Sun bug for details.

7.3.4 Disregard Previous Release Note: Package Name for RMIInitialContextFactory Has Changed

Disregard the following release note from the initial 10.1.2 release notes. The information does not apply to the 10.1.2 release.

"The package name for `RMIInitialContextFactory` has changed from `oracle.j2ee.rmi.server` to `oracle.j2ee.rmi`."

7.3.5 How To Disable EJB Instance Pooling

To disable instance pooling, use the new `<max-instances>` setting with any negative number in the `orion-ejb-jar.xml` file. This creates a new instance at the start of the EJB call and releases it at the end of the call.

7.3.6 How To Compile in Non-Batch Mode

To compile in non-batch mode (for example, if OC4J throws `java.lang.OutOfMemory` exceptions while compiling in batch mode), use the `-Dejbdeploy.batch=false` option. Although non-batch mode requires less memory allocation, this mode results in a longer deployment time.

7.4 OC4J Services

This section describes release notes for OC4J services. OC4J Services include: Java Naming and Directory Interface (JNDI), Java Message Service (JMS), Data Sources, Oracle Remote Method Invocation (ORMI), J2EE Interoperability (IIOP), Java Transaction API (JTA), J2EE Connector Architecture (J2CA), and Java Object Cache.

The section contains the following release note(s):

7.4.1 Data Sources

This section describes issues with Data Sources. It includes the following topics:

7.4.1.1 Data Sources Creates the Correct Number of Connection Pools in 10.1.2

In the 9.0.4 release, Data Sources incorrectly created multiple connection pools for the same data source: One pool for transactional connections and one pool for non-transactional connections.

This behavior is corrected for release 10.1.2.

7.4.1.2 Fatal Error Code Enhancement

For each data source defined in `data-sources.xml`, you can define fatal error codes that indicate that the back-end database with which the data source communicates is no longer accessible. When OC4J detects one of these error codes (stated when a SQLException is thrown by the JDBC driver), OC4J will clean its connection pool. That is, it closes all connections in the connection pool. For Oracle, the predefined fatal error codes are: `3113`, `3114`, `1033`, `1034`, `1089`, and `1090`.

Use the following procedure to add additional fatal error codes for Oracle.

Use the `<fatal-error-codes>` element, which is a subtag of the `<data-source>` element. The `<fatal-error-codes>` element uses the child element `<error-code>` to define one fatal error code. You can define 0 - n `<error-code>` elements for each `<fatal-error-codes>` element. For example, for fatal error codes `10`, `20`, and `30`, the data source definition would look like this:

```
<data-source
class="com.evermind.sql.DriverManagerDataSource"
name="ds"
```

```
location="jdbc/ds"
xa-location="jdbc/xa/ds"
ejb-location="jdbc/ejb/ds"
@ connection-driver="oracle.jdbc.driver.OracleDriver"
username="scott"
@ password="tiger"

@ url="jdbc:oracle:thin:@//localhost:1521/oracle.regress.rdbms.dev.us.oracle.com">

         <fatal-error-codes>
            <error-code code='10'/>
            <error-code code='20'/>
            <error-code code='30'/>
         </fatal-error-codes>

</data-source>
```

7.4.1.3 Fixed Connection Pool Problems

The following connection pool problems are fixed in 10.1.2.0.2.

In pre-10.1.2.0.2 versions of OC4J, the data sources subsystem would create multiple connection pools for the same data source for the following cases:

- When a connection was used inside a global transaction and outside a global transaction during the same thread of execution (during the execution of a servlet for example.) In this case one connection pool was created for connections used inside global transactions and one connection pool was created for connections used outside of the global transaction.
- When a connection was retrieved from the data source using the non-default user or password. For example, the use of `getConnection()` caused one connection pool to be created and `getConnection("user", "password")` caused another connection pool to be created. This is especially bad because each user or password combination created another, separate connection pool.
- Indicating via configuration that a data source's connections are to be shared caused an additional data source to be created under the covers which would then duplicate all of the connection pool issues described previously.

This resolves code bug 4226465 and documentation bug 4373802.

7.4.1.4 Upgrading the Oracle THIN JDBC Driver

The JDBC THIN driver cannot be upgraded or changed at the Oracle Application Server-instance level due to component dependencies. JDBC THIN driver upgrades must be completed for each OC4J instance.

To update the Oracle THIN JDBC driver for an OC4J instance:

1. Copy the new JDBC libraries to a directory on the OC4J host computer.
2. On the Oracle Application Server-instance host, open the i`AS_ORACLE_HOME/opmn/conf/opmn.xml` file.
3. From the `opmn.xml` file, find the `<ias-component>` entry for the OC4J instance that is being upgraded with a new JDBC THIN driver.
4. Add (or modify) the `-Djava.ext.dirs` Java option to include the location to the directory that contains the new JDBC libraries. For example:

   ```
   <module-data>
   ```

```
<category id="start-parameters">
   <data id="java-options"
         value="-Djava.ext.dirs=path/to/the/new/JDBC_dir"/>
</category>
```

5. Save and close the `opmn.xml` file.
6. From the command line, propagate the configuration changes to the DCM repository:

   ```
   dcmctl updateconfig -ct opmn
   ```

7. Stop and then start the OC4J instance:

   ```
   opmnctl stopproc process-type=<oc4j_instance_name>

   opmnctl startproc process-type=<oc4j_instance_name>
   ```

7.4.2 ORMI

This section describes issues with ORMI. It includes the following topics:

- Section 7.4.2.1, "ORMI - OC4J Only Creates IPv4 Sockets"
- Section 7.4.2.2, "ORMI Protocol Is Not Secure"

7.4.2.1 ORMI - OC4J Only Creates IPv4 Sockets

OC4J only creates IPv4 sockets. Even on dual network stack machines (with both IPv4 and IPv6 stacks available) OC4J creates only IPv4 sockets. This may cause a problem if client-issued requests are from a IPv6 system. This is indicated by connection-refused messages from the server to the IPv6 client. To avoid this problem, start the client process with the system property `java.net.preferIPv4Stack=true`. This forces the client to only issue IPv4 requests, allowing it to communicate with the server.

7.4.2.2 ORMI Protocol Is Not Secure

It should be noted that the ORMI protocol is not secure. Any and all communication over ORMI is not encrypted including security credentials. Customers that want to encrypt ORMI traffic are advised to use ORMI over HTTPS, which will encrypt all communication between the client and the server.

7.4.3 JNDI

This section describes issues with JNDI. It includes the following topic(s):

- Section 7.4.3.1, "Local Host Not Supported"

7.4.3.1 Local Host Not Supported

The `java.naming.provider.url` JNDI property does not support the value `localhost` when a remote client connects to an application server instance that is managed by OPMN. The value must be the complete hostname or IP Address. This does not affect clients that connect to standalone application server instances.

7.5 Oracle Application Server Java Authentication and Authorization Service (JAAS) Provider

Be aware of the following notes when using the Oracle Application Server Java Authentication and Authorization Service (JAAS) Provider (OracleAS JAAS Provider) in release 10.1.2.0.2:

- Section 7.5.1, "Using the 9.0.4 Oracle Internet Directory Server with 10.1.2.0.2 OracleAS JAAS Provider"
- Section 7.5.2, "Support for auth-method="DIGEST" in <jazn-web-app>"
- Section 7.5.3, "AJP13 Protocol Vulnerable to Bypass User Authentication"

7.5.1 Using the 9.0.4 Oracle Internet Directory Server with 10.1.2.0.2 OracleAS JAAS Provider

Prior to the 10.1.2 Oracle Internet Directory implementation, Access Control List (ACL) features are not set up properly for JAZNAdminGroup. To use the 9.0.4 Oracle Internet Directory implementation with the 10.1.2 OracleAS JAAS Provider implementation, place the following contents into a file, replacing `%s_MgmtRealmDN%` with the appropriate ID management realm (for example, `dc=us,dc=oracle,dc=com`), then execute the steps that follow.

```
dn: cn=JAZNContext,cn=Products,cn=OracleContext,%s_MgmtRealmDN%
changetype: modify
replace: orclaci
orclaci: access to entry
   by group=
"cn=JAZNAdminGroup,cn=Groups,cn=JAZNContext,cn=Products,cn=OracleContext"
(browse, add, delete)
   by group= "cn=IASAdmins,cn=Groups,cn=OracleContext,%s_MgmtRealmDN%
added_object_constraint=(objectclass=orclApplicationEntity) (add, delete, browse)
   by * (none)
orclaci: access to attr=(*)
   by group=
"cn=JAZNAdminGroup,cn=Groups,cn=JAZNContext,cn=Products,cn=OracleContext"
(search, read, write, compare)
   by group= "cn=IASAdmins,cn=Groups,cn=OracleContext,%s_MgmtRealmDN%"
(read, search, write, compare)
   by * (none)
```

1. Name the file with the `.ldif` extension, such as `jaznacl.ldif`.
2. Run the `ldapmodify` utility with the newly created file as input, specifying *`oidport`*, *`oidhost`*, *`adminuser_dn`*, *`password`*, and *`filename`* as appropriate:

   ```
   ldapmodify -c -a -p oidport -h oidhost -D adminuser_dn -w password \
              -f filename.ldif
   ```

7.5.2 Support for auth-method="DIGEST" in <jazn-web-app>

The 10.1.2.0.2 OracleAS JAAS Provider implementation now supports the setting `auth-method="DIGEST"` in the `<jazn-web-app>` element, in either the `orion-web.xml` file or `orion-application.xml` file. This is in addition to the already supported setting `auth-method="SSO"`. Support for `DIGEST` is already noted in the 10.1.2.0.2 *Oracle Application Server Containers for J2EE Servlet Developer's Guide* (which includes reference documentation for `orion-web.xml`), but is not indicated in the 10.1.2.0.2 *Oracle Application Server Containers for J2EE User's Guide*

(which includes reference documentation for `orion-application.xml`). "`SSO`" is to use Oracle Application Server Single Sign-On for HTTP client authentication. `DIGEST` is to use the digest authentication mechanism. See the 10.1.2.0.2 *Oracle Application Server Containers for J2EE Security Guide* for complete information.

7.5.3 AJP13 Protocol Vulnerable to Bypass User Authentication

When OC4J is running a site using the AJP13 protocol, a security vulnerability exists if a remote attacker can directly access the AJP port on the machine running OC4J. The AJP13 protocol defines an AJP parameter `remote_user`, which is used by OHS to implement `mod_osso`. An attacker can use this parameter to bypass authentication on OC4J. If a user constructs an AJP packet that inserts a valid `remote_user` value as an AJP parameter, the user will be able to access resources that the specified user (remote user) has permission to access.

You must ensure that the system running OC4J does not expose the AJP port to the outside world.

You can protect against the vulnerability in either of the following ways:

- Enable SSL between OC4J and Oracle HTTP Server (preferred). For 10.1.3.x releases, this is documented in the *Oracle Application Server Containers for J2EE Security Guide*. For release 10.1.2 or 9.0.4, this is documented in the *Oracle Application Server Containers for J2EE Servlet Developer's Guide*.
- Use the `<access-mask>` element (a subelement of `<orion-web-app>`) in `global-web-application.xml` or `orion-web.xml` to restrict access to appropriate host names, domains, or IP addresses. This element is documented in the *Oracle Application Server Containers for J2EE Servlet Developer's Guide*.

7.6 Documentation Errata

This section describes known errors in the OC4J documentation in Oracle Application Server 10g Release 2 (10.1.2). It covers the following books:

7.6.1 Oracle Application Server Containers for J2EE User's Guide Documentation Errata

This section describes known errors in the *Oracle Application Server Containers for J2EE User's Guide*. It includes the following topic(s):

7.6.1.1 An OC4J Process Is Not Contained in an OC4J Instance

The following incorrect statement appears in the *Oracle Application Server Containers for J2EE User's Guide* Chapter 8, OC4J Clustering:

"Each OC4J process is contained in an OC4J instance and inherits its configuration from the OC4J instance. All applications deployed to an OC4J instance are deployed to all OC4J processes in the OC4J instance."

The statement is incorrect because an OC4J process can only be *contained* in other processes, an OC4J instance is not a process.

The correct statement in this case is:

"Each OC4J process is associated to an OC4J instance and inherits its configuration from that OC4J instance. All applications deployed to an OC4J instance are started in all the OC4J processes associated to that OC4J instance."

7.6.1.2 Correct Cross Reference for Metric-Based Load Balancing Information

In the description of the `<metric-collector>` element of the `server.xml` file in Appendix B - Additional Information of the *Oracle Application Server Containers for J2EE User's Guide*, the following incorrect cross reference is given:

"For details on using the <metric-collector> element and using metric-based load balancing with mod_oc4j, see the *Oracle Application Server 10g Performance Guide*."

Replace the incorrect cross reference with the following correct cross reference:

For details on using metric-based load balancing with mod_oc4j, see the *Oracle HTTP Server Administrator's Guide*.

7.6.1.3 JDK 1.4.2 Supported and Installed with OC4J

Chapter 1: "OC4J Overview" of the Oracle Application Server Containers for J2EE User's Guide contains incorrect references to the Java Development Kit (JDK) used with Oracle Application Server Containers for J2EE 10g Release 2 (10.1.2).

The "Using JDK With OC4J" section lists JDK 1.3.1 and 1.4.1 as the supported versions. This list should also include JDK 1.4.2.

The "Requirements" section incorrectly states that JDK 1.3.x is installed with OC4J. The correct version is JDK 1.4.2.

7.6.1.4 Primers Content Removed from OC4J User's Guide

Chapter 1: "OC4J Overview" of the *Oracle Application Server Containers for J2EE User's Guide* contains a reference to *primers*, which are no longer included in the User's Guide.

7.6.1.5 Additional OC4J Deployment Notes

The following notes on undeployment and redeployment are intended to supplement the deployment discussion in the Oracle Application Server Containers for J2EE User's Guide.

General undeployment/redeployment notes:

- Once an application is undeployed from OC4J, it is no longer accessible to clients. In an Oracle Application Server environment, Oracle HTTP Server will be restarted to remove the OC4J mount point. This will result in the loss of existing HTTP sessions.
- During a redeployment, OC4J removes the existing application (EAR/WAR) before redeploying the new EAR. This means, for example, that attempts to access an HTML file that was included in the previous application, but not the new one, will result in "`File Not Found`" errors.
- Also note that a redeployed WAR file overlays the previously expanded WAR, meaning that some older files may persist in the new deployment and will need to be deleted. For example, static HTML files from the previous deployment that are not included in the new WAR may continue to reside in the expanded WAR directory structure, and would have to be manually deleted.

Hot redeployment notes:

> **Note:** A hot deployment is deploying an application without restarting OC4J.

- When an EAR is redeployed or *hot redeployed* on a running OC4J instance, the status of the classes loaded in the JVM from the previous application may vary. In some cases a classloader may recognize that a class or JAR file in the file system has changed, and reload the class or library. In other cases, whether a new class definition is loaded, may depend on whether the JVM tuning allows the garbage collector to flush the existing class definition.
- Issues may also exist with respect to serialized objects containing session data. If the class related to a session object changes, it may not be possible to cast the generic session object back to the class, since the class has changed and its variables may occupy a different memory footprint. This may result in lost session data.
- In an Oracle Application Server environment, a *hot deployment* adds Oc4jMount directives to `mod_oc4j.conf`, which in turn forces a restart of Oracle HTTP Server. This will result in the loss of existing HTTP sessions.

7.6.1.6 Corrected Default Log File Name

Table 3-3 of the *Oracle Application Server Containers for J2EE User's Guide* 10g Release 2 (10.1.2) states incorrectly that the default log file name for the OC4J is `web-access.log`. The correct default log file name is `default-web-access.log`.

The corrected table with the corrected default log file name for OC4J is as follows:

Table 7–1 List of Log Files Generated for OC4J

Default Log File Name	Description	Scope	Configuration File
`application.log`	All events, errors, and exceptions for a deployed application	One log file for each application deployed	`orion-application.xml`
`global-application.log`	All common events, errors, and exceptions related to applications	All applications, including the default application	`application.xml`
`jms.log`	All JMS events and errors.	JMS sub-system	`jms.xml`
`rmi.log`	All RMI events and errors	RMI sub-system	`rmi.xml`
`server.log`	All events not associated with a particular sub-system or an application. This logs history of server startup, shutdown internal server errors.	Server-wide	`server.xml`
`default-web-access.log`	All accesses to the Web site	Each Web site	`default-web-site.xml`

7.6.1.7 Manual Build and Deploy Methods Apply To Standalone Environment Only

The "Building and Deploying Within a Directory" section of Chapter 3, "Advanced Configuration andDevelopment" of the *Oracle Application Server Containers for J2EE User's Guide* 10g Release 2 (10.1.2) should include the following note:

Note:

The manual build and deploy methods described in this section can be used in the standalone OC4J environment only, not in the enterprise environment.

In the enterprise environment, use the Oracle Enterprise Manager 10*g* to build and deploy applications.

7.6.1.8 High Availability Guide Has No Information on "Hot Deploying" an Application in a Clustered Environment

According to the *Oracle Application Server Containers for J2EE User's Guide* 10g Release 2 (10.1.2), deploying a new Web module to an active OC4J instance causes loss of the HTTP sessions for every Web application running within the server instance.

In a non-clustered environment, this issue can be avoided by using the `persistence-path` attribute in the root `<orion-web-app>` element within each `orion-web.xml` file. This workaround does **not** apply to a clustered environment.

The User's Guide indicates **incorrectly** that the *Oracle Application Server High Availability Guide* provides "guidelines on addressing this issue in a clustered environment". In fact, the *Oracle Application Server High Availability Guide* provides no information about this topic.

7.6.1.9 For State Replication, Confirm That the <cluster-config/> Tag Is in the orion-web.xml File

The "Configuring Web Application State Replication" section in Chapter 4, "OC4J Cluster Configuration of the *Oracle Application Server Containers for J2EE User's Guide* 10g Release 2 (10.1.2), provides a six-step procedure for configuring state replication for Web applications.

In addition to the six steps, confirm that the <cluster-config/> tag has been added to the global-web-application.xml file. If this tag has not been added to the global-web-application.xml file, then add the tag to the orion-web.xml file. The orion-web.xml file is in the following location:

ORACLE_HOME/j2ee/<instance_name>/applications/<app_name>/<app_name>/WEB-INF/orion-web.xml

The <cluster-config/> tag is a subelement of the <orion-web-app> tag. For more information about the orion-web.xml file and the <cluster-config/> tag, see Chapter 6, "Configuration File Descriptions", of the *Oracle Application Server Containers for J2EE Servlet Developer's Guide*.

7.6.1.10 Correction to Sharing Libraries Documentation

This release note adds information to clarify the Sharing Libraries section of Chapter 3, Advanced Configuration and Development, of the 10.1.2 *Oracle Application Server Containers for J2EE User's Guide*.

The examples given are potentially misleading in that, by default, there is already a <library> element for the \j2ee\home\applib\ directory. Also note that there is an applib directory for each OC4J instance, not just the home instance.

7.6.1.11 Add the Description of the -userThreads Option

In "Appendix B - Additional Information" of the *Oracle Application Server Containers for J2EE User's Guide*, add the following description of the -userThreads option to Table B-2 OC4J Command-Line Options.

-userThreads	Enables context lookup support from user-created threads.

7.6.2 Oracle Application Server Containers for J2EE Standalone User's Guide Documentation Errata

This section describes known errors in the *Oracle Application Server Containers for J2EE Standalone User's Guide*. It includes the following topic(s):

- Section 7.6.2.1, "Correction: http-web-site"

7.6.2.1 Correction: http-web-site

The following error appears in the "Deploy Using the Admin.JAR Tool in All Environments" section of Chapter 1, "Configuration and Deployment" of the *Oracle Application Server Containers for J2EE Stand Alone User's Guide* :

In the -bindWebApp example, the Web site name http_web_site is incorrect.

The correct Web site name in this case is: http-web-site.

The corrected example is as follows:

```
java -jar admin.jar
ormi://oc4j_host:oc4j_ormi_port
admin welcome -bindWebApp
FAQApp FAQAppWeb http-web-site /FAQApp
```

7.6.3 Oracle XML API Reference Documentation Errata

This section describes known errors in the *Oracle XML API Reference*. It includes the following topic:

7.6.3.1 Add Information for formDocument() Method

In the Oracle XML API Reference, Chapter 15, "Package Dom APIs for C++", add the following entries:

- On page 15-22, in Table 15-7 "Summary of DOMImplRef Methods; Dom Package", add an entry for `formDocument()` method, description: "Forms a document reference given a pointer to the document."
- On page 15-24, add the following method description:

  `formDocument()`

  Description

  Forms a document reference given a pointer to the document.

  Syntax

  ```
  DocumentRef< Node>* formDocument( Node* node);
  ```

  Parameter **Description**

  ---

  node Pointer to the document node.

  Returns

  `DocumentRef< Node>*` pointer to the document reference.

7.6.4 Oracle Application Server Containers for J2EE Services Guide Documentation Errata

This section describes known errors in the *OC4J Services Guide*. It includes the following topics:

7.6.4.1 Corrected SQLServer Data Source Example

On page 4-24 in "Example DataDirect Data Source Entries", the Oracle Application Server Containers for J2EE Services Guide shows the following example as a data source entry for SQLServer. However, the example is incorrect, a colon is missing.

```
@ url="jdbc:sqlserver//hostname:port;User=test;Password=secret"
```

The correct example is as follows:

```
@ url="jdbc:sqlserver://hostname:port;User=test;Password=secret"
```

7.6.4.2 Corrected JDBC Connect String for Third-Party Databases

In the "Example DataDirect Data Source Entries" section of the "Data Sources" chapter of the Oracle Application Server Containers for J2EE Services Guide for 9.0.4 and 10.1.2.x, the URLs in the examples are incorrect.

The INCORRECT part of the URL is as follows:

```
url="jdbc:databasevendor://...
```

The CORRECT URL fragment is as follows:

```
url="jdbc:oracle:databasevendor://...
```

The corrected example DataDirect Data Source Entries are as follows:

SQLServer

Here is a data source configuration sample for a SQLServer database.

```
<data-source
                class="com.evermind.sql.DriverManagerDataSource"
                name="OracleDS"
                location="jdbc/OracleCoreDS"
                xa-location="jdbc/xa/OracleXADS"
                ejb-location="jdbc/OracleDS"
                schema="database-schemas/ms-sql.xml"

 connection-driver="com.oracle.ias.jdbc.sqlserver.SQLServerDriver"
                username="mssql"
                password="mssql"

 url="jdbc:oracle:sqlserver://PZWU-PC\WUPZIAS;User=mssql;Password=mssql"
                inactivity-timeout="30"
 />
```

DB2

Here is a data source configuration sample for a DB2 database:

```
  <data-source
                  class="com.evermind.sql.DriverManagerDataSource"
                  connection-driver="com.oracle.ias.jdbc.db2.DB2Driver"
                  name="OracleDS"
                  location="jdbc/OracleCoreDS"
                  xa-location="jdbc/xa/OracleXADS"
                  ejb-location="jdbc/OracleDS"
                  schema="database-schemas/db2.xml"
                  username="db2admin"
                  password="db2admin"

 url="jdbc:oracle:db2://ying.us.oracle.com:50000;DatabaseName=sample;CreateDefa
ultPackage=TRUE"
                  inactivity-timeout="30"
/>
```

Sybase

Here is a data source configuration sample for a Sybase database:

```
  <data-source
                class="com.evermind.sql.DriverManagerDataSource"
```

```
                name="OracleDS"
                location="jdbc/OracleCoreDS"
                xa-location="jdbc/xa/OracleXADS"
                ejb-location="jdbc/OracleDS"
                schema="database-schemas/sybase.xml"
                connection-driver="com.oracle.ias.jdbc.sybase.SybaseDriver"
                username="JDBC_TEST"
                password="JDBC_TEST"
                url="jdbc:oracle:sybase://dlsun150:4101"
                inactivity-timeout="30"
/>
```

Informix

Here is a data source configuration sample for an Informix database:

```
<data-source
                class="com.evermind.sql.DriverManagerDataSource"
                name="OracleDS"
                location="jdbc/OracleCoreDS"
                xa-location="jdbc/xa/OracleXADS"
                ejb-location="jdbc/OracleDS"
                schema="database-schemas/informix.xml"

connection-driver="com.oracle.ias.jdbc.informix.InformixDriver"
                username="tg4odbc"
                password="tg4odbc"

url="jdbc:oracle:informix://dlsun150:3900;informixServer=gtw93;DatabaseName=ga
tewaydb"
                inactivity-timeout="30"
/>
```

7.6.4.3 Corrected Java Object Cache Code Example for Implementing a CacheEventListener

In the "*Implementing a Cache Event Listener" section of the "Java Object Cache" chapter of the *Oracle Application Server Containers for J2EE Services Guide* for 10.1.2.0.2, Example 9-14 has mismatched braces and misleading indentation.

The corrected example for Implementing a CacheEventListener is as follows:

```
import oracle.ias.cache.*;

    // A CacheEventListener for a cache object
    class MyEventListener implements CacheEventListener
    {

        public void handleEvent(CacheEvent ev) throws CacheException
        {
           MyObject obj = (MyObject)ev.getSource();
           obj.cleanup();
        }
     }

class MyObject
{
  public void cleanup()
  {
    // do something
```

```
  }
}

import oracle.ias.cache.*;

   // A CacheEventListener for a group object
    class MyGroupEventListener implements CacheEventListener
    {
       public void handleEvent(CacheEvent ev) throws CacheException
       {
          String groupName = (String)ev.getSource();
          notify("group " + groupName + " has been invalidated");

       }
       void notify(String str)
       {
         // do something
       }
    }
```

7.6.4.4 Also Add the ojdl.jar File to the Classpath to Access EJBs

In the 10.1.2 *Oracle Application Server Containers for J2EE Services Guide*, add the following item to the "Client-Side Requirements" section of Chapter 5, "Oracle Remote Method Invocation" and again to the "Client-Side Requirements" section in Chapter 6, "J2EE Interoperability":

"Also add the `ojdl.jar` file to the classpath. The `ojdl.jar` file is located within the Application Server installation and is not part of the OC4J client package. The `ojdl.jar` can be downloaded from the following URL:

`http://www.oracle.com/technology/obe/obe_as_1012/j2ee/lookup/files/ojdl.jar`

A tutorial related to this topic is available at the following URL:

`http://www.oracle.com/technology/obe/obe_as_1012/j2ee/lookup/lookup.htm#install`

7.6.5 Oracle Application Server Containers for J2EE Security Guide

This section describes issues with the Oracle Application Server Containers for J2EE Security Guide. It includes the following topics:

- Section 7.6.5.1, "Incorrect Example in Deployment Roles and Users"
- Section 7.6.5.2, "Incorrect internal-settings.xml Information"
- Section 7.6.5.3, "Incorrect RMIPermission and AdministrationPermission Class Information"

7.6.5.1 Incorrect Example in Deployment Roles and Users

On page 3-8 of the Oracle Application Server Containers for J2EE Security Guide, under "Deployment Roles and Users", there is an example that does not properly close the `<type>` and `<name>` subelements of a `<member>` element. Here is the corrected example:

```
<role>
 <name>developer</name>
  <members>
```

```
   <member>
    <type>user</type>
    <name>john</name>
   </member>
  </members>
</role>
```

7.6.5.2 Incorrect internal-settings.xml Information

The *Oracle Application Server Containers for J2EE Security Guide* incorrectly states that the `internal-settings.xml` file supports password indirection for keystore-password and truststore-password (page 14-2). This is incorrect; the `internal-settings.xml` file does not support password indirection.

7.6.5.3 Incorrect RMIPermission and AdministrationPermission Class Information

In several places in the *Oracle Application Server Containers for J2EE Security Guide* for release 10.1.0.2, the package for `RMIPermission` and for `AdministrationPermission` is **incorrectly** identified as `oracle.j2ee.server`.

The **correct** package for `RMIPermission` in 10.1.0.2 is `com.evermind.server.rmi`.

The **correct** package for `AdministrationPermission` in 10.1.0.2 is `com.evermind.server`.

7.6.6 OC4J Release Notes for 10.1.2.0.2

This section describes issues with the OC4J Release Notes for 10.1.2.0.2. It includes the following topic:

- Section 7.6.6.1, "Disregard Previous Release Note: Package Name for RMIInitialContextFactory Has Changed"

7.6.6.1 Disregard Previous Release Note: Package Name for RMIInitialContextFactory Has Changed

Disregard the following release note from the initial 10.1.2 OC4J Release Notes. The information does not apply to the 10.1.2 release.

"The package name for `RMIInitialContextFactory` has changed from `oracle.j2ee.rmi.server` to `oracle.j2ee.rmi`. "

8

Oracle HTTP Server

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

8.1 General Issues and Workarounds

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

8.1.1 Configuring Weighted Routing for AJP13 Destinations

In the `Oc4jMount` directive, weighted load balancing works only when the destinations are instances or clusters. Weighted load balancing does not work for AJP13 destinations. For AJP13 destinations, the load is distributed evenly in a round-robin manner. For example, if your `mod_oc4j.conf` file contains the following lines, Host_A and Host_B will get an equal number of requests despite the settings in the `Oc4jRoutingWeight` directives.

```
Oc4jSelectMethod roundrobin:weighted
Oc4jRoutingWeight Host_A 1
Oc4jRoutingWeight Host_B 25
Oc4jMount /j2ee   ajp13://Host_A:<AJP Port>,Host_B:<AJP Port>
Oc4jMount /j2ee/* ajp13://Host_A:<AJP Port>,Host_B:<AJP Port>
# Instance weighted routing work as expected
#Oc4jMount /j2ee   instance://Host_A:home,Host_B:home
#Oc4jMount /j2ee/* instance://Host_A:home,Host_B:home
```

A possible workaround to achieve weighted load balancing for AJP13 destinations is to specify the same host multiple times in the `Oc4jMount` directive. The following example specifies Host_B twice.

```
Oc4jMount /j2ee ajp13://Host_A:<AJP Port>,Host_B:<AJP Port>,Host_B:<AJP Port>
```

8.1.2 Oracle HTTP Server (1.0.2.2.x) Cannot Be Used with Oracle Internet Directory 10*g* Release (10.1.2)

Oracle does not support using the version of Oracle HTTP Server that is supplied with Oracle9*i*AS Release 1 (1.0.2.2.x) as a front end to OC4J supplied with Oracle Application Server 10*g*Release 2 (10.1.2). You must not use `mod_proxy` to route data between these two components.

Always use `mod_oc4j` to route data to and from OC4J supplied with Oracle Application Server 10*g* (10.1.2). Use `mod_proxy` to route data between Oracle HTTP Server component supplied with Oracle9*i*AS Release 1 (1.0.2.2.x) and OC4J supplied with Oracle9*i*AS Release 1 (1.0.2.2.x).

8.1.3 Log Error Message

During operations where `mod_oc4j` calls `mod_osso` (such as login and logout), the following error message is printed to the Oracle HTTP server log:

```
[Mon Jun 27 23:57:07 2005] [error] [client 139.185.173.23] [ecid:
90258476571,1] MOD_OC4J_0376: Request initial processing failed in ac worker with
HTTP status code 1. This status will be passed back to the listener for error
handling.
```

This error message is harmless and can be ignored. It will be removed in a future release.

8.1.4 Supported Apache Versions

In section C.7 Integrating Generic Apache with Oracle Application Server, the sentence "Generic Apache is Apache version 1.3.xx, and not Apache 2.x" should be "Generic Apache is Apache version 1.3.xx or Apache 2.x".

In section C.7.1, the note "`mod_oc4j` is supported in Apache versions 1.3.x only. It is not supported in Apache 2.0.x versions" should be disregarded.

8.2 Configuration Issues and Workarounds

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

- Section 8.2.1, "FastCGI Sockets Path Length Error"
- Section 8.2.2, "Oracle HTTP Server Does Not Start After Enabling Port Tunneling or SSL in mod_oc4j"
- Section 8.2.3, "Redirects Break If OracleAS Web Cache is Turned Off or is Disabled"
- Section 8.2.4, "Using Oc4jCERTCHAINIndicator to Pass Client Certificate"

8.2.1 FastCGI Sockets Path Length Error

On most platforms, the path for sockets used by FastCGI is limited to 108 characters. If an error such as the following is encountered, use the `FastCgiIpcDir` directive to specify a path name that is significantly shorter than 108 characters, such as `/tmp`:

```
Thu Oct 16 12:55:06 2003] [error] [client 148.87.9.44] [ecid: 82608810576,1]
FastCGI: failed to connect to (dynamic) server
"/opt/oracle/inst/Apache/Apache/fcgi-bin/echo": path
"/opt/oracle/inst/Apache/Apache/logs/fastcgi/dymanic/aac1cec5416b961cf002c5526b415
```

```
9"
is too long for a Domain socket
```

> **Note:** The FastCGI limit of 108 characters is applicable to Apache 2.0 also.

8.2.2 Oracle HTTP Server Does Not Start After Enabling Port Tunneling or SSL in mod_oc4j

Oracle HTTP Server might not start if you modify its configuration to enable port tunneling (iASPT), or SSL in `mod_oc4j`. Following are the possible solutions for this issue:

- Recommended solution: if `mod_perl` is not needed, disable it by commenting out the `LoadModule perl_module libexec/libperl.so` line from `httpd.conf`.
- If `mod_perl` is needed, ensure that you are running the latest patch set from Sun, and move the `LoadModule` line for `mod_perl` until after the include of `mod_oc4j.conf` in `httpd.conf`.

8.2.3 Redirects Break If OracleAS Web Cache is Turned Off or is Disabled

By default, Oracle HTTP Server sends redirects to the OracleAS Web Cache listening port. If OracleAS Web Cache is not running or is disabled, then redirects from Oracle HTTP Server (and any OC4J application behind Oracle HTTP Server) will not work. If you are not planning to run OracleAS Web Cache, then edit `httpd.conf` and `ssl.conf`, changing the `Port` directive so that it matches the `Listen` directive instead of the OracleAS Web Cache listening port.

