Oracle® Application Server

Release Notes

10*g* (9.0.4) for Solaris Operating System (SPARC)

Part No. B10629-15

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Oracle Application Server Release Notes, 10g (9.0.4) for Solaris Operating System (SPARC)

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Preface

This preface includes the following topics:

- Documentation Accessibility
- Related Documents
- Conventions

Audience

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

Documentation Accessibility

Our goal is to make Oracle products, services, and supporting documentation accessible, with good usability, to the disabled community. To that end, our documentation includes features that make information available to users of assistive technology. This documentation is available in HTML format, and contains markup to facilitate access by the disabled community. Accessibility standards will continue to evolve over time, and Oracle is actively engaged with other market-leading technology vendors to address technical obstacles so that our documentation can be accessible to all of our customers. For more information, visit the Oracle Accessibility Program Web site at

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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* (9.0.4)

Conventions

The following text conventions are used in this document:

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

1

What's New in the *Oracle Application Server 10g Release Notes*?

This chapter provides a listing of new topics introduced with this version of the *Oracle Application Server 10g Release Notes*. The new topics are in the following chapters:

- Chapter 9, "Oracle Application Server Containers for J2EE Issues"

1.1 Chapter 9, "Oracle Application Server Containers for J2EE Issues"

- Section 9.5.3, "Release Notes for OC4J DataSources"
- Section 9.6, "Release Notes for OracleAS JAAS Provider"
- Section 9.7.6, "Corrected JDBC Connect String for Third-Party Databases"

2

Introduction

This chapter introduces Oracle Application Server Release Notes, 10*g* (9.0.4). It includes the following topics:

- Section 2.1, "Latest Release Information"
- Section 2.2, "Purpose of this Document"
- Section 2.3, "Operating System Requirements"
- Section 2.4, "Certification Information"
- Section 2.5, "Licensing Information"
- Section 2.6, "Best Practices"

2.1 Latest Release Information

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

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

2.2 Purpose of this Document

This document contains the release information for Oracle Application Server 10*g* (9.0.4). It describes differences between Oracle Application Server 10*g* (9.0.4) and its documented functionality.

It includes the following parts:

- Part I, "General Oracle Application Server Issues"
- Part II, "J2EE, Web Services, and Internet Applications Issues"
- Part III, "Oracle Application Server Portal Issues"
- Part IV, "Oracle Application Server Wireless Issues"
- Part V, "Caching Issues"
- Part VI, "Business Intelligence Issues"
- Part VII, "E-Business Integration Issues"
- Part VIII, "Management and Security Issues"

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

2.3 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. See *Oracle Application Server 10g Installation Guide* for a complete list of operating system requirements.

2.4 Certification Information

The latest certification information for Oracle Application Server 10*g* (9.0.4) is available at:

```
http://metalink.oracle.com
```

2.5 Licensing Information

Licensing information for Oracle Application Server 10*g* (9.0.4) is available at:

```
http://oraclestore.oracle.com
```

Detailed information regarding license compliance for Oracle Application Server 10*g* (9.0.4) is available at:

```
http://otn.oracle.com/products/ias/content.html
```

2.6 Best Practices

Oracle provides a Best Practices white paper. This document describes common practices around development and deployment of Oracle Application Server, common errors, and scenarios for using the product.

You can find the white paper on OTN at

```
http://otn.oracle.com/documentation/index.html
```

Part I

General Oracle Application Server Issues

This part describes general Oracle Application Server issues, including issues that are common to multiple components. It contains the following chapters:

- Chapter 3, "Installation, Migration, and Upgrade Issues"

- Chapter 4, "General Management and Security Issues"

- Chapter 5, "Core Documentation"

- Chapter 6, "Oracle Application Server Active Failover Clusters Issues"

3

Installation, Migration, and Upgrade Issues

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

- Section 3.1, "Preinstallation Issues"
- Section 3.2, "Installation Issues"
- Section 3.3, "Deinstallation Issues"
- Section 3.4, "Post Installation Issues"
- Section 3.5, "Upgrade Issues"
- Section 3.6, "Documentation Errata"

3.1 Preinstallation Issues

This section describes preinstallation issues. It includes the following topics:

- Section 3.1.1, "Host Name Restriction"
- Section 3.1.2, "Domain Name Restriction"
- Section 3.1.3, "Prevent Hangs When Installing Identity Management to Use a RepCA Metadata Repository"
- Section 3.1.4, "All OracleAS Active Failover Cluster Nodes Must Be Up When Installing Middle Tiers"
- Section 3.1.5, "Oracle Application Server 10g (9.0.4) and Oracle9i Application Server Release 1 (1.0.2.2.x) Coexistence Restrictions"
- Section 3.1.6, "OC4J Instance and J2EE Application Naming"
- Section 3.1.7, "Install Type Restrictions for Spanish Locales"
- Section 3.1.8, "Do Not Set NLS_LANG Environment Variable Before Invoking MRCA"

3.1.1 Host Name Restriction

Your host name cannot exceed 255 characters.

3.1.2 Domain Name Restriction

When installing an OracleAS Metadata Repository, you are prompted for the global database name for the repository. This typically is in the form `sid.domainname`. The `domainname` portion of the global database name cannot contain the "-" character.

Note that it is not required for the database domain name to match your host network domain name; your host network domain name can have the "-" character.

3.1.3 Prevent Hangs When Installing Identity Management to Use a RepCA Metadata Repository

If you create a Metadata Repository by running OracleAS RepCA on an Oracle9*i* Release 1 (9.0.1.5) database, then install Identity Management and configure it to use that Metadata Repository, some configuration assistants may hang. The problem most commonly occurs with the Oracle Ultra Search Configuration Assistant and the `mod_osso` Configuration Assistant, at times of high system load.

To prevent this problem, disable the Resource Manager in the Metadata Repository before you start the Identity Management installation. You can accomplish this by commenting out the `resource_manager_plan` entry in the `init.ora` file in `ORACLE_HOME`/admin/`SID`/pfile.

3.1.4 All OracleAS Active Failover Cluster Nodes Must Be Up When Installing Middle Tiers

If you use OracleAS Active Failover Cluster for your Metadata Repository, registered with Identity Management, make sure the database and Net listener are running on all AFC nodes before you install a middle-tier instance to use the Identity Management and AFC Metadata Repository. Otherwise, the middle-tier installation will fail with the error: Invalid Database or Database Not Running.

3.1.5 Oracle Application Server 10*g* (9.0.4) and Oracle9*i* Application Server Release 1 (1.0.2.2.x) Coexistence Restrictions

The following instances of Oracle Application Server 10*g* (9.0.4) and Oracle9*i* Application Server Release 1 (1.0.2.2.x) can coexist on the same computer:

- 1.0.2.2.x Minimal Edition and 9.0.4 J2EE and Web Cache
- 1.0.2.2.x Minimal Edition and 9.0.4 Portal and Wireless
- 1.0.2.2.x Minimal Edition and 9.0.4 Business Intelligence and Forms
- 1.0.2.2.x Standard Edition and 9.0.4 J2EE and Web Cache
- 1.0.2.2.x Standard Edition and 9.0.4 Portal and Wireless
- 1.0.2.2.x Enterprise Edition and 9.0.4 J2EE and Web Cache
- 1.0.2.2.x Enterprise Edition and 9.0.4 Portal and Wireless

The following instances of Oracle Application Server 10*g* (9.0.4) and Oracle9*i* Application Server Release 1 (1.0.2.2.x) can coexist on the same computer only after Oracle9*i*AS Discoverer has been shutdown in the Oracle9*i*AS Release 1 (1.0.2.2.x) Oracle home:

- 1.0.2.2.x Standard Edition and 9.0.4 Business Intelligence and Forms
- 1.0.2.2.x Enterprise Edition and 9.0.4 Business Intelligence and Forms

- 1.0.2.2.x Standard Edition and 9.0.4 Forms and Reports Services.

- 1.0.2.2.x Enterprise Edition and 9.0.4 Forms and Reports Services.

3.1.6 OC4J Instance and J2EE Application Naming

OC4J instance names and J2EE application names should not contain the Host name, the Oracle home or IP address of the computer containing the Oracle Application Server installation. In a clustered environment, this applies to the Host name, Oracle home, IP address of any Oracle Application Server installation in the cluster.

For example, if your computer has the hostname of `foo.company.com`, you should not create a new OC4J instance or J2EE application that is `foo.company.com` or contains `foo.company.com`. This rule also applies to the Oracle home directory path or the IP address of the computer.

3.1.7 Install Type Restrictions for Spanish Locales

The following Oracle Application Server install types can not be installed successfully when the server locale is Spanish:

- J2EE and Web Cache

- Portal and Wireless

The Oracle Universal Installer will fail if either of the listed install types are selected for installation in a Spanish locale. The Java Security Configuration Assistant fails and the jaznca.log contains java.lang.reflect.InvocationTargetException.

If you need to install these install types in a Spanish locale, perform the following steps after receiving the exception in the jaznca.log:

1. Backup the *ORACLE_HOME*/config/ias.properties file.

2. Edit the *ORACLE_HOME*/config/ias.properties file and replace the string `"Caché de Web"` in Components field with `"WebCache"`.

3. Save the file.

4. Retry the configuration Assistant from the Oracle Universal Installer session.

3.1.8 Do Not Set NLS_LANG Environment Variable Before Invoking MRCA

If the `NLS_LANG` environment variable is set to a non-English locale before the Metadata Repository Configuration Assistant (MRCA) is invoked, the loading of the Oracle Workflow schema will return a PL/SQL error of:

```
ORA-01403 : "no data found"
```

Do not set NLS_LANG before MRCA is invoked. However, you can set NLS_LANG to `american_america.us7ascii` before MRCA is invoked.

3.2 Installation Issues

This section describes installation issues. It includes the following topics:

- Section 3.2.4, "targets.xml on Remote Hosts contain Incorrect ConnectDescriptor Information"

- Section 3.2.5, "DAS Enabled Only on Installation Host"

- Section 3.2.6, "Net Listener Version for OracleAS Infrastructure 10g"

- Section 3.2.7, "Command Line Variable Values Issue"

- Section 3.2.8, "OPMN Configuration Assistant - Start Oracle Certificate Authority Failure"

- Section 3.2.9, "Oracle Net Listener Cross Registration Should Be Disabled for Active Failover Cluster"

- Section 3.2.10, "Stack Trace in repca.log File"

- Section 3.2.11, "Remove Registration Entries from Oracle Internet Directory"

- Section 3.2.12, "Problem Using OracleAS RepCA on Existing Database"

- Section 3.2.13, "Installation Failure Due to Unavailable Ports"

- Section 3.2.14, "OracleAS Metadata Repository Only Installation Issue"

- Section 3.2.15, "query_rewrite_integrity Must be Set to trusted or enforced for Running RepCA"

- Section 3.2.16, "Mid-Tier with Oracle Internet Directory Installation Restriction"

- Section 3.2.17, "Avoid Using Same OracleAS Metadata Repository During Multi Installation"

- Section 3.2.18, "Disconnect before using cleanMR Script"

- Section 3.2.19, "Erratic Installation Behavior with Input Method Editor System"

- Section 3.2.20, "Do Not Comment Out System Parameters"

- Section 3.2.21, "Migrate Data Before Performing Re-association"

- Section 3.2.22, "Security Practices During Silent or Non-interactive Installations"

- Section 3.2.23, "Minimum Value for semmns Parameter"

- Section 3.2.24, "No Need to Register OracleAS Metadata Repository"

- Section 3.2.25, "Incorrect Listing on Select Configuration Options Screen"

- Section 3.2.26, "Use .bak Files for Non-interactive or Silent Installation"

- Section 3.2.27, "OracleAS Metadata Repository Naming Restriction"

- Section 3.2.28, "Oracle Internet Directory v1.0.2.2.x Coexistence with OracleAS Infrastructure 10g"

- Section 3.2.29, "Tablespaces Created by OracleAS RepCA Set Up with Autoextend On"

- Section 3.2.30, "Apply Patch before Database Registration"

- Section 3.2.31, "Additional Manual Configuration After Installing Application Server Metadata Repository in a Customer Database Using RepCA"

- Section 3.2.32, "Oracle10g Database Installations Require Manual Knowledge Base Install"

- Section 3.2.33, "Apply Patch to RAC Database"

- Section 3.2.34, "OracleAS Repository Creation Assistant Gives Error ORA-30036: unable to extend segment by 8 in undo tablespace 'UNDOTBS2'"
- Section 3.2.35, "Help Information Not Available for Error Message"
- Section 3.2.36, "Realm Value Not Used If You Log In as the Oracle Internet Directory Superuser"
- Section 3.2.37, "Intel Xeon Processor Certified with Oracle Application Server Components"
- Section 3.2.38, "Oracle Certificate Authority Configuration Assistant"

3.2.1 Instance Name Restriction

Your Oracle Application Server instance name cannot use the following characters:

#, @, |, &, ", :, ? and a blank space.

3.2.2 Incorrect Host Name Value during OracleAS Infrastructure 10*g* Installation in an Active Failover Cluster

This only affects the OracleAS Infrastructure 10*g* installation in an Active Failover Cluster (AFC) environment.

An incorrect hostname value is entered in the `EMD_URL` entry in `$ORACLE_HOME/sysman/config/emd.properties` file on remote nodes of the AFC. To workaround this issue, run the `ORACLE_HOME/bin/emracutil` command to update the hostname in the `emd.properties` file on all hosts in the cluster. You run the command on the host where you ran the installer.

```
prompt> cd $ORACLE_HOME/bin
prompt> emracutil synchronize $ORACLE_HOME/sysman/config/emd.properties
```

This command uses the local host `emd.properties` file as a template and substitutes the names of the hosts in the cluster in the file and copies the file to the respective hosts. After copying the file to all the hosts in the cluster, it reloads the agent on the remote hosts so that the agent reads the updated file.

3.2.3 emracutil Script Contains Incorrect Value for Host Name

This issue only affects the OracleAS Infrastructure installation in an AFC environment.

The `$ORACLE_HOME/bin/emracutil` script contains an incorrect value for the `HOST_NAME` variable on the remote hosts of the AFC.

Update the `HOST_NAME` variable in the `$ORACLE_HOME/bin/emracutil` script to the current host name.

3.2.4 targets.xml on Remote Hosts contain Incorrect ConnectDescriptor Information

This issue only affect the OracleAS Infrastructure installation in an AFC environment.

The `$ORACLE_HOME/sysman/emd/targets.xml` on remote hosts of the AFC contains incorrect `ConnectDescriptor` information for the `oracle_ldap` target in the `$ORACLE_HOME/sysman/emd/targets.xml` file. The `ADDRESS_LIST` of the `ConnectDescriptor` contains `ADDRESSES` that point to the remote host.

To workaround this issue the `ConnectDescriptor` must reference all hosts of the AFC.

Update the $ORACLE_HOME/sysman/emd/targets.xml on remote hosts of the AFC with correct HOST information for the ADDRESS_LIST attribute.

3.2.5 DAS Enabled Only on Installation Host

In an AFC infrastructure installation, Oracle Delegated Administration Service (DAS) will be enabled only on the installation host.

In order to configure DAS on other hosts, perform the following workaround on each additional host:

1. Create an ldif (das_enable.ldif) file with the following entry:

```
--- BEGIN LDIF file contents---
dn: cn=Associated Mid-tiers,orclApplicationCommonName=DASApp, cn=DAS,
cn=Products,cn=OracleContext
changetype: modify
add: uniquemember
uniquemember: orclApplicationCommonName=<InstanceName>.<node>,cn=IAS
Instances, cn=IAS,cn=Products, cn=OracleContext
---END LDIF file contents------
```

2. Run the following ldapmodify command:

```
ldapmodify -p <OIDPort> -h <Load Balancer Name> -D cn=orcladmin -w
Instance Password> -v -f das_enable.ldif
```

DAS should now be configured on the additional hosts.

3.2.6 Net Listener Version for OracleAS Infrastructure 10*g*

If you wish to configure the OracleAS Infrastructure 10*g* to use the Net listener from the 64-bit release of the Oracle database, the listener must be version 9.0.1.4 or higher (for the 9.0.1.x release of the database) or 9.2.0.3 or higher (for the 9.2.0.x release of the database).

3.2.7 Command Line Variable Values Issue

If you declare a value for a variable at the command line when launching Oracle Universal Installer, the variable's value will not be retained if you subsequently back out of an install session.

For example, if you provide a filename and location for the public variable s_staticPorts, this value will be reset to null if you go back to the **Select Products screen** and either select the same or another install type to install.

Oracle Universal Installer will reset all command line variables to null in anticipation of your redirection to another product where that variable's value may be incorrect or irrelevant. If you wish to retain these values, cancel your Oracle Universal Installer session and launch the session again with the appropriate command line parameters.

3.2.8 OPMN Configuration Assistant - Start Oracle Certificate Authority Failure

If you re-run the OPMN Configuration Assistant - start Oracle Certificate Authority may fail if your Oracle Certificate Authority instance is running.

To prevent this from happening, stop the Oracle Certificate Authority instance with the following command:

```
ORACLE_HOME/opmnctl/bin/opmnctl stopproc ias-component=OC4J instancename=oca
```

Then rerun OPMN Configuration Assistant - start Oracle Certificate Authority.

3.2.9 Oracle Net Listener Cross Registration Should Be Disabled for Active Failover Cluster

Turning Oracle Net Listener Cross registration on between instances of the AFC turns server side load balancing on. However, this breaks in OracleAS Metadata Repository and load balancing of new connections across the Oracle Application Server instances in the cluster is not even.

Alternatively, client side load balancing is sufficient for the kind of traffic anticipated for the AFC infrastructure.

Since listener cross registration is enabled by default in the OracleAS Metadata Repository, we must turn it off following installation.

To disable listener cross registration for the OracleAS Metadata Repository active failover instance execute the following commands:

1. Login into `sqlplus` as `sysdba` to any one of the infrastructure database instances deployed as part of the AFC installation.

2. Execute the following `SQL` command:

   ```
   SQL>  alter system set remote_listener='' scope=spfile;
   ```

3. Restart all Oracle Application Server instances.

3.2.10 Stack Trace in repca.log File

OracleAS Metadata Repository registration with Oracle Internet Directory, using the `runRepca -Register` option during installation by OracleAS RepCA creates a stack trace in the `repca.log` file.

The generated stack trace is benign and can be ignored.

3.2.11 Remove Registration Entries from Oracle Internet Directory

If you use the OracleAS RepCA to register an OracleAS Metadata Repository and the database repository is subsequently deleted, the registration entries must be removed from the Oracle Internet Directory associated with the database repository.

Subsequent attempt to run the OracleAS RepCA against a database repository having the same name and using the same Oracle Internet Directory will fail.

After you have removed the registration entries from Oracle Internet Directory, re-run the OracleAS RepCA with the `-REGISTER` option.

3.2.12 Problem Using OracleAS RepCA on Existing Database

When using OracleAS RepCA on an existing database, you will encounter the **Register with Oracle Internet Directory** screen during installation. The registration validation will hang if you either:

- check the SSL check box and provide a non-SSL port for registration.