8.2.4 Using Oc4jCERTCHAINIndicator to Pass Client Certificate

The Oc4jCERTCHAINIndicator directive in the `mod_oc4j.conf` file is used to pass client certificates to OC4J. The directive is used to indicate the certification chain set in the environment. For example, if the following line is in the `mod_oc4j.conf` file:

```
Oc4jCERTCHAINIndicator SSL_CLIENT_CERT_CHAIN
```

Then the certificate chain can then be defined using the environment variables SSL_CLIENT_CERT_CHAIN*n*, where *n* is greater than zero. The order of the certificates is as follows:

- SSL_CLIENT_CERT_CHAIN0 is the highest order intermediate CA certificate that is certified with the Root CA certificate.
- SSL_CLIENT_CERT_CHAIN*n* is the lowest order intermediate CA certificate that certifies the Client certificate.

To use the Oc4jCERTCHAINIndicator directive, the Oc4JExtractSSL directive must be set to On. The following lines show the way the directives must be set:

```
Oc4jExtractSSL On
Oc4jCertChainIndicator CERT_CHAIN_INDICATOR
```

The following is an example of the directives:

```
Oc4jExtractSSL On
Oc4jCertChainIndicator SSL_CLIENT_CERT
```

8.3 Documentation Errata

The section describes documentation errata in installation and upgrade documentation. It includes the following topics:

8.3.1 Correction to SSLCARevocationFile Directive Description

The description for the `SSLCARevocationFile` directive in *Oracle HTTP Server Administrator's Guide*, Chapter 11, "Enabling SSL for Oracle HTTP Server," should be corrected as follows:

Specifies the file where you can assemble the Certificate RevocationLists (CRLs) from CAs (Certificate Authorities) that you accept certificates from. These are used for client authentication. Such a file is the concatenation of various PEM-encoded CRL files in order of preference. CRL files should be from a single issuer. Files specified by `SSLCARevocationFile` should not be hashed. There should be only one `SSLCARevocationFile` entry; if there are multiple entries, then the last one will be used. `SSLCARevocationFile` can be used alternatively and/or additionally to `SSLCARevocationPath`.

8.3.2 Correction to SSLCARevocationPath Directive Description

The description for the `SSLCARevocationPath` directive in *Oracle HTTP Server Administrator's Guide*, Chapter 11, "Enabling SSL for Oracle HTTP Server," should be corrected as follows:

Specifies the directory where PEM-encoded Certificate Revocation Lists (CRLs) are stored. These CRLs come from the CAs (Certificate Authorities) that you accept certificates from. If a client attempts to authenticate itself with a certificate that is on one of these CRLs, then the certificate is revoked and the client cannot authenticate itself with your server.

CRL files in the `SSLCARevocationPath` directory must be hashed. You can find the instructions to hash a CRL in *Oracle Application Server Administrator's Guide*, Section 15.2.5.2.1, "Renaming CRLs with a Hash Value for Certificate Validation." Note that `orapki` creates a file with a "`.rN`" extension. `SSLCARevocationPath` will not work with this extension and it is still possible to access with a revoked certificate. To get it to work with Oracle HTTP Server, change the extension from "`.rN`" to "`.r0`".

`SSLCARevocationPath` can be used alternatively and/or additionally to `SSLCARevocationFile`.

8.3.3 Incorrect Web Address for mod_php Extensions Information

The Web site provided for additional information on mod_php extensions was incorrect. The correct Web site is

`http://www.php.net/manual/en/funcref.php`

8.3.4 Incorrect Tags Listed for 40-Bit and 56-Bit Export Ciphers

Table 10-1, "SSLCipher Suite Tags", in the *Oracle HTTP Server Administrator's Guide* listed incorrectly the aliases for the 40-bit and the 56-bit export ciphers.

For 40-bit export cipher, do not use `EXP40`. Use `EXPORT40` instead.

For 56-bit export cipher, do not use `EXP56`. Use `EXPORT56` instead.

9

Oracle Application Server TopLink

This chapter describes issues associated with Oracle Application Server TopLink (OracleAS TopLink). It includes the following topic:

- Section 9.1, "General Issues and Workarounds"

9.1 General Issues and Workarounds

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

- Section 9.1.1, "Installing Oracle Application Server TopLink Mapping Workbench from the Companion CD"

9.1.1 Installing Oracle Application Server TopLink Mapping Workbench from the Companion CD

After installing the OracleAS TopLink Mapping Workbench from the Companion CD , you may encounter the following message in the console window when starting the OracleAS TopLink Mapping Workbench:

```
Unable to locate tools.jar.
```

This message can be safely ignored.

10

Oracle Application Server Portal

This chapter describes issues and workarounds related to Oracle Application Server Portal. It includes the following topics:

10.1 OracleAS Portal 10*g* Release 2 (10.1.4) Issues and Workarounds

This section describes issues and workarounds related to OracleAS Portal 10*g* Release 2 (10.1.4). It includes the following topics:

10.1.1 General Issues and Workarounds

This section describes general issues and their workarounds in OracleAS Portal. It includes the following topics:

10.1.1.1 Editing a Database Link Requires Password

If the database where the portal schema is installed is version 10.2 or later, then users must reenter the remote user's password when they rename or edit a database link from the Portal Navigator's Database Objects tab. This is applicable only for those database links that are created with the **Specific User** option.

10.1.1.2 Moving Content When Approval Is Enabled Does Not Require Approval

Moving content between pages or between regions of the same page does not trigger approvals. For example, when a target page is configured with an approval process and a contributor moves content from a source page to the target page, the moved content does not trigger the approval process on the target page, even when approval is required for all users.

10.1.1.3 Download Fails for Files with .tgz, .gz, and .Z Extensions

When you download documents with extensions `.gz`, `.tgz`, and `.Z` from OracleAS Portal, the download will fail.

As a workaround, perform the following steps:

1. Open the file, *ORACLE_HOME*`/Apache/Apache/conf/httpd.conf`.
2. Locate the Oracle HTTP Server `AddEncoding` directive.
3. Comment out the directives for the extensions with `Z`, `gz`, and `tgz` as shown in the following example:

   ```
   # AddEncoding x-compress Z
   # AddEncoding x-gzip gz tgz
   ```

4. Run the following command to synchronize the manual configuration changes done on the Oracle Application Server middle tier:

   ORACLE_HOME`/dcm/bin/dcmctl updateConfig -ct ohs`

5. Restart Oracle HTTP Server by running the following command:

   ORACLE_HOME`/opmn/bin/opmnctl restartproc process-type=HTTP_Server`

6. Restart OracleAS Web Cache by running the following command:

   ORACLE_HOME`/opmn/bin/opmnctl restartproc process-type=WebCache`

This issue will be fixed in a future patch release.

10.1.1.4 Logout Link Does Not Work When Accessing OracleAS Portal Using a Mobile Device

When you access OracleAS Portal using a mobile device and the default home page is public, logging out does not end the session immediately. Consequently, nonpublic content accessed within the session continues to be accessible in the browser. It remains accessible until you close the browser or the wireless session times out.

You can fix this issue by applying patch 4568672 for Wireless server. This patch is available at:

`https://metalink.oracle.com`

10.1.1.5 Pushing Oracle Reports 10.1.2.0.2 Output to OracleAS Portal 10.1.4 Does Not Work

When OracleAS Portal 10*g* Release 2 (10.1.4) is used with Oracle Reports 10*g* Release 2 (10.1.2.0.2), you cannot push Oracle Reports output to OracleAS Portal.

For example, the following example does not work as expected:

```
http://mywebserver.com:7779/reports/rwservlet?server=myrepserv+report=test.rdf+
userid=scott/tiger@mydb+destype=oracleportal+desformat=PDF+pagegroup=mypaggrp+
outputpage=reports_output+itemtitle=pushtoportal+statuspage=result
```

To resolve this issue, apply the Oracle Reports patch ARU 7769689.

10.1.1.6 Internal Error Uploading Files or Images

If your portal manages content with multiple translations and you are logged in with the default language, then you may see the following error when you try to upload a file or image item:

```
Internal error (WWC-00006)
Unexpected error - User-Defined Exception (WWC-35000)
Unexpected error - ORA-00001: unique constraint PORTAL.WWDAV$PKPATH) violated
(WWC-35000)
```

This error is displayed because another file or image item on the page has the same file name. As a workaround, perform any one of the following tasks:

- Use a different file name for the new file or image item.
- Run the DAV Loader utility (`wwdav_loader`), as described in the *Oracle Application Server Portal Configuration Guide*. Running DAV Loader can be very time consuming, however, this will enable you to upload the new file or image item without changing its file name.

10.1.1.7 OracleAS Portal Login Fails After OracleAS Cold Failover Cluster (Middle Tier) Configuration

If you configure an OracleAS Cold Failover Cluster (Middle Tier) that resides on the same node as the infrastructure associated with the middle tier from which the portal is running, then you may see the following error when you log in to OracleAS Portal:

```
Internal error (WWC-00006)
Unexpected error encountered in wwsec_app_priv.process_signon (User-Defined
Exception) (WWC-41417)
```

The Oracle Internet Directory host name in the Portal Dependency Settings file, `iasconfig.xml`, may incorrectly specify the host name of the new middle tier. As a workaround, perform the following steps:

1. Update the `IASInstance` element in the `iasconfig.xml` file so that the `Host` (of the `IASInstance` element associated with the Oracle Internet Directory component) is that of the Oracle Internet Directory host.
2. Run the `ptlconfig` tool to update the Oracle Internet Directory settings, as follows:

   ```
   ptlconfig -dad <dad> -pw <portal schema password or Oracle Internet Directory
   password> -oid
   ```

For more information about updating the `iasconfig.xml` file and running `ptlconfig`, refer to Appendix A "Using the Portal Dependency Settings Tool and File" in the *Oracle Application Server Portal Configuration Guide*.

10.1.1.8 Oracle Text Support

OracleAS Portal uses Oracle Text functionality to extend its search capabilities. Oracle Text uses Verity filters to convert documents in proprietary and binary formats, such as Microsoft Word and PDF documents, into a common format that is suitable for indexing. Verity KeyView Filter SDK, which is embedded in Oracle Text, provides the ability to filter documents on a wide variety of platforms.

However, Verity filters in Oracle Text are not supported on hp Tru64 UNIX.

10.1.2 Upgrade Issues and Workarounds

This section describes upgrade-related issues and their workarounds in OracleAS Portal. It includes the following topic:

- Section 10.1.2.1, "Relative Hypertext Links to Images and Documents May Break After Upgrade"

10.1.2.1 Relative Hypertext Links to Images and Documents May Break After Upgrade

When upgrading to OracleAS Portal 10*g* Release 2 (10.1.4), relative hypertext links to images and documents may be broken. This can occur when the relative hypertext link uses a different case than the file name. For example, if a pre-upgrade image was uploaded to your portal with the name `PROCESS1.GIF`, and a hypertext link is referring to `process1.gif`, after the upgrade, the relative hypertext link to the image will be broken. You are most likely to encounter this in HTML templates or in documents that refer to images or other documents.

To address this issue, edit image and document names, making their case agree with the case used for the file names.

10.1.3 User Interface Issues and Workarounds

This section describes issues and workarounds related to the OracleAS Portal user interface. It includes the following topic:

- Section 10.1.3.1, "Template Caching Option Displays Incorrectly in a Non-English Portal"

10.1.3.1 Template Caching Option Displays Incorrectly in a Non-English Portal

In a non-English portal, the following template caching option label is incorrect (Template Properties: Main tab):

Cache Template Definition at User Level and Content at System Level for [ ] Minutes

The correct label for this template caching option is:

Cache Template Definition and Content at System Level for [ ] Minutes

> **See Also:** Section 10.1.6.1, "Help for Page and Template Caching Options Is Incorrect"

10.1.4 Portlet and Provider Issues and Workarounds

This section describes issues and workarounds related to OmniPortlet, Web Clipping, Simple Parameter Form, Page portlet, and WSRP providers. This section includes the following topics:

10.1.4.1 Using OmniPortlet Web Page Data Source After Cloning

If you clone a middle-tier instance, then you must perform the following steps before you can use OmniPortlet Web Page Data Source:

1. Open the `web.xml` file.

   ORACLE_HOME`/j2ee/OC4J_Portal/applications/portalTools/omniPortlet/WEB-INF/web.xml`

2. If the `usePort` context parameter is present, then set it to the Oracle HTTP Server port of the cloned target instance. This port number is specified in *ORACLE_HOME*`/install/portlist.ini`.

3. Restart the OC4J_Portal instance.

   ```
   ORACLE_HOME/opmn/bin/opmnctl stopproc process-type=OC4J_Portal
   ORACLE_HOME/opmn/bin/opmnctl startproc process-type=OC4J_Portal
   ```

10.1.4.2 Truncated Data in Page Portlets

In an OracleAS Portal installation that has Secure Sockets Layer (SSL) throughout (see the *Oracle Application Server Portal Configuration Guide*, Section 6.3.2.1.4 "SSL Throughout OracleAS Portal"), the page portlet output is truncated and the portlet displays some junk characters in the following scenarios:

- A page portlet that contains a tab is placed on a page whose definition is cached at the system-level
- The definition of a page portlet that contains a tab specifies system-level caching
- An instance of a page portlet that contains a tab specifies system-level caching

To avoid truncation and junk characters in a page portlet, specify user-level caching for the container page definition, the page portlet definition, and the page portlet instance.

This issue will be addressed in a future patch release. The patch will enable the use of system-level caching in the presence of page portlets with tabs, without such errors.

10.1.4.3 Download Latest Portlet Container for WSRP

After the release of OracleAS Portal 10.1.2.0.2, the portlet container for WSRP was updated and continues to be updated. Review the PDK software download page for information on new versions of the container as well as any required patches that need to be applied before using it:

http://www.oracle.com/technology/products/ias/portal/pdk.html

10.1.4.4 Using WSRP Portlets that Display User Profile Attributes Within OracleAS Portal

When a user that has not yet been authenticated visits a publicly accessible page in OracleAS Portal, a temporary session is created using an internal system user called "PUBLIC". Because PUBLIC is an internal system user that represents an unauthenticated user session, it does not expose the typical user profile attributes associated with a normal authenticated user session (for example, First name, Last name, etc.). Therefore, it is recommended that portlets that explicitly leverage user profile information only be added to non-public (that is, authenticated) pages. This will ensure that the user profile data exists for the portlet to leverage.

10.1.4.5 Registering WSRP Producers in Enterprise Configurations

When you register a WSRP producer in an Enterprise configuration, you must create a Web Services Definition Language (WSDL) document manually, then register the WSRP producer using that WSDL. This is because the dynamically generated WSDL creates URLs using the HTTPS protocol and the HTTPS port while WSRP producers use HTTP.

Note: A *producer* for WSRP portlets is analogous to a *provider* for PDK-Java portlets.

To create a WSDL document manually, perform the following tasks:

1. View the dynamically generated WSDL through your browser (preferably Internet Explorer).

   To view the WSDL for our WSRP samples, go to:

   ```
   http://<host>:<external http port>/portletapp/portlets?WSDL
   ```

2. Save the file from the browser to any externally available location.

   For our WSRP Samples, save the file from the browser into the following directory:

   ```
   ORACLE_HOME/j2ee/home/applications/portletapp/wsrp-samples
   ```

   Save the file as `wsrpsamples.wsdl`.

3. Edit the file, replacing `https` with `http` and correcting the ports to be the external http ports.

4. View the file through a browser.

   For example, for our WSRP Samples use the following URL:

   ```
   http://<host>:<external http
   port>/portletapp/wsrpsamples.wsdl
   ```

5. Use the URL to your `*.wsdl` file (such as the URL under Step 4) when you register the WSRP producer.

For more information about Enterprise configurations, see the *Oracle Application Server Enterprise Deployment Guide* at the following location:

(http://www.oracle.com/technology/documentation/appserver101202.html)

10.1.4.6 Issue Adding or Deleting Portlets on Page Portlets

If you have the Personalize Portlets (Full) privilege on two pages, Page A and Page B, then you cannot add or delete portlets on Page B when Page B is displayed as a page portlet on Page A. However, you can add or delete portlets when pages A and B are displayed as individual pages. This is a known issue.

10.1.4.7 Issue When Accessing Page Portlet Using Federated Portal Adapter

The Federated Portal Adapter enables you to display remote portal pages in your portal. However, if both portal instances do not share the same OracleAS Single Sign-On server, then you cannot display a remote portal page as a page portlet, even if the remote page is public. A message is displayed instead of the page portlet, as shown in the following example:

```
Portlet 257,75057 responded with content-type text/plain when the client was
requesting content-type text/html
```

As a workaround, configure both portal instances to use the same OracleAS Single Sign-On server.

10.1.4.8 Error in JPS Portlet After Redeployment

When you redeploy your portlets to the portlet container, all existing sessions between the producer and all of its consumers are lost. If a consumer tries to reuse an existing producer session, then it may receive an error message the first time it tries to contact the producer after redeployment, as shown in the following example:

```
Error: Could not get markup. The cookie or session is invalid or there is a
runtime exception.
```

To reestablish the producer's session, refresh the portal page. You will not see this error message if you are reaccessing the portlet from a new browser session because it automatically establishes a new producer session.

10.1.5 Globalization Support Issues and Workarounds

This section describes issues and workarounds related to Globalization Support in OracleAS Portal. It includes the following topics:

- Section 10.1.5.1, "Text Entry Always Right to Left in BiDi Languages"
- Section 10.1.5.2, "Browser Limitation in BiDi Languages"
- Section 10.1.5.3, "Non-ASCII Character Limitations in OracleAS Portal"
- Section 10.1.5.4, "Non-ASCII Character Limitations in Oracle Instant Portal"
- Section 10.1.5.5, "Errors Displayed When the OracleAS Portal Language Is Traditional Chinese"

10.1.5.1 Text Entry Always Right to Left in BiDi Languages

The direction of all text areas and fields is right to left (RTL). However, you may want some text areas to work left to right (LTR). Internet Explorer users can change this by pressing the left hand side Ctrl and Shift keys.

10.1.5.2 Browser Limitation in BiDi Languages

To display Oracle Instant Portal correctly in bi-directional languages such as Arabic and Hebrew, use Internet Explorer.

10.1.5.3 Non-ASCII Character Limitations in OracleAS Portal

This section discusses non-ASCII character limitations when working with OracleAS Portal:

- In Web Folders, if you change the name of a portal page to use non-ASCII characters, then an error message displays.
- In some non-ASCII character set environments, you cannot use the **Browse Users** or **Browse Groups** list of values to select a user or group name. As a workaround, you can enter the user or group name manually.
- When you copy and paste an item URL containing non-ASCII characters from one browser Location or Address field into another, you may not be able to access the item if your login credentials have not been authenticated through OracleAS Single Sign-On.

  As a workaround, log in to the portal before you access the item and copy the item URL.

10.1.5.4 Non-ASCII Character Limitations in Oracle Instant Portal

To use Oracle Instant Portal in an environment that supports non-ASCII character sets, you must use the `UTF8` or `AL32UTF8` database character set.

10.1.5.5 Errors Displayed When the OracleAS Portal Language Is Traditional Chinese

When the portal language is set to Traditional Chinese you may see errors while working with portlets, such as the Custom Search portlet, or when using the Navigator. Such errors can occur if the value of the shared_pool_size parameter of the OracleAS Metadata Repository database is set too low. As a workaround, increase the value of the shared_pool_size parameter of the OracleAS Metadata Repository database. The recommended minimum size is 144MB, but this is too low for the Traditional Chinese language. Increase the value of the shared_pool_size parameter to 216MB, or higher.

10.1.6 Documentation Errors

This section describes known errors in OracleAS Portal documentation. It includes the following topic:

- Section 10.1.6.1, "Help for Page and Template Caching Options Is Incorrect"

10.1.6.1 Help for Page and Template Caching Options Is Incorrect

Page and template caching options described in the online Help are incorrect. Refer to Chapter 22, "Improving Page Performance" in the *Oracle Application Server Portal User's Guide* for correct information on page and template caching.

10.2 OracleAS Portal 10*g* Release 2 (10.1.2) Issues and Workarounds

This section describes issues and workarounds related to OracleAS Portal 10*g* Release 2 (10.1.2). It includes the following topics:

10.2.1 General Issues and Workarounds

This section describes general issues and their workarounds in OracleAS Portal. It includes the following topics:

10.2.1.1 Error in portal.log File After Installing OracleAS Metadata Repository

After installing OracleAS Metadata Repository using OracleAS Metadata Repository Creation Assistant, the following error is recorded in the `portal.log` file:

```
Error while opening file:
/private1/iasinst/Repca_050712/portal/admin/plsql/lib/sitedb.jar

Exception java.io.FileNotFoundException:
/private1/iasinst/Repca_050712/portal/admin/plsql/lib/sitedb.jar
```

This error does not affect the installation process and can be ignored.

10.2.1.2 OracleAS Portal Login Fails After OracleAS Cold Failover Cluster (Middle Tier) Configuration

If you configure an OracleAS Cold Failover Cluster (Middle Tier) that resides on the same node as the infrastructure associated with the middle tier from which the portal is running, then you may see the following error when you log in to OracleAS Portal:

```
Internal error (WWC-00006)
Unexpected error encountered in wwsec_app_priv.process_signon
(User-Defined Exception) (WWC-41417)
```

The Oracle Internet Directory host name in the Portal Dependency Settings file, `iasconfig.xml`, may incorrectly specify the host name of the new middle tier. As a workaround, perform the following steps:

1. Update the `IASInstance` element in the `iasconfig.xml` file so that the `Host` (of the `IASInstance` element associated with the Oracle Internet Directory component) is that of the Oracle Internet Directory host.
2. Run the `ptlconfig` tool to update the Oracle Internet Directory settings, as shown in the following example:

   ```
   ptlconfig -dad <dad> -pw <portal schema password or Oracle Internet Directory
   password> -oid
   ```

For more information about updating the `iasconfig.xml` file and running `ptlconfig`, refer to Appendix A "Using the Portal Dependency Settings Tool and File" in *Oracle Application Server Portal Configuration Guide*.

10.2.2 Upgrade Issues and Workarounds

This section describes upgrade-related issues and their workarounds in OracleAS Portal. It includes the following topics:

10.2.2.1 Configuring OracleAS Portal After Upgrade

If OracleAS Portal is not configured in the source Oracle home before you upgrade, then it will remain unconfigured even after the upgrade. You can configure OracleAS Portal after upgrading the middle tier or after upgrading the OracleAS Metadata Repository, by performing the following steps:

1. Modify the port entries in the `ptlem` script:

   On UNIX: *`DESTINATION_ORACLE_HOME`*`/assistants/opca/ptlem.sh`

   On Windows: `DESTINATION_ORACLE_HOME\assistants\opca\ptlem.sh`

   You need to update the following port values:

   - `http_port` - Oracle HTTP Server port

     (Get this value from *`DESTINATION_ORACLE_HOME`*`/Apache/Apache/conf/httpd.conf`)

   - `wc_invalid` - OracleAS Web Cache invalidation port
   - `wc_admin` - OracleAS Web Cache administration port
   - `em_port` - Application Server Control port

   Use Oracle Enterprise Manager 10*g* to obtain port values for `wc_invalid`, `wc_admin`, and `em_port` as follows:

   a. In your browser, enter the URL for the Application Server Control Console.

   b. Enter the `ias_admin` login credentials that you used for the destination Oracle home.

   c. In the Standalone Instances section, click the name of the destination middle-tier instance.

   d. Click the **Ports** tab.

      The Ports page displays the port values you require.

2. Use Oracle Enterprise Manager 10*g* Application Server Control Console to configure OracleAS Portal.

See Also: Section 7.2.2 "Using Application Server Control Console to Configure OracleAS Portal" in the *Oracle Application Server Portal Configuration Guide*.

3. Run `ptlconfig` to configure the portal schema in the OracleAS Metadata Repository with the upgraded middle-tier instance as follows:

```
DESTINATION_ORACLE_HOME/portal/conf/ptlconfig -dad <portal_dad>
```

Note: If you configure OracleAS Portal using Application Server Control, without updating the ports (in `ptlem.sh` or `ptlem.bat`), then the `iasconfig.xml` and `targets.xml` files will contain incorrect port entries; therefore, the portal will not be accessible. To reconfigure OracleAS Portal with correct port values and make it accessible, you must first enter correct port values in `iasconfig.xml` and `targets.xml`, and then configure OracleAS Portal.

Updating the targets.xml File

To update *DESTINATION_ORACLE_HOME*`/sysman/emd/targets.xml`:

1. Modify the port entries in `DESTINATION_ORACLE_HOME/assistants/opca/ptlem.sh` (`.bat` in Windows) as mentioned earlier.
2. Back up *DESTINATION_ORACLE_HOME*`/sysman/emd/targets.xml`.
3. Remove the target entry for the portal you are reconfiguring. You must remove the complete target entry for `<Target TYPE = "oracle_portal">`. For example,

```
<Target TYPE="oracle_portal"
  ....
</Target>
```

   Before removing the target entry for this portal, ensure that this target contains the property `<Property NAME="portal_DAD" VALUE="portal"/>` and its `OracleHome` property maps to the destination middle tier.

4. Save the file.
5. Set the value of the `ORACLE_HOME` environment variable to *DESTINATION_ORACLE_HOME*.
6. Run the script `DESTINATION_ORACLE_HOME/assistant/opca/ptlem.sh` (`.bat` in Windows).
7. Check the log file, *DESTINATION_ORACLE_HOME*`/assistant/opca/install.log`, for errors.

Updating the iasconfig.xml File

To update *DESTINATION_ORACLE_HOME*`/portal/conf/iasconfig.xml`:

1. Update the port values for the `WebCacheComponent` and `EMComponent` elements that the portal instance you are reconfiguring refers to. You can obtain the upgraded port values for all the following ports from Oracle Enterprise Manager 10*g*, as described earlier.

- Update `ListenPort`, `InvalidationPort`, and `AdminPort` in `WebCacheComponent` with `WebCache Listen Port`, `Web Cache Invalidation`, and `WebCache Admin Port` respectively.
- Update `ConsoleHTTPPort` in `EMComponent` with `Application Server Control Port`.

2. Run `ptlconfig` to configure the portal schema in the OracleAS Metadata Repository with the upgraded middle-tier instance as follows:

```
DESTINATION_ORACLE_HOME/portal/conf/ptlconfig -dad <portal_dad> [-pw <portal
schema password>]
```

After you have updated both the `targets.xml` and `iasconfig.xml` files, bounce back the Oracle HTTP Server and OC4J_Portal from the Application Server Control Console.

For more information on `iasconfig.xml` and `ptlconfig`, refer to *Oracle Application Server Portal Configuration Guide*.

10.2.2.2 OracleAS Portal Users Cannot Log on to Oracle Ultra Search

OracleAS Portal users cannot log on to manage Oracle Ultra Search if the OracleAS Metadata Repository is prepared by a 9.2.0.x database with OracleAS Metadata Repository Creation Assistant installed.

The workaround is to log on as a database user to manage Oracle Ultra Search, or invoke the following PL/SQL API to grant `orcladmin` super-user privileges.

Log on as `WKSYS`.

```
BEGIN
  WK_ADM.GRANT_SYSADMIN(
  <orcladmin dn>,
  1,
  null,
  <subscriber dn>
  )
EXCEPTION WHEN OTHERS THEN WK_ERR.RAISE;
END;
```

Here is an example:

```
BEGIN
WK_ADM.GRANT_SYSADMIN('orcladmin',1,null,'dc=oracle,dc=com');
EXCEPTION WHEN OTHERS THEN WK_ERR.RAISE;
END;
/
```

Note: The `wk_adm_code` from 9.2 does not support the fully qualified name and, therefore, generates an ORA-6502 error if you use the following string:

```
cn=orcladmin,cn=users,dc=oracle,dc=com
```

To avoid this error, specify only `orcladmin` as the user ID rather than the complete string.

10.2.2.3 Apply Portal Patch After Upgrading Database from Release 9*i* to 10*g*

After you upgrade the database where the Portal schema resides, from release 9*i* to release 10*g*, apply patch 4543413. This is relevant to OracleAS Portal releases 10.1.2.0.0, 10.1.2.0.1, 10.1.2.0.2, and 10.1.4.

10.2.2.4 Additional Step Required When Upgrading OracleAS Metadata Repository Release 9.0.4.3 to 10.1.4.0.1

If you have applied Oracle Application Server 10*g* (9.0.4) Patchset 3 (9.0.4.3) to your release 9.0.4 instance, and now want to upgrade the OracleAS Metadata Repository to release 10.1.4.0.1 by running 10.1.4.0.1 MRUA, you must first apply patch 5365207 to your 10.1.4.0.1 MRUA. For this, you must copy the contents of the 10.1.4.0.1 MRUA and Utilities CD–ROM to a location where you have write permission. Then apply patch 5365207 on your 10.1.4.0.1 MRUA staged directory. You can find this patch on Oracle *Metalink* at

https://metalink.oracle.com

Use the patched version of 10.1.4.0.1 MRUA to upgrade a release 9.0.4.3 instance to release 10.1.4.0.1. For details about running MRUA, refer to *Oracle Application Server Upgrade and Compatibility Guide*.

If you do not apply patch 5365207, then the portal component upgrade will fail with the following error when running 10.1.4.0.1 MRUA:

```
Calling upgrade plugin for PORTAL
Error: Component upgrade failed PORTAL
Error: PORTAL component version is: 9.0.4.3.0 INVALID
```

This error message is displayed on screen and is also recorded in the MRUA log file, *ORACLE_HOME*`\upgrade\logs\mrua.log`. For the detailed error message, review the portal upgrade precheck log file, *ORACLE_HOME*`\upgrade\temp\portal\precheck.log`. Refer to *Oracle Application Server Upgrade and Compatibility Guide* for further information on reviewing the upgrade log files.

The detailed error message from the `precheck.log` file reads as follows:

```
### Install Schema Validation Utility
>>> Running upg/common/prechk/svuver.sql .
Portal SQL script started at Thu Jun  1 08:55:22 2006
Connected.
# Beginning outer script: common/prechk/svuver
# Portal Schema Version = 9.0.4.3.0
# Version of schema validation utility being installed =
Connected.
###
### ERROR: Exception Executing upg/common/prechk/svuver.sql
###
### Check Failed at Thu Jun  1 08:55:24 2006 Continuing as PreCheck mode is
specified

### Invoke Schema Validation Utility in Report Mode
>>> Running upg/common/prechk/../svurun.sql .
Portal SQL script started at Thu Jun  1 08:55:24 2006
Connected.
# Beginning outer script: common/prechk/svurun
#-- Beginning inner script: common/common/svurun

l_mode := wwutl_schema_validation.MODE_REPORT;
```

```
                  *

ERROR at line 5:
ORA-06550: line 5, column 19:
PLS-00201: identifier 'WWUTL_SCHEMA_VALIDATION.MODE_REPORT' must be declared
ORA-06550: line 5, column 9:
PL/SQL: Statement ignored
ORA-06550: line 8, column 19:
PLS-0020: identifier 'WWUTL_SCHEMA_VALIDATION.MODE_CLEANUP' must be declared

ORA-06550: line 8, column 9:
PL/SQL: Statement ignored
ORA-06550: line 15, column 5:
PLS-00201: identifier 'WWUTL_SCHEMA_VALIDATION.VALIDATE_ALL' must be declared

ORA-06550: line 15, column 5:
PL/SQL: Statement ignored
Connected.
###
### ERROR: Exception Executing upg/common/prechk/../svurun.sql REPORT
###
### Check Failed at Thu Jun  1 08:55:25 2006 Continuing as PreCheck mode is
specified
```

Note: In the case where you have already encountered this error, apply patch 5365207 and rerun the upgrade. There is no need to restore the OracleAS Metadata Repository from backup before rerunning the upgrade. This is because the upgrade failed during the precheck phase and the portal schema in the OracleAS Metadata Repository has not been altered in the precheck phase.

If the portal upgrade fails in the precheck phase even after applying patch 5365207, then review the precheck log file for details about the new error. Based on the description of the error, resolve the problem and perform the upgrade again, or contact Oracle Support Services for help.

10.2.3 User Interface Issues and Workarounds

This section describes User Interface-related issues and their workarounds in OracleAS Portal. It includes the following topics:

- Section 10.2.3.1, "Issue Adding Regions to Pages Displayed in the Generic Page Portlets"
- Section 10.2.3.2, "Portlets on Subpages Not Displayed"
- Section 10.2.3.3, "Cannot Set Privileges Using List View on Pages Inheriting Privileges from Parent or Template"

10.2.3.1 Issue Adding Regions to Pages Displayed in the Generic Page Portlets

When you add a region to a page displayed in a generic page portlet, the new region is not displayed immediately as expected. As a workaround, manually invalidate the cache by clicking the **Clear Cache** link (Access tab) for the page containing the generic page portlet.

10.2.3.2 Portlets on Subpages Not Displayed

If a page displays a page portlet (Portlet A) with a subpage link to a page with tabs and portlets (Portlet B), the portlets under tabs in Portlet B are not displayed if you use the subpage link to navigate to Portlet B, from Portlet A. This is a known issue.

10.2.3.3 Cannot Set Privileges Using List View on Pages Inheriting Privileges from Parent or Template

If you use the List View to set access privileges for one or more pages, then privileges will *not* be set on pages inheriting privileges from a parent page or template. As a workaround, change the privileges for such pages individually, that is, using the Access tab for the subpage.