- uncheck the SSL check box and provide a SSL port for registration.

To workaround this issues, when the busy bar dialog appears, press the Cancel button. You must then rectify the problem by either:

- checking the SSL check box and providing a SSL port for registration.

■ unchecking the SSL check box and providing a non-SSL port for registration.

3.2.13 Installation Failure Due to Unavailable Ports

If you are installing Oracle Application Server on a computer that has ports unavailable in the specified port range, the installation will fail during the configuration phase of the install.

Before you install Oracle Application Server, confirm that at least one port in the recommend range for each Oracle Application Server component is available.

Please refer to the *Oracle Application Server 10g Administrator's Guide* for more port information.

3.2.14 OracleAS Metadata Repository Only Installation Issue

When you perform an OracleAS Metadata Repository only installation without Oracle Internet Directory registration, you will encounter an installation screen asking if you would like to register your OracleAS Metadata Repository with an existing Oracle Internet Directory. If you mistakenly choose to register the OracleAS Metadata Repository, you cannot return to the registration screen and change to the option which skips the registration. You must exit the current installation and restart Oracle Universal Installer.

Otherwise, if you continue the `mod_osso` Configuration Assistant will fail at the end of the OracleAS Metadata Repository only installation.

3.2.15 query_rewrite_integrity Must be Set to trusted or enforced for Running RepCA

If `query_rewrite_integrity` is not set properly in the database initialization parameters, OracleAS RepCA will give an error that this parameter must be set to "trusted". However, OracleAS RepCA will function properly if this parameter is set to either "trusted" or "enforced".

3.2.16 Mid-Tier with Oracle Internet Directory Installation Restriction

If you perform an installation of Oracle Application Server middle-tier and you specify that components connect to Oracle Internet Directory only through SSL connections, you will be unable to expand your middle-tier installation at a later time.

For example: you will be unable to expand from a J2EE and Web Cache install type to a Portal and Wireless install type.

3.2.17 Avoid Using Same OracleAS Metadata Repository During Multi Installation

If you perform a simultaneous multi, more than one, installation of a Portal and Wireless or Business Intelligence and Forms install type using the same OracleAS Metadata Repository you may see the following error message from the OracleAS Portal home page:

```
Unexpected error encountered in wwsec_app_priv.process_signon (User-Defined @
Exception) (WWC-41417)
An exception was raised when accessing the Oracle Internet Directory: 49:
Invalid credentials
Details
Operation: dbms_ldap.simple_bind_s
```

Oracle recommends performing the installation one after the other, not simultaneously.

3.2.18 Disconnect before using cleanMR Script

The `repCA/repca/clean/cleanMR` script on the OracleAS RepCA/Utilities CD is intended to be used in cases where a OracleAS configuration assistant has failed and you wish to return your database to its original state. The `cleanMR` script drops various user schemas. Therefore, make sure all users are disconnected from the database before running the script.

3.2.19 Erratic Installation Behavior with Input Method Editor System

When you install Oracle Application Server on a system using an Input Method Editor (IME), Oracle Universal Installer may not start properly or crash. (Languages that use an IME are typically multibyte Asian languages.)

If you are encountering this problem, please obtain a patch for bug 3293516 from Oracle support. A readme file that accompanies the patch contains installation instructions.

3.2.20 Do Not Comment Out System Parameters

The Oracle Universal Installer checks for minimum operating system requirements. One type of requirement is system parameters. If you set a system parameter to use a different value, then replace the current value with the value in the system parameter file. The system parameter file is located in `/etc/system`.

In the system parameter file, do not comment out the existing line for the system parameter and add a new line. Oracle Universal Installer will not recognize the existing line as a comment line and will use the value on the comment line. An error will occur when Oracle Universal Installer checks minimum operating system requirements.

3.2.21 Migrate Data Before Performing Re-association

If your installation involves the following scenario:

- Install OracleAS Metadata Repository on computer 1

- Install Oracle9*i*AS Infrastructure Identity Management components on computer 2 and associate the component with the OracleAS Metadata Repository on computer 1

- Install Oracle Application Server mid-tier on computer 3 and associate the components with the Identity Management installation on computer 2 and the OracleAS Metadata Repository on computer 1

- Install an additional OracleAS Metadata Repository on computer 4

Following this installation configuration you will be able re-associate the Identity Management components on computer 2 and the Oracle Application Server mid-tier on computer 3 with the OracleAS Metadata Repository on computer 4 using Oracle Enterprise Manager.

However, you must migrate the data on computer 2 and computer 3 to computer 4 before performing the re-association steps with Oracle Enterprise Manager.

3.2.22 Security Practices During Silent or Non-interactive Installations

When installing Oracle Application Server in silent or non-interactive mode, you must supply a text response file to the Oracle Universal Installer. The response file provides the relevant inputs for your installation. One of the inputs in the response file that is required is your installation password. The password information must be in clear text.

To address potential security issues regarding the response file password, Oracle recommends the following security practice when using response files for installation:

- Permissions on the response files should be set so that they are readable only by the operating system user who will be performing the silent or non-interactive installation.

- If possible, the response files should be removed from the system after the silent or non-interactive installation is completed.

If you are performing a OracleAS Metadata Repository installation in silent or non-interactive mode, then the install will create the following two log files:

- `ORACLE_HOME/admin/<ORACLE_SID>/create/<ORACLE_SID>.log`

- `ORACLE_HOME/cfgtoollogs/<ORACLE_SID>.log`

where `<ORACLE_SID>` is the value of your `ORACLE_SID`.

The two listed log files contain database password information. They should be removed from the system if possible after you have reviewed their contents.

The two log files are not required for operation of OracleAS Metadata Repository.

3.2.23 Minimum Value for semmns Parameter

To determine the minimum value for the semmns parameter:

- If you are installing the OracleAS Metadata Repository on a computer that is not already running an Oracle database (that is, the OracleAS Metadata Repository will be the only Oracle database running on the computer), set the semmns parameter to a minimum of 256.

- If you are installing the OracleAS Metadata Repository on a computer that is already running an Oracle database, set the semmns parameter to the sum of the processes initialization parameter for each Oracle database (including the OracleAS Metadata Repository), adding the largest one twice, and then adding an additional 10 for each database.

  The default value of the processes parameter for the OracleAS Metadata Repository database is 150.

  Example: The computer is already running an Oracle database, and its processes parameter is set at 200. In this case, you must set the semmns parameter to at least 770:

  - Sum of the processes parameter for all Oracle database: 200 for the existing database + 150 for the OracleAS Metadata Repository that you are installing = 350

  - Add the largest one twice: 200 + 200 = 400

  - Add 10 for each database: 10 + 10 = 20

  - Total: 350 + 400 + 20 = 770

To determine the value of the processes parameter for an Oracle database, run the following command in SQL*Plus:

```
@ prompt> sqlplus "sys/password as sysdba"
SQL> show parameters processes
```

@ `password` specifies the password for the SYS user.

3.2.24 No Need to Register OracleAS Metadata Repository

You do not need to register OracleAS Metadata Repository when it is created using the OracleAS RepCA and it is used solely for Managed Oracle Application Server clusters or Central Management.

3.2.25 Incorrect Listing on Select Configuration Options Screen

The Select Configuration Options screen that appears during installation of OracleAS Metadata Repository provides the ability to select High Availability Addressing. This is an incorrect; the High Availability Addressing is not available through an OracleAS Metadata Repository installation.

3.2.26 Use .bak Files for Non-interactive or Silent Installation

For non-interactive or silent installations of Oracle Application Server you must use the .bak file templates available in the stage/Response directory on Disk1 of your Oracle Application Server CD-ROM. The .bak response file templates are available for the following install types:

- Portal and Wireless (`oracle.iappserver.iapptop.Portals.bak`)

- Business Intelligence and Forms (`oracle.iappserver.iapptop.Business.bak`)

- OracleAS Infrastructure 10*g*: Identity Management and OracleAS Metadata Repository (`oracle.iappserver.infrastructure.Infrastructure.bak`)

- OracleAS Infrastructure 10*g*: Identity Management (`oracle.iappserver.infrastructure.Infrastructure_ID.bak`)

- OracleAS Infrastructure 10*g*: OracleAS Metadata Repository (`oracle.iappserver.infrastructure.Infrastructure_Meta.bak`)

- OracleAS Developer Kits 10*g* (`oracle.iappserver.devcorner.DevKit.bak`)

3.2.27 OracleAS Metadata Repository Naming Restriction

The database name used for the OracleAS Metadata Repository cannot have either the name PORT or HOST, in uppercase, embedded in it. An Oracle Application Server mid-tier installation will fail with an error message of "Error:*** Alert: Error validating repository on multiple hosts and ports. A database hostname or port is missing. ***."

3.2.28 Oracle Internet Directory v1.0.2.2.x Coexistence with OracleAS Infrastructure 10*g*

Your Oracle Internet Directory v1.0.2.2.x may be become inoperable following installation of OracleAS Infrastructure 10*g* on the same computer. If you are running an Oracle 8.1.7 Database and an Oracle Internet Directory v1.0.2.2.x on a computer on which you are installing OracleAS Infrastructure 10*g*, the Oracle 8.1.7 listener and the Oracle Application Server v9.0.4 listener will not be able to co-exist. During the

OracleAS Infrastructure 10*g* installation, Oracle Universal Installer will prompt you to stop the Oracle 8.1.7 listener or to change the Oracle 8.1.7 listener port to something other than port 1521. If the Oracle 8.1.7 listener port is changed, then the Oracle Internet Directory v1.0.2.2.x may not start after the OracleAS Infrastructure 10*g* installation.

To workaround this problem shut down Oracle 8.1.7 listener during the OracleAS Infrastructure 10*g* installation.

3.2.29 Tablespaces Created by OracleAS RepCA Set Up with Autoextend On

The tablespaces created by Oracle Application Server Repository Creation Assistant (OracleAS RepCA) are set up with autoextend on. The tablespaces will grow automatically in size if needed.

If this is not desired behavior and you do not want the tablespaces to grow in size automatically, you can turn off autoextend on the tablespaces created by OracleAS RepCA.

3.2.30 Apply Patch before Database Registration

If you plan to use OracleAS RepCA to register the Metadata Repository with Oracle Internet Directory in SSL mode, you need to apply patch number 3143899 to the database first. This patch is required if your database is version 9.2.0.4.

You can download the patch from Oracle*MetaLink* (http://metalink.oracle.com).

Instructions for installing the patch can be found in the README for the patch.

3.2.31 Additional Manual Configuration After Installing Application Server Metadata Repository in a Customer Database Using RepCA

If you use the Repository Creation Assistant (RepCA) to install the Application Server metadata repository, including the OracleAS Portal repository, in a Customer Database, you must manually configure SQL*Net settings, so that the Infrastructure Database for the ORASSO_PS schema can be contacted.

If you do not perform this configuration, errors are displayed in OracleAS Portal when using the OracleAS Single Sign-On (SSO) administration portlet.

The error is caused by the DB link used by OracleAS Portal to connect to the ORASSO_PS schema for external application functionality. The DB link is resolved using the SQL*Net settings configured in the database home where the Application Server metadata repository resides. (In this case the Portal schema (part of the Application Server metadata repository) is installed in a separate standalone database).

As a workaround, manually update the sqlnet.ora file located at

```
$ORACLE_HOME/network/admin/
```

This is in the database home where the Application Server metadata repository is installed. Add `LDAP` to the `NAMES.DIRECTORY_PATH` entry as follows:

```
NAMES.DIRECTORY_PATH= (LDAP, TNSNAMES, ONAMES, HOSTNAME)
```

3.2.32 Oracle10g Database Installations Require Manual Knowledge Base Install

You must manually install the Knowledge Base from the Companion CD under the following circumstances:

- Before installing OracleAS Portal on a new Oracle10g database.

- After upgrading an existing OracleAS Portal repository to run on an Oracle10g database.

If the Knowledge Base is not installed, the following error is displayed when searching in OracleAS Portal with the Oracle Text Enable Themes and Gists option selected:

```
Error: The file could be not filtered. (WWS-32024)
```

The requirement to install the Knowledge Base manually is omitted from the cause and action message text.

3.2.33 Apply Patch to RAC Database

If you plan to use an Oracle 9.0.1.x RAC database you need to apply Automatic Release Update (ARU) patch 5147755.

To fix this issue, you must download the patch from Oracle*Metalink* (http://metalink.oracle.com).

The ARU patch number is 5147755.

3.2.34 OracleAS Repository Creation Assistant Gives Error ORA-30036: unable to extend segment by 8 in undo tablespace 'UNDOTBS2'

If you receive the following error message:

```
Error ORA-30036: unable to extend segment by 8 in undo tablespace 'UNDOTBS2'
```

while installing the OracleAS Metadata Repository in a Release 2 (9.2.0.4) Real Application Clusters database that uses raw devices, complete the following steps:

1. Apply one of the following patches to your database:

   - patch 3229141

     The ARU numbers for this patch are:

     – ARU 5211167 for Solaris Operating System (SPARC 32-bit)

     – ARU 5564273 completed for Solaris Operating System (SPARC 64-bit)

   - the 9.2.0.5 patchset (patch number 3501955)

   You can download these patches from Oracle*Metalink* (http://metalink.oracle.com)

2. Verify that the space management for the UNDO tablespace is set to AUTO.

   You can do this by running the following SQL statement:

   ```
   SQL> select tablespace_name, status, segment_space_management from dba_
   tablespaces;
   ```

3. Rerun the OracleAS Repository Creation Assistant to load the metadata repository in your database.

3.2.35 Help Information Not Available for Error Message

When you arrive at the Oracle Managed Files Directory screen during OracleAS RepCA installation and do not select a disk group, when you click **Next,** an error message will appear. If you click on **Help** on this error message display, no **Help** information will be displayed. Clicking on the **Help** button will produce a Java error.

3.2.36 Realm Value Not Used If You Log In as the Oracle Internet Directory Superuser

In OracleAS RepCA, if you log into Oracle Internet Directory that contains multiple realms as the superuser (`cn=orcladmin`), the realm value is not used because the superuser does not belong to any realm. The realm value is used only if you log in using a simple name.

3.2.37 Intel Xeon Processor Certified with Oracle Application Server Components

The Intel Xeon processor is certified for Oracle Application Server. However, during installation, the Oracle Universal Installer pre-requisite check fails on a computer using the Xeon processor. You can ignore this pre-requisite check failure and continue with the installation of Oracle Application Server.

3.2.38 Oracle Certificate Authority Configuration Assistant

The description for the Oracle Certificate Authority (OCA) Configuration Assistant is missing from Table B-1 in the *Oracle Application Server 10g Installation Guide*.

The OCA Configuration Assistant configures a self signed certificate authority, integrated with Oracle Single Sign-On for authentication.

Oracle Internet Directory, OracleAS Metadata Repository, the Repository API and OracleAS Single Sign-On must be configured before you can use this configuration assistant.

The log files for this configuration assistant are located in the following location:

```
ORACLE_HOME/cfgtoollogs/configtools<time.stamp>.log
```

3.3 Deinstallation Issues

This section describes deinstallation issues. It includes the following topic:

- Section 3.3.1, "Error Message during Deinstallation of Identity Management Install Type"
- Section 3.3.2, "Error Messages and Running Processes following Deinstallation of OracleAS Developer Kits 10g"

3.3.1 Error Message during Deinstallation of Identity Management Install Type

If you deinstall the OracleAS Infrastructure 10*g* Identity Management Install Type, you may observe the following error message:

```
"Error: can not remove, there is no ias component with that ID :OID"
```

The error message is benign and you can proceed with the deinstallation.

3.3.2 Error Messages and Running Processes following Deinstallation of *OracleAS Developer Kits 10g*

Following deinstallation of *OracleAS Developer Kits 10g*, the following error messages may be present in the `InstallActions.log` file:

```
The following error messages were seen in the InstallActions log file:
-----------------------------------------------------------------
Exception in thread "main" java.util.zip.ZipException: No such file or directory
at java.util.zip.ZipFile.open(Native Method)
at java.util.zip.ZipFile.<init>(ZipFile.java:112)
at java.util.jar.JarFile.<init>(JarFile.java:117)
at java.util.jar.JarFile.<init>(JarFile.java:55)
-----------------------------------------------------------------
ADMN-100999
See base exception for details.
Base Exception:
java.lang.ClassNotFoundException:oracle.sysman.emSDK.emd.dtd.TargetInstance .
See base exception for details.
java.lang.ClassNotFoundException: oracle.sysman.emSDK.emd.dtd.TargetInstance
at java.net.URLClassLoader$1.run(URLClassLoader.java:198)
at java.security.AccessController.doPrivileged(Native Method)
at java.net.URLClassLoader.findClass(URLClassLoader.java:186)
at java.lang.ClassLoader.loadClass(ClassLoader.java:299)
-----------------------------------------------------------------
Exception in thread "main" java.lang.NoClassDefFoundError:
oracle/ias/opmn/smiplugin/CompDeInst .
```

Additionally, the following Oracle Application Server processes remain up and running:

- OPMN

- EMWD

- `$ORACLE_HOME/jdk/bin/java -Xmx256m -DORACLE_ HOME=/private1/iasins`

The error messages and the running Oracle Application Server processes are benign; the deinstallation of *OracleAS Developer Kits 10g* was successful.

You can stop the ongoing Oracle Application Server using the following command:

```
kill -9 <process_id>
```

3.4 Post Installation Issues

This section describe post installation issues. It includes the following topic:

3.4.1 Error Messages Following Configuration

After you configure Oracle Application Server components using Oracle Enterprise Manager, upon executing a start or stop command from the Oracle Application Server component page an error message is displayed.

To avoid this problem, start, and then stop the Application Server Control following configuration of the Oracle Application Server component using the following commands:

```
emctl stop iasconsole
emctl start iasconsole
```

3.4.2 Reset Passwords for Oracle Application Server Components

By default, all passwords in Oracle Application Server 10*g* (with the exception of the OracleAS Metadata Repository passwords) are set to be the same as the Oracle Application Server instance password. For security reasons, Oracle recommends that after installation completes, the Oracle Application Server administrator reset the passwords of the various server components to have different values.

Please refer to the Oracle Application Server Documentation Library for details on how to properly alter the passwords for the components of Oracle Application Server which you have installed.

3.4.3 Do Not Configure HTTP SSL Port Using the staticport.ini File

Do not configure HTTP SSL port using the `staticport.ini` file. Apache is not initially configured for SSL.

You can use port 443 using the `staticports.ini` file using the steps described in the *Oracle Application Server 10g Administrator's Guide*.

3.4.4 Set seminfor_shmmin Following Installation

OracleAS Web Cache requires the `seminfo_shmmin` kernel parameter to be set to 1. Otherwise OPMN will fail to start OracleAS Web Cache.

Set `seminfo_shmmin` to 1 in your `/etc/system` file. After you set the parameter, reboot your computer.

3.4.5 Manually Start OC4J in OracleAS Infrastructure 10*g* Home Instance

The OC4J instance in an OracleAS Infrastructure 10*g* home instance does not start using `opmnctl startall` or the startall command in the Oracle Enterprise Manager Central Console. You must manually start the OC4J instance.

3.4.6 No Need to Specify XServer or DISPLAY Settings

In Oracle Application Server 10*g*, you do not need to specify your XServer or DISPLAY settings in the `opmn.xml` file.

If you wish to specify your XServer or DISPLAY setting comment out the following file element:

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

3.4.7 Increase Size of Diskcache

The default FBR diskcache size is set as 32MB in the `ORACLE_HOME/dcm/config/dcmCache.xml` file. The default size may not be sufficient for deploying large EAR file (example: >10MB).

In the event where FBR diskcache size is not sufficient, application deployment would fail with the following error message:

```
<SUPPL_DETAIL><![CDATA[oracle.ias.sysmgmt.exception.CachePersistenceException: The
exception 202001, has occurred in the cache layer of the persistence manager
"Persistence operation failed.
Root Cause: The exception 202500, has occurred in the cache layer of the
persistence manager
"An exception occurred in the method CacheAccess.get CacheAddress". Resolution:
check the details of the base exception.". Resolution: Please, refer to the base
exception for the details:
at oracle.ias.sysmgmt.persistence.cache.CacheTxnManager.commitTx(Unknown Source)
at oracle.ias.sysmgmt.persistence.cache.CachePersistence.commitTx(Unknown Source)
at oracle.ias.sysmgmt.persistence.PersistenceManager.commitTx(Unknown Source)
at oracle.ias.sysmgmt.task.TaskMaster.sync_evaluate(Unknown Source)
at oracle.ias.sysmgmt.task.TaskMaster.internal_evaluate(Unknown Source)
at oracle.ias.sysmgmt.task.RemoteEvaluate.execCommand(Unknown Source)
at oracle.ias.sysmgmt.task.DaemonWorker.run(Unknown Source)
```

To workaround this problem:

1. Shutdown the Application Server Control, the `dcmctl` shell, and the `dcm-daemon`.

2. `rm -rf $ORACLE_HOME/dcm/diskcache/*`

3. Update ORACLE_HOME/dcm/config/dcmCache.xml file and increase the default value of the `<diskcache>` element from 32 to 256.

4. Start the `dcm-daemon`, the `dcmctl` shell, and the Application Server Control.

5. Repeat the steps for other Oracle Application Server instances.

3.5 Upgrade Issues

This section describes upgrade issues. It features the following topic:

- Section 3.5.1, "Confirm ORACLE_HOME value before Performing Upgrade"

- Section 3.5.2, "Login Before Identity Management Upgrade"

- Section 3.5.3, "Steps for Upgrading Oracle Workflow Schema for OracleAS Metadata Repository Upgrade."

- Section 3.5.4, "Some DAS Dependent Applications May Not Work Following Upgrade"

- Section 3.5.5, "Upgrade of Oracle9iAS 9.0.2 or 9.0.3 Middle Tiers"

- Section 3.5.6, "Verifying the Execution of mrc.pl during the Metadata Repository Upgrade"

- Section 3.5.7, "Prerequisite Before Upgrading an OracleAS Infrastructure 9.0.2 to 9.0.4"

3.5.1 Confirm ORACLE_HOME value before Performing Upgrade

During upgrade of an *Oracle9i*AS Infrastructure 9.0.2 to OracleAS Infrastructure 10*g*-Identity Management, the Oracle Data Migration Assistant may display a **Succeeded** message even though the upgrade did not occur.

To ensure a successful upgrade, make sure that the database directory contains the same ORACLE_HOME value as the value listed in the `/var/opt/oracle/oratab` file.

3.5.2 Login Before Identity Management Upgrade

When you perform an Identity Management upgrade of your Oracle9*i*AS Infrastructure 9.0.2 database, you must be logged in as a member of the DBA group for the database.

If you do not login you may see the following error message in the `$904_ORACLE_HOME/assistants/dbma/logs/trace.log` file:

```
oracle.sysman.assistants.util.sqlEngine.SQLFatalErrorException: ORA-01031:
insufficient privileges
```

3.5.3 Steps for Upgrading Oracle Workflow Schema for OracleAS Metadata Repository Upgrade.

Perform the following steps to upgrade the Oracle Workflow schema for the OracleAS Metadata Repository:

1. Determine the password for the Workflow (`OWF_MGR`) schema using the following command:

   ```
   ldapsearch -h oidhostname -p oidport -D cn=orcladmin -w passwd -b
   "orclReferenceName=globalDatabaseName,cn=IAS Infrastructure Databases,
   cn=IAS,cn=Products,cn=oraclecontext" "orclresourcename=OWF_MGR"
   orclpasswordattribute
   ```

   Use the following values in the command:

   - **oidhostname** - name of the computer running Oracle Internet Directory. For example: dbmachine.mydomain.com.

   - **oidport** - port number on which Oracle Internet Directory is listening. For example: 389.

   - **passwd** - password for orcladmin. For example: welcome1.

   - **globalDatabaseName** - global database name for the Oracle9*i*AS Metadata Repository used by Oracle9*i*AS 9.0.2 Single Sign-On. This value is stored in the `InfrastructureDBCommonName` field in the `ORACLE_HOME/config/ias.properties` file, where ORACLE_HOME is the Oracle home directory for the Oracle9*i*AS Infrastructure 9.0.2.

2. Run the workflow upgrade script from the OracleAS RepCA/Utilities CD at `repCA/wf/install/wfupg.csh`. The script has the following syntax:

   ```
   wfupg.csh sys_password repca_home ORACLE_HOME "connect_descriptor"
   log_directory owf_mgr_password
   ```

   where the parameters are:

   - **sys_password** - password of the SYS user in the database

- **repca home** - the repCA directory of the OracleAS RepCA/Utilities CD, `<mount point>/repCA`

- **ORACLE_HOME** - the ORACLE_HOME of the Oracle9*i*AS 9.0.2 Infrastructure

- **connect_descriptor** - the Oracle Net connect descriptor for the *Oracle9i*AS 9.0.2 Infrastructure database. This can be either a full net descriptor, or an alias from the `$ORACLE_HOME/network/admin/tnsnames.ora` file that points to the Infrastructure database.

- **log_directory** - directory where the `workflow.log` file will be written.

- **owf_mgr_password** - password for the `OWF_MGR` schema obtained from step 1.

3. Recompile all plsql procedures in the database by running the script at `$ORACLE_HOME/rdbms/admin/utlrp.sql` as the SYS user.

3.5.4 Some DAS Dependent Applications May Not Work Following Upgrade

If Oracle Internet Directory is upgraded from version 9.0.2 to the Identity Management version 9.0.4, and DAS existing in the midtier is the 9.0.2 version, then user and group management functionality's from some DAS dependent applications such as OracleAS Portal may not work. This problem is resolved by the installing version 9.0.4 DAS to replace the version 9.0.2 DAS.

This issue often occurs if there is a time lag before replacement of the version 9.0.2 DAS to the version 9.0.4 DAS and Oracle Internet Directory is upgraded to version 9.0.4.

To resolve this issue, execute the following steps:

1. Create an `ldif` file called `das904_to_902.ldif` with following data:

```
dn: cn=Create User, cn=OperationURLs,cn=DAS,cn=Products,cn=OracleContext
changetype: modify
replace: orcldasurl
orcldasurl: oiddas/ui/oracle/ldap/das/admin/AppCreateUserInfoAdmin

dn: cn=Edit User, cn=OperationURLs,cn=DAS,cn=Products,cn=OracleContext
changetype: modify
replace: orcldasurl
orcldasurl: oiddas/ui/oracle/ldap/das/admin/AppEditUserSpecifyAdmin

dn: cn=Edit Group, cn=OperationURLs,cn=DAS,cn=Products,cn=OracleContext
changetype: modify
replace: orcldasurl
orcldasurl: oiddas/ui/oracle/ldap/das/admin/AppEditGroupSpecifyAdmin

dn: cn=Create Group, cn=OperationURLs,cn=DAS,cn=Products,cn=OracleContext
changetype: modify
replace: orcldasurl
orcldasurl: oiddas/ui/oracle/ldap/das/admin/AppCreateGroupInfoAdmin

dn: cn=DeleteUserGivenGUID,
cn=OperationURLs,cn=DAS,cn=Products,cn=OracleContext
changetype: modify
replace: orcldasurl
orcldasurl: oiddas/ui/oracle/ldap/das/admin/AppDeleteUserAdmin

dn: cn=User Privilege Given GUID,
cn=OperationURLs,cn=DAS,cn=Products,cn=OracleContext
```

```
changetype: modify
replace: orcldasurl
orcldasurl: oiddas/ui/oracle/ldap/das/admin/AppUserPrivAdmin

dn: cn=Group Privilege Given GUID,
cn=OperationURLs,cn=DAS,cn=Products,cn=OracleContext
changetype: modify
replace: orcldasurl
orcldasurl: oiddas/ui/oracle/ldap/das/admin/AppGroupPrivAdmin

dn: cn=DeleteGroupGivenGUID,
cn=OperationURLs,cn=DAS,cn=Products,cn=OracleContext
changetype: modify
replace: orcldasurl
orcldasurl: oiddas/ui/oracle/ldap/das/admin/AppDeleteGroupAdmin

dn: cn=Edit GroupGivenGUID,
cn=OperationURLs,cn=DAS,cn=Products,cn=OracleContext
changetype: modify
replace: orcldasurl
orcldasurl: oiddas/ui/oracle/ldap/das/admin/AppEditGroupAdmin

dn: cn=DeleteUser, cn=OperationURLs,cn=DAS,cn=Products,cn=OracleContext
changetype: modify
replace: orcldasurl
orcldasurl: oiddas/ui/oracle/ldap/das/admin/AppDeleteUserSpecifyAdmin

dn: cn=User Privilege, cn=OperationURLs,cn=DAS,cn=Products,cn=OracleContext
changetype: modify
replace: orcldasurl
orcldasurl: oiddas/ui/oracle/ldap/das/admin/AppUserPrivSpecifyAdmin

dn: cn=DeleteGroup, cn=OperationURLs,cn=DAS,cn=Products,cn=OracleContext
changetype: modify
replace: orcldasurl
orcldasurl: oiddas/ui/oracle/ldap/das/admin/AppDeleteGroupSpecifyAdmin

dn: cn=Edit UserGivenGUID,
cn=OperationURLs,cn=DAS,cn=Products,cn=OracleContext
changetype: modify
replace: orcldasurl
orcldasurl: oiddas/ui/oracle/ldap/das/admin/AppEditUserAdmin

dn: cn=Group Privilege, cn=OperationURLs,cn=DAS,cn=Products,cn=OracleContext
changetype: modify
replace: orcldasurl
orcldasurl: oiddas/ui/oracle/ldap/das/admin/AppGroupPrivSpecifyAdmin

dn: cn=DAS Application, cn=OperationURLs,cn=DAS,cn=Products,cn=OracleContext
changetype: modify
replace: orcldasurl
orcldasurl: oiddas/ui/oracle/ldap/das/mypage/ViewMyPage
```

2. Run the following `ldapmodify` command:

```
  $ORACLE_HOME/bin/ldapmodify -h <OID host> -p <OID port>
@  -D <OID superuser> -w <OID superuser password> -v -f das904_to_902.ldif
```

3. After version 9.0.2 DAS is replaced by version 9.0.4 DAS (Oracle Internet Directory is also version 9.0.4), create an `ldif` file called `das902_to_904.ldif` with following data

```
dn: cn=Create User, cn=OperationURLs,cn=DAS,cn=Products,cn=OracleContext
changetype: modify
replace: orcldasurl
orcldasurl: oiddas/ui/oracle/ldap/das/user/AppCreateUserInfoAdmin

dn: cn=Edit User, cn=OperationURLs,cn=DAS,cn=Products,cn=OracleContext
changetype: modify
replace: orcldasurl
orcldasurl: oiddas/ui/oracle/ldap/das/user/AppEditUserSpecifyAdmin

dn: cn=Edit Group, cn=OperationURLs,cn=DAS,cn=Products,cn=OracleContext
changetype: modify
replace: orcldasurl
orcldasurl: oiddas/ui/oracle/ldap/das/group/AppEditGroupSpecifyAdmin

dn: cn=Create Group, cn=OperationURLs,cn=DAS,cn=Products,cn=OracleContext
changetype: modify
replace: orcldasurl
orcldasurl: oiddas/ui/oracle/ldap/das/group/AppCreateGroupInfoAdmin

dn: cn=DeleteUserGivenGUID,
cn=OperationURLs,cn=DAS,cn=Products,cn=OracleContext
changetype: modify
replace: orcldasurl
orcldasurl: oiddas/ui/oracle/ldap/das/user/AppDeleteUserAdmin

dn: cn=User Privilege Given GUID,
cn=OperationURLs,cn=DAS,cn=Products,cn=OracleContext
changetype: modify
replace: orcldasurl
orcldasurl: oiddas/ui/oracle/ldap/das/user/AppUserPrivAdmin

dn: cn=Group Privilege Given GUID,
cn=OperationURLs,cn=DAS,cn=Products,cn=OracleContext
changetype: modify
replace: orcldasurl
orcldasurl: oiddas/ui/oracle/ldap/das/group/AppGroupPrivAdmin

dn: cn=DeleteGroupGivenGUID,
cn=OperationURLs,cn=DAS,cn=Products,cn=OracleContext
changetype: modify
replace: orcldasurl
orcldasurl: oiddas/ui/oracle/ldap/das/group/AppDeleteGroupAdmin

dn: cn=Edit GroupGivenGUID,
cn=OperationURLs,cn=DAS,cn=Products,cn=OracleContext
changetype: modify
replace: orcldasurl
orcldasurl: oiddas/ui/oracle/ldap/das/group/AppEditGroupAdmin

dn: cn=DeleteUser, cn=OperationURLs,cn=DAS,cn=Products,cn=OracleContext
changetype: modify
replace: orcldasurl
orcldasurl: oiddas/ui/oracle/ldap/das/user/AppDeleteUserSpecifyAdmin

dn: cn=User Privilege, cn=OperationURLs,cn=DAS,cn=Products,cn=OracleContext
```

```
changetype: modify
replace: orcldasurl
orcldasurl: oiddas/ui/oracle/ldap/das/user/AppUserPrivSpecifyAdmin

dn: cn=DeleteGroup, cn=OperationURLs,cn=DAS,cn=Products,cn=OracleContext
changetype: modify
replace: orcldasurl
orcldasurl: oiddas/ui/oracle/ldap/das/group/AppDeleteGroupSpecifyAdmin

dn: cn=Edit UserGivenGUID,
cn=OperationURLs,cn=DAS,cn=Products,cn=OracleContext
changetype: modify
replace: orcldasurl
orcldasurl: oiddas/ui/oracle/ldap/das/user/AppEditUserAdmin

dn: cn=Group Privilege, cn=OperationURLs,cn=DAS,cn=Products,cn=OracleContext
changetype: modify
replace: orcldasurl
orcldasurl: oiddas/ui/oracle/ldap/das/group/AppGroupPrivSpecifyAdmin

dn: cn=DAS Application, cn=OperationURLs,cn=DAS,cn=Products,cn=OracleContext
changetype: modify
replace: orcldasurl
orcldasurl: oiddas/ui/oiddashome
```

4. Run the following ldapmodify command:

```
  $ORACLE_HOME/bin/ldapmodify -h <OID host> -p <OID port>
@  -D <OID superuser> -w <OID superuser password> -v -f das902_to_904.ldif
```

3.5.5 Upgrade of Oracle9*i*AS 9.0.2 or 9.0.3 Middle Tiers

During upgrade from Oracle9*i*AS 9.0.2 or 9.0.3 to Oracle Application Server 10*g* (9.0.4), the default managing Oracle9*i*AS 9.0.2 or 9.0.3 Oracle Enterprise Manager (Enterprise Manager) process must be shutdown instead of the Oracle9*i*AS 9.0.2 or 9.0.3 Enterprise Manager in the source instance.

For example, if there is an Oracle9*i*AS 9.0.2 Infrastructure and an Oracle9*i*AS 9.0.2 middle-tier on the same host, then the Oracle Enterprise Manager from the 9.0.2 Infrastructure will be the managing Enterprise Manager. In this case, Oracle9*i*AS 9.0.2 Infrastructure Enterprise Manager should be shutdown during the upgrade.

3.5.6 Verifying the Execution of mrc.pl during the Metadata Repository Upgrade

Oracle Application Server 10*g* (9.0.4.0.1) for Solaris introduced a new verification argument for the `mrc.pl` script, which is used to upgrade the Metadata Repository Container from 9.0.2 to 9.0.4.

The `mrc.pl` script is documented in both the Windows and UNIX versions of the *Oracle Application Server 10g Upgrading to 10g (9.0.4)* guide. However, only the Windows version of the guide includes the steps for verifying the execution of the `mrc.pl` script.

If you are using the UNIX version of the *Oracle Application Server 10g Upgrading to 10g (9.0.4)* guide, review section 4.2.3, "Upgrading the Metadata Repository Container," and then use the following procedure to determine whether or not the `mrc.pl` has executed successfully, or whether or not it has been executed before:

1. Ensure that the database, listener, and Oracle Internet Directory server are running.

2. Ensure that the *ORACLE_HOME* environment variable is set to <Infra_OH> and the *ORACLE_SID* environment variable is set to the Infrastructure database SID. If they are not, follow the instructions in Section 4.2.1, "Setting the Environment for Upgrading the Metadata Repository" in the *Oracle Application Server 10g Upgrading to 10g (9.0.4)* guide.

3. Change directories to <repCA_CD>\repCA\mrc\upgrade.

4. Use one of the following commands to determine whether the mrc.pl has executed successfully, or whether it has been executed before:

   - If you are executing mrc.pl for New Schema Creation only, enter this command:

     ```
     <Infra_OH>\perl\5.6.1\bin\MSWin32-x86\perl mrc.pl dv -dbpwd <SYS user
     password> -ousr <oid admin user name> -opwd <oid admin user password>
     -connstring <database connect string>
     ```

   - If you are executing mrc.pl for New Schema Creation and Oracle Internet Directory Entry Update:

     ```
     <Infra_OH>/perl/bin/perl mrc.pl duv -dbpwd <SYS user password> -dspace
     <tablespace directory> -ousr <oid admin user name> -opwd <oid admin user
     password> -connstring <database connect string>
     ```

     Note the "v" argument, which is included immediately after the "d" or "du" arguments to the mrc.pl script. When you include the "v" argument, the script will provide information about whether or not the mrc.pl script has been run before and whether or not it has run successfully.

3.5.7 Prerequisite Before Upgrading an OracleAS Infrastructure 9.0.2 to 9.0.4

If you have multiple Oracle9*i*AS instances (9.0.2x or 9.0.3) on a computer, then you must be careful when you upgrade an instance to 9.0.4 because all the instances on the computer share the same active Oracle Enterprise Manager.