10.2.4 Export and Import Issues and Workarounds

This section describes export and import issues and their workarounds in OracleAS Portal. It includes the following topic:

- Section 10.2.4.1, "Export and Import Does Not Support Reports Server Components"

10.2.4.1 Export and Import Does Not Support Reports Server Components

If you include Reports Server Components within a transport set, then they are deleted on export and import. In addition, do not configure the Oracle Reports item type in any page groups intended for export and import. If you do, then the following error is displayed when you try to configure item types in the imported page group (by clicking the Content Type and Classifications **Edit** link on the Configure tab for the page group):

```
Internal error (WWC-00006)
Unexpected error - User-Defined Exception (WWC-35000)
Unexpected error - ORA-01403: no data found (WWC-35000)
```

10.2.5 Portlet and Provider Issues and Workarounds

This section describes issues and workarounds related to OmniPortlet, Web Clipping, Simple Parameter Form, and Page portlet. This section includes the following topics:

- Section 10.2.5.1, "Using OmniPortlet Web Page Data Source After Cloning"
- Section 10.2.5.2, "Error Exporting and Importing OmniPortlet and Web Clipping Customizations"
- Section 10.2.5.3, "Issue Adding or Deleting Portlets on Page Portlets"

10.2.5.1 Using OmniPortlet Web Page Data Source After Cloning

If you clone a middle-tier instance, then you must perform the following steps before you can use OmniPortlet Web Page Data Source:

1. Open the `web.xml` file.

   ORACLE_HOME`/j2ee/OC4J_Portal/applications/portalTools/omniPortlet/WEB-INF/web.xml`

2. If the `usePort` context parameter is present, then set it to the Oracle HTTP Server port of the cloned target instance. This port number is specified in *ORACLE_HOME*`/install/portlist.ini`.

3. Restart the OC4J_Portal instance.

```
ORACLE_HOME/opmn/bin/opmnctl stopproc process-type=OC4J_Portal
ORACLE_HOME/opmn/bin/opmnctl startproc process-type=OC4J_Portal
```

10.2.5.2 Error Exporting and Importing OmniPortlet and Web Clipping Customizations

During the import or export of OmniPortlet or Web Clipping provider customizations, an error message similar to the following may be displayed:

```
[Warning: (WWU-74505)] context = Import of one of the web provider customization
failed user = PORTAL An error occurred importing data to the web provider
OMNIPORTLET.
```

As a workaround, refresh the OmniPortlet and Web Clipping providers in the portlet repository on both the source and target portals before performing an import or export.

This issue is valid only for release 10.1.2.0.0. It has been fixed in release 10.1.2.0.2.

10.2.5.3 Issue Adding or Deleting Portlets on Page Portlets

If you have the Customize Portlets (Full) privilege on two pages, Page A and Page B, then you cannot add or delete portlets on Page B when Page B is displayed as a page portlet on Page A. However, you can add or delete portlets when pages A and B are displayed as individual pages. This is a known issue.

10.2.6 PDK Issues and Workarounds

Oracle Application Server Portal Developer Kit (PDK) version 10.1.2 is included with the Portal and Wireless installation. Release notes for the PDK-Java and PDK-PL/SQL can be found at the following middle-tier *ORACLE_HOME* locations:

- **PDK-Java:** *ORACLE_HOME*`/portal/pdkjava/v2/pdkjava.v2.releasenotes.html`
- **PDK-PL/SQL:** *ORACLE_HOME*`/portal/pdkjava/v2/pdkplsql.release.notes.html`

Latest Version of OracleAS PDK

New versions of the OracleAS PDK are released periodically providing new features, new APIs, and additional documentation. To take advantage of all the latest features, download the latest PDK from the PDK downloads page on the Oracle Technology Network (OTN) at http://www.oracle.com/technology/products/ias/portal/pdk.html.

Release notes for the latest OracleAS PDK version are available on Oracle Application Server Portal on OTN and also in these PDK download locations:

- `pdk\plsql\pdkplsql.release.notes.html`
- `pdk\jpdk\v2\pdkjava.v2.release.notes.html`

This section includes the following PDK-related issues and workarounds in OracleAS Portal:

- Section 10.2.6.1, "Support for WSRP and JSR 168"
- Section 10.2.6.2, "Restrictions on Struts Text Tag Lifted"

See Also: Section 10.2.8.1.12, "Exposing Your Application as a Web Service" for issues related to adding a custom JPS provider.

10.2.6.1 Support for WSRP and JSR 168

OracleAS Portal supports the building of Java Specification Request (JSR) 168 portlets starting in Oracle Application Server 10*g Release 1 (9.0.4)*. OracleAS Portal does not yet support consumption of Web Services for Remote Portlets (WSRP)-enabled portlets. Currently, you can only test your JSR 168 portlets against the hosted OracleAS Portal Verification Service at `http://portalstandards.oracle.com/` or the Developers Preview for OracleAS Portal available for download. Note that both the Developers Preview and the hosted OracleAS Portal Verification Service are provided for development purposes only and, should not be used for production systems.

See Also: Section 10.2.8.1.10, "Registering JSR Portlets"

10.2.6.2 Restrictions on Struts Text Tag Lifted

In previous releases of the Oracle Application Server Portal Developer Kit, in order to use the Struts text tag for entering form values, the provider `passAllUrlParams` flag had to be set to `true`, which affected the performance of OracleAS Web Cache, and the field name had to be unqualified. There are no such restrictions from OracleAS Portal 10*g* Release 2 (10.1.2) onwards.

10.2.7 Globalization Support Issues and Workarounds

This section describes issues and workarounds related to Globalization Support in OracleAS Portal. It includes the following topics:

- Section 10.2.7.1, "Oracle Text Searching Limitation (Text Files and HTML Files)"
- Section 10.2.7.2, "Text Entry Always Right to Left in BiDi Languages"
- Section 10.2.7.3, "Non-ASCII Character Limitations in OracleAS Portal"
- Section 10.2.7.4, "Non-ASCII Character Limitations in Oracle Instant Portal"
- Section 10.2.7.5, "Shared Type Objects Cannot Be Exposed in Non-English Page Group"
- Section 10.2.7.6, "Translations Lost When Item Versioning Is Enabled"

10.2.7.1 Oracle Text Searching Limitation (Text Files and HTML Files)

In some non-ASCII character set environments, you are unable to search non-ASCII character content of plain text files and HTML files.

You can search plain text and HTML files if the document character set is the same as the database character set.

10.2.7.2 Text Entry Always Right to Left in BiDi Languages

The direction of all text areas and fields is right to left (RTL). However, you may want some text areas to work left to right (LTR). Internet Explorer users can change this by pressing the left hand side Ctrl and Shift keys.

10.2.7.3 Non-ASCII Character Limitations in OracleAS Portal

This section discusses non-ASCII character limitations when working with OracleAS Portal:

- Non-ASCII XML data is not displayed correctly in the XML Portlet. To display non-ASCII XML data, use OmniPortlet, which has this functionality.
- If you use non-ASCII characters in Web Provider Display Names, then they are not displayed correctly. Similarly non-ASCII characters used in Provider Group Display Names cannot be displayed.
- In Web Folders, if you change the name of a portal page to use non-ASCII characters, then an error message displays.
- In some non-ASCII character set environments, you cannot use the **Browse Users** or **Browse Groups** list of values to select a user or group name. As a workaround, you can enter the user or group name manually.
- When you copy and paste an item URL containing non-ASCII characters from one browser Location or Address field into another, you may not be able to access the item if your login credentials have not been authenticated through OracleAS Single Sign-On.

  As a workaround, log in to the portal before you access the item and copy the item URL.

10.2.7.4 Non-ASCII Character Limitations in Oracle Instant Portal

To use Oracle Instant Portal in an environment that supports non-ASCII character sets, you must use the `UTF8` or `AL32UTF8` database character set.

10.2.7.5 Shared Type Objects Cannot Be Exposed in Non-English Page Group

Shared type objects (page types and item types) always have English as the default language. If you create a page group in a language other than English, then a shared type cannot be made available to the page group unless a translation exists for the shared type in the default language of the page group.

To create the translation, follow these steps:

1. Enable the language for the Shared Objects page group.

   For details, see *Oracle Application Server Portal User's Guide - Section 4.6.1 Creating a Translation*.

2. Switch to the language in the **Set Language** portlet.
3. Edit the page type or item type while the session language is set to the non-English language.

   This automatically creates a translation of the type in that language.

You can now make the shared type available to the non-English page group.

10.2.7.6 Translations Lost When Item Versioning Is Enabled

If versioning is enabled and the page group has two or more translations (for example, the default language is English and translations are enabled for German and French), then adding a translation as a new version does not display the other translation. For example, if you add or edit a French translation as a new version, then the German translation is no longer visible to the page viewers. As a workaround, when multiple translations are required, disable item versioning, or use the "overwrite" mode when adding or updating translations.

10.2.8 Documentation Errata

This section describes known errors and omissions in OracleAS Portal documentation:

10.2.8.1 Documentation Errors

This section describes known errors in OracleAS Portal documentation. It includes the following topics:

10.2.8.1.1 Editing Item/Portlet Properties The online help states that clicking the **Edit** icon enables you to edit the properties of the item or portlet. While this is true for items, clicking this icon next to a portlet takes you to the **Edit Defaults** page. To edit the portlet instance attributes (such as display name), click the **Actions** icon, then click the **Edit Portlet Instance** link.

10.2.8.1.2 Editing Pending Items Online help for **Pending Items: Preview** (`cawkpend.htm`) incorrectly states that the submitter can continue to edit a pending item if it has not yet been approved by the first approver in the approval process.

10.2.8.1.3 Referencing the Current Version of Images Image attributes can reference an uploaded source image. The documentation currently states:

To reuse an image that has been uploaded to OracleAS Portal, enter its internal name (not file name) without a path in this field, for example, enter 1645.GIF.

If you are versioning the referenced image item, and you use the internal file name in the reference (for example, `1645.gif`), then the reference does not use a new, current version of the image if one is created. The image reference continues to show the original version. For example:

1. In an image attribute, reference an image item by its internal file name, for example, `1645.gif`.
2. Update the image item and create a new version. The new version is given a new internal file name (for example, `1705.gif`).

3. The image attribute still refers to `1645.gif`, it has not been updated to refer to the new version of the image.

Therefore, only use the internal file name if you are *not* using versioning, or if you want the reference to always point to the original version, even if it is no longer the current version.

If you are using versioning and you always want to show the current version, then use the durable link to the image item instead of the internal file name. The durable link always picks up the latest version of the image. So, instead of entering `1645.gif`, enter:

```
/pls/<DAD>/url/item/<GUID>
```

This is the relative URL format of a durable link. For example:

```
/pls/portal/url/ITEM/A47D41ECA23648A9E030007F0100118A
```

Relative URLs should always be used in case the host or domain name changes, or the content is exported to another site. For more information on durable URLs, refer to section "Understanding Page and Item URLs" in *Oracle Application Server Portal User's Guide*.

10.2.8.1.4 Working in List View List View functionality is documented in the online help topic **Page Edit Mode: List View** (`pobpglst.htm`). Some information in this topic is incorrect:

Button: Actions List - Options *Enable ILS* and *Disable ILS* are not available.

Button: Find - The search is *not* case-sensitive.

Subitems - The online help states that the List View does not display sub-items. This is correct, however, sub-items will be listed in search results if they meet the search criteria.

Also, note that in List View, pages based on templates do not show any tabs or items belonging to the template. You must click the **Edit Template** link to see tabs and items on a template. Therefore, when editing the page in List View, you cannot add items to tabs that are inherited from the template. Likewise, if items are added to these tabs when editing the page using another edit view (for example, Graphical View), you do not see these items in List View.

If you are using Netscape 4.8, then you may notice that version information is incorrectly displayed under the **Description** column. This is not a problem in Internet Explorer.

10.2.8.1.5 Unpublished Items Section Documented Incorrectly Online help for the Edit Page Group Items tab (`sbrsmit.htm`) incorrectly refers to the **Expired and Deleted Items** section and the **Display Expired and Deleted Items** and **Retain Expired and Deleted Items** check boxes. These should be, respectively, the **Unpublished Items** section and the **Display Unpublished Items In Edit Mode** and **Retain Deleted Items** check boxes. Refer to the text on the page itself for details on how to use these check boxes.

10.2.8.1.6 Item Level Security and Page Caching The online help incorrectly states that when item-level security (ILS) is enabled, page caching is automatically disabled. Page caching is not disabled when ILS is enabled.

10.2.8.1.7 User Profile Help Incorrect Online help for the **Edit Portal User Profile** tabs, **Preferences** (`secumed1.htm`) and **Privileges** (`secgmed3.htm`), incorrectly states that there are **Reset to Defaults** buttons on these pages. This option is not available.

10.2.8.1.8 Defining a Display Style for Results from a Custom Search Online help for **Edit Defaults: Custom Search - Results Display** page (`sbrrsres.htm`) incorrectly states that style and attribute settings apply only to *items* returned in search results. The **Style** and **Attribute** settings (section **Which style and attributes should be used to render the search results?**) apply to both items and pages.

10.2.8.1.9 Applying Background Color or Image to Page Portlets If you want page portlets (including navigation pages) to display a background color or background image, then follow these steps:

1. Ensure that the navigation page uses its own style when published as a portlet, that is, do not select **Use Style Of Page On Which Portlet Is Placed** in the page properties.
2. In the style for the container page (the page containing the portlet), set **Portlet Body Color** to null (no value). This step is missing from the documentation.

10.2.8.1.10 Registering JSR Portlets The *Oracle Application Server Portal Configuration Guide* provides instructions on how to register a JSR 168 portlet in a local instance of OracleAS Portal, in section "Registering and Viewing Your Portlet". These instructions do not apply to the current production release of the product, but can be used for the Developer's Preview release until the production WSRP-enabled OracleAS Portal is released. Note that the Developer's Preview is provided for development purposes only, and should not be used for production systems.

10.2.8.1.11 Corporate Page Groups No Longer Installed In some sections of the documentation, you may find reference to the Corporate Pages page group. This page group is no longer installed with OracleAS Portal and you may disregard any mention of it in the documentation. However, if you are upgrading an existing OracleAS Portal instance which contained the Corporate Pages page group, then it will not be removed by the upgrade.

10.2.8.1.12 Exposing Your Application as a Web Service Section "Exposing Your Application as a Web Service" in the *Oracle Application Server Portal Developer's Guide* has an inaccurate step and a missing step. The section should read as follows:

Before you deploy your WAR file to the Oracle Application Server, you must perform the following steps:

1. Update your `web.xml` file. These entries are required to expose your application as a Web Service as soon as it is deployed.

```
<web-app>
 <description>Empty web.xml file for Web Application</description>
  <session-config>
   <session-timeout>35</session-timeout>
  </session-config>
 <mime-mapping>
  <extension>html</extension>
  <mime-type>text/html</mime-type>
 </mime-mapping>
 <mime-mapping>
  <extension>txt</extension>
  <mime-type>text/plain</mime-type>
 </mime-mapping>
 <filter>
  <filter-name>portletfilter</filter-name>
  <filter-class>oracle.webdb.wsrp.server.ContextFilter</filter-class>
 </filter>
```

```
 <filter-mapping>
  <filter-name>portletfilter</filter-name>
  <servlet-name>portletjaxrpc</servlet-name>
 </filter-mapping>
 <filter-mapping>
  <filter-name>portletfilter</filter-name>
  <servlet-name>portletresource</servlet-name>
 </filter-mapping>
 <servlet>
  <servlet-name>portletdeploy</servlet-name>
<servlet-class>oracle.webdb.wsrp.server.deploy.PortletDeployServlet</servlet-cl
ass>
  <load-on-startup>1</load-on-startup>
 </servlet>
 <servlet>
  <servlet-name>portletjaxrpc</servlet-name>
  <servlet-class>com.sun.xml.rpc.server.http.JAXRPCServlet</servlet-class>
  <init-param>
     <param-name>configuration.file</param-name>
     <param-value>/WEB-INF/WSRPService_Config.properties</param-value>
  </init-param>
 </servlet>
 <servlet>
  <servlet-name>portletresource</servlet-name>
  <servlet-class>oracle.webdb.wsrp.server.ResourceServlet</servlet-class>
 </servlet>
 <servlet-mapping>
  <servlet-name>portletjaxrpc</servlet-name>
  <url-pattern>/portlets*</url-pattern>
 </servlet-mapping>
 <servlet-mapping>
  <servlet-name>portletresource</servlet-name>
  <url-pattern>/portletresource*</url-pattern>
 </servlet-mapping>
</web-app>
```

2. When adding a custom JPS producer to the Oracle Application Server OC4J instance, you also must add the following library paths in your `application.xml` file:

```
<library path="$ORACLE_HOME/portal/jlib/commons-logging.jar"/>
<library path="$ORACLE_HOME/portal/jlib/dom4j.jar"/>
<library path="$ORACLE_HOME/portal/jlib/jaxrpc-api.jar"/>
<library path="$ORACLE_HOME/portal/jlib/jaxrpc-ri-patched.jar"/>
<library path="$ORACLE_HOME/portal/jlib/namespace.jar"/>
<library path="$ORACLE_HOME/portal/jlib/relaxngDatatype.jar"/>
<library path="$ORACLE_HOME/portal/jlib/ptlshare.jar"/>
<library path="$ORACLE_HOME/portal/jlib/saaj-api.jar"/>
<library path="$ORACLE_HOME/portal/jlib/saaj-ri.jar"/>
<library path="$ORACLE_HOME/portal/jlib/wsrp-common.jar"/>
<library path="$ORACLE_HOME/portal/jlib/wsrp-container.jar"/>
<library path="$ORACLE_HOME/portal/jlib/oracle-portlet-tags.jar"/>
<library path="$ORACLE_HOME/lib/xml.jar"/>
<library path="$ORACLE_HOME/lib/xmlmesg.jar"/>
<library path="$ORACLE_HOME/lib/xmlparserv2.jar"/>
<library path="$ORACLE_HOME/portal/jlib/xsdlib.jar"/>
```

10.2.8.1.13 Changes Required in the Steps to Configure Security in OracleAS Portal The chapter titled, "Securing OracleAS Portal" in the *Oracle Application Server Portal Configuration Guide* has the following known errors:

- Step 1 in subsection "Configuring SSL to OracleAS Single Sign-On Using SSLConfigTool" under Section 6.3.2.1.2, "SSL to OracleAS Single Sign-On", currently states the following:

  Enter n when prompted by the script to configure your site to accept browser requests using the SSL protocol.

  This task must not be performed in step 1, as you will not be prompted for any input when you use the `-config_w_default` option. This task must be performed in step 3 in the same procedure where you run `SSLConfigTool` in the middle-tier Oracle home.

- Step 2 in subsection "Configuring SSL to OracleAS Web Cache Using SSLConfigTool" under Section 6.3.2.1.3, "SSL to OracleAS Web Cache", currently states the command to run SSLConfigTool as shown:

  ```
  SSLConfigTool.bat -config_w_default -opwd <orcladmin_pwd>
  ```

  However, the command must be used as follows:

  ```
  SSLConfigTool.bat -config_w_prompt -ptl_inv_pwd <ptl_inv_pwd> -opwd <orcladmin_
  pwd>
  ```

- Step 2 in subsection "Configuring SSL Throughout OracleAS Portal Using SSLConfigTool" under Section 6.3.2.1.4, "SSL Throughout OracleAS Portal" currently states the following:

  Enter the following values when prompted by the script:

  – *y, when prompted to configure your site to accept browser requests using the SSL protocol.*

  – *y, when asked if your Oracle HTTP Server accepts requests in SSL protocol.*

  This task must not be performed in step 2, as you will not be prompted for any input when you use the `-config_w_default` option. This task must be performed in step 3 where you run `SSLConfigTool` in the middle-tier Oracle home.

- The following step is missing in subsection "Configuring SSL to OracleAS Web Cache Using SSLConfigTool" under Section 6.3.2.1.3, "SSL to OracleAS Web Cache":

  Enable SSL on the OracleAS Infrastructure that has Identity Management installed and then run `SSLConfigTool` in the infrastructure Oracle home, as shown in the following example, for Windows:

  ```
  SSLConfigTool.bat -config_w_default -opwd <orcladmin_pwd>
  ```

  Where:

  – `config_w_default` is used to run the tool in silent mode using the values specified in the `portlist.ini` and `ias.properties` files.

  – `opwd` is the Oracle administrator password. If no password is specified, then you will be prompted to enter the password.

  Perform this step after step 1.

10.2.8.1.14 Portal Upgrade Error and Warning Messages Should Be Prefixed with WWU- The Portal upgrade error and warning messages described in Chapter 6, "UPG-00001 to UPG-26001" of the *Oracle Application Server Portal Error Messages Guide 10g* Release 2

(10.1.2) are incorrectly prefixed with UPG-. These error and warning messages should be prefixed with WWU-.

10.2.8.2 Additional Documentation

This section describes known omissions and additions to the OracleAS Portal documentation. It includes the following topics:

10.2.8.2.1 Inaccurate Data in Log Registry Records Online help describing Log Registry records (`wvlogadm.htm`) lists the set of actions that are logged. Since the introduction of OracleAS Web Cache, some of the actions logged in OracleAS Portal Activity Log tables have become inaccurate. Specifically, these actions are *View*, *Execute*, *Show*, and *Perform*. However, since all other actions logged are still accurate, the Activity Log tables and views still remain in the OracleAS Metadata Repository.

10.2.8.2.2 Expired Items Remain Visible in WebDAV Clients Expired items continue to be visible in WebDAV clients until they are permanently removed from the database during a system purge.

10.2.8.2.3 Enhanced Rich Text Editor The Rich Text Editor (WYSIWIG editor) that is used in OracleAS Portal to apply formatting to text items is described in a Technical Note *OracleAS Portal 9.0.4.1 – Enhanced Rich Text Editor* on OTN at (`http://www.oracle.com/technology/products/ias/portal/content_management.html`

10.2.8.2.4 Using Oracle Drive with OracleAS Portal OracleAS Portal leverages the features of Oracle Drive to manage and publish portal content directly from the Windows desktop.

Oracle Drive is a powerful WebDAV client. It maps the Oracle Portal Repository as a drive and enables you to perform desktop authoring and publishing, as well as portal-specific metadata attribution, from the Windows desktop. For further information, refer to the technical note, How to Install and Configure the Oracle Drive on OTN at (`http://www.oracle.com/technology/products/ias/portal/content_management_10gr2.html`)

10.2.8.2.5 Unable to Delete Tabs on Templates You cannot delete a tab on a template (even with Manage Template privileges), if other users have placed content on the tab, in pages that are based on this template.

10.2.8.2.6 Error Removing Subscriber from Virtual Private Portal The following error can display when you use the `rmsub.csh` script to remove a subscriber from a Virtual Private Portal (VPP):

```
ERROR: Interface Version Specified does not match Profile Interface Version - 1.1
Could not delete Provisioning Profile.
```

This error does not impact the use of VPP.

10.2.8.2.7 Unable to Monitor WSRP Providers in This Release Oracle Enterprise Manager 10*g* Help describes how to monitor Web providers, database providers, and WSRP producers registered with OracleAS Portal. Support for WSRP providers will be provided in a future release. It is not possible to monitor WSRP providers in 10*g* Release 2 (10.1.2).

10.2.8.2.8 Location of the ptlwsrp_data.sql Script Section "Using the ptlwsrp_data.sql Script to Create the WSRP Portlet Preference Store" in Appendix C of the *Oracle Application Server Portal Configuration Guide* mentions the use of the script `ptlwsrp_data.sql`. It does not mention that this script first needs to be downloaded from Portal Center:

http://www.oracle.com/technology/products/ias/portal/index.html

11

Oracle Ultra Search

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

- Section 11.1, "Upgrade Issues and Workarounds"
- Section 11.2, "General Issues and Workarounds"
- Section 11.3, "Documentation Errata"

11.1 Upgrade Issues and Workarounds

This section describes upgrade issues and their workarounds for Oracle Ultra Search. It includes the following topics:

- Section 11.1.1, "Upgrade Fails When Upgrading to 10.1.2"

11.1.1 Upgrade Fails When Upgrading to 10.1.2

When upgrading Oracle Ultra Search to Oracle Application Server 10*g* 10.1.2, the upgrade status for Oracle Ultra Search may show `Failed`. This is because the validation package (`wkvalid.sql`) is not installed in the Oracle Application Server 10*g* 10.1.2 seed database. This will be fixed for 10.1.0.4 database.

The workaround is to first check whether the Oracle Ultra Search status is indeed invalid.

Login as `SYS` (for example, `sqlplus "sys/<SYS PASSWORD> as sysdba"`)

```
SQL> SELECT comp_id, status FROM sys.dba_registry WHERE comp_id = 'WK'
/
```

You should see something like the following:

```
COMP_ID                        STATUS
------------------------    -----------
WK                             INVALID
```

If the Oracle Ultra Search status is invalid, then do the following to verify if the upgrade was indeed successful.

Download `wkvalid.sql` from the following site:

`http://www.oracle.com/technology/products/ultrasearch/index.html`

Connect to database as `SYS` and install `wkvalid.sql`.

```
> sqlplus "sys/<SYS PASSWORD> as sysdba"
@wkvalid.sql
```

Connect to the database as SYS, and run the Oracle Ultra Search validation package. This package checks the Oracle Ultra Search status and updates it accordingly.

```
> sqlplus "sys/<SYS PASSWORD> as sysdba"
SQL> exec sys.validate_wk
```

PL/SQL procedure successfully completed.

Check the Oracle Ultra Search status.

```
> sqlplus "sys/<SYS PASSWORD> as sysdba"
SQL> SELECT comp_id, status FROM sys.dba_registry WHERE comp_id = 'WK'
2  /
```

You should see the status as VALID, if the upgrade was successful.

```
COMP_ID                        STATUS
------------------------------ -----------
WK                             VALID
```

11.2 General Issues and Workarounds

This section describes general issues and their workarounds for Oracle Ultra Search. It includes the following topics:

- Section 11.2.1, "Creating or Editing Oracle Ultra Search ACLs Fails in Non-OracleAS Single Sign-On Mode"

11.2.1 Creating or Editing Oracle Ultra Search ACLs Fails in Non-OracleAS Single Sign-On Mode

An Oracle Ultra Search Administrator can log in as a database administrator or an OracleAS Single Sign-On user who has been granted administrative privileges. In this release, when logging in as a database administrator, under certain circumstances, the administrator will not be able to create or edit administrator-specified ACLs for a data source. An "Access Denied" error is encountered when attempting to create or modify ACLs.

The workaround is to always log in as an OracleAS Single Sign-On user in order to create/modify ACLs for a data source.

11.3 Documentation Errata

This section describes documentation errata for the *Oracle Ultra Search Administrator's Guide*. It includes the following topic:

- Section 11.3.1, "Adding and Deleting Subscribers"

11.3.1 Adding and Deleting Subscribers

The "Configuring Oracle Ultra Search in a Hosted Environment" section says to use the usca.sh and usca.bat scripts to add and delete subscribers.

Instead, use the following command to add subscribers:

```
java -jar ORACLE_HOME/ultrasearch/lib/usca.jar action=add_subscriber
  oh=ORACLE_HOME oid_user_dn="cn=orcladmin" oid_passwd=<oid_user_dn's password>
  oid_subscriber_dn=<subscriber's DN> (e.g., "dc=uk,dc=oracle,dc=com")>
  logfile=<log file path> db_sn=<database service name
```

Use the following command to delete subscribers:

```
java -jar $ORACLE_HOME/ultrasearch/lib/usca.jar action=delete_subscriber
  oh=ORACLE_HOME oid_user_dn="cn=orcladmin" oid_passwd=<oid_user_dn's password>
  oid_subscriber_dn=<subscriber's DN (e.g., "dc=uk,dc=oracle,dc=com")>
  logfile=<log file path> db_sn=<database service name
```

12

Oracle Application Server Wireless

This chapter describes issues with Oracle Application Server Wireless (OracleAS Wireless). It includes the following topics:

12.1 General Issues

This section describes general issues encountered in OracleAS Wireless. It includes the following topics:

12.1.1 Unable to Test Locally Deployed JSPs

Users reported being unable to test local JSPs using the 10.1.2.1 version of the WDK. In order to test locally deployed JSPs, follow these steps:

1. Modify the *ORACLE_HOME*`/j2ee/OC4J_Wireless/applications/wdk/wdk-web/WEB-INF/web.xml` file by removing the xml comments (in lines 6 and 31 in this example):

```
1.    <!-- For Transcoder -->
2.   <filter-mapping>
3.        <filter-name>SdkTranscoder</filter-name>
4.        <servlet-name>SdkContentRetriever</servlet-name>
5.    </filter-mapping>
6. <!--
7.    <filter-mapping>
8.        <filter-name>SdkTranscoder</filter-name>
9.        <url-pattern>*.jsp</url-pattern>
10.    </filter-mapping>
11.    <filter-mapping>
12.        <filter-name>SdkTranscoder</filter-name>
13.        <url-pattern>*.mxml</url-pattern>
14.    </filter-mapping>
15.    <filter-mapping>
```

```
16.         <filter-name>SdkTranscoder</filter-name>
17.         <url-pattern>*.xhtml</url-pattern>
18.     </filter-mapping>
19.     <filter-mapping>
20.         <filter-name>SdkTranscoder</filter-name>
21.         <url-pattern>*.html</url-pattern>
22.     </filter-mapping>
23.     <filter-mapping>
24.         <filter-name>SdkTranscoder</filter-name>
25.         <url-pattern>*.htm</url-pattern>
26.     </filter-mapping>
27.     <filter-mapping>
28.         <filter-name>SdkTranscoder</filter-name>
29.         <url-pattern>*.xml</url-pattern>
30.     </filter-mapping>
31. -->
```

2. Restart the `OC4J_Wireless` process.

12.1.2 EDGE_CREATE Script Errors

Some users have reported receiving an error when trying to create the edge schema on an Oracle Application Server 10*g* installation. This is because the `dbms_aq` package is often locked by other sessions when one tries to create the edge user (using the `create_edge_user.sql` script). When trying to create the edge schema (after connecting as `edge/`*`<password>@<db name>`* and running `edg_create_streams.sql`), table and queue creation fails.

To fix this problem:

1. Unlock the package. This is a database administrator function. The session locking the package must relinquish the lock. This may require restarting the entire database instance. It ensures that no session is holding a lock on the `dbms_aq` package.
2. Explicitly give execute privilege to the edge user on the `dbma_aq` package:
   a. Log in as *system*.
   b. Execute `SQL> grant execute on dbms_aq to edge;`
3. Connect as `edge/`*`<password>@<db name>`* and run `edg_create_streams.sql`, again.

12.1.3 Database Lock Hangs STREAMS Dispatcher

The STREAMS dispatcher runs as a database job. If your PL/SQL development activities require you to constantly recompile packages, a database lock can hang the STREAMS dispatcher. Generally, you can restart the dispatcher by executing:

```
exec edg_utl.deschedule_job;
```

To check whether or not the job exits gracefully, check the `edg_jobs` table. Run the following query:

```
select component_name, status from edg_jobs;
```

If the job has exited gracefully, this query will return no rows. If this job is in the process of exiting, the status will be *Stopping*. It may take up to 30-40 seconds for the job to finish completely. If this query continues to return a status of *Stopping*, the dispatch job has frozen. To correct this, first clear this row from the table. Execute:

```
delete from edg_jobs where component_name = 'EdgeDispatchJob';
```

Next, restart the database. Once the database is restarted, restart (or reschedule) the job. Do this by executing:

```
exec edg_utl.schedule_job;
```

The job will restart. To verify, use this query:

```
select component_name, status from edg_jobs;
```

This should return a status of *Started*.

12.1.4 OracleAS Wireless Patch Required after XDK Patch is Applied

If you are using Apache Axis and the wireless feature in Oracle Application Server 10.1.2, and you have already applied a Release 10.1.2 XDK patch, you must download an OracleAS Wireless one-off patch from Metalink.

The OracleAS Wireless one-off patch fixes a problem introduced by the XDK fix. If you do not apply the OracleAS Wireless patch, logging in from the voice channel will fail.

12.1.5 Broken Icons in Wireless Device Portal Homepage

Icons on the OracleAS Wireless Device Portal Home page for an upgraded instance in SSL mode are broken. This is because `Mod_rewrite` of the icons in an SSL configuration does not work.

To fix the problem, you must enable *rewrite* in SSL mode by adding the following entries to the SSL Virtual Host configuration:

```
RewriteEngine on
RewriteOptions inherit
```

Here is a sample entry:

```
<VirtualHost _default_:4444>
# General setup for the virtual host
DocumentRoot "/Portal1012/Apache/Apache/htdocs"
@ ServerName iwinrea05.us.oracle.com
ServerAdmin you@your.address
ErrorLog "|/Portal1012/Apache/Apache/bin/rotatelogs logs/error_log 43200"
TransferLog "|/Portal1012/Apache/Apache/bin/rotatelogs logs/access_log 43200"
Port 443
```

12.1.6 HDML Error When Using Expense Demo Application

A problem has been reported by users running the Expense Demo application on HDML-enabled devices. An error may appear when one attempts to click the **Approve** or **Reject** button using an HDML-enabled device to access the built-in Expense Demo application in Device Portal. Users should avoid using the Approve/Reject functionality for this demo when using HDML-enabled devices.

12.2 Configuration Issues and Workarounds

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

- Section 12.2.1, "Migrate Account Numbers and PINs after Upgrade"

12.2.1 Migrate Account Numbers and PINs after Upgrade

If you upgrade Oracle Application Server Wireless from a previous release (9.0.2.x or 9.0.4.x), you must migrate your user account numbers and PINs to OID. Failure to do so breaks the voice login.