You need to ensure that you do not deinstall an instance that contains the active Oracle Enterprise Manager.

Before you upgrade an instance on a machine that contains multiple Oracle9*i*AS instances:

1. Determine which Oracle9*i*AS instance contains the active Oracle Enterprise Manager.

   Check the ACTIVE_EMD_HOME entry in the /var/opt/oracle/emtab file.

2. If the instance you want to upgrade contains the active Oracle Enterprise Manager, switch the active Oracle Enterprise Manager to a remaining instance.

If you have a remaining instance that is of Oracle9*i*AS 9.0.3, you must switch your active Oracle Enterprise Manager to that instance. Otherwise, you can switch to an instance that is of Oracle9*i*AS 9.0.2x:

```
prompt> ORACLE_HOME/bin/emctl switch home
```

This displays a dialog where you can select another Oracle9*i*AS instance that contains the active Oracle Enterprise Manager.

Alternatively, use the -silent argument and provide the path to the Oracle home where the new active Enterprise Manager Web site resides:

```
prompt> ORACLE_HOME/bin/emctl switch home - silent <remaining_oracle_home>
```

You can now upgrade the instance to 9.0.4.

3.6 Documentation Errata

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

- Section 3.6.1, "Incorrect Link to OTN in Troubleshooting Chapter"
- Section 3.6.2, "Optional: Increasing JVM Memory for Large OC4J Upgrades"
- Section 3.6.3, "Executing mrc.pl for New Schema Creation"
- Section 3.6.4, "Executing the Schema Configuration Script"
- Section 3.6.5, "Missing Note in Oracle Application Server 10g Upgrading to 10g (9.0.4) Guide"
- Section 3.6.6, "Mislabeled Command in Oracle Application Server 10g Upgrading to 10g (9.0.4) Guide"
- Section 3.6.7, "Incorrect text in Oracle Application Server 10g Upgrading to 10g (9.0.4) Guide"
- Section 3.6.8, "Incorrect Syntax in Oracle Application Server 10g Upgrading to 10g (9.0.4) Guide"
- Section 3.6.9, "Incorrect Values for Kernel Parameters"
- Section 3.6.10, "Incorrect Parameter in Example Non-interactive Response File"
- Section 3.6.11, "Deinstallation Procedure: Do Not Remove Oracle Ultra Search Entries When Deinstalling Middle Tiers"
- Section 3.6.12, "Incorrect Information Regarding Configuring Data Sources"
- Section 3.6.13, "Mislabeled Section in Oracle Application Server 10g Upgrading to 10g (9.0.4)"
- Section 3.6.14, "Incorrect Administrator (ias_admin) Reset Password Reference in Oracle Application Server 10g Installation Guide"

3.6.1 Incorrect Link to OTN in Troubleshooting Chapter

The Troubleshooting chapter of the *Oracle Application Server 10g Installation Guide* provides an incorrect link to OTN. The correct link is:

```
http://otn.oracle.com/documentation/appserver10g.html
```

3.6.2 Optional: Increasing JVM Memory for Large OC4J Upgrades

Section 3.2.2 Optional: Increasing JVM Memory for Large OC4J Upgrades of the *Oracle Application Server 10g Upgrading to 10g (9.0.4)* guide indicates that the JavaVM property is in the <destination_ MT_OH>/ias/upgrade/Oc4jPlugin.cfg file when it is actually <destination_MT_OH>/upgrade/Oc4jPlugin.cfg file.

3.6.3 Executing mrc.pl for New Schema Creation

The following instructions are missing from the *Oracle Application Server 10g Upgrading to 10g (9.0.4)* Guide.

Follow these steps to create support for new schemas in the metadata repository:

1. Ensure that the database and listener are running.

2. Ensure that the ORACLE_HOME environment variable is set to *<Infra_OH>* and the ORACLE_SID environment variable is set to the Infrastructure database SID. If they are not, follow the instructions in *Oracle Application Server 10g Upgrading to 10g (9.0.4)* Guide.

3. Change directories to *<repCA_CD>*\repCA\mrc\upgrade.

4. Ensure that there is an existing directory with write permission enabled in which to create new database files for the new tablespaces. (You will specify this directory as part of the command to start the script.)

5. Issue this command:

    ```
    <Infra_OH>\perl\5.6.1\bin\MSWin32-x86\perl mrc.pl d -dbpwd <SYS user  password>
    -connstring <conn string> -dspace <dir>
    ```

    where:

    - *<SYS user password>* is the dba password

    - *<conn string>* is the database connect string in the format host:port:SID

    - *<dir>* is the directory in which you want to create the new database files that contain the new tablespaces

    for example:

    ```
    <Infra_OH>\perl\5.6.1\bin\MSWin32-x86\perl mrc.pl d -dbpwd
    "change_on_install" -connstring "mycompany.com:1521:iasdb2"
    -dspace c:\oracle1\mydir\ORA_IAS_902
    ```

    You need not specify all of the above parameters on the command line. The script will prompt you to enter any parameters for which a default value is not available. For example, you may prefer not to type the password on the command line, but enter it only when prompted, so it is not displayed on the screen in clear text.

    If creation of new schemas was successful, the following message appears:

    ```
    Creation of new schemas was successful
    ```

3.6.4 Executing the Schema Configuration Script

Steps shown in Section 4.4.3.3.2 Executing the Schema Configuration Script of the *Oracle Application Server 10g Upgrading to 10g (9.0.4)* Guide should be as follows:

Follow these steps to configure Oracle Ultra Search to use the OracleAS Infrastructure 10*g* OracleHome.

1. Set the ORACLE_HOME environment variable to the *<destination_Infra_OH>*.

2. Set the ORACLE_SID environment variable to the OracleAS Infrastructure 10*g* database.

3. Change directories to *<destination_Infra_OH>*/ultrasearch/admin>.

4. Issue this command:

    ```
    sqlplus "sys/<SYS user password> as sysdba"
    ```

5. Issue this command:

```
wk0config.sql <WKSYSPW> <JDBC_CONNSTR> <LAUNCH_ANYWHERE> <NET_SERVICE_NAME>
```

where:

<WKSYSPW> is the password for the WKSYS schema. If you don't know the password, then you can perform the following steps to obtain the password:

a. Start Oracle Directory Manager with the following command:

```
ORACLE_HOME/bin/oidadmin
```

b. Log in to Oracle Directory Manager as the orcladmin user.

c. In the System Objects frame, expand Entry Management, expand cn=OracleContext, expand cn=Products, expand cn=IAS, expand cn=IAS Infrastructure Databases, and expand the orclReferenceName for the Metadata Repository.

d. Select the OrclResourceName entry for schema WKSYS.

e. In the Properties tab, you can view the password in the orclpasswordattribute field.

<JDBC_CONNSTR> is the JDBC connection string. Use the following format [hostname]:[port]:[sid] if the database is not in a Real Application Clusters (RAC) environment. For example, machine1:1521:iasdb. If the database is in a RAC environment, you should use the TNS keyword-value format rather than the [hostname]:[port]:[sid] format. Because it allows connection to any node of the system. For example,

```
"(DESCRIPTION=(LOAD_
BALANCE=yes)(ADDRESS=(PROTOCOL=TCP)(HOST=cls02a)(PORT=3001))(ADDRESS=(PROTOCOL=TCP
)(HOST=cls02b)(PORT=3001)))(CONNECT_DATA=(SERVICE_NAME=sales.us.acme.com)))"
```

Reference to the *Oracle Net Services Reference Guide* for more details on the syntax of the TNS entry.

<LAUNCH_ANYWHERE> is the mode of the OracleAS Metadata Repository. Setting it to TRUE indicates that the OracleAS Metadata Repository is in RAC mode. For this procedure, you should set it to FALSE.

<NET_SERVICE_NAME> is the network service name used by wk0config.sql to establish the database connection. Setting it to "" (empty string) when you run wk0config.sql from the database host means there is no need to specify the network service name.

The following is an example for running the command in a non-RAC environment:

```
wk0config.sql welcome1 machine1:1521:iasdb FALSE ""
```

The following is an example for running the command in a RAC environment:

```
wk0config.sql welcome1
"(DESCRIPTION=(LOAD_
BALANCE=yes)(ADDRESS=(PROTOCOL=TCP)(HOST=cls02a)(PORT=3001))(ADDRESS=(PROTOCOL=
TCP)(HOST=cls02b)(PORT=3001)))(CONNECT_DATA=(SERVICE_NAME=s ales.us.acme.com)))"
FALSE ""
```

> **Note:** Completing this procedure resets the crawler cache directory and crawler log directory to the default values. You can use the Oracle Ultra Search Administration tool to update these values.

3.6.5 Missing Note in *Oracle Application Server 10g Upgrading to 10g (9.0.4)* Guide

Following Step 6 in section 5.3 the following note is missing and shown below:

> **Note:** The 9.2.0.4 metadata repository is in the original 9.2.0.4 Oracle Internet Directory database Oracle Home. So you can connect from the 9.0.4 Oracle Internet Directory Oracle Home only using the connect identifier. For example:
>
> ```
> sqlplus ods/<ods password>@oiddb
> ```
>
> where `oiddb` is the connect identifier

3.6.6 Mislabeled Command in *Oracle Application Server 10g Upgrading to 10g (9.0.4)* Guide

Section 5.4.1.4 in the *Oracle Application Server 10g Upgrading to 10g (9.0.4)* Guide contains the following instruction:

Issue this command:

```
@ sqlplus ods/<ods password>@<net service name for OID database>
@ <destination_Infra_OH>/ldap/admin/oidpu904.sql
```
for example:

```
sqlplus ods/welcome1@iasdb@<destination_Infra_OH>/ldap/admin/oidpu904.sql
```
This should read as:

Issue this command:

```
@ sqlplus ods/<ods password> @<net service name for OID database>
@<destination_Infra_OH>/ldap/admin/oidpu904.sql
```

for example:

```
sqlplus ods/welcome1@iasdb @<destination_Infra_OH>/ldap/admin/oidpu904.sql
```

3.6.7 Incorrect text in *Oracle Application Server 10g Upgrading to 10g (9.0.4)* Guide

Section 3.5.3, "Starting the OracleAS Upgrade Assistant To Use Multiple Oracle Universal Installer Inventory Locations" contains the follow incorrect paragraph:

"The Oracle Universal Installer creates an inventory file, `/var/opt/oracle/oraInst.loc`, when it installs Oracle products. This file contains the location (full path) of the Oracle Application Server instance, and the group name of the user who installed it. The OracleAS Upgrade Assistant populates its source Oracle home drop-down list (shown in Figure 3–2, "OracleAS Upgrade Assistant Oracle Homes Screen") with the information from this file, the default inventory file. Additional inventory files are sometimes created after installation for the purpose of managing Oracle homes independently (thereby circumventing the Oracle Universal Installer features that track all Oracle homes in a single inventory)."

It should read:

"The Oracle Universal Installer creates an inventory file, `/var/opt/oracle/oraInst.loc` **(or etc/orainst.loc on Linux and AIX)**, when it installs Oracle products. This file contains the location (full path) of the **Oracle Universal Installer** directory, and the group name of the user who installed it. The OracleAS Upgrade Assistant populates its source Oracle home drop-down list (shown in Figure 3–2, "OracleAS Upgrade Assistant Oracle Homes Screen") with the information from this **directory**, the default inventory. Additional **inventories** files are sometimes created after installation for the purpose of managing Oracle homes independently (thereby circumventing the Oracle Universal Installer features that track all Oracle homes in a single inventory)."

3.6.8 Incorrect Syntax in *Oracle Application Server 10g Upgrading to 10g (9.0.4)* Guide

Section 4.4.3.3.1, "Installing the Java Runtime Environment (JRE) 1.4 and Configuring Oracle Ultra Search to Use JRE 1.4" of the *Oracle Application Server 10g Upgrading to 10g (9.0.4)* guide, contains the following incorrect syntax for the <new java execution path>:

```
<JRE 1.4 directory>/jre/1.4.1/bin/java -ms16m -mx256m
-Djava.library.path=<destination_Infra_OH>/lib
```

The syntax should be:

```
<JRE 1.4 directory>/jre/1.4.1/bin/java -ms16m -mx256m
-Djava.library.path=<source_Infra_OH>/lib
```

3.6.9 Incorrect Values for Kernel Parameters

Table 4-4, "Values for Kernel Parameters" in the *Oracle Application Server 10g Installation Guide* contains the following four incorrect shared memory values in the second column of the table, "Line in `/etc/system` showing minimum value ":

- set shmsys:seminfo_shmmax=4294967295
- set shmsys:seminfo_shmmin=1
- set shmsys:seminfo_shmmni=512
- set shmsys:seminfo_shmseg=150

The values should be:

- set shmsys:shminfo_shmmax=4294967295
- set shmsys:shminfo_shmmin=1
- set shmsys:shminfo_shmmni=512
- set shmsys:shminfo_shmseg=150

3.6.10 Incorrect Parameter in Example Non-interactive Response File

A file listing in Section D.5.1.3, "Portal and Wireless" of the *Oracle Application Server 10g Installation Guide* contains the following incorrect file parameter:

```
szl_RepositoryUserInput={"domain.com:1521:iasdb:iasdb.domain.com"}.
```

It should be:

```
szl_RepositoryUserInput={"hostname.domain:1521:iasdb:iasdb.domain"}
```

3.6.11 Deinstallation Procedure: Do Not Remove Oracle Ultra Search Entries When Deinstalling Middle Tiers

The procedure in section C.1.8 "Removing Oracle Ultra Search Entries from Oracle Internet Directory", in the *Oracle Application Server 10g Installation Guide* needs to be peformed only if you are deinstalling the OracleAS Infrastructure. Do not perform this procedure if you are deinstalling middle tiers.

3.6.12 Incorrect Information Regarding Configuring Data Sources

In the *Oracle Application Server 10g Migrating from WebLogic* guide, in the section titled "Configuring Data Sources in the Application Server," the parameter `pooled-location` is described. `ejb-location` should be used instead of `pooled-location`.

In the *Oracle Application Server 10g Migrating from WebSphere* guide, in the section titled ""Migrating JDBC Applications"," the parameter `pooled-location` is described. `ejb-location` should be used instead of `pooled-location`.

3.6.13 Mislabeled Section in *Oracle Application Server 10g Upgrading to 10g (9.0.4)*

Section 5.4.1.4, "Recommended Performance Enhancement Tasks" of the *Oracle Application Server 10g Upgrading to 10g (9.0.4)* is mislabeled. Section 5.4.1.4 should be titled "Requirements for Upgrade Task". The steps listed in Section 54.1.4 must be completed; otherwise your instance of Oracle Identity Management will not function correctly.

3.6.14 Incorrect Administrator (ias_admin) Reset Password Reference in *Oracle Application Server 10g Installation Guide*

In Chapter 5, Section 5.8, "The ias_admin User and Restrictions on its Password" of the *Oracle Application Server 10g Installation Guide*, there is reference to the *Oracle Application Server 10g Administrator's Guide* for the steps to reset the administrator (`ias_admin`) password. Unfortunately, this information reference is invalid.

The steps to resetting the `ias_admin` password are as follows:

1. Log in as the user who installed the Oracle Application Server instance:

2. Stop the Application Server Control.

    On UNIX systems, enter the following command in the Oracle home of the application server instance:

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

    On Windows systems, use the Services control panel to stop the Application Server Control service.

3. Locate and open the following file in a text editor:

    ```
    ORACLE_HOME/sysman/j2ee/config/jazn-data.xml
    ```

4. Locate the line that defines the credentials property for the `ias_admin` user.

    The following example shows the section of `jazn-data.xml` with the encrypted `credentials` entry in boldface type:

    ```
    <realm>
      <name>enterprise-manager</name>
        <users>
    ```

```
<user>
  <name>ias_admin</name>
    <credentials>{903}buG0lUsQqTq0nQjdaKQRECL1kbs192mP</credentials>
</user>
.
.
.
```

5. Replace the existing encrypted password with the new password.

   Be sure to prefix the password with an exclamation point (!). For example:

   ```
   <credentials>!mynewpassword123</credentials>
   ```

   The password for the `ias_admin` user should conform to following guidelines:

   - The minimum length is five alphanumeric characters.

   - At least one of the characters must be a number.

   - Passwords must be shorter than 30 characters.

   - Passwords can contain only alphanumeric characters from your database character set, the underscore (_), the dollar sign ($), and the number sign (#).

   - Passwords must begin with an alphabetic character. It cannot begin with a number, the underscore (_), the dollar sign ($), or the number sign (#).

     See Also: "The ias_admin User and Restrictions on its Password" in the *Oracle Application Server 10g Installation Guide*

6. Start the Application Server Control.

   After the restart, the Application Server Control will use your new Administrator (`ias_admin`) password, which will be stored in encrypted format within the `jazn-data.xml` file.

4

General Management and Security Issues

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

- Section 4.1, "Supported Network Features"
- Section 4.2, "OPMN Issues"
- Section 4.3, "DCM Issues"
- Section 4.4, "Other Management Issues"
- Section 4.5, "Documentation Errata"

4.1 Supported Network Features

Table 4–1 shows the networking features that are supported for the Solaris Operating System:

Table 4–1   Supported Networking Procedures

Feature	Supported?
Installing Oracle Application Server on a host using DHCP.	No[1]
Installing Oracle Application Server on a host off of the network.	No[1]
Changing the hostname of a host containing an Oracle Application Server middle-tier instance.	Yes Refer to the *Oracle Application Server 10g Administrator's Guide*.
Changing the IP address of a host containing an Oracle Application Server middle-tier instance.	Yes Refer to the *Oracle Application Server 10g Administrator's Guide*.
Changing the hostname of a host containing an Oracle Application Server Infrastructure.	No
Changing the IP address of a host containing an Oracle Application Server Infrastructure.	Yes Refer to the *Oracle Application Server 10g Administrator's Guide*.

[1]   This functionality is supported on Linux and Microsoft Windows operating systems.

4.2 OPMN Issues

This section describes OPMN issues. It includes the following topic:

4.2.1 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 is benign and can be ignored.

This error message typically appears for OracleAS Infrastructure 10*g* installations with Oracle Internet Directory.

4.2.2 Problem with Application Server Control Ports Page

When you go to the Application Server Control ports page, the Oracle HTTP Server Diagnostic Port is displayed for Oracle HTTP Server Listener. After you restart OPMN, the diagnostic port will no longer be displayed.

4.2.3 Documentation Errata

The following are documentation errata in the *Oracle Process Manager and Notification Server Administrator's Guide*:

- In Chapter 4, "opmn.xml Common Configuration" of the *Oracle Process Manager and Notification Server Administrator's Guide*, the attribute of `<local>` is indicated for the description for `<ipaddr>`. The `<local>` attribute is not available for `<ipaddr>`.

- On page 4-7, the last sentence:

  "The process-manager contains the configuration definitions for the PM portion of OPMN.The"

  should be:

  "The process-manager contains the configuration definitions for the PM portion

  of OPMN."