12.2.2 SDO_INDEX_METADATA NULL FETCH Error

If you upgrade Oracle Application Server Wireless from a previous release (9.0.2.x or 9.0.4.x), you must complete the following workaround to avoid the SDO_INDEX_METADATA NULL FETCH error:

1. Connect as SYS.
2. Run the following SQL statement:

```
alter session set current_schema=MDSYS;
update sdo_index_metadata_table set SDO_INDEX_STATUS =
'VALID' where SDO_INDEX_STATUS is NULL;

update sdo_index_metadata_table set SDO_INDEX_DIMS = 2
where SDO_INDEX_GEODETIC ='TRUE' and SDO_RTREE_DIMENSIONALITY=3;
```

12.2.3 Updated Transformer Stylesheets Patch Required after Upgrade

If you are upgrading from Release 9.0.2 to Release 10*g* (9.0.4), and then to Release 10.1.2, you must download the updated transformer stylesheets and apply them to the instance. If you do not apply this update, service names rendered on the devices will be prefixed with a colon and an underscore (:_). Contact Oracle Support for more information.

12.2.4 Configuration Assistant Error Message

You may see Configuration Assistant error messages in *ORACLE_HOME*`/wireless/logs/upgrade_CA.out` similar to this:

SQL Exception: java.sql.BatchUpdateException: error occurred during batching: ORA-01430: column being added already exists in table

This message can be safely ignored if your 10.1.2 instance is a fresh instance, that is, it has not been upgraded from a previous release of Oracle Application Server.

12.2.5 IBM WebSphere Required Patch Version 6.0.2

If you are using IBM WebSphere Application Server, install the following patch:

`http://www-1.ibm.com/support/docview.wss?rs=180&uid=swg24009813`

Doing so will help you avoid problems when using Oracle Industrial Telnet Server and (potentially) other products.

13

Oracle BPEL Process Manager

This chapter describes issues associated with Oracle BPEL Process Manager. It includes the following topics:

13.1 Installation Issues and Workarounds

This section describes the following issues and workarounds:

13.1.1 Message to Ignore During Oracle BPEL Process Manager for OracleAS Middle Tier Installation

You can safely ignore the following message that appears during both Oracle BPEL Process Manager for OracleAS Middle Tier installation and also in the postinstallation log files:

```
Patch 4869010 not found ...
WARNING: Patch 4869010 is MANDATORY and must be applied ...
```

13.1.2 Migrating from Previous Releases of Oracle BPEL Process Manager

To migrate from Oracle BPEL Process Manager release 10.1.2.0.0 to release 10.1.2.0.2, download Patch 5041642 from Oracle*MetaLink*:

`http://metalink.oracle.com`

This patch includes documentation and a SQL*Plus migration script that enables you to migrate data from release 10.1.2.0.0 to 10.1.2.0.2.

13.1.3 Adding Oracle BPEL Process Manager for OracleAS Middle Tier Memory Settings

After installing Oracle BPEL Process Manager for OracleAS Middle Tier, ensure that you include the following memory settings in the `OC4J_BPEL` process type section of the *`Oracle_Home`*`\opmn\conf\opmn.xml` file:

```
<process-type id="OC4J_BPEL" module-id="OC4J"
   <module-data><<category id="start-parameters">
      <data id="java-options" value="...
      . . .
      . . .
      -Xms512m -Xmx512m -Xmn300m
-XX:MaxPermSize=80m .../>
```

13.2 General Issues and Workarounds

This section describes the following issues and workarounds:

- Section 13.2.1, "Error with opmnctl stopall to Ignore"
- Section 13.2.2, "Undeploying and Redeploying the OC4J_BPEL System Component Through Oracle Enterprise Manager Is Not Supported"
- Section 13.2.3, "WSDL Exception Error When Trying to Create a Stub to Use a Web Service"
- Section 13.2.4, "Deploying Oracle JDeveloper-Created Web Services to Oracle BPEL Process Manager OC4J"

13.2.1 Error with opmnctl stopall to Ignore

The `OPMNCTL STOPALL` command intermittently fails to perform a graceful shutdown. When this occurs, the process is stopped, but an error similar to the following appears.

```
/opmn/bin/opmnctl stopall
opmnctl: stopping opmn and all managed processes...
================================================================================
opmn id=isunbox28:6200
```

```
    2 of 3 processes stopped.
@ ias-instance id=iasmid.isunbox28.us.oracle.com
++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
------------------------------------------------------------------------------
ias-component/process-type/process-set:
    OraBPEL/OC4J_BPEL/default_island
Error
--> Process (pid=9121)
    time out while waiting for a managed process to stop
    Log:

/private/jsmith/midtier/opmn/logs/OraBPEL~OC4J_BPEL~default_island~1
opmnctl: graceful stop of processes failed, trying
forceful shutdown...
```

13.2.2 Undeploying and Redeploying the OC4J_BPEL System Component Through Oracle Enterprise Manager Is Not Supported

If you undeploy the OC4J_BPEL system component through Oracle Enterprise Manager, redeploy it, and then restart OC4J_BPEL, the application cannot be accessed.

> **Caution:** Oracle recommends that you do not undeploy and redeploy the OC4J_BPEL system component of Oracle BPEL Process Manager.

13.2.3 WSDL Exception Error When Trying to Create a Stub to Use a Web Service

JDeveloper BPEL Designer enables you to automatically create a stub to use a Web service. Once you have generated the stub using the Web Service Stub/Skeleton wizard, you can call the methods (proxies to the web service) in your application. When you attempt to validate/parse the WSDL file, you receive a validation error similar to the following:

```
WSDL Validation failed with the following exceptions
@ Schema type not found. QNAME (http://schema.xmlsoap.org/soap/encoding/,
base64)
```

Similar problems occur with the WSDL for an asynchronous BPEL process generated by JDeveloper BPEL Designer.

As a workaround, use the RMI client interface for BPEL.

> **See Also:** *Oracle_Home*\integration\orabpel\samples\tutorials\102.InvokingProcesses for an example of the RMI client interface

13.2.4 Deploying Oracle JDeveloper-Created Web Services to Oracle BPEL Process Manager OC4J

When Oracle BPEL Server attempts to invoke the OC4J service, the OC4J servlet dispatcher invokes the Oracle BPEL Console WAR file instead of the Web service EAR file. This causes the following error during run time:

```
BPEL Fault
http://schemas.oracle.com/bpel/extension}bindingFault{summary=Cannot lookup
BPEL domain.
The BPEL domain "MyWebService1" cannot be found; the domain may not have
initialized properly.
```

```
Please verify that the BPEL domain loader has a valid set of initialization
properties in the application properties file.
```

There are two possible workarounds to this error:

- If the *Oracle_Home*\integration\orabpel\system\config\collaxa-config.xml file includes the following settings:

  ```
  - <property id="soap-server-url">
  <name>BPEL soap server URL</name>
  @ <value>http://servername.localdomain:9700</value>
  ```

  Replace `http://servername.localdomain:9700` with `http://servername:9700`.

- Change the endpoint in the Oracle JDeveloper-created Web service to point to `localhost` instead of `servername`.

13.3 Modeling and Design Time Issues and Workarounds

This section describes the following issues and workarounds:

13.3.1 No Deployment Time Validation Logic with obant

The `obant` utility does not validate your BPEL process during deployment. If you want to validate your process during deployment, use JDeveloper BPEL Designer to deploy your process.

13.3.2 Do Not Include Blank Spaces in Directory Paths of JDeveloper BPEL Designer Workspaces

Ensure that the directory path of a workspace does *not* include any blank spaces. For example, the following is not permitted:

```
C:\Program Files\projects\myWorkspace\Loanflow
```

Opening a project from a workspace whose directory path contains blank spaces causes problems. For example, the WSDL files do not display in the WSDL Chooser window when creating a partner link.

13.3.3 Using Annotations in JDeveloper BPEL Designer

Note the following issues when using annotations in JDeveloper BPEL Designer:

- The **Annotations** tab in activities of JDeveloper BPEL Designer does not provide a method for changing the order of annotations.

  As a workaround, change the order of annotations in the **Source** view of the project's BPEL file in JDeveloper BPEL Designer.

- The otherwise branch in a switch activity does not allow you to create annotations. However, the case branch in a switch activity does provide this functionality.

13.3.4 Internal Compilation Error When Using the CTRL and F9 Keys

If you highlight a partner link in JDeveloper BPEL Designer, and press the **Ctrl** and **F9** keys, you receive the following compilation error in the **Log Window**:

```
Internal compilation error, terminated with a fatal exception
```

As a workaround, select the partner link *and* the project in the **Applications Navigator**, then press the **Ctrl** and **F9** keys. You receive no compilation errors in the **Log Window**.

13.3.5 Inline Dialogs Can Result in Data Loss in Some Cases

The **Log Window** at the bottom of JDeveloper BPEL Designer displays compilation errors. Assume that you double-click an **assign** activity error in the **Log Window**. The **assign** activity opens, and you correct the error and add additional assign copy rules. If you then right-click the error in the **Log Window** and select **Go to Source**, the **Source** view for your process displays without the **assign** activity or any of the copy rules you added.

If you perform one of the following tasks, this problem does not display so easily:

- For all new projects going forward, select **Preferences** > **BPEL Editor** from the **Tools** main menu and uncheck **Use inline editors**.
- For the current project only, right-click in JDeveloper BPEL Designer, select **Diagram Properties**, and uncheck **Use inline editors**.

13.3.6 Do Not Add or Import XSD Files in a ZIP File

Do not add or import XSD files in a ZIP file into a BPEL project. While JDeveloper BPEL Designer enables you to do this, and opens the XSD in read-only mode, you cannot use it within the BPEL process. JDeveloper BPEL Designer cannot parse the file because the file cannot be physically located. Always extract the XSDs from ZIP files before adding or importing them.

13.3.7 Cannot Select Property Aliases in project_name.wsdl File

You cannot select property aliases in the *project_name*.wsdl file. To use the property aliases in, for example, adapters.wsdl, manually add them.

13.3.8 Correlation Set Property Aliases Defined in Process WSDL Cause Problems

If you create correlation set property aliases in JDeveloper BPEL Designer, the entries are created in the WSDL file of the BPEL process. However, if the process does not use the default client partner link that refers to this WSDL file (for example, the receive activity is invoked by a partner link of an adapter), the correlation set is not validated at compilation time. This is because Oracle BPEL Server cannot find the WSDL file references in the bpel.xml file.

As a workaround, create the property aliases in a neutral WSDL file and reference this file in the bpel.xml file. The BPEL process uses this file at compilation time (the way properties are defined in separate WSDL files).

13.3.9 BPEL Processes Initiated by Partner Links Referring to Adapters

If the BPEL process is initiated by a partner link that refers to an adapter, you may need to import the *process_name*.wsdl file inside the partner link's WSDL file. This is so that any references to the message types inside *process_name*.wsdl can be handled during compilation.

This may be required in the following cases:

- When using correlation sets (the property alias is stored in *process_name*.wsdl)
- If any message type defined in *process_name*.wsdl is referred to in the *process_name*.bpel file

13.3.10 Changes Made In BPEL Designer Do Not Update Automatically

Updates that you make in the BPEL Validation Browser window may not be automatically reflected in the BPEL process. For example, if you perform the following steps:

1. Create a partner link, do not specify a WSDL file, and click **Apply** and **OK**. This error causes an **exclamation point** icon to display in the upper left corner of the **partnerLink** icon.
2. Click the exclamation point to display the BPEL Validation Browser window.
3. Double-click the partner link in the **BPEL Structure** section of this window, correctly complete all fields in the Edit Partner Link window that displays, and apply and save your changes.
4. Right-click the **BPEL Structure** window and select **Refresh Partner Links**. Note that the partner link still displays an error.

As a workaround, close the BPEL Validation Browser window, double-click the **partnerLink** icon in the **Diagram View** of JDeveloper BPEL Designer, and click **Apply** and **OK**. This action causes the error to disappear.

13.3.11 Extra Carriage Return Added When Using XML Literals

When you assign XML fragments in JDeveloper BPEL Designer, an extra carriage return is added for messages. For example:

```
<Name>QE_ORDER_NBR
```

```
</Name>
```

As a workaround, you must manually remove any unwanted carriage returns.

13.3.12 readFile Function Displays Only One Argument in XPath Expression Builder Window

The function `readFile` displays only one argument (`fileName`) in the XPath Expression Builder window (both in its description in the functions list and when you hold the cursor over this function in the Expression Body window). This function can take three arguments:

```
ora:readFile('fileName','nxsdTemplate'?,'nxsdRoot'?)
```

See the XPath Extension Functions appendix of the *Oracle BPEL Process Manager Developer's Guide* for additional details on this function.

13.3.13 Error When Selecting Message Part Elements Using Inline Schemas of a Project

If you add or update a message type to use a message part element that uses the inline schema of the project (for example, by selecting **Project WSDL Files** > ***process_name*.wsdl** > **Inline Schemas** > **schema** > ***process_name*ProcessRequest** on the Type Chooser window), your process fails during deployment with a null error.

As a workaround, remove the `<import>` line from the WSDL file of the process:

```
<import namespace="http://xmlns.oracle.com/testing" location="testing.wsdl"/>
```

Save your changes and redeploy the process. Deployment succeeds with no null error.

13.4 Workflow and Worklist Issues and Workarounds

This section describes the following issues and workarounds:

- Section 13.4.12, "Using the Custom Identity Service Provider Plug-in Sample on the Middle Tier"
- Section 13.4.13, "Configuring the TaskActionHandler and TaskManager Services to Support SSL"

13.4.1 Manually Configuring Oracle BPEL Process Manager on Oracle Application Server to Support Identity Management

If you want to install Oracle BPEL Process Manager on an Oracle Application Server to use an Identity Management and Metadata repository, you must manually configure Oracle Internet Directory as a postinstallation step if the underlying Oracle Application Server is not configured with Identity Management.

If you are using an Oracle Application Server middle tier already configured with Identity Management, do *not* perform this postinstallation step; configuration is automatically performed during installation.

For example, since the Portal and Wireless middle-tier installation type requires Oracle Internet Directory, configuration is automatically performed during installation of Oracle BPEL Process Manager on this type of middle tier.

Replace the values shown in italics below with ones appropriate to your environment.

1. Ensure that *Oracle_Home*\j2ee\OC4J_BPEL\config\jazn.xml contains the following `jazn provider` element entries:

```
<jazn provider="LDAP" location="ldap://host:port" default-realm="us">
   <property name="ldap.user" value="cn=orcladmin"/>
   <property name="ldap.password" value="!welcome1"/>
</jazn>
```

2. Ensure that *Oracle_Home*\integration\orabpel\system\services\config\is_config.xml contains the following `provider` element entries:

```
<provider providerType="JAZN" name="oid">
   <connection url="ldap://host:port" binddn="cn=orcladmin" password="welcome1"
   encrypted="false"/>
</provider>
```

3. Ensure that *Oracle_Home*\j2ee\OC4J_BPEL\application-deployments\hw_services\orion-application.xml contains the following `jazn provider` element entries:

```
<jazn provider="LDAP" location="ldap://host:port" default-realm="us" >
   <jazn-web-app auth-method="SSO"/>
</jazn>
```

4. If the `bpelportlet.ear` Web provider is to be deployed through Oracle Enterprise Manager, manually configure *Oracle_Home*\j2ee\OC4J_BPEL\application-deployments\bpelPortlet\orion-application.xml as follows:

```
<jazn provider="LDAP" location="ldap://host:port" default-realm="us" >
   <jazn-web-app auth-method="SSO"/>
</jazn>
```

13.4.2 Default Account Does Not Initially Display in Notification Service Page of Oracle Enterprise Manager

The Notification Service page in Oracle Enterprise Manager 10*g* Application Server Control Console does not display the default account after you initially install BPEL Process Manager for OracleAS Middle Tier. As a workaround, create a new e-mail account. This causes the default account to appear. If you then delete the new e-mail account, the default account continues to appear.

13.4.3 Always Deploy BPEL Projects with Workflow from JDeveloper BPEL Designer

BPEL projects with workflow must always be deployed from JDeveloper BPEL Designer. Do not use a command line tool such as `obant`. Command line deployment causes JSP features such as the payload display to not work.

13.4.4 Workflow Names Must Not Include Periods

Do *not* enter a name that includes periods in the **Workflow Name** field of the Workflow Pattern window of the Workflow wizard.

13.4.5 Compilation Warning Messages That Can Be Ignored

When you compile a BPEL process with a user task activity, warnings similar to the following appear in the **Log Window** of JDeveloper BPEL Designer:

```
Warning(443):
 [Error ORABPEL-10041]: Trying to assign incompatible types
 [Description]: in line 443 of
 "C:\apr20\integration\jdev\jdev\mywork\Application1\BPELProcess4\BPELProcess4.
@ bpel", <from> value type "{http://www.w3.org/2001/XMLSchema}anyType" is not
@ compatible with <to> value type "{http://www.example.org}book anonymous
type".
```

This indicates that an `anyType` is being assigned to an `anonymous` type. These warnings can be ignored. Ensure that the return value of the `from-spec` query is compatible with the `to-spec` query.

13.4.6 Deleting an Entire User Task Activity

If you want to delete and re-create a user task activity, perform the following steps:

1. Go into the **Diagram View** of the BPEL project.
2. Delete the scope activity and switch activity of the user task activity. These activities were created in the project when you ran the Workflow wizard of the user task activity.
3. Delete the partner links.
4. Delete the WSDL/XSD files from the project (recommended, but not required).
5. Create a new user task activity in which to design the workflow.

See Also: Section 13.4.7, "Deleting a Scope of a User Task Activity"

13.4.7 Deleting a Scope of a User Task Activity

A workflow scope activity is automatically created when you use the Workflow wizard of the user task activity. If you delete this scope activity, the related `config.xml`, `_form.jsp`, and `_fields.xml` files are not removed. You must

manually remove these files. If you do not remove these files, they do not cause any subsequent compilation or deployment errors.

13.4.8 Using the Category List in Oracle BPEL Worklist Application

The **Category** list of Oracle BPEL Worklist Application enables you to select the category of users, groups, or titles to search (**Group**, **Reportees**, and others). Note that the values of previous search results are also displayed. For example, assume that you first search on the **Group** category and that the results are displayed. If you next search on **Reportees**, then both the initial search results and the next search results are displayed. This is the expected behavior. Use **Check All** and **Uncheck All** to do a bulk select or unselect of the selections. Note that both these buttons only appear when there are two or more users in the selected list.

13.4.9 Sequential Workflow with Automatic Escalation Error with Workflow Wizard

You receive an error if you use the Workflow wizard to create the following type of workflow:

1. Make the following selections:
   - **Sequential Workflow with Automatic Escalation** workflow pattern on the Workflow Pattern window
   - **List of users** on the Assignment policy window
2. Expand the **RoutingWithEscalation** scope created by the Workflow wizard.
3. Double-click the **setRoutingPolicy assign** activity.
4. Select the second copy rule and click **Edit**.

   orcl:create-delimited is underlined in blue, indicating an error.

13.4.10 Getting Task Details with the getWorklistTaskDetails API

When you get a task listing, each task object contains only summary information, and not detailed information such as payload, attachments, history, and so on. To get the details of a task, explicitly call the `getWorklistTaskDetails()` API inside a loop.

Note that looping while getting task details is a resource intensive action. You typically view details one task at a time. Call this method only for the task in which you are interested. Modify your `for` loop code as follows (adding one extra line to get the task details):

```
for (int i=0; i<tasks.size(); i++)
  {
      IWorklistTask thisTask = (IWorklistTask)tasks.get(i);
      if ( <condition> ) { // task matches some condition
          thisTask = wlSrvc.getWorklistTaskDetails(ctx, thisTask.getTaskId());
          ....
          Form form = null;
          form = PayloadFormGenerator.getMappingForm(thisTask);
          ....
      }
  }
```

13.4.11 Adding Delays to Task Operations

In some cases, automated clients can perform task operations faster than Oracle BPEL Server. This can potentially result in messages being lost. While this issue is being

addressed, the workaround is to add a small delay (about five seconds) between the task operations, as shown in the following example:

```
client.updateTask(ctx, task);
Thread.sleep(5000); // sleep for 5000 milliseconds
client.customTaskOperation(ctx, taskId, "DONE");
```

13.4.12 Using the Custom Identity Service Provider Plug-in Sample on the Middle Tier

To use the custom identity service provider plug-in sample on the Oracle Application Server middle tier, you must make the following edits to the `build.xml` file:

1. Open the *Oracle_Home*`\integration\orabpel\samples\hw\isplugin\db\build.xml` file.
2. Change line 15 from:

   ```
   <pathelement location="${classpath}" />
   ```

   to:

   ```
   <pathelement location="${client.classpath}" />
   ```

3. Change line 67 from:

   ```
   <sysproperty key="java.naming.provider.url" value="ormi://${hostname}"/>
   ```

   to:

   ```
   <sysproperty key="java.naming.provider.url" value="${jndi.url}"/>
   ```

13.4.13 Configuring the TaskActionHandler and TaskManager Services to Support SSL

If you configure Oracle BPEL Process Manager for OracleAS Middle Tier with Secure Socket Layer (SSL) support, you must make the following changes to ensure that the TaskActionHandler and TaskManager services load correctly for BPEL processes.

1. Delete the `.bpel_TaskManager_1.0.jar` and `.bpel_TaskActionHandler_1.0.jar` directories under *Oracle_Home*`\integration\orabpel\domains\`*domain_name*`\tmp`.
2. Restart Oracle BPEL Server.

These steps recreate the correct service bindings and WSDL files for TaskManager and TaskActionHandler processes and make them available from HTTP/S-based endpoints.

Note: If your Oracle BPEL Process Manager installation exists as part of a BPEL cluster, you must perform these steps on each BPEL cluster node after you create a BPEL cluster.

13.5 Transformation Issues and Workarounds

This section describes the following issues and workarounds:

- Section 13.5.1, "SetText Introduces a Newline Character After Transformation"
- Section 13.5.2, "Inconsistent Behavior for Functions in JDeveloper BPEL Designer"
- Section 13.5.3, "get-content-as-string Function Introduces a New Line Character After the Output"

13.5.1 SetText Introduces a Newline Character After Transformation

When you use `setText` on an element or attribute, the value contains a newline character after a transformation. The output is valid XML; however, the newline character has an undesired effect when translating the XML to a native format using Native Format Builder wizard translation or when doing a database `INSERT` operation.

Use one of the following methods as a workaround (assuming that **Oracle** is the static or constant value you want to assign to an element):

- Use the **xpath expression** advanced function:
  1. Select **Advanced Functions** > **xpath expression** from the **Component Palette**.
  2. Enter **Oracle** in the **XPath Expression** field.

     The mapper generates **<xsl:value-of select="'Oracle'"/>** and the output does not have any spaces.
- Use the **normalize-space** string function:
  1. Select **String Functions** > **normalize-space** from the **Component Palette**.
  2. Enter **(" Oracle ")**.

  This removes both leading and trailing spaces from the argument.

13.5.2 Inconsistent Behavior for Functions in JDeveloper BPEL Designer

The following `concat` function:

```
concat(bpws:getVariableData('variablename','partname','/PO/ShipTo/First'),
       bpws:getVariableData('variablename','partname','/PO/ShipTo/Last'))
```

works as expected. However, a `left-trim` function such as the following:

```
orl:left-trim(bpws:getVariableData('variablename','partname','/PO/ShipTo/First'))
```

does not work.

However, `left-trim` works correctly in the following scenario:

```
orl:left-trim(string(bpws:getVariableData('variablename','partname','/PO/ShipTo/
First')))
```

Both the `concat` function and `left-trim` function expect a string value as an argument, but `left-trim` fails if `bpws:getVariableData` is passed as an argument. This is because `bpws:getVariableData` returns a node set and `left-trim` is unable to handle it. `concat` can handle a node set and it works.

As a workaround, explicitly chain a `string()` function to `getVariableData` before using it with any functions that come from the namespace prefixes `xp20` and `orcl` expecting a string parameter. For functions expecting numbers, you *must* convert them using the `number()` function.

13.5.3 get-content-as-string Function Introduces a New Line Character After the Output

The function `get-content-as-string` incorrectly introduces a newline character in the output. As an example, assume that the source element is:

```
<ID xmlns="">Mapper1000</ID>
```

The following XSL code results from using the function `get-content-as-string`:

```
<inv:Invoice>
   <ID>
      <xsl:value-of
      select="orcl:get-content-as-string(/po:PurchaseOrder/ID)"/>
   </ID>
</inv:Invoice>
```

The output is as follows (when using Xalan as the XSL processor):

```
<ID>&lt;ID&gt;Mapper1000&lt;/ID&gt;&#13;
</ID>
```

Ideally, it should display without a newline character:

```
<ID>&lt;ID&gt;Mapper1000&lt;/ID&gt;&#13;</ID>
```

To achieve this, chain a `right-trim` function after `get-content-as-string`.

13.5.4 Target XSD with Choice May Create Invalid Target Instance at Run Time

Note the following source and target XSDs:

Source XSD:

```
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
           xmlns="http://www.example.org"
           targetNamespace="http://www.example.org"
            elementFormDefault="qualified" >

  <xsd:element name="choiceSrc">
    <xsd:complexType>
      <xsd:choice>
        <xsd:element name="Street" type="xsd:string"/>
        <xsd:element name="Street1" type="xsd:string"/>
      </xsd:choice>
    </xsd:complexType>
  </xsd:element>
</xsd:schema>
```

Target XSD:

```
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema"
           xmlns="http://www.example.org"
           targetNamespace="http://www.example.org"
            elementFormDefault="qualified" >

  <xsd:element name="choiceTgt">
    <xsd:complexType>
      <xsd:choice>
        <xsd:element name="Street" type="xsd:string"/>
        <xsd:element name="Street1" type="xsd:string"/>
      </xsd:choice>
    </xsd:complexType>
  </xsd:element>
```

```
</xsd:schema>
```

If you do not automatically map the root or manually map source `Street` to target `Street` and source `Street1` to target `Street1`, the generated XSL creates an invalid XML instance at run time.

While mapping manually, you must know the schema. If there is a choice, then you must manually use an `xsl:if`.

13.5.5 Database Functions with JNDI Names Do Not Work Within a MapTest Window

When you use JNDI names for database functions such as `query-database()`, `lookup-table()`, or `sequence-next-val()`, and try to test the map using the `MapTest` utility, no output is returned. The workaround is to use a JDBC string, instead of a JNDI name.

13.6 XPath Expression Builder Issues and Workarounds

If you use the XPath Building Assistant to create an XPath expression with hyphens (for example, on the Create Copy Rule window of an assign activity), a blue line displays under the hyphenated element and an error message similar to the following appears:

```
(34) Message part of name xyz-pqr- xyz not found
```

If the hyphenated elements are nested, the XPath Building Assistant does not allow you to proceed with `bpws:getVariableData()`. For example:

```
bpws:getVariableData('ug_in_var','users-and-groups','')
```

This error is most likely encountered when using the Native Format Builder wizard with the file adapter, where the element name defaults to the hyphenated name of `Root-Element`.

In addition, if elements have long names that wrap such as `root = "publicKeyInfrastructureCertificateAuthorities"` and element = `"publicKeyInfrastructureCertificateAuthority"`, XPath expression building also fails. You receive the following error message:

```
"publicKeyInfrastructureCertificateAuthorities" not found
```

Instead, click the **Expression Builder** icon on the Create Copy Rule window to display the XPath Expression Builder window. This window enables you to create an expression that includes hyphens in elements and enables long names to wrap. For example, for hyphens:

```
bpws:getVariableData('ug_in_var','users-and-groups','/ns2:users-and-groups/ns2
:user-or-group/ns2:name')
```

13.7 General Adapter and Adapter Partner Link Issues and Workarounds

This section describes the following issues and workarounds:

- Section 13.7.1, "Case of Property Names in ra.xml and oc4j-ra.xml Files Must Match"
- Section 13.7.2, "Deleting Header Variables"
- Section 13.7.3, "Moving to the Next Window in the Adapter Configuration Wizard for Oracle Applications Adapter"

- Section 13.7.4, "Configuring Multiple Adapters in the Inbound Direction Using Correlation Sets"

13.7.1 Case of Property Names in ra.xml and oc4j-ra.xml Files Must Match

The case for all property names must exactly match in the `ra.xml` and `oc4j-ra.xml` files. Otherwise, you receive an error message similar to the following during run time in the `domain.log` file:

```
Type=Dequeue_ptt, operation=Dequeue
<2005-03-14 15:20:43,484> <ERROR> <default.collaxa.cube.activation>
<AdapterFram
ework::Inbound> Error while performing endpoint Activation: ORABPEL-12510<br>
Unable to locate the JCA Resource Adapter via WSDL port element jca:address.
The Adapter Framework is unable to startup the Resource Adapter specified in
the WSDL jca:address element:
@ {http://xmlns.oracle.com/pcbpel/wsdl/jca/}address:
location='eis/aqSample'
.
.
```

For example, if the `userName` property in the *`Oracle_Home`*`\integration\orabpel\system\appserver\oc4j\j2ee\home\application-deployments\default\AqAdapter\oc4j-ra.xml` file for the AQ adapter uses the following upper and lower case convention:

```
<config-property name="userName" value="scott"/>
```

Then this case must match the `userName` property in the corresponding *`Oracle_Home`*`\integration\orabpel\system\appserver\oc4j\j2ee\home\connectors\default\AqAdapter\AqAdapter\META-INF\ra.xml` file for the AQ adapter.

```
<config-property-name>userName</config-property-name>
```

13.7.2 Deleting Header Variables

Assuming that you have created a header variable for an adapter as follows, you cannot subsequently delete that variable through the same receive window. The workaround is to delete the header variable in the BPEL source code.

1. Create a BPEL project.
2. Double-click the **receive** activity.
3. Click the **Adapters** tab and define a header variable for the adapter.

13.7.3 Moving to the Next Window in the Adapter Configuration Wizard for Oracle Applications Adapter

If you select the Oracle Applications adapter in the Adapter Configuration wizard and click **Next** on the Database Objects window, moving to the next window can take some time. This is because a connection is being made to the database. The amount of time that it takes is based on your network connection to the database.

13.7.4 Configuring Multiple Adapters in the Inbound Direction Using Correlation Sets

When multiple adapter-based receive activities in the inbound direction use correlation sets in a process, the wrong property alias query is evaluated and the process fails at run time with the error:

```
Failed to evaluate correlation query
```

As a workaround, ensure that the port type and operation values are unique between the two adapter WSDL files. For example, ensure that each adapter WSDL file has a unique operation name.

13.8 Sensor Issues and Workarounds

This section describes the following issue and workaround:

- Section 13.8.1, "Sensor Integration with Oracle Application Server Integration Business Activity Monitoring"

13.8.1 Sensor Integration with Oracle Application Server Integration Business Activity Monitoring

You can create sensor actions in Oracle BPEL Process Manager to publish sensor data as data objects on an Oracle BAM Server. To use this functionality, you must install Oracle BAM 10.1.2.1.0 (also known as Oracle BAM 10.1.2 Patch 1). For details about obtaining Oracle BAM 10.1.2.1.0, see the **10.1.2 Patches** section at the following URL:

```
http://www.oracle.com/technology/products/integration/bam/htdocs/1012_
support.html#patches
```

13.9 Oracle BPEL Console and Oracle BPEL Server Issues and Workarounds

This section describes the following issues and workarounds:

- Section 13.9.1, "Configuring Mozilla Firefox for Oracle BPEL Console Support"
- Section 13.9.2, "Oracle BPEL Console Reports"
- Section 13.9.3, "Unable to Delete a Domain or Recreate a Domain with the Same Name"
- Section 13.9.4, "Large Binary Attachments in SOAP Messages Can Fail with Oracle Database Lite"
- Section 13.9.5, "SOAP Attachment DIME Service Callback Does Not Include the Attachment Key"

13.9.1 Configuring Mozilla Firefox for Oracle BPEL Console Support

1. Select **New** > **Navigator Tab** from the **File** main menu in your Mozilla Web browser.
2. Enter `about:config` in the URL address field.
3. Highlight the new address and press **Ctrl** and then **Enter**.
4. Find the **signed.applets.codebase_principal_support** preference parameter in the **Preference Name** list.
5. Double-click this parameter to display the Enter boolean value window.

6. Enter **true** in the field and click **OK**.

13.9.2 Oracle BPEL Console Reports

Note the following issues when using Oracle BPEL Console reports:

- The **End Date** field format in the **Query** section is **mm/dd/yy** for *all* languages.
- Activity sensor reports show only variables of type number (for example, integer, double, decimal, and float). Nonnumeric types are not supported for this release. In addition, data is only shown for activity sensors with **Evaluation Time** set to **All** in the Create Activity Sensor window of JDeveloper BPEL Designer.
- If Albany fonts are not installed, fonts may not display properly for Asian languages in graphs (appear as squares). Albany fonts are automatically installed if you select the proper Asian language during installation.
- Validation does not work in the Mozilla Firefox browser. For example, if you enter **-1** in the **Number of Time Intervals** field, it is not validated. In addition, process time distribution report bars appear as lines in Mozilla Firefox.
- When clicking a bar in the performance report graph, the Instances page that appears sometimes does not display the correct list of instances. This is because the service level agreement (SLA) value in decimals is rounded off to the nearest integer. For example, assume there are two instances: one completes in three seconds and the other completes in two seconds. The SLA value is 2.6 seconds. The graph displays one instance in the green portion (indicating that the SLA value was satisfied) and the other in the red portion (indicating that the SLA value was not satisfied). Clicking the red portion does not show any instances. This is because the SLA value is rounded off to three seconds and therefore becomes equal to the completion time of the first instance.
- The default SLA value is shown in performance reports only when at least one instance of the business process is created.
- Reports exported to CSV format do not display Japanese or Asian characters. Fault sensor reports exported to CSV format with the fault message having multiple lines are unreadable in Microsoft Excel.
- When instances are purged, sensor data is not purged. Therefore, activity and fault sensor reports show data even if corresponding instances are not found.
- The **End Hour** field is used only for hourly reports, and *not* daily or weekly reports. For example, if you enter **07/29/05** as the end date, **22:00** as the end hour, **Weekly** as the time interval, and **3** as the time interval, the report is generated between **07/08/05** and **07/29/05**. Instances in any hour (even at 23:00 or 0:00) are also considered even though the end hour is 22:00. The same case exists for daily reports. Only with hourly intervals is report generation stopped at 22:00 hours.

13.9.3 Unable to Delete a Domain or Recreate a Domain with the Same Name

If you are unable to delete a domain or recreate a deleted domain with the same name in Oracle BPEL Admin Console (a message indicates the domain already exists), perform the following steps:

1. Go to Oracle BPEL Console.
2. Select the **BPEL Processes** tab, then select **Clear WSDL Cache**.

13.9.4 Large Binary Attachments in SOAP Messages Can Fail with Oracle Database Lite

If you use large binary attachment files in SOAP messages with Oracle Database Lite, your BPEL process may not complete processing, which can cause you to run out of system memory. Note that Oracle Database Lite is largely for testing purposes. To use large binary attachment files in SOAP messages, use an Oracle Database or the Oracle Application Server Metadata Repository as your dehydration store.

> **See Also:** *Oracle BPEL Process Manager Installation Guide* for information about supported Oracle Databases and Oracle Application Server Metadata Repository

13.9.5 SOAP Attachment DIME Service Callback Does Not Include the Attachment Key

The **optSoapShortcut** parameter value defaults to **true** in Oracle BPEL Console. This setting causes BPEL processes with SOAP message binary attachments that use the Direct Internet Message Encapsulation (DIME) protocol to *not* display their attachment key in the Oracle BPEL Console audit trail for the process instance. This is because the binary attachment file is not saved to the dehydration database. Instead, an HTML file displays in the audit trail. For example:

```
<PutCompanyInfo>
. . .
. . .
<report href="C:\orabpel\domains\default\tmp\.bpel_DIMERequester_
1.0.jar\report.html"
/>
</PutCompanyInfo>
```

As a workaround, set **optSoapShortcut** to **false** in Oracle BPEL Console. This enables the file to be saved to the dehydration store and the attachment key to display in the audit trail for the instance (instead of the HTML file). Copy and paste the attachment key into the **Attachment Key** field at the bottom of the audit trail window and click **download** to save it as a file for viewing. If you do this, note that the File Download message initially prompts you to save the attachment key as a JSP file type. Instead, save the file as an HTML file type.

13.10 Oracle BPEL Portlets Issues and Workarounds

This section describes the following issues and workarounds:

- Section 13.10.1, "Oracle BPEL Console Report Portlets"
- Section 13.10.2, "Oracle BPEL Worklist Application Portlets"

13.10.1 Oracle BPEL Console Report Portlets

Note the following issues when using Oracle BPEL Console report portlets:

- To use Oracle BPEL Console report portlets, move the `uix2.jar` file from *`ORACLE_HOME`*`\integration\orabpel\lib` to a different directory (for example, `C:\OraMidTier\integration\orabpel\temp-lib`) and include this library path in the *`ORACLE_HOME`*`\j2ee\OC4J_BPEL\config\application.xml` file:

  ```
  <library path="C:\OraMidTier\integration\orabpel\temp-lib"/>
  ```

- If you want to map portlet parameters with page parameters in Oracle Application Server Portal, the default value for the Oracle BPEL Console report portlet page parameter **Time Interval** parameter must always be in capital letters (for example, **DAILY**, **WEEKLY**, or **HOURLY**). Mapping portlet parameters with page parameters is described in section "Step 5: Mapping Portlet Parameters with Page Parameters" of the chapter "Oracle BPEL Portlets" of the *Oracle BPEL Process Manager Developer's Guide*.

13.10.2 Oracle BPEL Worklist Application Portlets

Note the following issues when using Oracle BPEL Worklist Application portlets:

- After deploying the Oracle BPEL Portlets with `dcmctl`, you must configure the Web provider with Oracle Internet Directory by ensuring that *`Oracle_Home`*`\j2ee\OC4J_BPEL\application-deployments\provider\orion-application.xml` includes the following settings:

  ```
  <jazn provider="LDAP" default-realm="idc"><jazn-web-app
  auth-method="SSO"/></jazn>
  ```

  See the *Oracle BPEL Process Manager Developer's Guide* for instructions on deploying the Oracle BPEL Portlets with `dcmctl`.

- To use the Oracle BPEL Worklist Application portlets, move the `uix2.jar` file from *`ORACLE_HOME`*`\integration\orabpel\lib` to a different directory (for example, `C:\OraMidTier\integration\orabpel\temp-lib`) and include this library path in the *`ORACLE_HOME`*`\j2ee\OC4J_BPEL\config\application.xml` file:

  ```
  <library path="C:\OraMidTier\integration\orabpel\temp-lib"/>
  ```

- Long strings of more than 360 characters in portlet titles are not handled properly

  When specifying parameter values in the BPEL Worklist Portlet and BPEL Worklist Analysis Portlet, do not use long titles such as URL addresses in the **Title** field of the **Display Customization** sections. Long titles can disturb the portlet layout and cause the **Personalize** link in the upper right corner to not work.

- Worklist portlet title bar does not display the first time

  When you initially install Oracle Application Server Portal, register the Web provider, create an initial page group, and add the Oracle BPEL Worklist Application portlets to the page group, the title bar does not appear. This means you cannot access the Personalize link that appears in the upper right corner of the title bar. As a workaround, create a second page group and add the Oracle BPEL Worklist Application portlets to the group. This group, and all subsequent groups you create, display the title bar and the Personalize link.

- All task states display in BPEL Worklist Portlet

  When you select **All** or **Previous** in the **Category** list and **Assigned** in the **Status** list of the **Task Customization** sections of the BPEL Worklist Portlet, you see the state of *all* tasks, not just those identified as **Assigned**.

13.11 High Availability Issues and Workarounds

This section describes the following issues and workarounds:

13.11.1 Oracle BPEL Process Manager and Real Application Clusters Databases

You can use a Real Application Clusters (RAC) database as a dehydration store or as a data source for the database adapter with Oracle BPEL Process Manager. However, RAC setup requires manual steps and some patches. Contact Oracle Support Services for assistance.

13.11.2 Disaster Recovery of Oracle BPEL Process Manager

Disaster recovery (DR) functionality is not supported for the 10.1.2.0.2 phase 2 release of Oracle BPEL Process Manager.

13.11.3 Oracle BPEL Process Manager Backup and Recovery with Oracle Enterprise Manager

You must perform the following procedures to correctly back up and recover Oracle BPEL Process Manager through Oracle Enterprise Manager:

1. Open the *Oracle_Home*\backup_restore\config\config_IPbpm_files.inp file of your BPEL Process Manager for OracleAS Middle Tier installation.
2. Substitute the following directory path lines in place of the current lines in this file:

```
# Orabpel
#
${OH}/integration/orabpel/system/config/collaxa-config.xml
${OH}/integration/orabpel/system/config/*
${OH}/integration/orabpel/system/logs/*
${OH}/integration/orabpel/system/xmllib/*
${OH}/integration/orabpel/domains/*/archive/*
${OH}/integration/orabpel/domains/*/config/*
${OH}/integration/orabpel/domains/*/deploy/*
#${OH}/integration/orabpel/domains/*/logs/*
```

3. Modify the *Oracle_Home*\backup_restore\config\config.inp file by appending config_IPbpm_files.inp to the end of the config_files_list parameter. For example:

```
config_files_list=config_ohs_files_nt.inp,...,config_iaspt_files.inp,config_
IPbpm_files.inp
```

13.12 Globalization/Multibyte Character Issues and Workarounds

This section describes the following issues and workarounds:

13.12.1 Encoding Restrictions in E-Mail Subject Field

The encoding for the `SUBJECT` field in an e-mail message is always set to the language of Oracle BPEL Server, and cannot be changed. If the subject of an e-mail notification is in a different language than that of Oracle BPEL Server, unreadable characters appear in the `SUBJECT` field of the e-mail client. However, the actual body content of the e-mail message is readable.

13.12.2 UTF-8 Encoding Always Used in XSLT Mapper

In the Test XSL Map window, the source and target XML files are always saved in UTF-8 encoding even if you specify a different encoding in the XML header. This eliminates the risk of incorrectly editing the encoding value in the header.

13.12.3 XML Mapper Must Use the Encoding Specified in the XSL When Reading a File

The XML mapper uses UTF-8 encoding for your operating system to read XSL content from files. Therefore, parsing errors can occur if encoding of XSL content is different from UTF-8.

The workaround is to perform one of the following:

1. Save the old map file as a different map file in UTF-8 encoding and open it in the mapper.
2. Open the old map file, and change the encoding to UTF-8 in the source view. After that, you can switch to the **Design** view.

13.12.4 Multibyte Project Name Causes WSDL File to Be Invalid

If you create a BPEL project with a multibyte name, the automatically generated WSDL file name and its referenced namespace URL do not correctly process, which causes the BPEL process to be invalid.

As a workaround, use the ASCII character set for process file names and namespaces.

13.12.5 Ruler Scale Is Not Multibyte-compliant in the Native Format Builder Wizard

If you select the fixed length file type in the Native Format Builder wizard, the ruler on the Field Lengths window that enables you to specify field length for each record is not multibyte-compliant.

13.12.6 Encoding Issue for ora:readFile

The extended XPath function `ora:readFile` requires a file directory path as the first parameter. These functions read the specified file by using OS-default encoding. This is not an issue if the specified file is in the local file system. However, if the specified path is a URL, the target file is not always encoded in OS-default encoding.

13.12.7 Data Consumed as a Text Message May Have Problems

When you configure the JMS adapter in the inbound direction to consume text messages, the data received may be unusable. To avoid this issue, you can use the XSD schema created by the Native Format Builder wizard and select UTF-8 as the character set when prompted.

If you use standard XSD, you expect that the text message in the JMS queue/topic is an XML string. It can contain an XML header string with the encoding attribute, but to avoid the above-mentioned problem, keep enqueuing it without the XML header or with `"encoding=UTF-8"`.

If the JMS message is a bytes message, this problem does not occur.

13.13 JBoss Issues and Workarounds

This section describes the following issues and workarounds:

- Section 13.13.1, "Cannot Migrate From Oracle BPEL Process Manager 10.1.2.0.0 to 10.1.2.0.2 with JBoss Application Server"
- Section 13.13.2, "Increasing Connection Pool Settings for Oracle BPEL Process Manager"
- Section 13.13.3, "OracleAS Integration B2B and OracleAS Integration InterConnect Interoperability with Oracle BPEL Process Manager is Not Supported"
- Section 13.13.4, "Oracle Workflow Bridge is Not Supported"
- Section 13.13.5, "Identity Service Plug-in for Database Providers Sample is Not Supported"

13.13.1 Cannot Migrate From Oracle BPEL Process Manager 10.1.2.0.0 to 10.1.2.0.2 with JBoss Application Server

You cannot currently migrate from the 10.1.2.0.0 release of Oracle BPEL Process Manager with the JBoss Application Server to this 10.1.2.0.2 release. Instead, install a completely new version of Oracle BPEL Process Manager release 10.1.2.0.2 with the JBoss Application Server.

> **See Also:** *Oracle BPEL Process Manager Installation Guide* for Oracle BPEL Process Manager release 10.1.2.0.2 installation instructions with the JBoss Application Server

13.13.2 Increasing Connection Pool Settings for Oracle BPEL Process Manager

If Oracle BPEL Server displays a `"cannot fetch datasource"` error, increase the maximum number of connections value in the database connection pool. For example:

```
<max-pool-size>30</max-pool-size>
```

Increase this parameter value in the following locations:

- The `<local-tx-datasource>` and `<no-tx-datasource>` sections of `oracle-ds.xml`
- The `<local-tx-datasource>` section of `oracle-sample-bpel-ds.xml`

These files are located in the *`Oracle_Home`*`\system\appserver\jboss\server\default\deploy` directory.

If you are using Oracle Database Lite, do not set the `max-pool-size` parameter value higher than `25`. This is a limitation of Oracle Database Lite. If you need a higher value, use an Oracle Database.

> **See Also:** *Oracle BPEL Process Manager Installation Guide* for details about using an Oracle Database

13.13.3 OracleAS Integration B2B and OracleAS Integration InterConnect Interoperability with Oracle BPEL Process Manager is Not Supported

You cannot configure the following components on the JBoss Application Server to communicate with Oracle BPEL Process Manager release 10.1.2.0.2:

- OracleAS Integration B2B
- OracleAS Integration InterConnect

13.13.4 Oracle Workflow Bridge is Not Supported

Oracle Workflow Bridge cannot be used with Oracle BPEL Process Manager and the JBoss Application Server.

13.13.5 Identity Service Plug-in for Database Providers Sample is Not Supported

The identity service plug-in for database providers sample available in *`Oracle_Home`*`\integration\orabpel\samples\hw\isplugin\db` does not currently work with the JBoss Application Server.

13.14 BEA WebLogic Issues and Workarounds

This section describes the following issues and workarounds:

13.14.1 Unsupported Upgrade and Migration Scenarios

The following upgrade and migration scenarios are not supported. Instead, install a completely new version of Oracle BPEL Process Manager release 10.1.2.0.2 with the BEA WebLogic Application Server.

- Oracle BPEL Process Manager 10.1.2.0.2 is only certified on BEA WebLogic Application Server 8.1.5. Therefore, you cannot currently upgrade from the 10.1.2.0.0 release of Oracle BPEL Process Manager on BEA WebLogic Application Server release 8.1.4 to the 10.1.2.0.2 release of Oracle BPEL Process Manager on BEA WebLogic Application Server release 8.1.5.
- You cannot currently migrate from the 10.1.2.0.0 release of Oracle BPEL Process Manager with the BEA WebLogic Application Server to this 10.1.2.0.2 release.

See Also: *Oracle BPEL Process Manager Installation Guide* for Oracle BPEL Process Manager release 10.1.2.0.2 installation instructions with the BEA WebLogic Application Server

13.14.2 owf.ear File Not Included with Installation Software

The `owf.ear` file that is used to install Oracle Workflow Bridge on the host on which Oracle BPEL Process Manager is installed is not included with the BEA WebLogic Application Server and Oracle BPEL Process Manager installation software.

13.14.3 Identity Service Plug-in for Database Providers Sample is Not Supported

The identity service plug-in for database providers sample available in *Oracle_Home*`\integration\orabpel\samples\hw\isplugin\db` does not currently work with the BEA WebLogic Application Server.

13.14.4 OracleAS Integration B2B and OracleAS Integration InterConnect Interoperability with Oracle BPEL Process Manager is Not Supported

You cannot configure the following components on the BEA WebLogic Application Server to communicate with Oracle BPEL Process Manager release 10.1.2.0.2:

- OracleAS Integration B2B
- OracleAS Integration InterConnect

13.15 Microsoft SQL Server Issues and Workarounds

This section describes the following issues and workarounds:

13.15.1 Oracle BPEL Process Manager for OracleAS Middle Tier Installations and Sensors

If you install Oracle BPEL Process Manager for OracleAS Middle Tier, ensure that you manually add the `bc4jdomgnrc.jar` line above the `BC4J/lib` line in the *Oracle_Home*`\j2ee\OC4J_BPEL\config\application.xml` file:

```
<library path="../../../BC4J/jlib/bc4jdomgnrc.jar"/>
<library path="../../../BC4J/lib"/>
```

This action ensures that any sensors in your process correctly load when you deploy the process to Oracle BPEL Server.

13.15.2 SOAP with Binary Attachments Not Supported

Using SOAP with binary attachments is not supported on Microsoft SQL Server. For example, the DIME samples under *Oracle_*

Home\integration\orabpel\samples\demos\Attachment cannot complete successfully. This is because binary large objects (BLOB) are not supported in Microsoft SQL Server.

13.15.3 Reports Feature of Oracle BPEL Console and BPEL Reports Portlets Not Currently Working

The **Reports** link for a deployed BPEL process in the **BPEL Processes** tab of Oracle BPEL Console is not currently enabled with Microsoft SQL Server. In addition, the BPEL Reports Portlets accessible from Oracle Application Server Portal cannot be used with Microsoft SQL Server.

13.15.4 Identity Service Plug-in for Database Providers Sample Not Currently Working

The identity service plug-in for database providers sample available in *Oracle_Home*\integration\orabpel\samples\hw\isplugin\db does not currently work with Microsoft SQL Server.

13.16 Oracle BPEL Process Manager Samples Issues and Workarounds

The *Oracle_Home*\integration\orabpel\samples\demos\OWFBridge sample includes an Oracle Workflow process named WFDemo. This process is part of the Oracle Workflow sample and must be loaded into Oracle Workflow *before* you run this sample. Otherwise, you receive Oracle BPEL Console errors if you try to build the sample.

> **See Also:** *Oracle BPEL Process Manager Developer's Guide* for additional Oracle Workflow Bridge details, including information on adding a data source definition

13.17 Documentation Errata

This section describes known errors in the documentation. It includes the following topics:

- Section 13.17.1, "Oracle Application Server Administrator's Guide"
- Section 13.17.2, "JMS Performance Patch Mentioned in Oracle BPEL Process Manager Developer's Guide"
- Section 13.17.3, "Reassign Component Definition in Oracle BPEL Process Manager Developer's Guide"

13.17.1 Oracle Application Server Administrator's Guide

Chapter: 19, "Introduction to Backup and Recovery"

Header: "Oracle Application Server Component Backup Input Files"

Pages: 19-5 and 19-6

Table 19-1 on page 19-5 lists the Oracle BPEL Process Manager backup input file name as config_ip_files.inp. The correct name is config_IPbpm_files.inp.

In addition, the following line on page 19-6 can be ignored:

Component Name column: Business Integration Process Manager

Backup Input File column: config_IPbpm_files.inp

13.17.2 JMS Performance Patch Mentioned in *Oracle BPEL Process Manager Developer's Guide*

Appendix: A, "Troubleshooting and Workarounds"

Header: "Poor JMS Performance When Creating or Destroying Connections"

Page: A-2

The solution section states to use the rollup patch included on the software CD and to see the readme file. This solution can be ignored.

13.17.3 Reassign Component Definition in *Oracle BPEL Process Manager Developer's Guide*

Chapter: 17, "Worklist Application"

Header: "Overview of Worklist Application Concepts"

Page: 17-3

The following paragraph:

Reassign — A manager can delegate a task to reportees. Similarly, the process owner or a user with `BPMWorkflowReassign` privileges can delegate a specific task to any other person in the organization.

should read as follows (without mention of the process owner):

Reassign — A manager can delegate a task to reportees. Similarly, a user with `BPMWorkflowReassign` privileges can delegate a specific task to any other person in the organization.

14

Oracle BPEL Process Analytics

This chapter describes issues associated with Oracle BPEL Process Analytics. It includes the following topics:

- Section 14.1, "General Issues and Workarounds"
- Section 14.2, "Known Problems"
- Section 14.3, "Documentation Errata"

> **Note:** For Oracle BPEL Process Manager release notes, see the Oracle BPEL Process Manager site of the Oracle Technology Network at `http://www.oracle.com/technology/bpel`.

14.1 General Issues and Workarounds

This section includes the following issues:

- Section 14.1.1, "Unset the ORACLE_HOME Variable Before Installing"
- Section 14.1.2, "Workaround for Inability to Connect to Database After Installation"
- Section 14.1.3, "Restart Oracle BPEL Process Analytics To Fire Alerts In Some Specific Cases"
- Section 14.1.4, "Array Support in Oracle BPEL Process Analytics is Limited to First Level"
- Section 14.1.5, "Non-Working Alert Delivery Channels - FAX, Instant Message, Pager"
- Section 14.1.6, "To Use BAMServiceWrapper, Apply Patch 1 on BPEL"
- Section 14.1.7, "Old Target Values Shown When Adding New Dimensions to a Composite Event"
- Section 14.1.8, "Focus Button on Update Composite Event Confirmation Page Returns Error"
- Section 14.1.9, "Alerts for <= KPI Value Condition Fire at 12 O'clock With Value Zero"
- Section 14.1.10, "Cannot Create Sensors for Primitive and Element Types"
- Section 14.1.11, "Some Error Messages Contain "BAM" Instead of "BPA""
- Section 14.1.12, "Oracle BPEL Process Analytics Dashboard Shows Strange Character"

14.1.1 Unset the ORACLE_HOME Variable Before Installing

When installing Oracle BPEL Process Analytics, the `ORACLE_HOME` variable must not be set; otherwise, the installation may fail with the error, "configuration assistant 'Oracle BPA Configuration Assistant' was cancelled."

Do the following to check and clear the setting of the `ORACLE_HOME` variable:

1. Enter the following command:

   ```
   echo $ORACLE_HOME
   ```

2. Unset the variable if it is defined using the following command:

   ```
   unsetenv ORACLE_HOME
   ```

If you have already received the error, copy the TNS entry that the Oracle BPEL Process Analytics installation created in the *`BPA_midtier_home`*`/network/admin/tnsnames.ora` file as the database service you entered in the file *`Default_Oracle_Home`*`/network/admin/tnsnames.ora`, and then click the **Retry** button on the installer.

14.1.2 Workaround for Inability to Connect to Database After Installation

Installing other Oracle products into the Oracle Application Server middle tier where Oracle BPEL Process Analytics is installed may modify the `tnsnames.ora` file such that the following error message is returned when you attempt to connect to the database:

```
ORA-12154: TNS:could not resolve the connect identifier specified
```

To resolve this problem, make sure that there is a net service name entry in the *`Oracle_BPA_Home`*`/network/admin/tnsnames.ora` file which matches the SID specified by the `oracle.tip.bam.connection.sid` parameter in the *`Oracle_BPA_Home`*`/integration/bam/config/bam.properties` file (where *Oracle_BPA_Home* is the Oracle Application middle tier home where Oracle BPEL Process Analytics is installed).

In addition, make sure that this net service name correctly resolves to the Oracle BPEL Process Analytics Repository database.

14.1.3 Restart Oracle BPEL Process Analytics To Fire Alerts In Some Specific Cases

If you configure Oracle BPEL Process Analytics (event source, composite events, KPIs, metrics, panes, and so on), start using it, and then, after several days configure alerts, the alert may not fire even if the alert condition is met. The workaround to this problem is to restart Oracle BPEL Process Analytics.

14.1.4 Array Support in Oracle BPEL Process Analytics is Limited to First Level

There is limited array support for this release. Oracle BPEL Process Analytics flattens out array attributes. Thus only first level arrays are supported.

14.1.5 Non-Working Alert Delivery Channels - FAX, Instant Message, Pager

The *Oracle BPEL Process Analytics User's Guide*, states that "An administrator can set up notifications, called explicit alerts, that are sent to the business analyst if a KPI or metric exceeds a predetermined threshold value. An explicit alert can be sent as an e-mail message, a phone message, a FAX, a Short Message Service (SMS) message, a pager message, or as an Internet instant message."

However, FAX, instant message, and pager do not work.

14.1.6 To Use BAMServiceWrapper, Apply Patch 1 on BPEL

A sample BPEL process, BAMServiceWrapper, is provided which enables you to invoke the Oracle BPEL Process Analytics Web Service from Oracle BPEL Process Manager.

Because of a bug in Oracle BPEL Process Manager, the sample requires Patch 1 of Oracle BPEL Process Manager to be installed for this sample to work properly.

14.1.7 Old Target Values Shown When Adding New Dimensions to a Composite Event

Updating a composite event by adding new dimensions to an existing composite event causes the old target values to be displayed in the Dashboard.

14.1.8 Focus Button on Update Composite Event Confirmation Page Returns Error

If you remove a hierarchical dimension from a composite event using the Update Composite Event Wizard, then Oracle BPEL Process Analytics displays the Focus column with a circular symbol on the confirmation page.

If you click the circular symbol, Oracle BPEL Process Analytics returns the error:

```
500 Internal server Error
```

14.1.9 Alerts for <= KPI Value Condition Fire at 12 O'clock With Value Zero

Because all KPIs are initialized to 0 at 12 o'clock by the Oracle BPEL Process Analytics engine, any alert of type (<=KPI value) will always return 'true'.

Possible workarounds to handle these with metric alerts, are to have a condition for > 0 and for < KPI value.

14.1.10 Cannot Create Sensors for Primitive and Element Types

If the Oracle BPEL Process Manager variable for which an Oracle BPEL Process Analytics sensor is defined is of primitive (`string`, `int`, and so on) or element type

(no part associated), then Oracle BPEL Process Analytics sensors can be created but will not work at run time (and no errors are returned).

14.1.11 Some Error Messages Contain "BAM" Instead of "BPA"

Some error messages contain the tokens "BAM" instead of "BPA" when referring to Oracle BPEL Process Analytics. These tokens refer to Oracle BPEL Process Analytics.

14.1.12 Oracle BPEL Process Analytics Dashboard Shows Strange Character

The symbol of a circle with four spokes coming out at diagonals is a generic symbol for currency. To correct, manually modify the `opmn.xml` file to set the `LANG` environment variable to 'en_US' (United States English); the currency is then formatted correctly.

14.1.13 Cannot Create Two Composite Events of the Same Name

Creating two composite events of the same name on different event sources returns a server error.

This error occurs, for example, if you do the following:

1. Create a generic event source.
2. Create a composite event (for example 'LoanFlow') on a generic event source.
3. Create an Oracle BPEL Process Manager event source.
4. Create a composite event (for example 'LoanFlow') on Oracle BPEL Process Manager. An exception is then returned.

14.1.14 Best Practice for Time Zone Settings

If the Oracle BPEL Process Manager event source and the Oracle BPEL Process Analytics server are on the same time zone, ensure that the machine time (on which Oracle BPEL Process Manager is running) is the same as that on the Oracle BPEL Process Analytics server. Even if the machine time is slightly ahead in terms of minutes or seconds, Oracle BPEL Process Analytics will not be able to run the KPI and alerts until the Oracle BPEL Process Analytics engine reaches the same time as the event in the source machine.

However, the real time viewer in Oracle BPEL Process Analytics will capture the event. Oracle BPEL Process Analytics does not capture metrics, alerts, or KPI calculations and spends a lot of time debugging. It is now known that the time difference (between the time zones of the server and of the BPEL source machine) causes this.

14.1.15 Dashboard KPI Table Shows Exclamation Marks

If there are icons of an exclamation mark within a yellow triangle that appear against the values shown in the KPI table view in the Dashboard, it indicates that target data is loaded for the KPI value that is being presented on the screen. This icon is used to signify when a KPI is 'at risk'. A KPI is 'at risk' if there is target data and the KPI performance is 'Weak' or 'Under'.

14.1.16 Do Not Use SQL Keywords for Naming the KPIs

Do not use SQL keywords (such as `COUNT`, `ORDER`, and so on) when naming KPIs. SQL keywords can cause a syntax error at the time of target data loading.

14.1.17 New Default Units for Duration and Currency Type KPIs

The default unit of for a time KPI is now seconds. The default unit of currency is now dollars.

14.1.18 Exception Returned In UI.LOG While Logged in as Administrator

The following error is sometimes returned in the `ui.log` file while logged in as Administrator, but this has no effect on the Oracle BPEL Process Analytics user interface:

```
Exception setting DB Password java.net.ConnectException: Connection refused:
connect...
```

14.1.19 No Oracle BPEL Process Analytics Logs Are Available From Oracle Enterprise Manager

There are no logs available for Oracle BPEL Process Analytics using Logviewer from Oracle Enterprise Manager. For example, if you select BPEL Process Analytics from Available Components, and then search, the results show no logs found. However the search results should list logs related to Oracle BPEL Process Analytics.

14.1.20 Workaround for Errors Such As "Failed to Add to Metadata"

Errors may be returned during modeling when Oracle BPEL Process Analytics is attempting to get information or write to the Oracle BPEL Process Analytics repository. Examples of such errors are the following:

```
500 Internal Server Error
oracle.tip.bam.common.BAMException: Error -: BAM-60111: Failed to add Star
LoanFlowTut to Tian Metadata

500 Internal Server Error
oracle.tip.bam.common.BAMException: Informational -: BAM-60153: Failed to get
a add a new dimension: CarModel
```

To work around this problem, open the `sqlnet.ora` file in the *BPA_HOME*`/network/admin` directory (where BPA_Home is the directory specification for the Oracle home where Oracle BPEL Process Analytics is installed) and change the authentication services from `NTS` to `NONE`, as follows:

```
SQLNET.AUTHENTICATION_SERVICES=(NONE)
```

You must restart the server after modifying the `sqlnet.ora` file.

14.1.21 Parentheses Needed In KPI Creation Wizard

The Create KPI Wizard enables you to create dimensional constraints with multiple logical operators (`OR` and `AND`). However, using multiple logical operators is meaningless unless the priority of these operators can be specified also. For example, to apply a dimensional constraint that specifies "either Nissan and Star Loan or Ford and United Loan", you can specify a dimensional constraint such as the following:

```
CarModel.CarModelID = 'Nissan' AND LoanProvider.LoanProviderID = 'Star loan'
```

```
OR CarModel.CarModelID = 'Ford' AND LoanProvider.LoanProviderID = 'United loan'
```

Because the Oracle BPEL Process Analytics parser does not know the priority of the `AND` and `OR` operators, it might start parsing from either the right or left and therefore return meaningless results. Therefore, for this release, you should not specify multiple logical operators in a dimensional constraint.

To work around this problem, use parentheses '( )' in the KPI creation wizard. For example, you can specify the previous example as follows:

```
(CarModel.CarModelID = 'Nissan' AND LoanProvider.LoanProviderID = 'Star loan' )
OR (CarModel.CarModelID = 'Ford' AND LoanProvider.LoanProviderID = 'United loan' )
```

14.2 Known Problems

This section describes known problems. It includes the following topics:

14.2.1 Count Aggregation Cannot Be Applied on Duration, Currency, and Percent

In the Create KPI Wizard, an aggregation type of Count cannot be applied to Duration, Currency, or Percent KPI value types because no meaningful KPIs can be formed with this combination of aggregation type and value types. However, the interface currently does not disable the Duration, Currency, or Percent KPI value types when the Count aggregation type is selected.

14.2.2 Alerts Not Filtered Out According to the User-Selected Time Frame

An Alert View panel in the Dashboard currently shows all alerts, regardless of the time window (Year, Quarter, Month, or Day) you have selected for the Dashboard page. For example, suppose you select a time window of Day for a Dashboard page that contains an Alert view panel. You might expect the Alert View panel to display only alerts that occurred during the current day. However, this is currently not the case. If 1000 alerts have occurred (and have not been deleted), then 1000 alerts will be displayed in the Alert view panel, regardless of when they occurred.

14.2.3 KPI Constructed On Dimensionsless Composite Event Is Improperly Displayed

When you construct a KPI on a composite event that has no dimensions defined, those KPIs should be disabled when you are constructing a Dashboard chart with dimensions. However, you can create such a Dashboard chart, which may result in the Dashboard presenting the wrong data at run time.

For example, if you perform the following steps, the Admin Console will allow you to construct a KPI view pane that displays KPI data based on a dimensional constraint even if the KPI is based on a composite event for which no dimension has been defined:

1. Create two Composite Events, one with dimension and the other without a dimension defined.
2. Create a KPI on each composite event.
3. Assign both KPIs to a user.
4. Create a KPI view pane with a snapshot bar chart that includes both KPIs.
5. In the last page of the Create KPI View Pane wizard, specify a dimensional constraint.

14.2.4 Option To See The Dashboard Pages Based on the Time Zone Not Available

KPI aggregation is performed on a daily basis, meaning for a 24 hour time slot. Events arriving within this 24 hour time slot are aggregated to determine the KPI value. This 24 hour time slot is, by default, based on the server time zone. However the exact 24 hour time slots for different countries may be different.

For example, suppose there is a KPI named "CountLoanOffer" and on 20th April 2005 India standard time (IST) this KPI has a value of 36. If you consider the United States time window for 20th April 2005, however, the KPI may have a different value.

14.2.5 Delete Event Icon Does Not Work in Update Composite Event

If you create a composite event and then try to update the same composite event to delete an existing event, you will find that although an icon is provided to do so, it is disabled.

14.2.6 Sensor Cannot Handle Multiple Variables

Currently, Oracle BPEL Process Analytics requires that, at most, one activity variable sensor be defined for each Oracle BPEL Process Manager activity sensor.

14.2.7 Cannot Reinstall Oracle BPEL Process Analytics After Grid Control Agent Is Installed and Configured

If you install Oracle BPEL Process Analytics in an Oracle Application Server middle tier home and then install and configure Oracle Enterprise Manager Grid control agent, you cannot reinstall Oracle BPEL Process Analytics into the same middle tier home (even if you first deinstall Oracle Enterprise Manager Grid control agent.)

If you attempt to do so, an ADMN-705021 error is returned.

The only workaround to this problem is to reinstall Oracle BPEL Process Analytics in a new Oracle Application Server middle tier home.

14.3 Documentation Errata

The *Oracle BPEL Process Analytics Installation Guide*, which has not been updated for this release, directs you to run the integration repository creation assistant (IRCA) as one of the preinstallation tasks. For this release, this step is no longer required. Instead, you should do one of the following, depending on the type of database you plan to use with Oracle BPEL Process Analytics as follows:

- If you plan to use the Oracle Database that is installed with Oracle Application Server, then you should install the Oracle Application Server Infrastructure. See *Oracle Application Server Installation Guide* for the operating system you are using for details.
- If you plan to use a standalone database, then you should use Oracle Application Server Metadata Repository Creation Assistant (RepCA) to install the Oracle Application Server Metadata Repository into that database. See *Oracle Application Server Metadata Repository Creation Assistant User's Guide* for details.

15

Oracle Application Server Integration B2B

This chapter describes issues associated with Oracle Application Server Integration B2B (OracleAS Integration B2B). It includes the following topics:

15.1 General Issues and Workarounds

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

15.1.1 Redeployment Issue

If you see that redeployment does not reflect your design-time data changes (for example, a change in the XPath expression is not recognized), restart the B2B server as follows:

```
opmnctl restartproc process-type=B2BServer
```

15.1.2 Purging Removes Instance Data

Purging a retired configuration removes the associated run-time data. Oracle recommends that you do a database archive of run-time data before purging.