- On page 9-1, the sentence:

  "This chapter describes Oracle Application Server (OracleAS Port Tunnel) configuration ... "

  should be:

  "This chapter describes Oracle Application Server Port Tunnel (OracleAS Port

  Tunnel) configuration ..."

- On Page.11-1:

  The sentence:

"This chapter describes Oracle Application Server OracleAS ProcessConnect configuration ... "

should be:

"This chapter describes Oracle Application Server ProcessConnect (OracleAS ProcessConnect) configuration ... "

- On Page.Index-2:

    integration-manager|, 11-7

    should be:

    integration-manager, 11-7

- On Page.Index-2:

    The index listing:

    log page, 17-3

    should be:

    log page, 17-3

- On Page.Index-4:

    The index listing:

    process-set id, 11-8

    should be:

    im_instance id, 11-8

- On Page.Index-5:

    The index listings:

    ui, 2-17

    uid, 2-16

    should be:

    uid, 2-16,2-17

4.3 DCM Issues

This section describes DCM issues. It includes the following topic:

- Section 4.3.1, "Tune the DCM Auto-archiving Feature to Improve System Performance"
- Section 4.3.2, "Error Message Output for dcmctl Commands"
- Section 4.3.3, "File Based Repository Does Not Work Outside Firewall"

4.3.1 Tune the DCM Auto-archiving Feature to Improve System Performance

When you install Oracle Application Server, the DCM auto-archiving feature is configured to maintain fifteen backup archives. You can improve system performance by reducing the number of archives, or turning off auto-archiving.

To reduce the number of archives, for example, to 5:

```
ORACLE_HOME/dcm/bin/dcmctl set -arch 5
```

To turn off auto-archiving:

```
ORACLE_HOME/dcm/bin/dcmctl set -arch 0
```

Refer to *Distributed Configuration Management Reference Guide* for more information about DCM auto-archiving.

> **Note:** Limiting or disabling DCM auto-archiving may affect your ability to recover from system failures.

4.3.2 Error Message Output for dcmctl Commands

By default, dcmctl commands run in troubleshooting mode. Detailed stack traces and trace messages are output for every dcmctl command that results in an error or warning.

If you do not want these error messages recorded, run your dcmctl command within the dcmctl shell with the **set -d off** option. More information about the dcmctl set command is available in the *Distributed Configuration Management Reference Guide*.

4.3.3 File Based Repository Does Not Work Outside Firewall

If you have a Farm using a File-Based Repository (FBR) you cannot include an Oracle Application Server instance outside the firewall in the Farm.

If you want to create an Oracle Application Server cluster across the firewall, you can use either a Database-Based Repository (DBR) or configure a non-managed cluster.

4.4 Other Management Issues

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

- Section 4.4.1, "Error Messages for Multi-Installations"
- Section 4.4.2, "Online Help for Oracle Wallet Manager is Not Available"
- Section 4.4.3, "Open Wallet Failed Message on STDOUT"
- Section 4.4.4, "Alter Database Open Resetlogs Fails With ORA-01194"
- Section 4.4.5, "Ignore Warnings in warn.log File When Running chgiphost.sh Script"
- Section 4.4.6, "chgiphost.sh Script Returns Benign Error Messages in Standalone J2EE and Web Cache Installation"
- Section 4.4.7, "Error Message Using OracleAS Backup and Recovery Tool"
- Section 4.4.8, "Set ORACLE_HOME for Database Listener"
- Section 4.4.9, "Identity Management, High Availability Configuration"
- Section 4.4.10, "Remove Instances from a File-based Cluster and Farm before Changing the Hostname"

4.4.1 Error Messages for Multi-Installations

If you have more than one Oracle Application Server installation running on your system you may see the following errors when you perform a stopall from the Oracle Enterprise Manager home page:

```
OC4J:OC4J_Portal- time out while waiting for a managed process to stop
OC4J:OC4J_BI_Forms- time out while waiting for a managed process to stop
```

These error messages are benign. The Oracle Application Server components are actually stopping.

4.4.2 Online Help for Oracle Wallet Manager is Not Available

The online help for Oracle Wallet Manager is not available. If you try to use the online help, an error code will be displayed.

Refer to *Oracle Application Server 10g Security Guide* for Oracle Wallet Manager information.

4.4.3 Open Wallet Failed Message on STDOUT

When registering OracleAS Metadata Repository with Oracle Internet Directory the DBCA output will feature a message "OPEN WALLET FAILED". This error message can be seen from in the DBCA output to Oracle Universal Installer screen or in the *ORACLE_HOME*/oraInventory/logs/installActions<time.stamp>.log file.

This message is benign and has no affect on the registration process.

4.4.4 Alter Database Open Resetlogs Fails With ORA-01194

The Backup and Recovery section in the *Oracle Application Server 10g Administrator's Guide* contains instructions for using the OracleAS Backup and Recovery Tool to perform point-in-time recovery when restoring the OracleAS Metadata Repository to a new host. The instructions advise you to use "alter database open resetlogs" if you get an error while performing the recovery.

In rare cases, the "alter database open resetlogs" command may fail with error ORA-01194. If this happens, check the restore log generated by the OracleAS Backup and Recovery Tool. You should find that one or more data files were not restored. If this is the case, rerun the OracleAS Backup and Recovery Tool using the same options as the first time you ran it. Then use the "alter database open resetlogs" and it should work without error.

4.4.5 Ignore Warnings in warn.log File When Running chgiphost.sh Script

When running the chgiphost.sh script following installation of any Oracle Application Server install type, warning messages are generated in the warn.log file. The warning messages are benign and can be ignored.

4.4.6 chgiphost.sh Script Returns Benign Error Messages in Standalone J2EE and Web Cache Installation

When you run the chgiphost.sh script on a J2EE and Web Cache installation that does not use OracleAS Infrastructure 10*g* services, the following types of error messages may be logged in the actions.log and error.log files:

- actions.log file:

  ```
  main::ias_instance_oid::372**    Error while executing
  main::update_modosso::372**    Error while executing
  ```

- error.log file:

```
Exception: Unable to establish connection to the Oracle Internet Directory
Server ldap://:/. Base Exception : javax.naming.CommunicationException:
localhost:389 [Root exception is java.net.ConnectException: Connection refused]

oracle.ias.repository.schema.SchemaException: Unable to establish connection to
the Oracle Internet Directory Server ldap://:/. Base Exception :
javax.naming.CommunicationException: localhost:389 [Root exception is
java.net.ConnectException: Connection refused]
main::ias_instance_oid::371**    Error while executing ....
main::update_modosso::371**    Error while executing ....
```

These error messages are benign and can be ignored.

4.4.7 Error Message Using OracleAS Backup and Recovery Tool

If you perform a backup of the OracleAS Metadata Repository using the OracleAS Backup and Recovery Tool, RMAN returns error message RMAN-06089, which indicates that an archived log is out of sync with the catalog. This occurs if any of the archived logs are lost.

Before you retry the OracleAS Backup and Recovery Tool, execute the following command in RMAN:

```
change archivelog all validate;
```

Then rerun the OracleAS Backup and Recovery Tool to perform the OracleAS Metadata Repository backup.

4.4.8 Set ORACLE_HOME for Database Listener

You must to set the *ORACLE_HOME* environment variable before start-up or shutdown of the OracleAS Infrastructure 10*g* database listener. If you do not, a core dump occurs.

4.4.9 Identity Management, High Availability Configuration

Documentation regarding the concepts and implementation of a rack-mounted/multi-computer, Identity Management High Availability configuration is available in the *Oracle Internet Directory Administrator's Guide* and the *Oracle Application Server Single Sign-On Administrator's Guide*.

Consolidated and single source of installation and configuration of rack-mounted Identity Management is available in the white paper titled "Highly Available Identity Management Deployment Example - Rack-Mounted Identity Management" available at:

```
http://otn.oracle.com/products/ias/hi_av/904_rack_mounted_im.pdf
```

The white paper contains the updated and detailed information on the necessary steps to implement a rack-mounted/multi-computer configuration.

In future releases the rack-mounted/multi-computer configuration will be supported and available as an installation option.

4.4.10 Remove Instances from a File-based Cluster and Farm before Changing the Hostname

Before changing the hostname or IP address of a middle-tier instance that is part of a file-based cluster, you must remove the instance from the cluster and the farm using the following commands:

```
dcmctl leaveCluster
dcmctl leaveFarm
```

After changing the hostname or IP address, add the instance back to the cluster and farm.

To add the instance back to the cluster use the following command:

```
dcmctl joinCluster -cl <clustername>
```

To add the instance back to the farm:

- Run the following command in an instance that is already in the farm:

  ```
  dcmctl getRepositoryID
  ```

- Run the following command in the instance you would like add back to the farm:

  ```
  dcmctl joinFarm -r <repositoryID>
  ```

4.5 Documentation Errata

This section describes known errors in management and security documentation. It contains the following topic:

- Section 4.5.1, "Changing OPMN Ports (ONS Local, Request, and Remote)"
- Section 4.5.2, "Querying the Runtime JServ Port"
- Section 4.5.3, "Restart Infrastructure Processes After Restoring a Metadata Repository"
- Section 4.5.4, "Guidance for Password for OracleAS Portal Users"
- Section 4.5.5, "Missing Step in Configuring DAS After Installation"
- Section 4.5.6, "Misspelling in Stop the Metadata Repository Listener Step"
- Section 4.5.7, "Incorrect Commands in Changing Infrastructure Services Section"
- Section 4.5.8, "Incorrect LDAP-based Replica Step"

4.5.1 Changing OPMN Ports (ONS Local, Request, and Remote)

The procedure for changing the ONS local, request, and remote ports in *Oracle Application Server 10g Administrator's Guide* is incorrect as follows:

- It states that you can use Application Server Control to change the ONS local, request, and remote port numbers. This is not correct—do not use Application Server Control to change these ports.

- The procedure for changing the ports manually is incorrect. Use the following procedure:

  1. Shut down all processes:

     ```
     emctl stop iasconsole
     emctl stop agent
     opmnctl stopall
     ```

  2. Under the <notification-server> element, modify the local, remote, and request parameters, as desired, in the <port> element. For example:

     ```
     <port local="6101" remote="6201" request="6004"/>
     ```

3. Save and close the file.

4. Reload OPMN:

   ```
   opmnctl reload
   ```

5. Start OPMN:

   ```
   opmnctl start
   ```

6. If this is an Infrastructure with Oracle Internet Directory, start Oracle Internet Directory:

   ```
   opmnctl startproc ias-component=OID
   ```

7. Start the rest of your processes:

   ```
   opmnctl startall
   ```

8. Update DCM:

   ```
   dcmctl updateConfig -ct opmn
   ```

4.5.2 Querying the Runtime JServ Port

The procedure for querying the runtime JServ port in *Oracle Application Server 10g Administrator's Guide* is incorrect.

You can query the runtime JServ port numbers as follows:

- If you use `mod_oprocmgr` to manage JServ, make sure the `oprocmgr-status` handler is activated in *ORACLE_HOME*`/Apache/Apache/conf/httpd.conf` with the following directive:

  ```
  <ifModule mod_oprocmgr.c>
    <Location /oprocmgr-service>
      SetHandler oprocmgr-service
    </Location>
  </ifModule>
  ```

  Enter the following URL in your browser, and you will see the status of all processes currently managed by your process manager, including JServ:

  ```
  http://hostname:http_port/oprocmgr-status
  ```

- If you are not using `mod_oprocmgr`, but instead use a traditional JServ configuration, you can query the runtime ports with the following URL:

  ```
  http://hostname:http_port/jserv
  ```

  Note that the "`jserv`" portion of the preceding URL is protected to only be viewed from `localhost`. This is configured in *ORACLE_HOME*`/Apache/Jserv/etc/jserv.conf`. You can expand permissions to view from other hosts, or provide the following URL from the same host:

  ```
  http://localhost:port/jserv
  ```

4.5.3 Restart Infrastructure Processes After Restoring a Metadata Repository

The procedures in *Oracle Application Server 10g Administrator's Guide* for restoring a Metadata Repository are incomplete. You should restart all Infrastructure processes after restoring a Metadata Repository.

4.5.4 Guidance for Password for OracleAS Portal Users

In Section 7.2.3 "Configuring Portal after Installation" of the *Oracle Application Server 10g Administrator's Guide* the guidance on the password for the OracleAS Portal user is incorrect. It states the following:

"You can log in to Portal as portal. Use the ias_admin password you supplied during middle-tier installation. If you have changed the ias_admin password, @ you must still supply the original ias_admin password."

Instead, it should state:

"You can log in to OracleAS Portal as portal. If this is the first instance of OracleAS Portal to use OracleAS Infrastructure 10*g*, then the OracleAS Portal user password would be `portal10g`. However, if you already have OracleAS Portal instances associated with the Infrastructure then the OracleAS Portal user password is the `ias_admin` password of the first OracleAS Portal instance associated to this OracleAS Metadata Repository."

4.5.5 Missing Step in Configuring DAS After Installation

In Section 7.2.9 "Configuring Delegated Administration Service (DAS) After Installation" of the *Oracle Application Server 10g Administrator's Guide*, there is a step missing. Before you configure DAS, you must first configure `mod_osso`. The steps to configure mod_osso are located in Section 12.7.1, "Configuring mod_osso (Required for Oracle Delegated Administration Services)" of the *Oracle Application Server 10g Installation Guide*.

4.5.6 Misspelling in Stop the Metadata Repository Listener Step

In section 5.6.1 "Changing the Metadata Repository Net Listener Port" of the *Oracle Application Server 10g Administrator's Guide,* Step 2: Stop the Metadata Repository Listener, the following command:

```
lscnrctl stop
```

should be

```
lsnrctl stop
```

4.5.7 Incorrect Commands in Changing Infrastructure Services Section

In Chapter 8, "Changing Infrastructure Services" of the *Oracle Application Server 10g Administrator's Guide*, Section 8.6.4, "Procedure" contains the following documentation errata:

- Task 2, Step 6, the command line:

  ```
  ORACLE_HOME/bin/rman target cmdfile=BACKUP_DIR/cold_backup.rcv > BACKUP_
  DIR/log_files/backup.log
  ```

  should be:

  ```
  ORACLE_HOME/bin/rman target / cmdfile=BACKUP_DIR/cold_backup.rcv >BACKUP_
  DIR/log_files/backup.log
  ```

- Task 3, Step 5, the command line:

  ```
  prompt> ORACLE_HOME/bin/rman cmdfile=BACKUP_DIR/restore.rcv > BACKUP_DIR/log_
  files/restore.log
  ```

should be:

```
prompt> ORACLE_HOME/bin/rman / cmdfile=BACKUP_DIR/restore.rcv >BACKUP_DIR/log_
files/restore.log
```

- Task 5, Step 6, the following instructions must also be included at the end of the step:

  Update all other instances of the old db_name (except for the instance_name) to the new db_name. Specifically, you may have to update directory paths which contain the old db_name.

4.5.8 Incorrect LDAP-based Replica Step

In the *Oracle Application Server 10g Administrator's Guide*, Section F.2, "Installing and Setting up an LDAP-based Replica" Task 6, Step 19, Validation Step, Verify that DIP was configured successfully. Step 19 instructs you to navigate to the Directory Integration Page on the Application Server Control Console.

Instead, it should say to navigate to the Oracle Internet Directory Home Page and click **Directory Integration**.

5

Core Documentation

This chapter describes issues associated with Oracle Application Server Core Documentation. It includes the following topics:

- Section 5.1, "General Issues and Workarounds"
- Section 5.2, "Documentation Errata"

5.1 General Issues and Workarounds

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

- Section 5.1.1, "Recommended Character Set"
- Section 5.1.2, "Do Not Replace the ORACLE_HOME Value in the httpd.conf File"

5.1.1 Recommended Character Set

When choosing component identification names in Oracle Enterprise Manager or for `dcmctl`, you should choose from the following character set:

ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz-_

5.1.2 Do Not Replace the ORACLE_HOME Value in the httpd.conf File

If you have an Oracle Application Server installation in `/home/your_directory/orahome` and it contains a link to `/private/your_directory`, the files in *ORACLE_HOME* are accessible from either `/home/your_directory/orahome` or `/private/your_directory/orahome`. Following installation, the *ORACLE_HOME* is located in `/home/your_directory/orahome` and the `httpd.conf` file contains the following line of code:

```
include /home/your_directory/orahome/Apache/Apache/conf/dms.conf
```

Do not replace the *ORACLE_HOME* indicated with another link or absolute path.

5.2 Documentation Errata

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

- Section 5.2.1, "Incorrect Screen Dialog in Oracle Application Server 10g Installation Guide"
- Section 5.2.2, "Procedure Not Supported for Oracle Application Server 10g"
- Section 5.2.3, "JMS Metrics Listed Incorrectly"

- Section 5.2.4, "Incorrect Procedure for Changing JServ Servlet Engine Port"

- Section 5.2.5, "Changing the Oracle HTTP Server (SSO) Port on Identity Management"

- Section 5.2.6, "Replication Based Identity Management Topology Not Supported"

5.2.1 Incorrect Screen Dialog in *Oracle Application Server 10g Installation Guide*

In the *Oracle Application Server 10g Installation Guide*, section 7.16, Table 7-12, row 5, the **Run orainstRoot.sh** message dialog has the instruction to **Click OK** while the actual message dialog is **Continue**.

5.2.2 Procedure Not Supported for Oracle Application Server 10*g*

Section 4.1.2 of the *Oracle Application Server 10g Installation Guide*, states that you can consolidate multiple instances of Oracle Enterprise Manager on the same computer to reduce memory usage. This procedure is not supported for this release of Oracle Application Server 10*g*.

5.2.3 JMS Metrics Listed Incorrectly

The followingDMS metrics listed in Table A-26 of the *Oracle Application Server 10g Performance Guide* are not available:

- `oc4j.jms.computeMsgsize.value`

- `oc4j.jms.doGc.value`

- `oc4j.jms.expirationInterval`

- `oc4j.jms.intraSession.value`

- `oc4j.jms.j2ee14.value`

- `oc4j.jms.lazySync.value`

- `oc4j.jms.pagingThreshold`

- `oc4j.jms.useSockets.value`

5.2.4 Incorrect Procedure for Changing JServ Servlet Engine Port

The procedure described in Section 5.3.11, "Changing the JServ Servlet Engine Port" in the *Oracle Application Server 10g Administrator's Guide* is incorrect. Use the following procedure:

1. Stop Oracle HTTP Server:

   ```
   > opmnctl stopproc ias-component=HTTP_Server
   ```

2. Edit the following file:

   ```
   ORACLE_HOME/Apache/JServ/etc/jserv.properties
   ```

3. Update the port parameter with the new port number.

4. Save the file.

5. Restart Oracle HTTP Server:

   ```
   > opmnctl startproc ias-component=HTTP_Server
   ```

5.2.5 Changing the Oracle HTTP Server (SSO) Port on Identity Management

Step 7: Re-register mod_osso in Section 5.6.3.1, "Changing the Oracle HTTP Server Non-SSL Listen Port on Identity Management" of the *Oracle Application Server 10g Administrator's Guide* is incorrect. The parameters in the command for re-registering `mod_osso` are incorrect.