15.1.3 Self-service API for Creating Trading Partners and Agreements

Only *creating* trading partners and agreements is supported, not updating or deleting. Also, RosettaNet collaborations are not supported in this API.

15.1.4 Oracle Application Server Clustering and Integration B2B

Oracle Application Server Integration B2B cannot be installed on a clustered application server middle-tier environment. Also, after you install Oracle Application Server Integration B2B on a middle tier, you cannot add it as a node on a cluster.

15.1.5 B2B User Login Must Have a Role

Logging in as the `b2b` user, without first assigning a role to the `b2b` user, produces a blank page. You must first log in as `admin` and assign a role to the `b2b` user. Then the `b2b` user can log in, with functionality based on the assigned role.

15.1.6 Cannot Update the admin User Password

You cannot update the password for the predefined `admin` user. Instead, create a new user and assign it the `Administrator` role. You can update the password for this new user.

15.1.7 OracleAS Integration B2B Pages in Oracle Enterprise Manager

If you are using OracleAS Integration B2B in a non-English language, note that parts of some OracleAS Integration B2B pages in Oracle Enterprise Manager 10*g* Application Server Control appear only in English.

15.1.8 Configuring OracleAS Integration B2B in Enterprise Environments

In a typical Oracle Application Server environment, the Oracle Application Server middle tier with its installations of J2EE and Web Cache and OracleAS Integration B2B communicates with the OracleAS Infrastructure tier and its installation of the OracleAS Metadata Repository.

You can also configure OracleAS Integration B2B to run in enterprise environments. Enterprise environments are slightly different than the typical Oracle Application Server environment in that they include an additional middle tier known as a web tier that is installed and configured outside your corporate network. The web tier includes the J2EE and Web Cache install type. However, there is no installation of OracleAS Integration B2B and no applications are deployed on the web tier. The web tier is used only to exchange HTTP requests (through the Oracle HTTP Server) with the Oracle Application Server middle tier (and its installations of J2EE and Web Cache and OracleAS Integration B2B). The Oracle Application Server middle tier, in turn, communicates with the OracleAS Infrastructure tier and its installation of the OracleAS Metadata Repository.

To use OracleAS Integration B2B in enterprise environments with a web tier, you must perform the following configuration tasks:

On the Oracle Application Server middle tier (with its installations of J2EE and Web Cache and OracleAS Integration B2B):

1. Go to the *ORACLE_HOME*`/opmn/conf` directory.
2. Use a text editor to open `opmn.xml`.
3. Find the entry for `OC4J_B2B`.
4. Change the range of AJP Ports from `3301-3400` to `3301-3301`.

   This enables OC4J_B2B to run on just one AJP port.
5. Save your changes.

On the web tier (with its installation of only J2EE and Web Cache):

1. Go to the *ORACLE_HOME*/Apache/Apache/conf directory.
2. Use a text editor to open mod_oc4j.conf.
3. Add the following entries near the end of the file, but before the </IfModule> line. These entries enable AJP routing to communicate with the configured OC4J_B2B:

   ```
   Oc4jMount /b2b ajp13://hostname:ajpport
   Oc4jMount /b2b/* ajp13://hostname:ajpport
   ```

   where:

   - *hostname* is the name of the host on which the Oracle Application Server middle tier is installed
   - *ajpport* is the AJP port range that you configured on the Oracle Application Server middle tier

4. Save your changes.

See Also: *Oracle Application Server Integration B2B Installation Guide* for additional instructions on configuring a web tier (and its Oracle HTTP Server) outside your corporate network

15.2 Documentation Errata

This section describes known errors in the documentation. It includes the following topics:

15.2.1 User's Guide Documentation

This section describes corrections and clarifications to *Oracle Application Server Integration B2B User's Guide*, 10g Release 2 (10.1.2.0.2), part number B19370-01.

Chapter: 3, "Supported Protocols" (supp_protos.htm)

Heading: "Document Protocols"

Page: online version

The first paragraph in this section should read as follows:

The document protocol defines the document type of the message payload. Business protocols can have multiple document protocols. Document protocols follow the hierarchy shown in *Figure 3-1*.

Chapter: 11, "Managing Callouts" (callouts.htm)

Heading: "Tutorial: Adding Callout Usages to the RosettaNet over the Internet Transaction"

Page: 11-16 and online version

The first paragraph in this section should read as follows:

This tutorial assumes you have completed *the tutorial* described in "Tutorial 1: Setting Up a RosettaNet over the Internet Transaction."

Chapter: 11, "Managing Callouts" (`callouts.htm`)

Heading: "Tutorial: Adding Callout Usages to the RosettaNet over the Internet Transaction"

Page: 11-17 and online version

This procedure has a missing step without which the tutorial does not work.

For the sending party server (Acme in the example), the remote trading partner (GlobalChips in the example) must have a Trading Partner Identifier - EDI Location Code set as PARTY_SITE_ID (3101 - as in the example) in the enqueued message on the ECXMSG queue. This does not have to be selected in the agreement; however, it must be set for the remote trading partner. Without the preceding Trading Partner Identifier, the enqueued OAG PO message cannot find the to-party information.

15.2.2 Installation Documentation

This section describes corrections and clarifications to *Oracle Application Server Integration B2B Installation Guide*.

None.

16

Oracle Application Server Integration InterConnect

This chapter describes the issues related to Oracle Application Server Integration InterConnect (OracleAS Integration InterConnect). This chapter contains the following topics:

16.1 General Issues and Workarounds

This section describes the following general issues:

16.1.1 Adapters Duplicate the Messages During Failover on Real Application Cluster (RAC) or Cold Failover Cluster (CFC) Environment

If your AQ adapter and the database adapter are configured to use the RAC database or the CFC database for high availability, then during the failover of the adapters from primary instance to the secondary instance, the message which is being processed at the time of failover will get duplicated.

Example: You send 100 messages from the AQ adapter. The Database adapter is subscribing to these messages. If the primary instance of the database fails while processing the thirtieth message, then the adapters successfully fail over to the secondary instance, but in the process, duplicate the thirtieth message. As a result, the subscribing adapter ends up subscribing to the thirtieth message twice and the total number of messages would be 101.

16.1.2 JCA adapter Does Not Support High Availability

In Oracle Application Server Integration InterConnect release 10.1.2.0.2, the JCA adapter does not support high availability functionality.

16.2 Documentation Errata

This section describes known errors and omissions in Oracle Application Server Integration InterConnect documentation.

16.2.1 Documentation Errors

This section describes the following known errors in the Oracle Application Server Integration InterConnect documentation.

- Section 16.2.1.1, "Incorrect Release Number"

16.2.1.1 Incorrect Release Number

Appendix A " Upgrading Oracle Application Server Integration InterConnect" of *Oracle Application Server Integration InterConnect Installation Guide* contains incorrect release number. The release number 10.1.2.0.1 in the appendix should read as 10.1.2.0.0.

16.2.2 Additional Documentation

This section describes following known additions to the Oracle Application Server Integration InterConnect documentation.

- Section 16.2.2.1, "Configuring the InterConnect JCA adapter for use with DB2 and Sybase Database"
- Section 16.2.2.2, "Application Name value in the oc4j-ra.xml File"

16.2.2.1 Configuring the InterConnect JCA adapter for use with DB2 and Sybase Database

The section 2.3 "Configuring the JCA Adapter" of the *Oracle Application Server Integration InterConnect Adapter for JCA Installation and User's Guide* is missing the subsection "Configuring the InterConnect JCA adapter for use with DB2 and Sybase Database." This subsection should be read as follows:

You can connect to an external database in the following ways:

- By using the DataDirect drivers (provided by Oracle)
- By using the drivers provided by specific vendors

DB2 Configuration

This section explains how to configure the JCA adapter, for use with the DB2 database, by using the following drivers:

- DataDirect Driver
- Net Driver

DataDirect Driver If using the DataDirect driver, then perform the following steps:

1. In the `classpath` variable of the `Start` file, specify the path of the following files:
   - `YMbase.jar`
   - `YMoc4j.jar`
   - `YMutil.jar`
   - `YMdb2.jar`

   For example:

```
java -server -Dadapter=dbapp -DORBdisableLocator=true -ms${INITIAL_MEMORY}m
-mx${MAX_MEMORY}m -classpath
:/private1/hsrirama/Ora1012/integration/interconnect/lib/YMbase.jar:/private1/h
```

```
srirama/Ora1012/lib/YMoc4j.jar:/private1/hsrirama/Ora1012/lib/YMutil.jar:/priva
te1/hsrirama/Ora1012/lib/YMdb2.jar
```

2. Specify the driver class name in the `Start` file of the JCA adapter.

```
DriverClassName=com.oracle.ias.jdbc.db2.DB2Driver
```

3. Specify the database URL in the `Start` file of the JCA adapter:

```
ConnectionString=jdbc:oracle:db2://144.23.214.118:50001;DatabaseName=TOPLINK;Pa
ckageName=JDBCPKG; CreateDefaultPackage=TRUE;ReplacePackage=TRUE
```

For example:

```
connection1_name=eis/DB/DB2Connection
connection1_mcf_class=oracle.tip.adapter.db.DBManagedConnectionFactory
connection1_mcf_
params={ConnectionString=jdbc:oracle:db2://144.23.214.118:50001;DatabaseName=TOPLI
NK;PackageName=JDBCPKG; CreateDefaultPackage=TRUE;ReplacePackage=TRUE,
DriverClassName=com.oracle.ias.jdbc.db2.DB2Driver, UserName=testuser,
Password=testpassword,
platformClassName=oracle.toplink.internal.databaseaccess.DB2Platform}
```

Net Driver If using the Net driver, then perform the following steps:

1. In the `classpath` variable of the `Start` file, specify the path of the following files:
   - `db2java_81.zip`
   - `db2jcc_81.jar`

   For example:

```
java -server -Dadapter=dbapp -DORBdisableLocator=true -ms${INITIAL_MEMORY}m
 -mx${MAX_MEMORY}m -classpath
 :/private1/hsrirama/Ora1012/integration/interconnect/lib/db2java_
81.zip:/private1/hsrirama/Ora1012/lib/db2jcc_81.jar
```

2. Specify the driver class name in the `Start` file of the JCA adapter.

```
DriverClassName=COM.ibm.db2.jdbc.net.DB2Driver
```

3. Specify the database URL in the `Start` file of the JCA adapter:

```
ConnectionString=jdbc:db2:144.23.214.118:TOPLINK,
 DriverClassName=COM.ibm.db2.jdbc.net.DB2Driver, UserName=testuser,
 Password=testpassword,
platformClassName=oracle.toplink.internal.databaseaccess.DB2Platform
```

For example:

```
connection1_name=eis/DB/DB2Connection
connection1_mcf_class=oracle.tip.adapter.db.DBManagedConnectionFactory
connection1_mcf_params={ConnectionString=jdbc:db2:144.23.214.118:TOPLINK,
DriverClassName=COM.ibm.db2.jdbc.net.DB2Driver, UserName=testuser,
Password=testpassword,
platformClassName=oracle.toplink.internal.databaseaccess.DB2Platform}
```

Sybase Configuration

This section explains how to configure the JCA adapter, for use with the Sybase database, by using the following drivers:

- DataDirect Driver
- Jconn Driver

DataDirect Driver If using the DataDirect driver, then perform the following steps:

1. In the `classpath` variable of the `Start` file, specify the path of the following files:
   - `YMbase.jar`
   - `YMoc4j.jar`
   - `YMutil.jar`
   - `YMsybase.jar`

   For example:

   ```
   java -server -Dadapter=dbapp -DORBdisableLocator=true -ms${INITIAL_MEMORY}m
    -mx${MAX_MEMORY}m -classpath
   :/private1/hsrirama/Ora1012/integration/interconnect/lib/YMbase.jar:/private1/h
   srirama/Ora1012/lib/YMoc4j.jar:/private1/hsrirama/Ora1012/lib/YMutil.jar:/priva
   te1/hsrirama/Ora1012/lib/YMsybase.jar
   ```

2. Specify the driver class name in the `Start` file of the JCA adapter.

   ```
   DriverClassName=com.oracle.ias.jdbc.sybase.SybaseDriver
   ```

3. Specify the database URL in the `Start`file of the JCA adapter:

   ```
   ConnectionString=jdbc:oracle:sybase://144.23.214.104:5001;DriverClassName=com.o
   racle.ias.jdbc.sybase.SybaseDriver, UserName=testuser, Password=testpassword,
    platformClassName=oracle.toplink.internal.databaseaccess.DatabasePlatform
   ```

For example:

```
connection1_name=eis/DB/SybaseConnection
connection1_mcf_class=oracle.tip.adapter.db.DBManagedConnectionFactory
connection1_mcf_params={ConnectionString=jdbc:oracle:sybase://144.23.214.104:5001,
 DriverClassName=com.oracle.ias.jdbc.sybase.SybaseDriver, UserName=testuser,
 Password=testpassword,
 platformClassName=oracle.toplink.internal.databaseaccess.DatabasePlatform}
```

Jconn Driver If using the Jconn driver, then perform the following steps:

1. In the `classpath` variable of the `Start` file, specify the path of the `jconn2.jar` file.

   For example:

   ```
   java -server -Dadapter=dbapp -DORBdisableLocator=true -ms${INITIAL_MEMORY}m
    -mx${MAX_MEMORY}m -classpath
    :/private1/hsrirama/Ora1012/integration/interconnect/lib/jconn2.jar
   ```

2. Specify the driver class name in the `Start` file of the JCA adapter.

   ```
   DriverClassName=com.sybase.jdbc2.jdbc.SybDriver
   ```

3. Specify the database URL in the `Start` file of the JCA adapter:

```
ConnectionString=jdbc:sybase:Tds:144.23.214.104:5001/TestUser;DriverClassName=c
om.sybase.jdbc2.jdbc.SybDriver, UserName=testuser, Password=testpassword,
 platformClassName=oracle.toplink.internal.databaseaccess.DatabasePlatform
```

For example:

```
connection1_name=eis/DB/DB2Connection
connection1_mcf_class=oracle.tip.adapter.db.DBManagedConnectionFactory
connection1_mcf_
params={ConnectionString=jdbc:sybase:Tds:144.23.214.104:5001/TestUser,
DriverClassName=com.sybase.jdbc2.jdbc.SybDriver, UserName=testuser,
Password=testpassword,
platformClassName=oracle.toplink.internal.databaseaccess.DatabasePlatform}
```

16.2.2.2 Application Name value in the oc4j-ra.xml File

The section A.3 "Configuration" of the *Oracle Application Server Integration InterConnect User's Guide* has incomplete information in "The name of the application" step. This step should read as follows:

- The name of the application.

```
<config-property name="applicationName" value="BPELServer"/>
```

Note: Application name in the `oc4j-ra.xml` file should be similar to the application name in iStudio.

17

Oracle Application Server Web Cache

This chapter describes the issues associated with Oracle Application Server Web Cache (OracleAS Web Cache). It includes the following topic:

- Section 17.1, "Configuration Issues and Workarounds"
- Section 17.2, "Documentation Errata"

17.1 Configuration Issues and Workarounds

This section describes configuration issues and their workarounds for OracleAS Web Cache. It includes the following topic:

- Section 17.1.1, ""Page Cannot be Displayed" Error During Login"
- Section 17.1.2, ""Authentication Required" Error When Monitoring the OracleAS Web Cache Invalidation Port"
- Section 17.1.3, "Configuring the Load Balancer with the Ping URL for the Invalidation Port"
- Section 17.1.4, "DNS Round Robin in Front of an OracleAS Web Cache Cluster"
- Section 17.1.5, "Patch Available for Configuring OracleAS Web Cache Solely as a Software Load Balancer or Reverse Proxy"
- Section 17.1.6, "Reloading Issue with Cache Operations Success Message in OracleAS Web Cache Manager with Internet Explorer Browser"

17.1.1 "Page Cannot be Displayed" Error During Login

You will receive a "Page Cannot be Displayed" error during SSL-enabled Single Sign-on login to an SSL-enabled midtier application when using Microsoft Internet Explorer version 5 or version 6. In this scenario, OracleAS Web Cache is a reverse-proxy for OracleAS Single Sign-On. Both OracleAS Infrastructure and OracleAS Web Cache Midtier are SSL enabled and using the same authentication certificate. Refreshing the browser displays the authenticated application page.

To work around this issue, do not use OracleAS Web Cache as a reverse proxy. Route all client requests directly to the midtier instance of Oracle HTTP Server and disable session in the `ssl.conf` file.

To fix the problem, apply Oracle Application Server 10*g* Release 2 (10.1.2) Patch Set 2 (10.1.2.2.0) to your instance of Oracle Application Server 10*g*. Then apply the one-off fix for Bug 4700543 for version 10.1.0.5.

17.1.2 "Authentication Required" Error When Monitoring the OracleAS Web Cache Invalidation Port

In the *Oracle Application Server Enterprise Deployment Guide*, section 8.3.7, "Completing the Configuration", provides the following URL for monitoring the invalidation port 9401:

```
http://apphost2.mycompany.com:9401/x-oracle-cache-invalidate-ping
```

When you use this URL, configure the load balancing router to send an HTTP request to the invalidation port instead of TCP ping, which is usually the default.

17.1.3 Configuring the Load Balancer with the Ping URL for the Invalidation Port

When configuring a load balancer to use OracleAS Web Cache, you specify the OracleAS Web Cache servers and the URL to ping each cache server to check the status of the cache. You specify the same ping URL as you configured for the auto-restart mechanism. The default ping URL is `/_oracle_http_server_webcache_static_.html`, but is configurable, as described in section "Task 3: Configure Auto-Restart Settings" of Chapter 8, "Setup and Configuration," of the Oracle Application Server Web Cache Administrator's Guide.

In addition to the auto-restart ping URL, some load balancers can route invalidation traffic. For these load balancers, you can configure with the ping URL to check the health of the invalidation port. The ping URL for invalidation is `/x-oracle-cache-invalidate-ping`. This URL is not configurable.

17.1.4 DNS Round Robin in Front of an OracleAS Web Cache Cluster

In a multi-node configuration featuring an OracleAS Web Cache cluster, a further OracleAS Web Cache can be used on the front end as a software load balancer. Front end refers to the OracleAS Web Cache instance having its IP address mapped to the virtual hostname of the whole system, and defined within the OracleAS Web Cache configuration itself.

Alternatively, DNS-based load balancing or a full hardware load balancer can be used to front the OracleAS Web Cache cluster. With a DNS-based solution, the virtual hostname of the system is stored in DNS only, and the DNS server flips between the IP addresses of the front-end OracleAS Web Cache cluster members.

There are limitations with both the OracleAS Web Cache and DNS load-balancing solutions, and a full hardware load balancer is recommended for production systems.

17.1.5 Patch Available for Configuring OracleAS Web Cache Solely as a Software Load Balancer or Reverse Proxy

In previous releases, you could configure OracleAS Web Cache solely as a software load balancer or reverse proxy in place of hardware load balancers.

By applying a patch to this release, you can now configure OracleAS Web Cache as software load balancer or reverse proxy even in front of an application using Edge Side Includes (ESI) or in front of another OracleAS Web Cache forming a cache hierarchy. A typical OracleAS Portal deployment, for example, has a built-in OracleAS Web Cache used for ESI assembly.

To use OracleAS Web Cache in this mode, download an Automated Release Update (ARU) for bug 4569559 from Oracle*Metalink*:

https://metalink.oracle.com

See Also: Section "OracleAS Web Cache Solely as a Software Load Balancer or Reverse Proxy" in Chapter 8, "Setup and Configuration," of the *Oracle Application Server Web Cache Administrator's Guide*

17.1.6 Reloading Issue with Cache Operations Success Message in OracleAS Web Cache Manager with Internet Explorer Browser

When you submit a successful operation in the Cache Operations page (**Operations** and then **Cache Operations**) in OracleAS Web Cache Manager, a Success message box appears. When you click **OK** to acknowledge the message, on versions of Internet Explorer running on Macintosh, the Success dialog box reloads the OracleAS Web Cache Manager interface into the message box itself.

17.2 Documentation Errata

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

17.2.1 Running webcached with Root Privilege

In section "Running webcached with Root Privilege" in Chapter 8, "Setup and Configuration" of the *Oracle Application Server Web Cache Administrator's Guide* the following text is displayed:

"On UNIX, you must configure webcached to run with root privilege in the following cases:

- There are more than 1,024 file descriptors being used for connections to OracleAS Web Cache."

The above text is then followed with a section with configuration steps titled, "Configuring Root Privilege for Privileged Ports and More than 1,024 File Descriptors".

The listed information and section about configuring more than 1,024 File Descriptors is incorrect. Specifically:

- OracleAS Web Cache does not require root privilege to have more than 1,024 file descriptors
- In the Oracle Application Server Installation Guide, the file descriptor (nofile) requirement for the non-root oracle user is 65536.

17.2.2 Additional Site Configuration

Both the *Oracle Application Server Web Cache Administrator's Guide* and online help for Application Server Control Console and OracleAS Web Cache Manager specify that when configuring sites, you specify site definitions, followed by creating ordered mappings of sites to origin servers.

Because OracleAS Web Cache resolves a request first to a site definition, and then to the first matching site-to-origin server mapping, the order in which you configure the site definitions is also important. The documentation and the online help do not specify that the site definitions themselves must be ordered.

For example, consider site definitions configured in this order:

```
www.company.com:80
www.company.com:80/sales
```

Because `www.company.com:80` is a superset of `www.company.com:80/sales`, OracleAS Web Cache will match requests for `www.company.com:80/sales` to site definition `www.company.com:80` rather than `www.company.com:80`. In addition, OracleAS Web Cache will use the site-to-server mapping for `www.company.com:80`.

To avoid this problem, you would have to configure the site definitions in the following order:

```
www.company.com:80/sales
www.company.com:80
```

18

Oracle Reports

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

Note:

- Refer to the Oracle Reports 10*g* page on OTN, (`http://www.oracle.com/technology/products/reports/index.html`) for information about Oracle Reports, including a link to download the latest version of the *Oracle Reports online Help*
- Your Oracle Application Server software ships with a standalone installation of Oracle Application Server Forms and Reports Services. Use this CD if you do not need all the functionality of the full Oracle Application Server installation. For more information, refer to the *Oracle Application Server Forms and Reports Services Installation Guide*, available on your Documentation CD. Refer also to the Oracle Reports Technical FAQ on OTN (`http://www.oracle.com/technology/products/reports/htdocs/faq/faq_fr_services.htm`) for frequently asked questions about OracleAS Forms and Reports Services installation.

18.1 General Issues and Workarounds

This section describes general issues and their workarounds for Oracle Reports. It includes the following topics:

18.1.1 Enabling Backward Compatibility with 9.0.4

Oracle Reports 10*g* Release 2 (10.1.2) replaces the use of Borland VisiBroker with Sun Microsystems industry-standard Java Developer's Kit Object Request Broker (JDK ORB), providing support for Reports Server requests from clients across subnets, and using the broadcast mechanism for dynamic Reports Server discovery, both within a subnet and across subnets. For information about the changes related to JDK ORB, refer to the *Oracle Application Server Reports Services Publishing Reports to the Web* manual.

For releases prior to 9.0.4.3, you must apply the patch issued for 9.0.4.2 to achieve ORB backward compatibility between Oracle Reports (9.0.4) client and 10*g* Release 2 (10.1.2) server, or vice versa. Beginning with 9.0.4.3, the patch is included in the installation.

Bug 4092150 is a published bug containing pertinent platform-specific info. As a rule, we do not include bug numbers in RN, but this is an exception.

Platform-specific details for this patch are provided in bug 4092150.

18.1.2 Using the New Auto Save Feature in Reports Builder

Oracle Reports 10*g* Release 2 (10.1.2) introduces the Auto Save feature, which recovers unsaved changes in the case of an unexpected event of Reports Builder or system fail. When Auto Save is enabled, Reports Builder can automatically recover unsaved changes in open reports.

To enable the Auto Save functionality, you must perform the following steps:

1. In Reports Builder, select **Edit**, and then select **Preferences** to display the Preferences dialog box.
2. In the Preferences dialog box, on the **General** tab, select **Auto Save**.

Alternatively, you can enable the Auto Save functionality by modifying the `Reports.auto_save` property in the preferences file, `cauprefs.ora` for Windows `prefs.ora` for UNIX platforms. Modify the file as follows:

```
Reports.auto_save = [YES|NO]
DEFAULT: NO
```

Usage Notes

- When Auto Save is enabled, any modifications done in the reports that are open are saved automatically in temporary recovery files at various events originating from menu, toolbar, tool palette, object navigator, property inspector, and other editor windows in Reports Builder.

- For a new report definition, Auto Save is enabled only after the report is saved the first time.
- After you save your report, Reports Builder deletes the current recovery file. Even if you just recovered unsaved changes, Reports Builder deletes the recovery file when you save the report.
- The temporary recovery file is created and saved in `.rdf` format in the same location as that of the original definition file. The format of recovery files is `reportname_extension.rdf`. For example, the recovery file of an original definition file, `emp.jsp`, would be `emp_jsp.rdf`. The `emp_jsp.rdf` file is saved in the same location as the `emp.jsp` file.
- If you reopen a previously unsaved report definition file for which a recovery file exists, then Reports Builder prompts you to save the changes. The recovery file contains the changes made until the last Auto Save event. After the changes are recovered, you must select the **Save** or **Revert** option. The **Save** option writes the unsaved previous changes to the original report definition file. The **Revert** option does not save the recovered changes. Reports Builder deletes the recovery file when you close the report.
- If an error occurs when autosaving the recovery file, then Reports Builder prompts you to disable Auto Save or continue with the error.

Note: When Auto Save is enabled, Reports Builder assumes that the recovery file contains changes made since the last save of the report definition file. Before you choose to save the recovery file, you must ensure that the recovery file contains your latest changes. If the original report definition file is a later version than the recovery file, then you can choose to revert to the original report definition, so that you do not overwrite it with the changes read from the recovery file.

18.1.3 OracleAS Reports Services Demos Will Not Work If JServ Is Configured

To run OracleAS Reports Services demos successfully, do not configure Apache JServ on the computer where OracleAS Reports Services is installed.

18.1.4 Error While Editing Batch Registered Report in OracleAS Portal

If you batch register a report in OracleAS Portal, then subsequently manually edit the report's registration in OracleAS Portal, you may encounter an unexpected Save As dialog box during the manual editing process.

To work around this issue, specify the Display Name property while editing the report's registration in OracleAS Portal.

Refer to the *Oracle Application Server Reports Services Publishing Reports to the Web* manual for information on how to register a report with OracleAS Portal.

18.1.5 Limitation on Linked Queries for DelimitedData Output

DelimitedData output does not allow multiple queries to be linked to the main query, because sibling groups are not supported.

For example:

Case 1: You have a link between `Q1` and `Q2`, a link between `Q2` and `Q3`, and a standalone `Q4` query.

```
Q1<-->Q2<-->Q3          Q4
```

In this case, DelimitedData output is generated correctly.

Case 2: You have a link between `Q1` and `Q2`, a link between `Q2` and `Q3`, and a link between `Q4` and `Q1`.

```
Q1<-->Q2<-->Q3     Q1<-->Q4
```

In this case, DelimitedData output is not generated correctly. Alternatively, you can use XML output.

18.1.6 Summary Column Not Aligned for JSP-Based Web Reports with Group Above and Matrix Style

If any summary column values are not correctly left-aligned in the output of JSP-based Web reports with a Group Above or Matrix style, you can implement the following workaround to get proper alignment:

- Open the JSP report in Reports Builder.
- Select the **Web Source** view.
- In the Web Source view, locate the section where the summary column is defined, and delete the following line to remove the extra space:

  ```
  <th class="summary_column_name"> </th>
  ```

18.1.7 Images in HTML Output of Oracle Reports Not Displayed When Viewed from Oracle Enterprise Manager 10*g*

If OracleAS Web Cache is configured as SSL-enabled and Oracle HTTP Server is not, then the images in the HTML output of Oracle Reports is not displayed when viewed from Oracle Enterprise Manager 10*g*. This is because the image URLs mentioned in the HTML output points to OracleAS Web Cache ports, which are SSL-enabled, whereas the request for past job outputs of Oracle Reports from Oracle Enterprise Manager 10*g* is non-SSL.

To work around this issue, edit the Servlet property of the URL in the `targets.xml` file for Reports Server type such that it points to the OracleAS Web Cache port instead of the Oracle HTTP Server port. The `targets.xml` file is available at *ORACLE_HOME*`/sysman/emd` directory.

For example, if your OracleAS Web Cache is SSL-enabled and the listening port number is `443`, then the Servlet property of the URL for the Reports Server target in the `targets.xml` file should be as shown in the following example:

```
<Target TYPE="oracle_repserv" …..>
......
<Property NAME="Servlet" VALUE="https://xyz.mycompany.com:443/reports/rwservlet"/>
......
</Target>
```

18.1.8 Misalignment in Large Multibyte Reports When Using the Enhanced Font Subsetting Feature with Acrobat Reader 7.0

If you use Acrobat Reader 7.0 to view multibyte and unicode PDF reports that use enhanced font subsetting feature (default) and the report size is very large, then some of the characters displayed will not be aligned properly.

To work around this issue, you can do either of the following:

- Set the environment variable `REPORTS_ENHANCED_SUBSET` to `NO` to revert to the Type 3 font subsetting implementation used in releases prior to Oracle Reports 10*g* Release 2 (10.1.2).
- Use Acrobat Reader 6.0 or earlier.

18.1.9 PL/SQL Compilation Failure When Using SQL Constructs

PL/SQL compilation may fail if you use SQL constructs in your reports and if the following conditions are present:

- The SQL constructs were introduced in Oracle Database versions after 9.x, for example, `ROW_NUMBER()`.
- The SQL constructs are used in client side PL/SQL procedures.

To work around this issue, you can do any of the following:

- Use Oracle Database Release 10.1.0.4 or later.
- Move those SQL constructs to the server-side stored procedures.
- Use the SQL constructs within SQL queries directly instead of procedures.

18.1.10 PL/SQLPackage Specification and/or Body Lost When Saving Report As XML

For a report developed in a release prior to Oracle Reports 10*g* Release 2 (10.1.2) patch 2, you may encounter the following issue when saving the report in XML format: if the report defines a PL/SQL package, the package specification, and sometimes the body, is not saved in the XML report. To resolve this issue, perform either of the following steps:

- If the RDF exists, regenerate the XML output file using Oracle Reports 10*g* Release 2 (10.1.2) patch 2 or later.
- If the RDF does not exist, edit the XML manually to add `type="packageSpec"` and/or `type="packageBody"` to the `function` element, as shown in the following example:

```
<programUnits>
  <function name="a" type="packageSpec">
    <textSource>
      <![CDATA[
        PACKAGE a IS
          function lire return date ;
        END a;
      ]]>
    </textSource>
  </function>
  <function name="a" type="packageBody">
    <textSource>
      <![CDATA[
        PACKAGE BODY a IS
          function lire return date is
            c2 date;
            begin
              c2 :=sysdate;
              return c2;
            end;
        END;
      ]]>
    </textSource>
```

```
  </function>
  <function name="cf_1formula" returnType="date">
    <textSource>
      <![CDATA[
        function CF_1Formula return Date is
          aa date;
          begin
            --aa :=a.lire;
          end;
      ]]>
    </textSource>
  </function>
</programUnits>
```

18.1.11 Incorrect Color for Multiline Text in Paper Design View When Inline HTML Tags Are Used

If any of the following conditions are present, then the text in the Paper Design view of Reports Builder may display in an incorrect color:

- A text object includes multiline text, which wraps beyond the first line.
- The text object's Contains HTML Tags property is set to Yes.
- More than one color is applied to different parts of the multiline text.

> **Note:** This issue is shown in the Paper Design view only. The report output in all other output formats show correct colors.

18.1.12 Dynamic refcursor Error

Reports that contain a dynamic `refcursor` may fail with a virtual memory system error. To resolve this issue, contact Oracle Support Services for the specific patch to apply. Patches are available for Linux x86, Solaris 64-bit, and Windows.

18.2 Vendor-Specific Issues and Workarounds

This section describes vendor-specific issues and their workarounds for Oracle Reports. It includes the following topics:

18.2.1 Underlines Do Not Display in HTMLCSS Output in Browser

In HTMLCSS output, underlines may not display in the browser if you use a custom style for a field object and apply both background color and underline as part of the style, as shown in the following example:

```
.ReportLevel {text-decoration:underline;color:blue; background-color:yellow}
```

This is a browser limitation. The browser cannot display underlines, with absolute positioning, for the fields that have both underline and background color applied to them.

18.2.2 JSP-Based Web Report with Large Number of Columns Generates JSP Compilation Error

When you run a JSP-based Web report with more than 149 columns, you may encounter the `oracle.jsp.provider.JspCompileException` error, as shown in the following example:

```
500 Internal Server Error
OracleJSP: oracle.jsp.provider.JspCompileException:
Errors
...
6764 code too large for try statement catch( Throwable e)
{18 code too large public void _jspService(HttpServletRequest request,
HttpServletResponse response) throws java.io.IOException, ServletException}
```

This occurs due to a limitation in the Java language that does not enable compilation of Java files with large methods.

18.3 Globalization Support Issues and Workarounds

This section describes Globalization Support issues and their workarounds for Oracle Reports. It includes the following topics:

- Section 18.3.1, "Images Do Not Display Correctly in Turkish Environment"
- Section 18.3.2, "MS Mincho Font in PostScript Font Mapping Does Not Work When NLS_LANG is Specified As JA16EUC"
- Section 18.3.3, "Multibyte Reports Containing Oracle Object Types Hang Report Builder"
- Section 18.3.4, "Reports Server's Job Status Messages in Application Server Control Contain Invalid Characters"
- Section 18.3.5, "ENVID Ignored While Detecting Duplicate Job"

18.3.1 Images Do Not Display Correctly in Turkish Environment

If you are running reports that include images and use advanced imaging in Turkish environments (when `NLS_LANG` is set to `TURKISH_TURKEY.TR8MSWIN125` or `TURKISH_TURKEY.WE8ISO8859P9`), then set the environment variable `REPORTS_OUTPUTIMAGEFORMAT=[PNG|GIF]`.