The corrected commands are as follows:

When changing the non-SSL Oracle HTTP Server (SSO) port, run the following command in the Identity Management Oracle home to re-register mod_osso:

```
ORACLE_HOME/jdk/bin/java -jar $ORACLE_HOME/sso/lib/ossoreg.jar
-oracle_home_path identity_management_oracle_home
-site_name identity_management_hostname:new_http_port_number
-config_mod_osso TRUE
-mod_osso_url mod_osso_url
-u user
```

When changing the SSL Oracle HTTP Server (SSO) port, run the following command in the Identity Management Oracle home to re-register `mod_osso`:

```
ORACLE_HOME/jdk/bin/java -jar $ORACLE_HOME/sso/lib/ossoreg.jar
-oracle_home_path identity_management_oracle_home
-site_name identity_management_hostname:new_https_port_number
-config_mod_osso TRUE
-mod_osso_url mod_osso_url
-virtualhost
-u user
```

5.2.6 Replication Based Identity Management Topology Not Supported

The identity management topology described in the section titled, "Multiple Single Sign-On Middle Tiers, Replicated Oracle Internet Directory" in Chapter 9, "Advanced Configurations" of the *Oracle Application Server Single Sign-On Administrator's Guide* is not supported.

Refer to the *Oracle Application Server 10g High Availability Guide* for other identity management topologies that do not use replication.

6

Oracle Application Server Active Failover Clusters Issues

This chapter describes issues associated with Oracle Application Server Active Failover Clusters (AFC). It includes the following topics:

- Section 6.1, "General Issues and Workarounds"

6.1 General Issues and Workarounds

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

- Section 6.1.1, "All AFC Nodes Must Be Up When Installing Middle Tiers"
- Section 6.1.2, "Configure Database Instance to use Oracle Ultra Search Crawler"
- Section 6.1.3, "Load Balancer Failover"
- Section 6.1.4, "Remote Listener Registration Causes Load Balancing to Fail"
- Section 6.1.5, "Oracle Enterprise Manager Is Not Ready for Use with AFCs"
- Section 6.1.6, "DAS Enabled Only on Installation Host"
- Section 6.1.7, "Install JDBC Patches to Prevent OracleAS Single Sign-On Failure"
- Section 6.1.8, "Manual Synchronization of Files"
- Section 6.1.9, "Corruption of Baseline Configuration Files Prevents Synchronization"
- Section 6.1.10, "Backup/Recovery Considerations for Active Failover Cluster"

6.1.1 All AFC Nodes Must Be Up When Installing Middle Tiers

If you use AFC for your Metadata Repository that is registered with Identity Management, make sure the database and Net listener are running on all AFC nodes before you install a middle-tier instance to use the Identity Management and AFC Metadata Repository. Otherwise, the middle-tier installation will fail with the error: Invalid Database or Database Not Running.

6.1.2 Configure Database Instance to use Oracle Ultra Search Crawler

For AFC installations, the Oracle Ultra Search crawler is configured to run on one of the database instances. If the database instance becomes unresponsive, a different instance of the same database must be configured to use the Oracle Ultra Search crawler.

To change the database instance that uses the Oracle Ultra Search crawler, run the following command on the new database instance:

> **Note:** The password for the `wksys` schema is required for this operation.

```
SQL> @?/ultrasearch/admin/wk0reconfig.sql <instance_name> <connect_url>
```

- `<instance_name>` is the name of the new database instance on which the Oracle Ultra Search crawler will reside. You can obtain <instance_name> by running the following command on the new database instance:

  ```
  SQL> select instance_name from v$instance
  ```

- `<connect_url>` is the jdbc connect string which guarantees connection to the specified instance

  For example:

  ```
  (DESCRIPTION=(ADDRESS_
  LIST=(ADDRESS=(PROTOCOL=TCP)(HOST=<nodename>)(PORT=<listener_port>)))(CONNECT_
  DATA=(SERVICE_NAME=<service_name>)))
  ```

6.1.3 Load Balancer Failover

When a host or process becomes unresponsive in an AFC, re-configuration of the load balancer is necessary. The load balancer should be reconfigured to stop traffic to the unresponsive host or to the specific port on which the Oracle Internet Directoryor Oracle HTTP Server process is listening on. Most load balancers have features which can be configured to do this automatically. If the load balancer you are using in your system does not provide this feature, the reconfiguration can be a manual process. Refer to your load balancer documentation for the steps to configure the load balancer you are using.

6.1.4 Remote Listener Registration Causes Load Balancing to Fail

When you enable remote database listener registration in your AFC, load balancing will fail for your database connection during intense logon activity.

Refer to Section 3.2.9, "Oracle Net Listener Cross Registration Should Be Disabled for Active Failover Cluster" for the steps to disable the remote database listener registration.

6.1.5 Oracle Enterprise Manager Is Not Ready for Use with AFCs

Oracle Enterprise Manager is not ready for use with AFC.

Refer to the following sections for the steps to use Oracle Enterprise Manager with an AFC:

- Section 3.2.2, "Incorrect Host Name Value during OracleAS Infrastructure 10g Installation in an Active Failover Cluster"

- Section 3.2.3, "emracutil Script Contains Incorrect Value for Host Name"

- Section 3.2.4, "targets.xml on Remote Hosts contain Incorrect ConnectDescriptor Information"

6.1.6 DAS Enabled Only on Installation Host

In an AFC infrastructure installation, Oracle Delegated Administration Service (DAS) will be enabled only on the installation host.

In order to configure DAS on other hosts, perform the following workaround on each additional host:

1. Create an `ldif` (das_enable.ldif) file with the following entry:

   ```
   --- BEGIN LDIF file contents---
   dn: cn=Associated Mid-tiers,orclApplicationCommonName=DASApp, cn=DAS,
   cn=Products,cn=OracleContext
   changetype: modify
   add: uniquemember
   uniquemember: orclApplicationCommonName=<InstanceName>.<node>,cn=IAS
   Instances, cn=IAS,cn=Products, cn=OracleContext
   ---END LDIF file contents------
   ```

2. Run the following ldapmodify command:

   ```
   ldapmodify -p <OIDPort> -h <Load Balancer Name> -D cn=orcladmin -w
   Instance Password> -v -f das_enable.ldif
   ```

DAS should now be configured on the additional hosts.

6.1.7 Install JDBC Patches to Prevent OracleAS Single Sign-On Failure

When a database instance or host becomes unresponsive, OracleAS Single Sign-On in the OC4J_SECURITY instances automatically fails over existing database connections to the remaining database instance.

To prevent failure, install JDBC patches 2513420 and 3444173. These two patches are available at:

`http://metalink.oracle.com`

6.1.8 Manual Synchronization of Files

The AFC uses the `afcctl` utility to synchronize any changes to configuration files on one host to the configuration files on other hosts of a cluster. The details for installation, configuration, and usage of the `afcctl` utility are documented in the *Oracle Application Server 10g High Availability Guide*.

However, the `afcctl` utility does not synchronize all of the configuration files on hosts in an AFC. The following files must be synchronized manually:

- `ORACLE_HOME/dcm/config/dcm.conf`
- `ORACLE_HOME/dcm/repository/cluster.bom`
- `ORACLE_HOME/sysman/config/emd.properties`
- `ORACLE_HOME/sysman/config/emiasconsole.properties`
- `ORACLE_HOME/sysman/config/emiasconsolelogging.properties`
- `ORACLE_HOME/sysman/emd/targets.xml`
- `ORACLE_HOME/sysman/j2ee/config/em-app.xml`
- `ORACLE_HOME/j2ee/home/config/jazn-data.xml`
- `ORACLE_HOME/j2ee/home/config/jazn.xml`

- `ORACLE_HOME/j2ee/OC4J_SECURITY`

The following files are always synchronized when the `afcctl sync` utility is invoked:

- `ORACLE_HOME/config/ias.properties`

- `ORACLE_HOME/Apache/Apache/conf/httpd.conf`

- `ORACLE_HOME/opmn/conf/opmn.xml`

6.1.9 Corruption of Baseline Configuration Files Prevents Synchronization

In a cluster environment consider Host A and Host B, with the baseline created from Host A. Assume that there have been some changes in the configuration files in Host A followed by a synchronization with Host B using the `afcctl` command. Subsequently, if the Oracle home of Host A becomes corrupted before a backup of this host can be obtained, then an attempt to synchronize Host A from Host B using the `afcctl` command will fail.

To workaround this problem:

1. Untar the Oracle home of the computer used for the baseline configuration files.

2. Remove the `ORACLE_HOME/config/afcctl.tm` file from Host B.

3. Synchronize Host A and Host B using the `affcctl` command.

6.1.10 Backup/Recovery Considerations for Active Failover Cluster

Following are the backup and recovery considerations for AFC:

- Section 6.1.10.1, "Accessing Archive Logs of Non-local RAC Instance"

- Section 6.1.10.2, "Enabling Archivelog in a RAC Instance"

- Section 6.1.10.3, "Starting and Stopping of OPMN Managed Processes on AFC Hosts"

6.1.10.1 Accessing Archive Logs of Non-local RAC Instance

You can access archive logs for each instance of a Real Application Cluster (RAC) database in the local file system, in a cluster file system (CFS), or in NAS. RMAN must have access to the archive logs to back up the database.

1. Create the following directories on one of the hosts of the RAC. For example, on Host 1:

```
$ARC_DEST_DIR/arc_dest1
$ARC_DEST_DIR/arc_dest2
```

Note the following for your archive logs location:

a. Archive logs in local file system of RAC instance.

Since the hosts are within a LAN, `arc_dest2` on Host1 can be an NFS mount of `$ARC_DEST_DIR/arc_dest2` on Host 2.

b. Archive logs in a CFS archiving scheme.

The directories created in Step 1 must have read and write access to the CFS. Only the archive log files can go into the CFS storage location. Oracle does not support storing the AFC Oracle home in a CFS.

c. Archive logs in a remote network mounted file system.

The directories listed in Step 1 are NFS mounts with read and write access from both hosts.

2. Create the following directory structure on Host 2

```
$ARC_DEST_DIR/arc_dest1
$ARC_DEST_DIR/arc_dest2
```

3. NFS mount `arc_dest1` of Host 1 on Host 2.

4. Create entries in the `spfile` parameter.

   Set the `log_archive_destination` on Host 1 using the following SQL command:

```
SQL> alter system set log_archive_dest='$ARC_DEST_DIR/arc_dest1' scope=spfile
sid='<sid of node1>';
```

   For example:

```
SQL> alter system set log_archive_dest='/mnt/afc/OraDB2/dbs/arch1' scope=spfile
sid='bkdb1';
```

6.1.10.2 Enabling Archivelog in a RAC Instance

Perform the following steps to enable archiving in AFC:

1. SQL> alter system set cluster_database=false scope=spfile;

2. Shutdown immediate on both Hosts

3. startup mount;

4. alter database archivelog;

5. alter database open;

6. alter system set cluster_database=true scope=spfile;

7. shutdown immediate;

8. startup (on both instances)

> **Note:** If you complete the listed steps while the RAC instances are OPEN, you will see the following error message:
>
> ```
> ERROR at line 1: ORA-01126: database must be mounted EXCLUSIVE and
> not open for this operation
> ```

6.1.10.3 Starting and Stopping of OPMN Managed Processes on AFC Hosts

1. Stop OPMN on each Host of the RAC using the following command:

```
> opmnctl @instance:<instance_on_node1>:<instance_on_node2> stopproc
```

   For example:

```
opmnctl @instance:bkinst.hasun41:bkinst.hasun42 stopproc
```

2. Start OPMN on each Host of the RAC using the following command:

```
> opmnctl @instance:<instance_on_node1>:<instance_on_node2> startproc
```

   For example:

```
opmnctl @instance:bkinst.hasun41:bkinst.hasun42 startproc
```

Part II

J2EE, Web Services, and Internet Applications Issues

This part describes issues associated with the J2EE, Web Services, and Internet Applications components. It contains the following chapters:

- Chapter 7, "Oracle Application Server Web Services"

- Chapter 8, "Oracle Application Server Forms Services"

- Chapter 9, "Oracle Application Server Containers for J2EE Issues"

- Chapter 10, "Oracle HTTP Server"

- Chapter 11, "Oracle Application Server TopLink"

7

Oracle Application Server Web Services

This chapter describes issues with Oracle Application Server Web Services (OracleAS Web Services). It includes the following topics:

- Section 7.1, "General Issues and Workarounds"
- Section 7.2, "Documentation Errata"

7.1 General Issues and Workarounds

This section describes general issues and their workarounds for Oracle Application Server Web Services (OracleAS Web Services). It includes the following topic:

- Section 7.1.1, "Running the HTML XML Wizard"

7.1.1 Running the HTML XML Wizard

The `WebServicesHtmlXmlWizard.jar` file is not distributed with Oracle Application Server 10*g* (9.0.4). To use the HTML XML Wizard, you need to download the file from the Oracle Technology Network (OTN) Web Services Center under the Downloads section,

`http://otn.oracle.com/tech/webservices/index.html`

After downloading the `WebServicesHtmlXmlWizard.jar` file, place it into the directory, `$ORACLE_HOME/webservices/lib`.

7.2 Documentation Errata

This section describes known errors in the documentation. It includes the following topics:

- Section 7.2.1, "Consuming XML or HTML Streams in J2EE Applications - HTML XML Wizard"
- Section 7.2.2, "Ignore References to WSDL Analyzer"
- Section 7.2.3, "Incorrect Link to Demos"
- Section 7.2.4, "Additional Errata in Oracle Application Server Web Services Developer's Guide"

7.2.1 Consuming XML or HTML Streams in J2EE Applications - HTML XML Wizard

The `WebServicesHtmlXmlWizard.jar` file is not distributed with Oracle Application Server 10*g* (9.0.4). Chapter 11, "Consuming Web Services in J2EE Applications" in the Web Services Developer's Guide includes a section that describes

using the HTML XML Wizard. This description only applies after you download and install the `WebServicesHtmlXmlWizard.jar` file from OTN, as described in the section, Section 7.1.1, "Running the HTML XML Wizard".

7.2.2 Ignore References to WSDL Analyzer

The WSDL Analyzer was never released although it is documented in the *Oracle Application Server Web Services Developer's Guide*.

All references to the WSDL Analyzer should be ignored.

7.2.3 Incorrect Link to Demos

Through out the *Oracle Application Server Web Services Developer's Guide*, the link to demos is wrong.

The link shown as:

```
http://otn.oracle.com/sample_code/tech/java/web_services/content.html
```

It should be:

```
http://otn.oracle.com/tech/java/oc4j/demos/904/index.html
```

7.2.4 Additional Errata in *Oracle Application Server Web Services Developer's Guide*

- On Page.7-14, Table 7-2,

  ```
  <receive-timeout>
  priority
  </receive-timeout>
  ```

  should be,

  ```
  <receive-timeout>
  timeout
  </receive-timeout>
  ```

- In Chapter 10,"Discovering and Publishing Web Services", in the section titled, "Administrative Entity Management" the `changeOwner` parameter needs to be added to the listed parameters in the **destroyTModel** section.

- In Chapter 10,"Discovering and Publishing Web Services", in the section titled, "Server Configuration Properties Reference Information" the sentence,

  "These server configuration parameters are referenced in Server Configuration on page 10-25. As each example shows, these configuration parameters......"

  should be,

  "These server configuration properties are referenced in Server Configuration on page 10-25. As each example shows, these configuration properties......"

- In Chapter 11, there is an incorrect cross-reference to Table 11-2 above Table 11-7. The cross-reference should be to Table 11-7.

- The title of Appendix A "Oracle SOAP" should be "OracleAS SOAP".

8

Oracle Application Server Forms Services

This chapter describes issues with Oracle Application Server Forms Services (OracleAS Forms Services). It includes the following topics:

- Section 8.1, "General Issues and Workarounds"
- Section 8.2, "Documentation Errata"

8.1 General Issues and Workarounds

This section describes general issues and their workarounds for Oracle Application Server Forms Services. It includes the following topics:

- Section 8.1.1, "Known issues with Enterprise Manager When Using Pre-Started Forms Processes"
- Section 8.1.2, "SSO Dynamic Resource Creation Fails When 904 BI-Forms Uses 902 Infrastructure on the Same Machine"
- Section 8.1.3, "Graphics Fails Against Database 9.0.1.4.0 (64-bit)"
- Section 8.1.4, "Configuring Graphics 6i for use by Reports Server"

For information regarding Oracle Forms Developer, see *Oracle Developer Suite 10g (9.0.4) Release Notes for Windows and UNIX*.

8.1.1 Known issues with Enterprise Manager When Using Pre-Started Forms Processes

Enterprise Manager displays pre-started processes when em_mode is set to 1. However, there are some known issues in this area.

When a process exists, but has no client attached to it, the IP address is blank on the User Sessions page. Once the process is attached, it shows as 'null' rather than showing the real IP address of the connected client.

The other columns, such as Connect Time and User ID, already update properly.

If there are pre-started processes that have no client attached, then the Search functionality on the User Sessions page will not work properly, and all searches will fail to find any processes. If you stop these non-attached processes, Search will once again function properly.

Sorting by clicking on the column headers still works properly even if there are non-attached processes, so this may also be used as an alternate workaround for finding specific processes.

8.1.2 SSO Dynamic Resource Creation Fails When 904 BI-Forms Uses 902 Infrastructure on the Same Machine

When you install BI-Forms and Infrastructure on the same computer, URL rewriting doesn't work once Forms has re-directed to DAS. You'll see "FRM-92102: A network error has occurred. The Forms Client has attempted to reestablish its connection to the Server 5 time(s) without success." This only happens if you're running 9.0.4 Forms against a 9.0.2 infrastructure (installed on the same machine) and using Internet Explorer.

This can affect SSO support in Forms. If a user tries to run Forms with SSO enabled, and connects using an existing Forms configuration, there is no issue.

However, when a user attempts to run Forms without providing an existing Forms configuration, Forms redirects to DAS to allow the user to dynamically create a resource for this configuration. When this happens, the resource is created properly by DAS but Forms fails to connect after DAS redirects back to the Forms Servlet. If the user copies the same URL at that point and runs it in a different browser, there is no issue. This is a one-time issue, and if administrators have correctly created DAS resources, users will never experience this issue.

Similarly, if you don't have DAS (part of an Infrastructure installation) and BI-Forms installed on the same machine, you won't encounter this issue.

8.1.3 Graphics Fails Against Database 9.0.1.4.0 (64-bit)

Due to a limitation in the 8.0.6 RSF, Oracle Graphics *6i* on Windows cannot connect to a 64-bit database. Thus, if you are using Oracle Forms 10*g* (9.0.4) to connect to a 64-bit database, and want to integrate with Oracle Graphics, you will need to upgrade your Oracle *6i* Home (where Graphics is installed) to include an RSF version that contains a fix to bug 3088708. Please contact Oracle Support regarding availability of such an RSF.

8.1.4 Configuring Graphics 6i for use by Reports Server

Perform the following to correctly setup Reports/Graphics for Forms/Reports/Graphics integration:

1. In the g90runm.sh script enter the following:

    ```
    ORACLE_GRAPHICS6I_HOME=<location forms6i>
    export ORACLE_GRAPHICS6I_HOME
    TK_PRINTER=<real printer>
    ```
2. In the reports.sh script enter the following:

    ```
    ORACLE_GRAPHICS6I_HOME=<location forms6i>; export ORACLE_GRAPHICS6I_HOME
    REPORTS_DEFAULT_DESPLAY=NO; export REPORTS_DEFAULT_DESPLAY
    DISPLAY=<machine name>:0.0; export DISPLAY
    ```

8.2 Documentation Errata

This section describes known errors in the OracleAS Forms Services documentation. It includes the following topic:

- Section 8.2.1, "Enterprise Manager Online Help"

8.2.1 Enterprise Manager Online Help

The Enterprise Manager online help for the topics "Configuring Forms Services" and "Configuring Multiple Environment Files" indicate that the middle tier processes should be brought down as follows:

```
emctl stop agent
emctl stop em
dcmctl stop
opmnctl stopall
opmnctl startall
dcmctl start
emctl start agent
emctl start em
```

The correct sequence is:

```
emctl stop em (Stops em and the agent)
opmnctl stopall
opmnctl startall
emctl start em
```

9

Oracle Application Server Containers for J2EE Issues

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

9.1 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:

9.1.1 OPMN Does Not Properly Assign CORBA SSL Client Ports for Default

In the Oracle Application Server environment, you must explicitly specify the port ranges for iiops1 and iiops2 in the `opmn.xml` file.

9.1.2 Sharing and Using Libraries

This section describes issues with sharing and using libraries. It includes the following topics:

- Section 9.1.2.1, "Sharing Libraries"
- Section 9.1.2.2, "Invalid or Unneeded Library Elements Degrade Performance"
- Section 9.1.2.3, "Custom User Managers Deployed Within EJB JAR Files"

9.1.2.1 Sharing Libraries

In Oracle Application Server 10*g* (9.0.4), we recommend creating specific `<library>` elements in the global `application.xml` file to load any libraries required by your application. We recommend this as a way to ensure efficient loading and desired loading order. (Libraries are loaded in the order in which the `<library>` elements are encountered.)

Note that in previous releases, you could put libraries into the `j2ee/home/lib` directory, which by default had a `<library>` element in `application.xml`. This directory is now reserved for OC4J system libraries, and the `<library>` element that points to it is no longer present in `application.xml` by default. If you want to use a general library location, use `j2ee/home/applib`. By default, there is now a `<library>` element pointing to that location in `application.xml`.

For general information about sharing libraries, refer to the *Oracle Application Server Containers for J2EE User's Guide*.

9.1.2.2 Invalid or Unneeded Library Elements Degrade Performance

If the OC4J process memory is growing consistently during program execution, then you may have references to invalid symbolic links in your global `application.xml` file. This problem is usually characterized by a growth in the C heap and not a growth in Java object memory, as one would see with a more traditional Java object memory leak. OC4J loads all resources using the links in the `application.xml` file. If these links are invalid, then the C heap continues to grow, causing OC4J to run out of memory. Ensure that all symbolic links are valid, and restart OC4J.

In addition, keep to a minimum the number of JAR files OC4J is configured to load. Eliminate all unused JAR files from the configuration and from the directories OC4J is configured to search. OC4J searches all JAR files for classes and resources, thereby causing the file cache to use extra memory and processor time.

You can control the loading more precisely if your `<library>` elements in the `application.xml file` point to the individual JAR and ZIP files that are needed, instead of to the directories where they reside.

9.1.2.3 Custom User Managers Deployed Within EJB JAR Files

Custom user manager classes deployed within Enterprise Java Beans (EJB) JAR files cannot be loaded by OC4J unless an explicit `<library>` element exists in the `orion-application.xml` file for the application. The `<library>` element must point to the JAR file containing the custom user manager classes. To allow the custom user manager to be resolved and instantiated, create the necessary `<library>` element, such as in the following example:

```
<orion-application ....>
   ...
   <library path="applications\XmlnewsEar\XmlnewsEjb.jar"/>
   ...
</orion-application>
```

9.1.3 Considerations for Startup and Shutdown Classes

- You must use the JNDI context that is passed in as an argument to your startup and shutdown methods. You cannot create your own.

- You should separate your shutdown class from any archive files (WAR and EAR) that will be undeployed before shutdown.

- OC4J creates an instance of your startup class and an instance of your shutdown class. These are separate instances. If you implement the startup and shutdown interfaces in the same class, OC4J creates two instances of that class. In this case, you cannot share non static fields between your startup class and your shutdown class.

9.1.4 Using JDK with OC4J

This section describes issues with using JDK with OC4J. It includes the following topics:

- Section 9.1.4.1, "Supported JDK Versions"

- Section 9.1.4.2, "Migrating Source Code from JDK 1.4 to JDK 1.3"

- Section 9.1.4.3, "Migrating Source Code from JDK 1.3 to JDK 1.4"

9.1.4.1 Supported JDK Versions

You must have only one Java Developer's Kit (JDK) installed on your system. Make sure that it is a version that OC4J supports:

- JDK 1.3.1

- JDK 1.4.2

OC4J Standalone does not include a JDK. If you are using OC4J Standalone, then you must provide your own JDK installation.

Some suppliers bundle a JDK with their products. If necessary, remove any old version(s), replace them with a supported version, and update the appropriate environment variables. Make sure that your `PATH`, `CLASSPATH`, and `LD_LIBRARY_ PATH` (or `LIB` on Windows) variables are all set to the officially supported version of JDK.

> **Note:** Sun Microsystems supplies an old JDK under `/usr/bin`.

9.1.4.2 Migrating Source Code from JDK 1.4 to JDK 1.3

Java does not support compiling Java code under JDK 1.4 and running it under JDK 1.3 (bug 2811379). If you try anyway, Java may throw one of the following error messages at runtime:

- `Unsupported major.minor version 48.0.`

- `The major.minor version '48.0' is too recent for this tool to understand.`

However, if you must generate class files using JDK 1.4 and run them using JDK 1.3, then you can use the following command to force a JDK 1.4 compiler to generate a class file that is compatible with JDK 1.3:

```
% javac -target 1.3 hello.java
```

9.1.4.3 Migrating Source Code from JDK 1.3 to JDK 1.4

When you upgrade from JDK 1.3 to JDK 1.4, put all classes into packages.

The JDK 1.4 specification explicitly prohibits a class within a package from invoking a class not within a package. For this reason, some Java source code that compiles in JDK 1.3 will not compile in JDK 1.4. This error is identified by the following compiler message:

```
'.' expected import myClass
```

This message means that the Java compiler expects to find a package and class name and cannot parse a line that contains only a class name.

For details, see the Sun Microsystems compatibility document supplied with the JDK.

9.1.5 OC4J Demo Downloads

Oracle Application Server 10*g* (9.0.4) includes one demo per component. Additional demos are available for download from OTN at the following URL:

```
http://otn.oracle.com/tech/java/oc4j/demos/
```

Drill down from this index page to the component areas that contain the additional demos that you need.

9.1.6 Warning Messages Displayed After Edit of OC4J Configuration Files

You may receive a warning message about an automatic restart in the Advanced Server Properties page after you edit the following OC4J configuration files:

- `server.xml`
- `global-web-application.xml`
- `jms.xml`
- `rmi.xml`
- `default-web-site.xml`

OC4J is only restarted when the `server.xml` file is modified. The other OC4J configuration files do not trigger a restart.

Oracle recommends manually restarting the OC4J server every time the following OC4J configuration files are modified:

- `global-web-application.xml`
- `jms.xml`
- `rmi.xml`
- `default-web-site.xml`

9.1.7 OC4J Object Names Can Contain Only Single-byte Alphanumeric Characters

The following object names can contain only single-byte alphanumeric characters:

- OC4J instance name
- OC4J application name
- OC4J island name
- Farm name
- OracleAS Cluster Name

9.1.8 Need to Restart OC4J After Resetting Application Server Passwords

If you use the Oracle Enterprise Manager to reset any user passwords, the new passwords will not be immediately picked up by OC4J. You should restart the server before attempting to log in as one of those users.

9.1.9 Oracle Application Server 10*g* Requires JDK 1.3.1.05 or Higher

Oracle Application Server 10*g* requires JDK 1.3.1.05 or higher. If an earlier version of JDK is used, OPMN constantly restarts OC4J after almost every application deployment.

9.2 Release Notes for JSP, Tag Libraries, and Related Demos

This section describes issues for JavaServer Pages (JSP), tag libraries, and related demos. It includes the following topics:

- Section 9.2.1, "Cannot Invoke Classes That Are Not in Packages"
- Section 9.2.2, "Set the SAX Driver When Starting OC4J"
- Section 9.2.3, "JSP ojspc Issues"
- Section 9.2.4, "JESI Tag Release Notes"
- Section 9.2.5, "Tag Library Descriptors Must Be Under WEB-INF"
- Section 9.2.6, "Adding Tag Library JAR Files to /WEB-INF/lib While OC4J Is Running"
- Section 9.2.7, "Search Local Classes First"
- Section 9.2.8, "java.lang.ClassFormatError: (Truncated Class File)"
- Section 9.2.9, "Tag Library Descriptor Cache and Non-Root Relative Taglib Directive URI Attributes"

9.2.1 Cannot Invoke Classes That Are Not in Packages

Among the considerations in migrating to a Sun Microsystems JDK 1.4 environment, shipped with Oracle Application Server 10*g* (9.0.4), one is particularly important to servlet and JSP developers.

Sun Microsystems states, "The compiler now rejects import statements that import a type from the unnamed namespace." This change addresses security concerns and ambiguities with previous JDK versions. This means that you cannot invoke a class (a method of a class) that is not within a package. Any attempt to do so results in a fatal error at compilation time.

This issue especially affects JSP developers who invoke JavaBeans from their JSP pages, because such beans are often outside any package (although the JSP 2.0 specification now requires beans to be within packages, to satisfy the new compiler requirements). When JavaBeans outside of packages are invoked, JSP applications that were built and executed in an OC4J 9.0.3 / JDK 1.3.1 environment no longer work in an OC4J 9.0.4 / JDK 1.4 environment.

Until you update your application so that all JavaBeans and other invoked classes are within packages, you can revert to a JDK 1.3.1 environment to avoid this issue.

> **Notes:**
>
> - The `javac -source` compiler option allows JDK 1.3.1 code to be processed seamlessly by the JDK 1.4 compiler, but classes must still be in packages in order to be invoked.
>
> - Only the JDK 1.3.1 and JDK 1.4 compilers are supported and certified by OC4J. It is possible to specify an alternative compiler by adding a `<java-compiler>` element to the `server.xml` file. This might provide a workaround for the "classes not in packages" issue, but other compilers are not certified or supported by Oracle for use with OC4J. Furthermore, do *not* update the `server.xml` file directly in an Oracle Application Server environment. Use the Oracle Enterprise Manager.

This issue is also discussed in the following release note: Section 9.1.4.3, "Migrating Source Code from JDK 1.3 to JDK 1.4". For more information about the "classes not in packages" issue and other JDK 1.4 compatibility issues, refer to the following Web site:

```
http://java.sun.com/j2se/1.4/compatibility.html
```

Click the link "Incompatibilities Between Java 2 Platform, Standard Edition, v1.4.0 and v1.3".

9.2.2 Set the SAX Driver When Starting OC4J

For the filter functionality of JavaServer Pages Standard Tag Library (JSTL) XML tags to work in OC4J, you must set the SAX driver when starting OC4J.

When starting OC4J standalone, use the following option in the command line:

```
-Dorg.xml.sax.driver=oracle.xml.parser.v2.SAXParser
```

When starting the Oracle Application Server, you can specify this setting through the system properties. See the Oracle Application Server documentation for details on where and how to make this specification.

If you do not set the property, then the JSTL demo `Filter.jsp` gives the following exception:

```
javax.servlet.jsp.JspException: System property org.xml.sax.driver not specified
```

9.2.3 JSP ojspc Issues

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

- Section 9.2.3.1, "Debug Option Has No Effect on ojspc Output"

■ Section 9.2.3.2, "The /WEB-INF/lib or /WEB-INF/classes Directories Should Not Contain .java Files"

9.2.3.1 Debug Option Has No Effect on ojspc Output

The `ojspc -debug` option has no effect on `ojspc` output in Oracle Application Server 10*g* (9.0.4). If you specify `-debug`, the option is accepted but ignored.

9.2.3.2 The /WEB-INF/lib or /WEB-INF/classes Directories Should Not Contain .java Files

When using `ojspc`, do not put any `.java` files in or under the `/WEB-INF/lib` directory or the `/WEB-INF/classes` directory.

If the `/WEB-INF/lib` or `/WEB-INF/classes` directories contain any `.java` files, then `ojspc` occasionally creates one or more duplicate `.class` files at the top level of the archive during batch pretranslation.

9.2.4 JESI Tag Release Notes

This section describes changes and enhancements in the behavior of Java Edge Side Includes (JESI) tags in Oracle Application Server 10*g* (9.0.4). It includes the following topics:

■ Section 9.2.4.1, "JESI Tags No Longer Require Conditional Treatment"

■ Section 9.2.4.2, "JESI personalize Tag Now Adds Single Quotes"

■ Section 9.2.4.3, "A fragment Tag Can Be Inside an Included Page"

■ Section 9.2.4.4, "Multiple control or template Tags Can Be Used"

■ Section 9.2.4.5, "No Response Output Outside the Tags of a template Tag"

■ Section 9.2.4.6, "Do Not Use Explicit ESI Markup With JESI Tags"

9.2.4.1 JESI Tags No Longer Require Conditional Treatment

In prior versions of the JESI tag library, JESI tags always generated the same output regardless of whether the request was coming directly from a client, such as a browser, or from Oracle Web Cache. Therefore, in prior versions of the tag library, JESI tags required special conditional treatment if there was a possibility that the Oracle Web Cache might be down or unavailable at any time, because then the included pages and fragments would not have been inserted into the response.

In the OC4J 9.0.4 implementation, JESI tags correctly generate a full response, even without the presence of Oracle Web Cache, by falling back to the standard JSP "include" functionality for inclusion of fragments. For more information, see the *Oracle Application Server Containers for J2EE JSP Tag Libraries and Utilities Reference*.

9.2.4.2 JESI personalize Tag Now Adds Single Quotes

In the OC4J 9.0.4 implementation, the JESI `personalize` tag now puts single quotes around the string value of the `default` attribute (or, for backward compatibility, the `value` attribute). This behavior is more compliant with the ESI syntax. In versions prior to Oracle Application Server 10*g* (9.0.4), the user had to add single quotes as part of the attribute string value. You must edit pages containing `personalize` tags that used to work prior to the 9.0.4 implementation to remove extra single quotes.

9.2.4.3 A fragment Tag Can Be Inside an Included Page

You can now place a `fragment` tag inside a page included through a `jsp:include` standard action, if it is properly enclosed in a `template` tag (which can be in the including page).

9.2.4.4 Multiple control or template Tags Can Be Used

When OC4J encounters multiple `control` tags, instead of throwing an exception, it ignores additional `control` or `template` tags. OC4J executes only the first tag that it encounters. This feature allows placing `control` tags into JSP-included pages. If a page is included in another page with `control` or `template` tags of its own, then the second tag is ignored. At the same time, the included page can be executed independently.

The four permutations and their behavior are as follows:

- A `control` tag followed by a `control` tag is acceptable. The second Control tag is ignored.

- A `control` tag followed by a `template` tag is acceptable. The attributes of the `template` tag are ignored.

- A `template` tag followed by a `control` tag is acceptable. The `control` tag is ignored.

- A `template` tag followed by a `template` tag produces an error.

9.2.4.5 No Response Output Outside the Tags of a template Tag

In the OC4J 9.0.4 and the OC4J 9.0.3 implementations, there must be no response output outside the start and end tags of a `template` tag. Additionally, you can now place `template` tags in an included page, if there is no content output into the response outside the start and end tags.

9.2.4.6 Do Not Use Explicit ESI Markup With JESI Tags

The JESI tag library is not guaranteed to work correctly when explicit ESI markup is used together with JESI tags to generate an HTTP response.

9.2.5 Tag Library Descriptors Must Be Under WEB-INF

This release note warns developers to carefully observe the JSP specification with respect to tag library descriptors, despite leniency in previous OC4J implementations.

The existing specification allows tag library descriptors only under *application_ root*/`WEB-INF/` for a given application.

In practice, in the OC4J 9.0.4 implementation (and previous implementations), tag library descriptors have been accepted anywhere under *application_root*, despite the requirements of the specification.

In implementations under development, the specification is strictly enforced. Tag library descriptors are allowed only under `WEB-INF`.

This warning is provided so that you can make sure that code that you develop for this OC4J implementation does not have to be changed when you upgrade in the future.

9.2.6 Adding Tag Library JAR Files to /WEB-INF/lib While OC4J Is Running

If you are adding tag library JAR files to the `/WEB-INF/lib` directory while OC4J is running, then set `tags_reuse_default` to "`none`" or "`compiletime`" to avoid a `ClassCastException`.

9.2.7 Search Local Classes First

If you are using tag library JAR files at the application level that are intended to supersede JAR files in the well-known tag library location (global level), then you must set the application loader to search local classes first. You can do this through the following setting in your application's `orion-web.xml` file:

```
<web-app-class-loader search-local-classes-first="true" />
```

9.2.8 java.lang.ClassFormatError: (Truncated Class File)

A JSP error message such as the example shown below indicates a truncated class file.

Some conditions in which this can occur include the following:

- You are using JSP in a portal environment.

- The system is heavily loaded.

Use one of the following techniques to repair the error:

- Touch the JSP file, causing the JSP to be recompiled.

- Remove the corrupted class file, as indicated by the "`/modules/location/bizdir/jsp/bizdir.jsp`" listing in the error message example.

Truncated Class File Error Message Example

```
500 Internal Server Error
    OracleJSP:
    JSP Error:
--------------------------------------------------------------------------
    Request URI:/modules/location/bizdir/jsp/bizdir.jsp
    Exception:
    java.lang.ClassFormatError: _location/_bizdir/_jsp/_bizdir (Truncated class
file)
    at java.lang.ClassLoader.defineClass0(Native Method)
    at java.lang.ClassLoader.defineClass(ClassLoader.java:493)
    at java.security.SecureClassLoader.defineClass(SecureClassLoader.java:111)
    at oracle.jsp.app.JspClassLoader.loadClass(JspClassLoader.java:682)
    at java.lang.ClassLoader.loadClass(ClassLoader.java:255)
    ...
```

9.2.9 Tag Library Descriptor Cache and Non-Root Relative Taglib Directive URI Attributes

The fallback mechanism with non-root relative taglib directive uri attributes are not supported correctly with the tldcache turned on (bug 3315924). For example:

```
<@taglib uri="../WEB-INF/foo.tld" ... %>
```

is a non-root relative uri attribute.