Alternatively, you can control the value in the reports request using the command-line keyword, `OUTPUTIMAGEFORMAT=[PNG|GIF}`.

18.3.2 MS Mincho Font in PostScript Font Mapping Does Not Work When NLS_LANG is Specified As JA16EUC

When you deploy reports created with Reports Builder on Windows to a Solaris or Linux Reports Server that has `NLS_LANG` set to `JA16EUC`, the PDF font mappings will not work. This happens if any one of the following fonts is used in the PostScript font mapping entry:

```
"<MS Mincho in JP>".....
"<MS PMincho in JP>".....
```

To work around this issue, you must perform one of the following tasks:

- Set `NLS_LANG` to `JA16SJIS`.

- Use MS Gothic instead of MS Mincho in PostScript font mappings when creating the reports.

18.3.3 Multibyte Reports Containing Oracle Object Types Hang Report Builder

Reports Builder may stop responding when you run a multibyte report containing an embedded Oracle Object type. This will be fixed in a future patch set.

This is a known issue.

18.3.4 Reports Server's Job Status Messages in Application Server Control Contain Invalid Characters

Oracle Reports status messages on the Job Status page in Application Server Control Console may contain invalid characters if the middle tier character set, NLS_CHARACTERSET (the third field of NLS_LANG) does not correspond to the encoding of the Reports Servlet response for the servlet locale.

> **Note:** The middle tier's default encoding can be different from the Servlet's encoding. For example, when you set LANG to ja or ja_JP.eucJP, the default middle tier system encoding is EUC. However, in this locale, Reports Servlet messages are encoded in Shift_JIS. This is because default encoding for ja_JP is Shift_JIS in the servlet.

Oracle Enterprise Manager 10*g* converts the messages from the middle tier's NLS_CHARACTERSET to UTF8 resulting in invalid characters in the status messages on the Job Status page. For example, the Reports Servlet messages are encoded in Shift_JIS when the middle tier runs with LANG set to ja and NLS_LANG set to JAPANESE_JAPAN.JA16EUC. However, Oracle Enterprise Manager 10*g* assumes that the original message is in JA16EUC, and converts it to UTF8, which results in the display of invalid characters in the status messages.

18.3.5 ENVID Ignored While Detecting Duplicate Job

When detecting a new incoming request for a duplicate job where the job request includes the TOLERANCE keyword, Reports Server ignores the value of the ENVID keyword. As a result, the job is marked duplicate of a previous job that was submitted with the same values for all keywords except ENVID.

The following example illustrates this issue:

Report Request	Report	ENVID	TOLERANCE	Output
1	Japanese.rdf	JA	10	As expected
2	Arabic.rdf	UTF	10	As expected
3	Arabic.rdf	AR	10	Same as request 2 (incorrect)
4	Japanese.rdf	JA	10	Same as request 1 (correct)

In this example, request 4 is correctly marked as a duplicate of request 1 as both the requests use the same values for all keywords, including the ENVID keyword. However, request 3 is incorrectly marked as duplicate of request 2 because both

requests use the same values for all keywords, except the ENVID keyword. As a result, the changed ENVID will not be accepted in request 3.To work around this issue, either do not specify TOLERANCE on the command line or specify a dummy user parameter in the job request to differentiate the job requests in duplicate job detection.

19 Oracle COREid Federation

This chapter describes issues associated with Oracle COREid Federation. It includes the following topic:

- Section 19.1, "General Issues and Workarounds"

19.1 General Issues and Workarounds

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

- Section 19.1.1, "Tuning the Oracle COREid Federation Web Proxy"

19.1.1 Tuning the Oracle COREid Federation Web Proxy

This note explains how to tune the Oracle COREid Federation Web Proxy. It contains these topics:

- Section 19.1.1.1, "Background"
- Section 19.1.1.2, "Apache MPM Models"
- Section 19.1.1.3, "Comparison of Apache MPM Models"
- Section 19.1.1.4, "Apache MPM Prefork Tuning Considerations"
- Section 19.1.1.5, "Apache MPM Worker Tuning Considerations"
- Section 19.1.1.6, "Information to Gather for Analysis"
- Section 19.1.1.7, "Summary"

19.1.1.1 Background

The Oracle COREid Federation product consists primarily of two components:

1. The federation server, a J2EE application which is packaged with the Apache Tomcat servlet container;

   and

2. A web proxy, which is based on the Apache 2.0 HTTP server and includes the ability to communicate with the federation server for client certificate authentication.

As a site moves from the pilot and testing stages to production deployment of Oracle COREid Federation, it is important to pay attention to performance, in particular:

- scalability
- reliability and failure handling

Essential to both these areas is the tuning of the Apache 2.0 HTTP server which performs the request handling tasks. This document describes the Apache process models, tuning parameters, and performance considerations for your Oracle COREid Federation deployment.

> **Note:** The Apache 2.0 HTTP server is a third-party product and is discussed here solely in connection with and support of Oracle COREid Federation deployment. For definitive product details about Apache 2.0 HTTP server, contact the Apache Software Foundation.

19.1.1.2 Apache MPM Models

Various Apache MPM models are available:

- Section 19.1.1.2.1, "Apache MPM on Microsoft Windows"
- Section 19.1.1.2.2, "Apache MPM on Unix"

19.1.1.2.1 Apache MPM on Microsoft Windows On Windows, the Apache 2.0 HTTP server supports an MPM architecture named Windows MPM, which uses a single multi-threaded process to handle all the requests.

19.1.1.2.2 Apache MPM on Unix Two Multi-Processing Module (MPM) architectures are available for the Apache 2.0 HTTP server on UNIX/Linux platforms:

- Apache MPM Prefork

  The Apache MPM prefork module implements a non-threaded, pre-forking web server which provides a process model that is equivalent to the Apache 1.3 model. In this model, a single control process launches multiple child processes, each of which is single threaded. Each child process listens for connection requests and serves them when they arrive. Thus, each request is handled by one single-threaded process.

  MPM prefork is the default MPM for the Apache 2.0 HTTP server. It is the MPM model utilized in the Oracle COREid Federation web proxy.

- Apache MPM Worker

  The Apache MPM worker module implements a multi-process, multi-threaded web server. In this model, a single control process launches multiple child processes; each child process launches a fixed number of server threads as well as a listener thread which listens for connection requests and passes them to a server thread for processing when they arrive.

  > **Note:** The COREid Federation web proxy only provides the prefork MPM on Linux. MPM is a compile-time setting for Apache, so the proxy cannot be reconfigured to use the worker MPM. Hence, the worker MPM configuration options cannot be applied to the COREid Federation web proxy.

19.1.1.3 Comparison of Apache MPM Models

If you have a relatively small number of concurrent requests and the machine is not resource-constrained, there should be no significant performance difference between the worker and prefork MPMs.

An advantage afforded by the worker MPM is its scalability. It can handle more requests using fewer (albeit larger) processes. But this scalability comes at a cost:

- Added complexity in terms of threading
- A downside in terms of failure handling

In the single-threaded prefork MPM case, in the event of failure of a loaded module, the core dump only affects a single request, namely the request that was being processed by that process. In the worker model, such a core dump will bring down all the requests being handled by all the threads in the given process.

Increasing the number of threads (in the worker model) to increase the scalability also increases the number of requests exposed to a process failure.

19.1.1.4 Apache MPM Prefork Tuning Considerations

Several parameters factor into the tuning of the prefork MPM model utilized in the Oracle COREid Federation web proxy:

`MaxClients` - This parameter controls the maximum number of concurrent requests the server can handle.

`StartServers` - This is the number of child processes to start when the listener is started. Set this parameter to approximately the average number of concurrent users you would like the server to handle.

`MinSpareServers` and `MaxSpareServers` - These parameters define the desired minimum and maximum number of idle child processes respectively. They can be set to relatively large numbers unless memory is very constrained.

`MaxRequestsPerChild` - This parameter indicates how many requests a child process should handle before it is recycled (by the server killing old processes and starting new ones). It is provided for use with less reliable modules that may leak memory or other resources. You can typically set this value to 0, which means the child processes will never recycle.

So for example, if on average you expect the server to be handling 75 concurrent requests with sporadic peaks of say 150, settings like the following are suggested:

```
MaxClients  200
StartServers 75
MinSpareServers 20
MaxSpareServers 50
```

19.1.1.5 Apache MPM Worker Tuning Considerations

Several parameters factor into the tuning of the worker MPM model:

`ThreadsPerChild` - This parameter controls the number of threads deployed by each child process.

`MaxClients` - This parameter determines the maximum total number of threads that can be launched.

`StartServers` - This is the number of processes that will initially be launched.

`MinSpareThreads` and `MaxSpareThreads` - Apache tracks the total number of idle threads in all processes, and keeps this number within the limits specified by `MinSpareThreads` and `MaxSpareThreads` by forking or killing processes.

`MaxRequestsPerChild` - This parameter controls how frequently the server recycles child processes by killing old ones and launching new ones.

`ServerLimit` - This is a hard limit on the number of active child processes.

For suggested configuration values and related information, see `http://httpd.apache.org/docs/2.0/mod/worker.html`.

19.1.1.6 Information to Gather for Analysis

You will find it helpful to collect the following information for Oracle COREid Federation web proxy performance analysis:

- Settings of key tuning parameters.

  For Apache MPM prefork, these include:

  - `MaxClients`
  - `StartServers`
  - `MinSpareServers`
  - `MaxSpareServers`
  - `MaxRequestsPerChild`

  For Apache MPM worker, they include:

  - `MaxClients`
  - `StartServers`
  - `ThreadsPerChild`
  - `MinSpareThreads`
  - `MaxSpareThreads`
  - `MaxRequestsPerChild`

- Output of `mod_status`

  This output is very useful to show what every processing unit (thread/process) in Apache is doing, including what URL is being processed, the state of the request (reading from client, processing requests, writing response, and so on).

  A dump from `mod_status` while there are requests hanging tells which processes are handling those requests and the state of those processes when this occurs.

  For information about interpreting mod_status output, see:

  `http://httpd.apache.org/docs/2.0/mod/mod_status.html`

- Stack Trace of Processes

  Examine the dump of `mod_status` to obtain `pid` of a hanging process, and use this to obtain a stack trace of the processes. This should be very useful in determining where the request is stuck.

  See appropriate platform documentation for the relevant tool to obtain the stack trace. For example, the Linux `man` pages provide details about `pstack`:

  `http://linuxcommand.org/man_pages/pstack1.html`

19.1.1.7 Summary

Monitoring the performance of the Oracle COREid Federation web proxy is critical as you scale up the number of users. Performance tuning is achieved by managing key Apache MPM configuration parameters, and by gathering `mod_status` output and stack dumps of hanging processes for analysis.

Additional information about Apache MPM modules is available on the Web at:

- http://httpd.apache.org/docs/2.0/mod/prefork.html (prefork model)
- http://httpd.apache.org/docs/2.0/mod/worker.html (worker model)

20

Oracle Internet Directory

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

20.1 Configuration Issues and Workarounds

This section describes configuration issues and their workarounds for Oracle Internet Directory. It includes the following topics:

20.1.1 Configuring Oracle Internet Directory Fan-out Replication

Users will not be able to configure fan-out replication if the supplier version is 9.0.4.x.x or lower. Refer to Bug 4536862 for additional information.

20.1.2 Configuring Referential Integrity

If Referential Integrity is enabled, whenever you update an entry in the directory, the server also updates other entries that refer to that entry. For example, if you remove a user's entry from the directory, and the user is a member of a group, the server also removes the user from the group. If Referential Integrity is not enabled, the user remains a member of the group until manually removed.

To learn how to configure referential integrity, see Metalink Note: 404838.1: *How to Configure OID Referential Integrity in 10gAS 10.1.2.2*, on Oracle MetaLink, https://metalink.oracle.com.

20.2 Administration Issues and Workarounds

This section describes administration issues and their workarounds for Oracle Internet Directory. It includes the following topics:

20.2.1 Recommended Password Policy Values

Password polices are sets of rules that govern how passwords are used in Oracle Internet Directory. Oracle recommends that you set the following values for password policy attributes

Table 20–1 Recommended Values for Password Policy Attributes

Attribute	Meaning	Value
`pwdmaxage`	Password expiration in seconds	15552000 (180 days)
`pwdexpirewarning`	Password expiration warning in seconds	1209600 (14 days)
`pwdgraceloginlimit`	Password grace login limit (the number of times that user is allowed to login after the password has expired)	5

To set these values, use an LDIF file similar to this example, pwdpolicydef.ldif:

```
dn:cn=pwdpolicyentry, cn=common,cn=products,cn=oraclecontext
changetype:modify
replace: pwdmaxage
pwdmaxage: 15552000
-
replace: pwdexpirewarning
pwdexpirewarning: 1209600
-
add: pwdgraceloginlimit
pwdgraceloginlimit: 5
```

To modify the password policies of a root Oracle context using this LDIF file, you would type:

```
ldapmodify -h host -p port -D cn=orcladmin -w password -f pwdpolicydef.ldif
```

> **See Also:** *Oracle Internet Directory Administrator's Guide* for information on using Oracle Directory Manager to modify password policies of an identity management realm.

20.3 Documentation Errata

This section describes errors in the documentation for Oracle Internet Directory. It includes these topics:

- Section 20.3.1, "Parameters in init$ORACLE_SID.ora are Not Loaded Automatically at Database Startup"
- Section 20.3.2, "ODM Online Help Might Have Extra Pages in Non-English Locales"
- Section 20.3.3, "Missing Attribute in Oracle Identity Management User Reference"

20.3.1 Parameters in init$*ORACLE_SID*.ora are Not Loaded Automatically at Database Startup

At startup, the database reads database initialization parameters from `spfile`*`$ORACLE_SID`*`.ora` rather than from `init`*`$ORACLE_SID`*`.ora`—unless the user explicitly specifies the latter when starting the database. Thus, wherever the *Oracle Internet Directory Administrator's Guide* specifies database parameter changes,

the subsequent database restart must specify explicitly the `init$ORACLE_SID.ora` file. For example:

```
<>SQL> STARTUP PFILE = /u01/oracle/dbs/initmynewdb.ora
```

For more information, see "Using SQL*Plus to Start Up a Database" in Chapter 3 of *Oracle Database Administrator's Guide*

20.3.2 ODM Online Help Might Have Extra Pages in Non-English Locales

Users in non-English locales might notice help pages in Oracle Directory Manager online help for integration profile configuration that have no corresponding support in the product.

20.3.3 Missing Attribute in Oracle Identity Management User Reference

The entry for the class `orclApplicationEntity` in the "Object Class Reference" chapter of *Oracle Identity Management User Reference* is missing the attribute `orclApplicationAddress`. The "Attribute Reference" chapter is also missing an entry for that attribute. The entry should contain the following information:

orclApplicationAddress

Description

The address of the application.

Syntax

1.3.6.1.4.1.1466.115.121.1.15 (Directory String)

Matching Rule

caseIgnoreMatch

Object ID

2.16.840.1.113894.1.1.318

21

Oracle Delegated Administration Services

This chapter describes issues for both the Oracle Delegated Administration Services (DAS) and the Oracle Internet Directory Self-Service Console. It includes the following topics:

- Section 21.1, "General Issues and Workarounds"
- Section 21.2, "Administration Issues and Workarounds"

21.1 General Issues and Workarounds

This section describes general issues and their workarounds for Oracle Delegated Administration Services. It includes the following topics:

- Section 21.1.1, "Realm Values Cannot Be Edited with Oracle Delegated Administration Services Configuration Privileges in Releases 9.0.2, 9.0.4, and 10.1.2"
- Section 21.1.2, "Roles with No Members Are not Displayed in Role Assignment Section in Create/edit User"
- Section 21.1.3, "Resetting Oracle Application Server Single Sign-On Passwords Redirects Users to Oracle Delegated Administration Services Home Page"
- Section 21.1.4, "Exception Thrown in One-Level Realm Scenarios"
- Section 21.1.5, "Upgrading Oracle Application Server to 10g Release 2 (10.1.2) May Overwrite Custom Ordering of User Attribute Categories in Oracle Delegated Administration Services"

21.1.1 Realm Values Cannot Be Edited with Oracle Delegated Administration Services Configuration Privileges in Releases 9.0.2, 9.0.4, and 10.1.2

In Releases 9.0.2, 9.0.4, and 10.1.2 upgrade, only the `orcladmin` user can edit realm values. Other users, even those with Oracle Delegated Administration Services configuration privileges cannot edit them. This is because the latter do not have sufficient privileges to read the User Search Base, User Creation Base, Group Search Base, and Group Creation Base. The workaround is to modify the ACLs on these containers and enable anonymous browse access.

21.1.2 Roles with No Members Are not Displayed in Role Assignment Section in Create/edit User

A role should contain at least one unique member, so that it would be displayed in the Role Assignment section in Create User page and the Edit User page.

To add a unique member to a role, the syntax of the LDIF file is:

```
dn: DN_of_role_entry
changetype: modify
add:uniquemember
uniquemember:DN of member entry
```

Issue this command to modify the file:

```
ldapmodify -p oid_port -h oid_host -D "cn=orcladmin" -w admin_password -v -f file_
name.ldif
```

21.1.3 Resetting Oracle Application Server Single Sign-On Passwords Redirects Users to Oracle Delegated Administration Services Home Page

Various application, including OracleAS Portal, use Oracle Delegated Administration Services to reset Oracle Application Server Single Sign-On passwords. Users can reset their own passwords by clicking on a link in the source application, which opens the Reset My Single Sign-On Password page in Oracle Internet Directory Self-Service Console. However, when users click the OK button after resetting their passwords, or if they click the Cancel button to end the password change process, they are redirected to the Oracle Delegated Administration Services home page instead of to the referring application page.

To redirect users to a location other than the Oracle Delegated Administration Services home page, append a query string containing the correct return URLs to the link on the referring application page. Include in the query string two *name=value* pairs for the `doneURL` and the `cancelURL` attributes. The `doneURL` attribute identifies the redirect URL to call when users click the OK button and the `cancelURL` attribute identifies the redirect URL to call when users click the Cancel button. The following example demonstrates how to build a URL to the Change Application Password page that includes the `doneURL` and the `cancelURL` attributes:

```
http://host:port/oiddas/ui/oracle/ldap/DASStep1ResetPwd?
cancelURL=http://www.domain.com&doneURL=http://www.domain.com
```

21.1.4 Exception Thrown in One-Level Realm Scenarios

You can create a one-level realm in Oracle Internet Directory where the realm DN is the root DSE (DSA-Specific Entry). With a one-level realm, the root DSE becomes the subscriber search base in Oracle Internet Directory. Oracle Application Server Single Sign-On and Oracle Delegated Administration Services function correctly in one-level realm scenarios. However, when Oracle Delegated Administration Services attempts to retrieve a user's resource access descriptor (RAD), a `NullPointerExection` is thrown from `oracle.ldap.util.User.getExtendedProperties()`. This exception is also thrown for Oracle Application Server Forms and Reports Services when integrated with one-level Oracle Internet Directory realms or if you call the `oracle.ldap.util.User.getExtendedProperties()` method from a custom application.

This problem will be fixed in a future patch release.

21.1.5 Upgrading Oracle Application Server to 10*g* Release 2 (10.1.2) May Overwrite Custom Ordering of User Attribute Categories in Oracle Delegated Administration Services

Upgrading Oracle Application Server to 10*g* Release 2 (10.1.2) may overwrite any customized ordering of user attribute categories that you have configured for Oracle

Delegated Administration Services. If this occurs, you must use the Configure Attribute Categories window in the Oracle Internet Directory Self-Service Console to reorder your category list following the upgrade process.

To reorder your category list with the Configure Attribute Categories window, see the "Configuring User Entries" topic in Chapter 5, "Managing Users and Groups with the Oracle Internet Directory Self-Service Console" of the *Oracle Identity Management Guide to Delegated Administration*.

21.2 Administration Issues and Workarounds

This section describes administration issues and their workarounds for Oracle Delegated Administration Services. It includes the following topic:

- Section 21.2.1, "Enforcing Assignment and Revocation of Privileges Requires Starting a New Self-Service Console Session"
- Section 21.2.2, "Unified Messaging Voicemail PIN Field Mislabeled in Oracle Internet Directory Self-Service Console"
- Section 21.2.3, "Unlocking Privileged User Accounts"
- Section 21.2.4, "Create/Edit User Windows in Oracle Internet Directory Self-Service Console Display Two Time Zone Fields"

21.2.1 Enforcing Assignment and Revocation of Privileges Requires Starting a New Self-Service Console Session

Assignment of roles to users and groups, and revocation of those roles, are enforced only when a new Self-Service Console is created. After assigning or revoking roles, log out of the Console, then log back in.

21.2.2 Unified Messaging Voicemail PIN Field Mislabeled in Oracle Internet Directory Self-Service Console

When Oracle Collaboration Suite users use the Self-Service Console to change their passwords, the field name associated with their voicemail PIN number is incorrectly displayed as 'EmailServerContainer'. To solve this problem:

1. Use Oracle Directory Manager to navigate to the entry of the following DN: `cn=orclpwdverifierconfig,cn=EMailServerContainer, cn=Products,cn=OracleContext,cn=subscriber realm`
2. Select the entry.
3. Select All for **View Properties**.
4. In the displayname text box, enter `Voicemail PIN`.
5. Choose **Apply**.

21.2.3 Unlocking Privileged User Accounts

Oracle Identity Management has two distinct types of privileged user. Both privileged user accounts can be locked if certain password policies are activated.

The first type of privileged user, the super user with the DN `cn=orcladmin`, is represented as a special user entry found within the default identity management realm. It enables directory administrators to make any modifications to the DIT and any changes to the configuration of Oracle Internet Directory servers. If the super user

(orcladmin) account is locked—for example, as a result of too many attempts to bind with an incorrect password—then an administrator with DBA privileges to the Oracle Internet Directory repository can unlock it by using the oidpasswd tool. To unlock the orcladmin account execute the command:

```
oidpasswd unlock_su_acct=TRUE
```

The second privileged user is realm-specific. This user governs capabilities such as creation and deletion of users and groups within a realm and all the functionality related to Oracle Delegated Administration Services. This account is represented by an entry with the DN cn=orcladmin,cn=users,*realm_DN*. Note that, in contrast to the single super user account, each realm has its own realm-specific privileged user. To unlock the realm-specific privileged account, the administrator modifies the realm-specific privileged users account password by using Oracle Directory Manager.

21.2.4 Create/Edit User Windows in Oracle Internet Directory Self-Service Console Display Two Time Zone Fields

On some distributed installations of Oracle Internet Directory, the Oracle Internet Directory Self-Service Console displays two time zone fields in the Create User and Edit User windows. To remove the duplicate field:

1. Launch Oracle Directory Manager and log in as orcladmin.
2. In the navigator pane, expand **Oracle Internet Directory Servers**, then *directory server instance*, then **Entry Management**.
3. Expand the following DN in the subtree beneath Entry Management: *realm_DN*, cn=oraclecontext, cn=Products, cn=DAS,cn=Attribute Configuration, cn= User Configuration, cn= categories, cn=Basic Info.
4. Select **cn=Basic Info** beneath the cn=categories node.
5. In the **Properties** tab page, locate the **orcldasattrname** attribute and remove the orcltimezone;;;7 value.
6. Click **Apply**.
7. Restart Oracle Delegated Administration Services and log in to the Oracle Internet Directory Self-Service Console.
8. Select the Configuration tab, then select User Entry.
9. Click **Refresh Page**.

22

Oracle Directory Integration and Provisioning

This chapter describes the issues associated with Oracle Directory Integration and Provisioning. It includes the following topics:

22.1 Configuration Issues and Workarounds

This section describes configuration issues and their workarounds for Oracle Directory Integration and Provisioning. It includes the following topics:

22.1.1 Two Oracle Internet Directory Plug-in Features Are not Supported after Upgrade to Oracle Internet Directory 10*g* Release 2 (10.1.2)

In Oracle Application Server *10g* Release 2 (10.1.2), the following plug-in features are not supported if Oracle Internet Directory is running against *Oracle9i* Database Server Release 9.2:

- Microsoft Windows NT Domain external authentication plug-in.
- The `simple_bind_s()` function of LDAP_PLUGIN package provided as the OID PL/SQL PLUGIN API for connecting back to the directory server as part of plug-in definitions.

22.2 Administration Issues and Workarounds

This section describes administration issues and their workarounds for Oracle Directory Integration and Provisioning. It includes the following topics:

22.2.1 Default Mapping Rule Can Be Simplified in Single-Domain Microsoft Active Directory Deployments

In deployments with only a single domain of Microsoft Active Directory, you can simplify the default mapping rule installed with Oracle Directory Integration and Provisioning.

The default mapping rule is:

```
sAMAccountName,userPrincipalName: :
:user:orclSAMAccountName:
:orclADUser:toupper(truncl(userPrincipalName,'@'))+"$"+sAMAccountname
```

If your deployment has a single domain of Active Directory, then you can simplify the default mapping rule to this:

```
sAMAccountName: : :user:orclSAMAccountName::orclADUser
```

22.2.2 Directory Integration and Provisioning Assistant Does not Support SSL Mode 2

In 10*g* Release 2 (10.1.2), you can use the Directory Integration and Provisioning Assistant with either a non-SSL connection or an SSL connection with no authentication, namely SSL Mode 1, which provides encryption on the connection. You cannot use the Assistant with SSL mode 2 in which one-way (server only) SSL authentication is required.

22.2.3 Shell Script-based Profile Configuration Tools Are Being Deprecated

Shell script-based profile configuration tools ldapcreateConn.sh, ldapdeleteConn.sh, and ldapUploadAgentFile.sh are being deprecated as of 10*g* Release 2 (10.1.2).

Oracle recommends that you use the Java-based Oracle Directory Integration and Provisioning Server Administration tool for configuring profiles.

22.2.4 In a High Availability Environment Using Multimaster Replication, Provisioning Events May not Be Propagated or May Be Duplicated

In multimaster replication, the last change number is stored locally on an Oracle Internet Directory node. In a high availability environment, if that node fails, and the provisioning profile is moved to another Oracle Internet Directory node, then the last applied change number in the profile becomes invalid. That number in the profile must then be reset manually on the failover node. Even then, however, events may not be propagated or may be duplicated.

22.2.5 The Oracle Directory Integration and Provisioning Server May not Shut Down if It Is Stopped and Immediately Restarted

To determine whether to shut down, the Oracle Directory Integration and Provisioning server polls the registration entry stored under

cn=odisrv,cn=subregistrysubentry. It does this every 30 seconds. If you stop, then restart, the server within 30 seconds, then the old server instance may not shut down before the new instance starts. To alleviate this, wait for 30 seconds before restarting the server.

22.2.6 Oracle Directory Integration and Provisioning Server Not Sending Provisioning Events Due to Purged Change Log Entries

If you use time-based change log purging with version 3.0 provisioning profiles, change logs entries are purged before the Oracle directory integration and provisioning server propagates the changes to any provisioning-integrated applications. This occurs because Oracle Directory Integration and Provisioning does not create version 3.0 provisioning profile entries in the default cn=subscriber profile,cn=changelog subscriber,cn=oracle internet directory change log subscriber container.

To resolve this problem, create a container in the default change log subscriber container for each version 3.0 provisioning profile and assign a value of 0 to each profile's orclLastAppliedChangeNumber attribute. The following sample LDIF file creates a provisioning profile container in the default change log subscriber container and assigns a value of 0 to the orclLastAppliedChangeNumber attribute:

```
dn: cn=profile_name,cn=changelog subscriber,cn=oracle internet directory
orclsubscriberdisable: 0
orcllastappliedchangenumber: 0
objectclass: orclChangeSubscriber
```

23

Oracle Application Server Single Sign-On

This chapter describes issues associated with Oracle Application Server Single Sign-On (OracleAS Single Sign-On). It includes the following topic:

- Section 23.1, "Configuration Issues and Workarounds"

23.1 Configuration Issues and Workarounds

This section describes configuration issues and their workarounds for Oracle Application Server Single Sign-On. It includes the following topic:

- Section 23.1.1, "General Configuration Issues"
- Section 23.1.2, "Browser Configuration Issues"
- Section 23.1.3, "Additional High Availability Configuration Instructions"
- Section 23.1.4, "Issues and Workarounds Related to the Oracle Database"

23.1.1 General Configuration Issues

This section contains the following topic:

- Section 23.1.1.1, "Single Sign-On Session Duration Should not be Less Than One Hour"

23.1.1.1 Single Sign-On Session Duration Should not be Less Than One Hour

The "Single sign-on session duration" parameter should not be set to less than one hour. For more information on setting this parameter, refer to the section titled "Using the Edit SSO Server Page to Configure the Server," in Chapter 2, "Basic Administration," in *Oracle Application Server Single Sign-On Administrator's Guide*.

23.1.2 Browser Configuration Issues

This section describes browser-related issues for Oracle Application Server Single Sign-On. It contains the following topic:

- Section 23.1.2.1, "Server Configuration Cannot be Updated on the Internet Explorer 6 SP2 Browser"

23.1.2.1 Server Configuration Cannot be Updated on the Internet Explorer 6 SP2 Browser

This problem prevents you from making changes to Oracle Application Server Single Sign-On server configuration . The problem is observed in the following circumstance:

- You are using the Internet Explorer 6 browser on a platform running Microsoft Windows Service Pack 2.
- In the OracleAS Single Sign-On administration pages, you click Edit SSO Server Configuration.
- Try to change server properties like session duration. Click **Apply**.

  There is no response from the browser.

> **Note:** Other versions of the browser, such as Internet Explorer 7, do not exhibit this problem.

To resolve the problem, you need to add the OracleAS Single Sign-On server to the list of trusted websites after you apply Windows SP2.

Take these steps:

1. In Internet Explorer, click **Tools**, then **Internet Options.**
2. Click on the **Security** tab and choose Trusted Sites.
3. Click on the **Sites** button, and add the address of the OracleAS Single Sign-On server site to the list of trusted sites.

23.1.3 Additional High Availability Configuration Instructions

Additional configuration steps are required after OracleAS Infrastructure is installed with the "OracleAS Cluster (Identity Management)" option. There are two sets of instructions to follow:

- The first set of instructions, in Section 23.1.3.1, "Update the mod_rewrite Entry for SSO", must be followed in all cases.
- The second set of instructions, Section 23.1.3.2, "Update targets.xml", are needed in only one installation case as described in that section.

23.1.3.1 Update the mod_rewrite Entry for SSO

Take the following steps:

1. Back up the `sso_apache.conf` file:

```
cp ORACLE_HOME/sso/conf/sso_apache.conf
    ORACLE_HOME/sso/conf/sso_apache.conf.BACKUP
```

2. Edit the file. Locate the mod_rewrite entry that contains the following text:

```
<IfModule mod_rewrite.c>
    RewriteEngine On
    RewriteRule ^/pls/orasso/orasso.wwsso_app_admin.ls_login$ /sso/auth [PT]
</IfModule>
```

   Add the following line:

```
RewriteRule ^/pls/orasso/orasso.home$ PROTOCOL:
    //LBR_HOST:LBR_PORT/pls/orasso/orasso.home [R,L]
```

replacing the placeholders in italics with the following values:

- Replace *LBR_HOST* with the full hostname for the HTTP load balancer.

- Replace *LBR_PORT* with the SSL listening port. If SSL is enabled, enter the SSL port value. If using the default ports of 80 or 443, do not specify a port value.
- Replace *PROTOCOL* with either `HTTPS` (if using the SSL port) or `HTTP` (if using the non-SSL port).

  For example, the entry might look like this when using a non-default SSL port:

```
<IfModule mod_rewrite.c>
    RewriteEngine On
    RewriteRule ^/pls/orasso/orasso.wwsso_app_admin.ls_login$
        /sso/auth [PT]
    RewriteRule ^/pls/orasso/orasso.home$ https:
        //lbr.mydomain.com:4443/pls/orasso/orasso.home [R,L]
</IfModule>
```

  As another example, the entry might look like this when using a default SSL port:

```
<IfModule mod_rewrite.c>
    RewriteEngine On
    RewriteRule ^/pls/orasso/orasso.wwsso_app_admin.ls_login$
        /sso/auth [PT]
    RewriteRule ^/pls/orasso/orasso.home$ https:
        //lbr.mydomain.com/pls/orasso/orasso.home [R,L]
</IfModule>
```

3. Save and close the file.
4. Restart Oracle HTTP Server.

23.1.3.2 Update targets.xml

The following configuration steps are needed only in the installation scenario where communications between clients and the load balancer use HTTPS, and communications between the load balancer and Oracle HTTP Server also use HTTPS:

```
Client ---[HTTPS]---> Load Balancer ---[HTTPS]---> Oracle HTTP
Server
```

In this case the `oracle_sso_server` entry in the `targets.xml` file, on each physical host of the cluster, must be reconfigured to monitor the local SSL port.

Note:

Keep in mind that the hostname should remain the same. Do not change the hostname.

Perform the following steps to update `targets.xml` on each node of the cluster:

1. Back up the `targets.xml` file:

```
cp ORACLE_HOME/sysman/emd/targets.xml
    ORACLE_HOME/sysman/emd/targets.xml.BACKUP
```

2. Open the file and find the `oracle_sso_server` target type. Within this target entry, locate and edit the following two attributes:
   - HTTPPort - the server SSL port number
   - HTTPProtocol - the server protocol, which in this case is `HTTPS`

For example, you could update the two attributes this way:

```
<Property NAME="HTTPPort" VALUE="4443"/>
<Property NAME="HTTPProtocol" VALUE="HTTPS"/>
```

3. Save and close the file.
4. Reload the OracleAS console:

   ```
   ORACLE_HOME/bin/emctl reload
   ```

23.1.4 Issues and Workarounds Related to the Oracle Database

This section describes issues and workarounds for Oracle Application Server Single Sign-On that are triggered by the Oracle Database. It includes the following topic:

- Section 23.1.4.1, "Issues With Upgrading the Oracle Database"

23.1.4.1 Issues With Upgrading the Oracle Database

After upgrading your Metadata Repository from Oracle Database 9.2.0.6 to 10.1.x, the following error is reported on the Discoverer Plus Connection pages, the Discoverer Viewer Connection pages, and the Public Connection definition page in Application Server Control:

```
The connection list is currently unavailable.
ORA-06510: PL/SQL: unhandled user-defined exception
ORA-06512: at "ORASSO.WWSSO_API_PRIVATE," line 258
ORA-06510: PL/SQL: unhandled user-defined exception
ORA-06512: at "ORASSO.WWSSO_UTL" line 728
ORA-28231: no data passed to obfuscation toolkit
ORA-06512: at line 1 Unable to retrieve connection list
```

The same problem will be encountered with external applications on the server hosting Oracle Application Server Single Sign-On.

To resolve this issue, make the following changes in your Metadata Repository Database:

1. Edit the `init%ORACLE_SID%.ora` file in the following location:

   Windows—*DB_install_home*`/database/`

   Linux—*DB_install_home*`/dbs`

   Add the following line to this file:

   ```
   event="10946 trace name context forever, level 36"
   ```

2. If an `spfile%ORACLE_SID%.ora` exists in either the `dbs` folder or the `database` folder, rename the file to `spfile%ORACLE_SID%.bak`.

   Changes to `init%ORACLE_SID%.ora` are not loaded if the database server finds an spfile.

3. Log in as a sysadmin.
4. At the SQL prompt, shut down then start up the database server.
5. Restart the Discoverer server using the command `opmnctl restartall`.

24

Oracle Application Server Certificate Authority

This chapter describes issues with Oracle Application Server Certificate Authority (OracleAS Certificate Authority, OCA). It includes the following topics:

- Section 24.1, "General Issues and Workarounds"
- Section 24.2, "Configuration Issues and Workarounds"

24.1 General Issues and Workarounds

This section describes general usage issues for OracleAS Certificate Authority and their workarounds. It includes the following topics:

- Section 24.1.1, "Adding "\" to RDN Causes Misprocessing"
- Section 24.1.2, "Third Party Wallet Import Fails Due To localID Value"
- Section 24.1.3, "DN Validation Does Not Correctly Check "=" Character"

24.1.1 Adding "\" to RDN Causes Misprocessing

If the Common Name of a certificate request contains a backslash character "\", OracleAS Certificate Authority fails to process the DN. Here is an example of an incorrect request:

```
CN=a \& b,O=aime,C=US
```

Rather than escaping the & symbol, the CN value of the certificate issued by OracleAS Certificate Authority contains two backslashes ("\\").

To work around this issue, do not use special symbols which require a backslash in front when entering the common name for generating wallets. In the example cited earlier, the Common Name in the request can be rewritten as:

```
CN= a and b, O=aime, C=US
```

24.1.2 Third Party Wallet Import Fails Due To localID Value

When importing a wallet, OracleAS Certificate Authority expects the value of `localID` in the wallet to match the private key and certificate, but some third party wallets do not use `localID` for this purpose. Consequently, OracleAS Certificate Authority fails to import the third party wallet as SubCA.

24.1.3 DN Validation Does Not Correctly Check "=" Character

If a Common Name value contains the "=" character, OracleAS Certificate Authority incorrectly accepts it as a valid character. Here is an example of an incorrect request:

```
CN=abc=, O=aime,C=US
```

In this example, "abc=" is an invalid entry due to the presence of "=" which is a special character.

The workaround for this issue is to avoid using the "=" character in this way within RDN values.

24.2 Configuration Issues and Workarounds

This section describes configuration issues and their workarounds for OracleAS Certificate Authority. It includes the following topics:

- Section 24.2.1, "Unexpected Behavior After Revoking Web Administrator or CA Certificate"
- Section 24.2.2, "Allowable Values of Predicate Usage"

24.2.1 Unexpected Behavior After Revoking Web Administrator or CA Certificate

OracleAS Certificate Authority may exhibit incorrect or unexpected behavior after it is shut down to revoke the web administrator certificate or CA certificate, and is not restarted correctly. Here are some examples:

- The OracleAS Certificate Authority service is stopped, and the web administrator and CA certificates are revoked. A new CA is created, and new CA and CASSL wallets are generated. After restarting the OracleAS Certificate Authority service, the newly enrolled web administrator sees the error message:

  ```
  Error
  Certificate of the connecting SSL user does not exist in OCA repository
  ```

  when trying to perform administrative actions.

- With the browser interface open, the OracleAS Certificate Authority service is stopped, and the web administrator and CA certificates are revoked. Nevertheless, the open browser session can still be used to update the Certificate Revocation List (CRL).

In both situations, the problem is due to incorrect handling of the OracleAS Certificate Authority service and its supporting services following shutdown. After you revoke the web administrator certificate or CA certificate, it is necessary to restart not only OracleAS Certificate Authority, but also OHS and the certificate authority's OC4J components using the OPMN service:

```
$ORACLE_HOME/opmn/bin/opmnctl stopall
$ORACLE_HOME/opmn/bin/opmnctl startall
```

24.2.2 Allowable Values of Predicate Usage

As documented in Table 6-9 of the *OracleAS Certificate Authority Administrator's Guide*, the `usage` attribute of a policy predicate, which specifies how the certificate may be used, can be assigned values 1 through 9. Currently, however, OracleAS Certificate Authority allows only usages 1,2,4,8,9 when creating predicates. Usage values 3,5,6,7 are not being allowed even though they are valid.

25

Oracle Enterprise Manager

This chapter describes issues with Oracle Enterprise Manager. It includes the following topics:

25.1 General Issues and Workarounds

This section describes general issues and their workarounds for the Oracle Enterprise Manager 10*g* Application Server Control Console. It includes the following topics:

25.1.1 Problems with the Oracle Enterprise Manager 10*g* Application Server Control Console After Deinstalling Oracle Application Server 9.0.2 or 9.0.3

In certain situations, deinstallation of Oracle Application Server 9.0.2 or 9.0.3 may, through an automatic procedure run at deinstall time, cause a number of configuration files in the Oracle Application Server 10*g* directories to be overwritten with incorrect information.

The Enterprise Manager control scripts in Oracle Application Server 10*g* have been modified to make as-needed backups of these files; as a result, you should be able to recover from this problem by replacing the files from the backup versions.

These files are:

```
ORACLE_HOME/sysman/config/iasadmin.properties
ORACLE_HOME/sysman/emd/targets.xml
ORACLE_HOME/sysman/j2ee/config/jazn-data.xml
ORACLE_HOME/sysman/webapps/emd/WEB-INF/config/consoleConfig.xml
```

There may be a number of backup files in each of these cases. The backups are named in the form `<original-file-name>.n`, where *n* is a number from 1 to 10.

The most recent backup of the file is `.1`, then next most recent `.2`, and so on. You should check the timestamps or inspect these files to determine which is the most recent correct version of the data. This is most likely the last backup version before you deinstalled Application Server 9.0.2 or 9.0.3.

To restore these files:

1. Shut down the Application Server Control Console using the `emctl` command.
2. Remove, or rename the four files listed above
3. Copy the version of the backup file which you have determined to be the correct, working version
4. Start the Application Server Control Console:.

25.1.2 Setting NLS and Operating System Locale Environment Variables Before Starting Management Processes

If in a non-English environment, you launch a command line tool such as `emctl` to start a process, make sure the operating system locale and `NLS_LANG` environment

variable settings are configured properly and consistently. This is applicable to the `emctl` command line utility that is available with Oracle Application Server installations as well as with the `emctl` utility available with Grid Control Console installations.

If these environment variables are not set prior to Oracle Application Server or Grid Control Console installations, then non-ASCII characters will appear incorrectly in the Application Server Control Console or Grid Control Console, respectively. To prevent this problem from occurring, set these two environment variables prior to installation. If this is not possible, then to resolve the problem set the two environment variables after installation and restart the Management Agent.

Refer to the following sections for details on how to check and set the values for these variables:

- Section 25.1.2.1, "Checking the Operating System Locale"
- Section 25.1.2.2, "Setting the Operating System Locale"
- Section 25.1.2.3, "Checking the NLS_LANG Environment Variable"
- Section 25.1.2.4, "Setting the NLS_LANG Environment Variable"

25.1.2.1 Checking the Operating System Locale

Make sure the `LC_ALL` or `LANG` environment variables are set with the appropriate value. To check the current setting, issue the following command:

```
$PROMPT> locale
```

25.1.2.2 Setting the Operating System Locale

If you are using `bash` or `zsh`, to set the operating system locale environment variable, issue the `export` command. For example:

```
export LANG=zh_CN
```

In this example, the variable is being set to Simplified Chinese. For the specific value in each operating system, refer to operating system-specific documentation.

If you are using `csh` or `tcsh`, then issue the `setenv` command:

```
setenv LANG zh_CN
```

25.1.2.3 Checking the NLS_LANG Environment Variable

Make sure the `NLS_LANG` environment variable is set with the appropriate and compatible value with the operating system locale setting (and the Grid Control Management Repository database character set if Grid Control is being used to centrally manage the Oracle Application Server). For the specific value for the language or the character set, refer to the *Globalization Support Guide* of the Oracle product you are using.

In addition, check to see if the `NLS_LANG` setting exists in `$ORACLE_HOME/opmn/conf/opmn.xml`. For example, the following content should appear in the `opmn.xml` file:

```
<environment>
     <variable id="TMP" value="/tmp"/>
     <variable id="NLS_LANG" value="JAPANESE_JAPAN.JA16SJIS"/>
</environment>
```

If the NLS_LANG setting exists, make sure the NLS_LANG setting in the opmn.xml file is identical to the NLS_LANG environment variable.

25.1.2.4 Setting the NLS_LANG Environment Variable

If you are using bash or zsh, to set the NLS_LANG environment variable, issue the export command. For example:

```
export NLS_LANG="Simplified Chinese_China.ZHS16GBK"
```

In this example, the variable is being set to Simplified Chinese. For the specific value in each operating system, refer to operating system-specific documentation.

If you are using csh or tcsh, then issue the setenv command. For example:

```
setenv NLS_LANG "Simplified Chinese_China.ZHS16GBK"
```

25.1.3 Misleading Error Message When Applying Properties to an OC4J Instance within an Oracle Application Server Cluster

Changes applied on the OC4J Server Properties page to an OC4J instance within an Oracle Application Server cluster will always show the message Server properties have been applied across the cluster. In fact, changes to environment variables, ports, islands, and number of island processes will only be applied to the current OC4J instance currently under administration and not to other OC4J instances within the cluster. Other values on this page (for example, Java Options) will be applied across the cluster.

Information concerning which values are applied cluster wide is displayed in a tip at the top of the page; however, the confirmation message may be incorrect.

25.1.4 Errors When Configuring Components or Adding or Removing OC4J Instances

If you install Oracle Management Agent 10.1.0.2 on a computer which has one or more instances of Oracle Application Server 10*g* (10.1.2), then you may encounter errors in Application Server Control Console if you later modify your component configuration in the Oracle Application Server installation. For example, you may receive errors if you create or remove an OC4J instance or if you configure an Oracle Application Server component after you have installed the application server.

To workaround this problem, install the Oracle Management Agent 10.1.0.3 or later patchsets.

25.1.5 Problem Viewing Performance Charts and Configuring Identity Management Using a Macintosh Browser

When using the Apple Safari browser on a Macintosh computer, it is not possible to use the Application Server Control Console to configure or change the Identity Management configuration for an Application Server middle-tier installation.

Specifically, the problem occurs when you click Configure in the Identity Management section of the Infrastructure page in the Application Server Control Console. You can enter the host and port for the Identity Management host, but you cannot display the next page in the wizard.

In addition, the performance charts on the Application Server Home page do not display correctly in the Macintosh browser. Instead of a chart, small question marks appear in their place.

To fix this problem, perform the following procedure:

1. Stop the Application Server Control service for this Oracle home.
2. Use a text editor to open the following configuration file in the Oracle Home of the application server instance you are attempting to modify:

   ```
   $ORACLE_HOME/sysman/j2ee/config/emd-web-site.xml
   ```

3. Locate the following entry in the file:

   ```
   <!-- The default web-app for this site, bound to the root -->
     <default-web-app application="em" name="default" />
      <web-app application="em" name="emd" root="/emd" load-on-startup="true" />
   ```

4. Add the following argument to the `<web-app>` tag:

   ```
   shared="true"
   ```

   For example:

   ```
   <!-- The default web-app for this site, bound to the root -->
      <default-web-app application="em" name="default" />
         <web-app application="em" name="emd" root="/emd"
            load-on-startup="true" shared="true"/>
   ```

5. Save your changes and close the `em-web-site.xml` file.
6. Use the Services control panel to start the Application Server Control service for this Oracle home.

25.1.6 Problems with the Progress Page When Using a Macintosh Browser

Often, when you perform an operation with the Application Server Control Console, such as creating a new OC4J instance, Enterprise Manager displays a progress page, which indicates that the operation is still in progress.

When using the Apple Safari browser on a Macintosh computer, the progress page continues to display even after the operation is complete. As a result, the operation confirmation page does not display as it should.

To solve this problem, set the `EM_OC4J_OPTS` environment variable to the following value and restart the Application Server Control:

```
-Doracle.sysman.emSDK.eml.util.iAS.waitForCompletion=true
```

> **See Also:** Appendix "Managing and Configuring Application Server Control" of the *Oracle Application Server Administrator's Guide* for more information about using the `EM_OC4J_OPTS` environment variable

25.1.7 Topology Viewer Applet Fails in OracleAS Cold Failover Cluster Configuration

The Java applet version of the Topology Viewer fails to connect to the Oracle Process Manager and Notification Server (OPMN) if you access Application Server Control with the virtual hostname in a OracleAS Cold Failover Cluster configuration.

Use one of the following workarounds:

- Use the HTML Only version of the Topology Viewer.
- Connect to the Application Server Control with the physical hostname.

25.1.8 Error When Clicking Topology Link from Host Page

In the Host page of Application Server Control, when clicking the **Topology** link, the following error appears:

```
Could not determine the oracle home for this component
```

To workaround this error, navigate to the Farm page, and click the **Topology** link from that page.

25.1.9 Error When Using the ADF BUSINESS COMPONENT Link on the Host Page

In the Host page of Application Server Control, when clicking the **ADF BUSINESS COMPONENTS** target in the **Targets** section, the following error appears:

```
Error: Failed to connect to OC4J null instance now, please click refresh page to
try again!
```

To avoid this error, navigate to the OC4J Administration page, and click the **ADF Business Components** link in the **Related Links** section.

25.1.10 Farm Locator Link Lost

In some installations, the Farm locator link is lost in Application Server Control Console once you navigate to the Application Server Home page and click **Configure Component** just above the System Components table to configure a component. Locator links display at the top of pages in Application Server Control Console. They specify the location of the current page within Application Server Control Console. As the user navigates through hierarchical content, or drills down through levels of content and functions, locator links track the location, and allow the user to navigate back to higher levels in the hierarchy.

To get back to the Farm page, navigate to the Application Server Home page, and click the **Farm** link in the **General** section.

25.1.11 Changing From JAZN LDAP User Manager Requires OC4J Restart

If you use the OC4J Application Properties page to change the User Manager for an OC4J application, then note the following: The application will start using the JAZN LDAP User Manager immediately after you select **Use JAZN LDAP User Manager** and click **Apply**.

However, if you change from a JAZN LDAP user manager to another User Manager, such as the JAZN XML User Manager, you must restart the OC4J instance before the new User Manager is available to the application.

25.1.12 Posting Data From the Logging Pages

After you configure security for the Application Server Control, you may see intermittent issues with form data updates in the Logging pages. These issues may occur with Microsoft Internet Explorer browsers after you install the `832894` (`MS04-004`) security update or the `821814` hotfix. Microsoft Internet Explorer has known issues with using a form on a HTTPS Web page. Problem related to these updates have been seen in the Advanced Search feature of the Search Log Repository page.

To workaround this problem, download the Microsoft `Q831167.exe` package and any other related patch recommended by Microsoft.

See Also:

http://support.microsoft.com/default.aspx?kbid=831167

25.1.13 Additional Step When Removing an Application Server Target From the Grid Control Console

If an Oracle Application Server 10*g* (9.0.4) or 10*g* Release 2 (10.1.2) target is removed from the Grid Control Console, the Infrastructure page in the Application Server Control Console will still show Central Management as **Configured**.

To reset the Central Management section of the page, delete the following file from the `centralagents.lst` in the application server Oracle home:

ORACLE_HOME`/sysman/emd/centralagents.lst (UNIX)`

25.1.14 Security Considerations When Changing Schema Passwords with the Application Server Control Console

You can use the Application Server Control Console to change the password for a component schema in the OracleAS Metadata Repository.

However, when you perform this task in the Application Server Control Console, the new password you enter will be saved in clear text format in the following log file:

ORACLE_HOME`/sysman/log/em-web-access.log`

In addition, if the Application Server Control Console has not been secured, the new schema password will be transmitted unencrypted from the client-side browser to the machine where the Console is running.

> **See Also:** "Configuring Security for the Application Server Control Console" in the chapter " Enabling SSL in the Infrastructure" in the *Oracle Application Server Administrator's Guide* for more information about the benefits of configuring security for the Application Server Control Console

To avoid these potential security issues, perform the following procedure before changing a schema password in the Application Server Control Console:

1. Stop the Application Server Control.

   You can stop the Application Server Control by entering the following command in the Application Server Control Oracle home:

   ORACLE_HOME`/bin/emctl stop iasconsole`

   > **See Also:** The "Starting and Stopping" chapter of the *Oracle Application Server Administrator's Guide*

2. Secure the Application Server Control by entering the following command:

   ORACLE_HOME`/bin/emctl secure iasconsole0.`

   > **See Also:** "Configuring Security for Enterprise Manager Application Server Control Console" in Appendix A of *Oracle Application Server Administrator's Guide*

3. Use a text editor to open the following configuration file in the application server Oracle home:

   ORACLE_HOME/sysman/j2ee/config/emd-web-site.xml

4. Locate the following entry in the `emd-web-site.xml` file:

```
<!-- Access Log, where requests are logged to -->
<access-log path="../../log/em-web-access.log" />
```

5. Modify the `access-log path` entry so it describes the format of each log entry, as follows:

```
<!-- Access Log, where requests are logged to -->
<access-log path="../../log/em-web-access.log"
   format="$ip - [$time] '$path' $status $size"/>
```

6. Save and close the `emd-web-site.xml` file.
7. Start the Application Server Control.

   You can start the Application Server Control by entering the following command in the Application Server Control Oracle home:

   ORACLE_HOME/bin/emctl start iasconsole

> **See Also:** The "Starting and Stopping" chapter of *Oracle Application Server Administrator's Guide*

25.1.15 Problems Viewing Some Metrics When OracleAS Portal is Configured for Secure Sockets Layer (SSL)

When you use Application Server Control Console to monitor targets such as OracleAS Portal that has been configured to use Secure Sockets Layer (SSL), some performance metrics for OracleAS Portal may not display.

To correct this problem you must allow the Application Server Control to recognize the Certificate Authority that was used by the Web Site to support HTTPS. You must add the Certificate of that Certificate Authority to the list of Certificate Authorities recognized by the Application Server Control.

To configure Application Server Control to recognize the Certificate Authority:

1. Obtain the Certificate of the Web Site's Certificate Authority, as follows:
   a. In Microsoft Internet Explorer, connect to the HTTPS URL of the application server you are attempting to monitor.
   b. Double-click the lock icon at the bottom of the browser screen, which indicates that you have connected to a secure Web site.

      The browser displays the Certificate dialog box, which describes the Certificate used for this Web site. Other browsers offer a similar mechanism to view the Certificate detail of a Web Site.
   c. Click the **Certificate Path** tab and select the first entry in the list of certificates.
   d. Click **View Certificate** to display a second Certificate dialog box.
   e. Click the **Details** tab on the Certificate window.
   f. Click **Copy to File** to display the Certificate Manager Export wizard.

g. In the Certificate Manager Export wizard, select **Base64 encoded X.509 (.CER)** as the format you want to export and save the certificate to a text file with an easily-identifiable name, such as `portal_certificate.cer`.

h. Open the certificate file using your favorite text editor.

The content of the certificate file will look similar to the content shown in Example 15–1.

2. Update the list of Certificate Authorities, as follows:

a. Locate the `b64InternetCertificate.txt` file in the following directory of the Oracle Application Server Oracle home:

```
ORACLE_HOME/sysman/config/
```

This file contains a list of Base64 Certificates.

b. Edit the `b64InternetCertificate.txt` file and add the contents of the Certificate file you just exported to the end of the file, taking care to include all the Base64 text of the Certificate including the BEGIN and END lines.

3. Copy the text file that contains the certificate (for example, the file you named `portal_certificate.cer` earlier in this procedure) to the OracleAS Portal middle tier.

4. Use the `orapki` utility to update the `monwallet` Oracle wallet by using the following command:

```
ORACLE_HOME/bin/orapki wallet add
    -wallet ORACLE_HOME/sysman/config/monwallet
    -trusted_cert
    -cert certificate_location
```

When you are prompted for a password, enter the password for the `monwallet` wallet. The default password is *welcome*.

In the example, replace *certificate_location* with the full path to the text file that contains the certificate you saved earlier in this procedure and that you copied to the OracleAS Portal middle tier. For example:

```
/dua0/oracle/portal_certificate.cer
```

5. Restart the Application Server Control.

After you restart the Application Server Control, Enterprise Manager detects your addition to the list of Certificate Authorities and you can successfully monitor the OracleAS Portal metrics using the secure Application Server Control Console.

Example 25–1 Example Content of an Exported Certificate

```
-----BEGIN CERTIFICATE-----
MIIDBzCCAnCgAwIBAgIQTs4NcImNY3JAs5edi/5RkTANBgk
... base64 certificate content ...
------END CERTIFICATE------
```

25.1.16 Cannot Recover Database Control Files from the Application Server Control Console

If you back up an OracleAS Infrastructure Oracle home, you will notice that when you attempt to recover the backup, the option for recovering the OracleAS Metadata

Repository database control files is not available on the Perform Recovery page of the Application Server Control Console.

As a result, you cannot recover the database control files that you backed up by using the Application Server Control Console. Instead, use the command-line OracleAS Backup and Recovery Tool to recover the database control files. Specifically, to recover the database control files, use the `-c` command-line argument to the Backup and Recovery tool.

For more information, see "Restoring and Recovering the Metadata Repository" in *Oracle Application Server Administrator's Guide*.

25.1.17 Problem Using the Topology Viewer to Perform Operations on an OracleAS Farm When in French or French-Canadian Language Environment

If the default language is set to French or French-Canadian, and you select an operation from the contextual menu next to the OracleAS Farm icon in the Application Server Control Console Topology Viewer, a JavaScript error occurs.

To workaround this problem, use the contextual menu associated with the individual instances in the OracleAS Farm.

For more information about using the contextual menus in the Topology Viewer, see "Actions You Can Perform Using the HTML Only Topology Viewer" in the Enterprise Manager online Help.

25.1.18 Configuring Security When Oracle Application Server Is Managed by Grid Control

If you are managing Oracle Application Server with Oracle Enterprise Manager 10*g* Grid Control, keep in mind the following restriction if you decide to enable security for the Application Server Control after you begin managing the application server with Grid Control.

After you enable security for the Application Server Control, the **Administer** link on the Application Server Home page in the Grid Control Console will no longer work. Instead of linking to the new HTTPS URL for the secure Application Server Control, the Administer link is still configured to link to the original HTTP URL.

To remedy this problem, you must remove the application server target from the Grid Control Console and then add the target again. For information about removing and adding monitored targets, see the Grid Control Console online help.

25.1.19 Blank Screen When Attempting to Display Application Server Control Console in Internet Explorer

If you navigate to the Application Server Control Console and Microsoft Internet Explorer displays a blank screen instead of the Application Server Control Console, the problem is likely caused by the Internet Explorer **Allow META REFRESH** security option. This option must be enabled in order for you to display specific pages in the Application Server Control Console.

There are three possible workarounds for this problem:

1. Enable the **Allow META REFRESH** option for all pages you display in Internet Explorer:
   a. Select **Internet Options** from the Internet Explorer **Tools** menu.

b. Click the **Security** tab.

c. Click **Custom Level**.

d. Scroll down to the **Miscellaneous** options and make sure that the **Allow META REFRESH** option is enabled.

2. Use a more specific URL when connecting to the Application Server Control Console.

   For example, if you are having trouble accessing `http://host:port/`, then try entering a more specific URL, such as:

   ```
   http://host:port/emd/console/
   ```

3. Add the Application Server Control Console URL to the list of Internet Explorer Trusted Sites:

   a. Select **Internet Options** from the Internet Explorer **Tools** menu.

   b. Click the **Security** tab.

   c. Click the **Trusted Sites** icon, and then click **Sites** to display the Trusted Sites dialog box.

   d. If you have not enabled Application Server Control security, clear the **Require server verification (https:) for all sites in this zone** check box.

   e. Enter the URL for the Application Server Control Console and click **Add**.

25.1.20 Harmless Errors in Log Files

During installation of J2EE, Oracle Business Intelligence, Portal and Wireless, and Enterprise Manager Agent and Console, some of the errors that show up in the log files are harmless and can be ignored. These errors may come up in the `emias.log`, `em-application.log`, and `emagent.trc` files.

Some of these errors are listed in the following examples:

Example 25–2 Error in emias.log file

```
ERROR cache.CacheManager run.519 -
Exception message: sleep interrupted java.lang.InterruptedException: sleep
interrupted at java.lang.Thread.sleep(Native Method) at
oracle.sysman.emSDK.svc.cache.CacheManager$Checker.run(CacheManager.java:507) at
java.lang.Thread.run(Thread.java:534)
```

Example 25–3 Error in emias.log file

```
2005-07-01 16:20:23,231 [EMUI_16_20_23_/console/metrics/metricData] ERROR
metrics.AllMetricsUtil getNLSString.126 - Can't find resource for bundle
oracle.sysman.eml.rsc.gen.hostMsg, key host_paging_activity_pgactive
java.util.MissingResourceException: Can't find resource for bundle
oracle.sysman.eml.rsc.gen.hostMsg, key host_paging_activity_pgactive
at java.util.ResourceBundle.getObject(ResourceBundle.java:326)
at java.util.ResourceBundle.getObject(ResourceBundle.java:323)
at java.util.ResourceBundle.getString(ResourceBundle.java:286)
at
oracle.sysman.ias.sta.metrics.AllMetricsUtil.getNLSString(AllMetricsUtil.java:122)
 at oracle.sysman.ias.sta.metrics.MetricData.getMetricData(MetricData.java:389)
 at oracle.sysman.ias.sta.metrics.MetricData.getHeader(MetricData.java:194)
at oracle.sysman.ias.sta.metrics.MetricCtlr.prepareData(MetricCtlr.java:118)
at oracle.sysman.emSDK.svlt.PageHandler.handleRequest(PageHandler.java:419)
```

```
at oracle.sysman.emSDK.svlt.EMServlet.myDoGet(EMServlet.java:728)
at oracle.sysman.emSDK.svlt.EMServlet.doGet(EMServlet.java:307)
at oracle.sysman.eml.app.Console.doGet(Console.java:271)
at javax.servlet.http.HttpServlet.service(HttpServlet.java:740)
at javax.servlet.http.HttpServlet.service(HttpServlet.java:853)
at
com.evermind.server.http.ServletRequestDispatcher.invoke(ServletRequestDispatcher.
java:837)
at
com.evermind.server.http.ServletRequestDispatcher.forwardInternal(ServletRequestDi
spatcher.java:330)
at
com.evermind.server.http.HttpRequestHandler.processRequest(HttpRequestHandler.java
:830)
at com.evermind.server.http.HttpRequestHandler.run(HttpRequestHandler.java:285)
at com.evermind.server.http.HttpRequestHandler.run(HttpRequestHandler.java:126)
at
com.evermind.util.ReleasableResourcePooledExecutor$MyWorker.run(ReleasableResource
PooledExecutor.java:186)
at java.lang.Thread.run(Thread.java:534)
```

Example 25–4 Error in em-application.log

```
05/07/01 02:23:03 emd: Portal Configuration Interface failed to initialise:
java.lang.ArrayIndexOutOfBoundsException: Array index out of range: 6
 at java.util.Vector.remove(Vector.java:792)
 at oracle.ias.sysmgmt.context.RequestContext.removeLastEntry(Unknown Source)
 at oracle.ias.sysmgmt.instrumentation.Timer.stop(Unknown Source)
 at oracle.ias.sysmgmt.clientmetadata.MetadataAccessHelper.<init>(Unknown Source)
 at oracle.ias.sysmgmt.clientmetadata.MetadataAccessImpl.<init>(Unknown Source)
 at oracle.ias.sysmgmt.clientmetadata.MetadataAccessFactory.getInstance(Unknown
Source)
 at oracle.ias.sysmgmt.smi.SMIEntryPoint.<init>(Unknown Source)
 at sun.reflect.NativeConstructorAccessorImpl.newInstance0(Native Method)
 at
sun.reflect.NativeConstructorAccessorImpl.newInstance(NativeConstructorAccessorImp
l.java:39)
 at
sun.reflect.DelegatingConstructorAccessorImpl.newInstance(DelegatingConstructorAcc
essorImpl.java:27)
 at java.lang.reflect.Constructor.newInstance(Constructor.java:274)
 at oracle.ias.sysmgmt.smiapi.SMISessionManager.loadAndCreateInstance(Unknown
Source)
 at oracle.ias.sysmgmt.smiapi.SMISessionManager.createSession(Unknown Source)
 at oracle.ias.sysmgmt.EntryPoint.getConfiguration(Unknown Source)
 at oracle.webdb.config.smi.GeneralConfig.initialiseEnviroment(Unknown Source)
 at oracle.webdb.config.smi.CacheConfig9025Imp.read(Unknown Source)
 at oracle.webdb.config.smi.CacheConfigLatestImp.read(Unknown Source)
 at oracle.webdb.monitoring.hawkeye.PortalIntegration$InitThread.run(Unknown
Source)
```

Example 25–5 Error in emagent.trc after securing Enterprise Manager Agent and Console

```
2005-07-01 17:27:51 Thread-1505459120 WARN  ssl: fd=20, nmehlssl_write nzos_Write
error = 28862
2005-07-01 17:29:38 Thread-965684144 WARN  ssl: fd=17, nmehlssl_write nzos_Write
error = 28862
2005-07-01 17:32:35 Thread-965684144 WARN  ssl: fd=19, nmehlssl_write nzos_Write
error = 28862
2005-07-01 17:38:35 Thread-965684144 WARN  ssl: fd=19, nmehlssl_write nzos_Write
```

```
error = 28862
2005-07-01 17:42:37 Thread-965684144 WARN  ssl: fd=19, nmehlssl_write nzos_Write
error = 28862
2005-07-01 17:48:34 Thread-1235123120 WARN  ssl: fd=18, nmehlssl_write nzos_Write
error = 28862
2005-07-01 17:53:34 Thread-965684144 WARN  ssl: fd=19, nmehlssl_write nzos_Write
error = 28862
```

25.2 Documentation Errata

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

- Section 25.2.1, "Error in Description of the EM_OC4J_OPTS Environment Variable"
- Section 25.2.2, "Online Help for the Application Server Control All Metrics Page"
- Section 25.2.3, "Error in Online Help Topic About Regular Expressions"

25.2.1 Error in Description of the EM_OC4J_OPTS Environment Variable

Section A.5.1, "Summary of Options You Can Set with the EM_OC4J_OPTS Environment Variable," in the *Oracle Application Server Administrator's Guide*, describes how to use the EM_OC4J_OPTS environment variable to change the timeout setting for pages in the Application Server Control Console.

However, the description of the timeout option is incorrect.

To increase the timeout for status and host-related metrics such as Memory and CPU usage on the Application Server home page, define the environment variable EM_OC4J_OPTS to the following before starting the Application Server Control Console:

```
-Doracle.sysman.ias.ApplicationServerObject.timeout=timeout_value_in_milliseconds
```

For example, if some performance metrics are displaying as "unknown" on the Application Server Control pages, then try increasing this setting from its default value of 2000 milliseconds to 5000 milliseconds, as follows:

```
-Doracle.sysman.ias.ApplicationServerObject.timeout=5000
```

25.2.2 Online Help for the Application Server Control All Metrics Page

Most of the component home pages within the Application Server Control include an **All Metrics** link. When you click this link, Enterprise Manager displays the All Metrics page, which provides a comprehensive list of all the performance metrics you can monitor for the selected component.

In most cases, you can click a metric name on the All Metrics page to display the Metric Details page, and then click **Help** to get more information about the selected metric.

However, for some metrics, clicking **Help** will display a `Topic not found` error. This problem will be addressed in a future version of Oracle Application Server.

In other cases, the online help provided for a particular metric might refer to features available only when you are centrally managing your application server instance with the Grid Control Console. For example, the online help might refer to thresholds, alerts, or the display of historical data about a metric. In those cases, you can access these additional monitoring features by installing and configuring Grid Control Console.

See Also:

http://www.oracle.com/technology/documentation/oem.html

25.2.3 Error in Online Help Topic About Regular Expressions

In the Application Server Control online help topic "About Regular Expressions," the example for the asterisk (*) character shows:

```
OC4J*
```

The example should instead show the following:

```
OC4J.*
```