From the JSP 1.2 spec: JSP.7.3.2 TLD resource path

The fallback interpretation is targeted to a casual use of the mechanism, as in the development cycle of the Web Application; in that case the URI is interpreted as a direct path to the TLD (see Section JSP.7.3.6.2).

Workarounds:

1. To get around this, you can turn off tldcaching by including in either global-web-application.xml or orion-web.xml the attribute jsp-cache-tlds="false" as below:

```
<orion-web-app
jsp-cache-directory="./persistence"
jsp-cache-tlds="false"
...
>
```

2. Alternately, to leave the tldcache turned on for improved performance, you can create a map in your web.xml, for example:

```
<taglib>
  <taglib-uri>../WEB-INF/foo.tld</taglib-uri>
  <taglib-location>/WEB-INF/foo.tld</taglib-location>
</taglib>
```

Note that if you take the above approach, you will have to create a map for every subdirectory containing a jsp with non-root relative uri attribute, but you do not have to change your .jsps.

Another solution is to change your .jsps to use the root relative path in your jsp.

In general non-root-relative paths are not recommended for a production environment due to the problems associated with moving .jsps.

```
<@taglib uri="/WEB-INF/foo.tld" ... %>
```

9.3 Release Notes for Servlets

This section describes release notes for servlets. It includes the following topics:

- Section 9.3.1, "Cannot Invoke Classes Not in Packages"

- Section 9.3.2, "Servlet Invocation by Class Name Is Available During Development"

- Section 9.3.3, "Do Not Use Certain <orion-web-app> Attributes"

9.3.1 Cannot Invoke Classes Not in Packages

With JDK 1.4, you are not allowed to invoke a class if it is not in a package if you are calling it from a class that is not in a package. The JSP release notes, Section 9.2.1, "Cannot Invoke Classes That Are Not in Packages" describes this issue in detail.

9.3.2 Servlet Invocation by Class Name Is Available During Development

In OC4J, servlet invocation by class name is available as a convenience feature during development.

This feature is controlled through the http.webdir.enable system property or the servlet-webdir attribute of the <orion-web-app> element in either the global-web-application.xml file or the orion-web.xml file.

This feature is documented in the *Oracle Application Server Containers for J2EE Servlet Developer's Guide*.

In the OC4J 9.0.4 implementation, invocation by class name is enabled by default, through the default settings `http.webdir.enable=true` and `servlet-webdir="/servlet/"`.

In a production environment, you must disable this feature by setting either `http.webdir.enable=false` or `servlet-webdir=""` (empty quotes).

9.3.3 Do Not Use Certain <orion-web-app> Attributes

In the OC4J 9.0.4 implementation, the `<orion-web-app>` attributes `internationalize-resources` and `default-mime-type` appear in the `orion-web.dtd` file. However, these attributes are not documented and are not recommended for use.

9.4 Release Notes for EJB

This section describes release notes for EJBs. It includes the following topics:

- Section 9.4.1, "Client Requests Must Include a Port Number"

- Section 9.4.2, "MDB Transaction Timeout"

- Section 9.4.3, "Create and Release JMS Connections for JMS in the MDB onMessage() Method"

- Section 9.4.4, "Considerations When Modifying Your orion-ejb-jar.xml File"

- Section 9.4.5, "Static Block in an EJB"

- Section 9.4.6, "OC4J Instances Terminating due to ping Timeout"

- Section 9.4.7, "Miscellaneous EJB Release Notes"

9.4.1 Client Requests Must Include a Port Number

When you are providing your URL on the client to access an EJB in the following form, you must always provide the port number.

```
opmn:ormi://host:port:oc4j_inst/application
```

If you do not provide the port number, then the *oc4J_inst* always defaults to the **home** instance. (bug 3234351)

9.4.2 MDB Transaction Timeout

The message-driven bean (MDB) transaction timeout, as defined in the `transaction-timeout` attribute in the `orion-ejb-jar.xml` file, is an optional parameter. This attribute controls the transaction timeout interval (in seconds) for any container-managed transactional MDB that uses Oracle Java Message Service (JMS). The default is one day (86,400 seconds). The MDB `transaction-timeout` attribute applies only to CMT MDBs that use Oracle JMS as the JMS provider. This attribute setting has no effect on BMT MDBs or any MDBs that use OC4J JMS. (bug 3079322)

- JMS behavior with Oracle Application Server — If the transaction has not completed in this time frame, then the transaction is rolled back and the message is redelivered to the `Destination` object. After Oracle JMS attempts to redeliver the message (the default is five attempts), the message is moved to the exception

queue. For more information, refer to the *Oracle9i Application Developer's Guide—Advanced Queuing for Release 2 (9.2)*.

- JMS behavior with OC4J — The `transaction-timeout` setting does not work for CMT MDBs that use OC4J JMS. The timeout is always one day and cannot be modified. When the timeout occurs, OC4J JMS redelivers the message indefinitely, until the delivery is successful. You cannot set a retry limit.

In addition, the global `transaction-timeout` attribute defined in the `server.xml` file does not have any effect on MDBs.

9.4.3 Create and Release JMS Connections for JMS in the MDB onMessage() Method

You must create and release the JMS connections for Oracle JMS in the MDB `onMessage()` method, and not in the `ejbCreate()` method. (bug 2967949)

9.4.4 Considerations When Modifying Your orion-ejb-jar.xml File

If, after deploying your application to OC4J, you modify the application's `orion-ejb-jar.xml` file using the Oracle Enterprise Manager GUI, then you must restart OC4J for these changes to be applied to your application.

If you deploy your application to a standalone OC4J, and you decide that you want to modify some elements in your application's `orion-ejb-jar.xml` file through a text editor, then you must repackage the application and redeploy it to the standalone OC4J without restarting. (bug 3001543)

9.4.5 Static Block in an EJB

During EJB deployment in OC4J, the Container loads the bean class to find out its methods and generate the EJB wrappers. Because the code in the static block is executed while the class is being loaded, the JNDI environment context is not yet set up. Even during runtime, the bean is in the "does not exist" stage. In this stage of the life cycle, the JNDI environment context is undefined, and the bean provider cannot rely on it to be available.

To make the context available, you should set up and cache the context either during the construction of the bean, in the `ejbCreate()` method, or in the `setSessionContext()` method.

9.4.6 OC4J Instances Terminating due to ping Timeout

Under some conditions, the OPMN process monitoring software in Oracle Application Server may lose contact with an OC4J process. This can occur because of unexpected delays in the heartbeat protocol used by OPMN and OC4J to verify the proper functioning of the OC4J instance.

If this problem occurs sporadically, you can try increasing the ping timeout parameters as described in the following instructions.

However, if this occurs regularly, due to a consistent resource shortage, then you must increase the available hardware resources to solve the problem.

The following conditions can cause this problem:

- An overloaded host processor.
- One or more computation-intensive applications running in the OC4J instance.

- Deployment of applications with large numbers (hundreds) of EJBs. Full garbage collections of large heaps can cause the OC4J process to become less responsive during the garbage collection phase. Although this should not occur during normal usage, deployment of large applications with many EJBs in a memory-constrained environment can trigger this behavior.

You can configure the behavior of the "ping protocol" between OPMN and OC4J in the `opmn.xml` configuration file.

When OC4J exceeds the timeout intervals specified for the ping protocol, the process monitoring software decides that the OC4J process has stopped responding and, therefore, terminates the OC4J process.

If you suspect this behavior in an Oracle Application Server installation, then use the following steps to troubleshoot and work around:

1. When OC4J instances are "mysteriously" terminating, first increase diagnostic logging to determine if ping failures are triggering the termination:

   a. Increase the OPMN logging level to 5 so that you can see the pings.

      In `opmn/conf/opmn.xml`, edit the following line:

      ```
      log-file path="$ORACLE_HOME/opmn/logs/ipm.log" level="5" ...
      ```

2. Reload the daemon.

   ```
   opmn/bin/opmnctl reload
   ```

3. Look in `opmn/logs/ipm.log` for the following line:

   ```
   Process Ping Failed:  OC4J~<instance name>~default_island~1 (opmnid)
   ```

4. The line above indicates that the memory and CPU resources of the current host are probably not sufficient to perform the operation within the currently specified ping timeout interval (used by OPMN to determine OC4J "responsiveness").

   Change the settings as follows:

   a. Increase the timeout and interval.

      Example:

      ```
      <ping timeout="60" interval="60"/>"
      <data id="reverseping-failed-ping-limit" value="5" />
      ```

5. Reload the daemon.

   ```
   opmn/bin/opmnctl reload
   ```

6. Restart the appropriate OC4J instance.

7. Repeat the top-level operation that caused the timeout failure.

9.4.7 Miscellaneous EJB Release Notes

The following are miscellaneous EJB release notes:

- You cannot mark a Container-Managed Persistence (CMP) entity bean as read-only if it has a Container-Managed Relationships (CMR) relationship to another entity bean that is not read-only.

- If you invoke any EJB from an application client outside the EJB container, then Java Authentication and Authorization Service (JAAS) is not supported for the

EJB. However, if you call the EJB from a servlet within the OC4J instance, then JAAS is supported.

- The container may call the `EJBActivate()` method multiple times when the bean is associated with several wrappers. (bug 3107168)

- If you access an EJB in an application from an EJB in a different application, then you cannot use the `RMIInitialContextFactory` object. In this scenario, you must use a parent-child relationship between these applications, and you must use the default initial context factory object. (bug 2812150)

- The JTA two-phase commit (2pc) function does not work with Oracle9*i* Release 2 (9.2). Instead, use Oracle Database version 9.2.0.4 or higher to enable the 2pc functionality. (bug 2668460)

- Currently, inline SQL queries are not supported within the finder query string defined in the `orion-ejb-jar.xml` file. When modifying these queries, avoid inline SQL queries, such as:

```
SELECT * FROM
  (SELECT * FROM TEST1) A,
    (SELECT * FROM TEST2) B WHERE A.ID =B.ID
```

9.5 Release Notes for OC4J Services

This section describes issues with OC4J Services. It includes the following topics:

- Section 9.5.1, "Release Notes for JNDI"
- Section 9.5.2, "Release Notes for Java Object Cache (JOC)"

9.5.1 Release Notes for JNDI

This section describes release notes for the Java Naming and Directory Interface (JNDI). It includes the following topics:

- Section 9.5.1.1, "JNDI Clustering: Values Bound From the Client Not Supported"
- Section 9.5.1.2, "Do Not Mix JDK Versions for IIOP Interactions"

9.5.1.1 JNDI Clustering: Values Bound From the Client Not Supported

JNDI clustering does not support clustering values bound from the client (for example, new InitialContext) unless both of the following conditions are met:

- The client binds the value to JNDI using a lookup URL.
- All of the servers are up.

9.5.1.2 Do Not Mix JDK Versions for IIOP Interactions

This section describes release notes for the Internet Inter-ORB Protocol (IIOP).

Do not mix JDK versions for IIOP interactions. If OC4J is communicating with other J2EE servers using the Internet Inter-ORB Protocol (IIOP), then all of the servers must use the same version of the JDK.

9.5.2 Release Notes for Java Object Cache (JOC)

This section describes release notes for the Java Object Cache (JOC). It features the following topic:

- Section 9.5.2.1, "Use javacache.xml for JOC Configuration"

9.5.2.1 Use javacache.xml for JOC Configuration

The OC4J 9.0.4 implementation uses the file `javacache.xml` for JOC configuration. In previous versions of JOC, configuration was done through the file `javacache.properties`.

Note: If you install both a 9.0.4 release and a pre-9.0.4 release on the same host, you must ensure that the `javacache.xml` `discovery-port` attribute and the `javacache.properties` `discoveryAddress` attribute are not configured to the same port. If they are, you must manually change the value of one or the other to a different port number, in the range of 7000 - 7099.

9.5.3 Release Notes for OC4J DataSources

This section describes release notes for OC4J DataSources. It includes the following topics:

- Section 9.5.3.1, "Non-Emulated Data Source Requires a Java-Enabled Database"
- Section 9.5.3.2, "OC4J Data Sources Create Twice the Number of Database Connections"

9.5.3.1 Non-Emulated Data Source Requires a Java-Enabled Database

You must use a java-enabled database to run a non-emulated data source.

When using a non-emulated data-source and a non-java-enabled database, deploying any MDB application (AQJMS) generates an exception (thrown to OC4J stdout). If you switch to an emulated data-source, or a java-enabled database, deployment proceeds correctly.

9.5.3.2 OC4J Data Sources Create Twice the Number of Database Connections

In the 9.0.4 release, OC4J data sources incorrectly created multiple connection pools for the same data source: one pool for transactional connections and one pool for non-transactional connections.

For example, if you start OC4J with a data source that is configured with a value of 10 for `<min-connnections>`, when you look at the number of active connections in the database you would expect to see 10 open connections. Instead, however, you would see 20 open connections.

This behavior is corrected in release 9.0.4.2 plus the patch for bug 4226465.

9.6 Release Notes for OracleAS JAAS Provider

Be aware of the following notes when using the OracleAS JAAS Provider in release 9.0.4:

- Section 9.6.1, "Using the 9.0.4 Oracle Internet Directory Server with OracleAS JAAS Provider"

9.6.1 Using the 9.0.4 Oracle Internet Directory Server with OracleAS JAAS Provider

In the 9.0.4 Oracle Internet Directory implementation, Access Control List (ACL) is not set up properly for JAZNAdminGroup. To use the 9.0.4 Oracle Internet Directory implementation with the 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 -a -p oidport -h oidhost -D adminuser_dn -w password \
              -f filename.ldif
   ```

9.7 Documentation Errata

This section describes known errors in the OC4J documentation in Oracle Application Server 10*g* (9.0.4). It includes the following topics:

- Section 9.7.1, "Oracle Application Server Containers for J2EE Servlet Developer's Guide Errata"

- Section 9.7.2, "Oracle Application Server Containers for J2EE Support for JavaServer Pages Developer's Guide Errata"

- Section 9.7.3, "Oracle Application Server Containers for J2EE User's Guide Errata"

- Section 9.7.4, "Oracle Application Server Containers for J2EE Services Guide Errata"

- Section 9.7.5, "Login User Name Change for ssoInfo Demo"

- Section 9.7.7, "SSL Configuration Correction"

- Section 9.7.8, "Do Not Specify the location Attribute for LDAP in jazn.xml or orion-application.xml"

- Section 9.7.9, "JDK14 Is Installed with Oracle Application Server 10g"

9.7.1 *Oracle Application Server Containers for J2EE Servlet Developer's Guide* Errata

The following note, which appears on page 6-6 of the 9.0.4 version of the *Oracle Application Server Containers for J2EE Servlet Developer's Guide*, is incorrect:

"Note: The OC4J JSP container does not currently support the `persistence-path` flag. It is for servlets only."

This flag actually is supported by the JSP container in the Oracle Application Server 10*g* (9.0.4) release.

9.7.2 *Oracle Application Server Containers for J2EE Support for JavaServer Pages Developer's Guide* **Errata**

The following item, which appears in the "Oracle HTTP Server and mod_oc4j" section in Chapter 2 of the *Oracle Application Server Containers for J2EE Support for JavaServer Pages Developer's Guide*, is incorrect:

"A mod_oc4j module can restart an OC4J instance automatically, if necessary."

In fact, OPMN, not `mod_oc4j`, restarts OC4J processes automatically when it detects that they are unavailable (for several reasons).

9.7.3 *Oracle Application Server Containers for J2EE User's Guide* **Errata**

The following information is missing in the *Oracle Application Server Containers for J2EE User's Guide*, Appendix A, "Additional Information". The section "Elements Contained Within <application-server> of the server.xml file" should include the following text describing the `<metric-collector>` element.

`<metric-collector>`

The `<metric-collector>` element specifies that OC4J sends a metric between 0 and 100, inclusive, to `mod_oc4j` so that `mod_oc4j` can make routing decisions to load-balance incoming requests to a list of available OC4J instances. The metric sent has a relative value only, where 0 means that the OC4J instance is very busy and 100 means that the OC4J instance is available (not busy). When configured for metric load balancing, `mod_oc4j` routes first to the OC4J instance with the greater value.

The metric sent from OC4J to `mod_oc4j` is used only when metric-based load balancing is specified for `mod_oc4j` and when OC4J runs in an Oracle Application Server environment.

If you specify metric-based load balancing in `mod_oc4j` and do not specify the `<metric-collector>` element in `server.xml`, then `mod_oc4j` expects OC4J to send metrics, but OC4J does not send metrics. In this case, `mod_oc4j` reports the following warning message:

```
No run time metrics for oc4j(opmnid=%s) in notification Oc4jSelectMethod is
configured to use run time metrics, please make sure OC4J side is configured
accordingly. Default to 50.
```

In this case, `mod_oc4j` uses the value 50 for each of the OC4J processes and continues.

Likewise, if you specify the `<metric-collector>` element in `server.xml`, but do not specify metric-based load balancing in `mod_oc4j`, then OC4J sends metrics but `mod_oc4j` is not configured to receive metrics. In this case, `mod_oc4j` ignores the metrics and uses whatever the configured method is for load balancing. Use `Oc4jSelectMethod` to specify the load balancing method. If no `Oc4jSelectMethod` is specified, then `mod_oc4j` uses the default, which is `roundrobin`.

The `<metric-collector>` element takes the following attribute: `classname.`

The `classname` attribute defines an interface for gathering and calculating a server-wide metric. Use `oracle.oc4j.server.DMSMetricCollector` for the `classname` attribute when using a DMS-noun-based metric collector. A `DMSMetricCollector` instance takes several parameters. Details for the values for these parameters are available in the *Oracle HTTP Server Administrator's Guide*.

For example:

```
<metric-collector classname="oracle.oc4j.server.DMSMetricCollector">
```

```
      <init-param>
        <param-name>
          dms-noun
        </param-name>
        <param-value>
          /oc4j/default/WEBs/processRequest.time
        </param-value>
      </init-param>
      <init-param>
        <param-name>
          history-proportion
        </param-name>
        <param-value>
          0.2
        </param-value>
      </init-param>
      <init-param>
        <param-name>
          debug
        </param-name>
        <param-value>
          false
        </param-value>
      </init-param>
    </metric-collector>
```

For details on using the `<metric-collector>` element and using metric-based load balancing with `mod_oc4j`, see the *Oracle HTTP Server Administrator's Guide*.

9.7.4 *Oracle Application Server Containers for J2EE Services Guide* Errata

The following statement in the JNDI chapter of the *Oracle Application Server Containers for J2EE Services Guide* is incorrect:

"When JNDI clustering is enabled, you can bind a serializable value into an application context (via remote client, EJB, or servlet) on one server and read it on another server. You can also create and destroy subcontexts in this way."

In OC4J 10*g* (9.0.4), destroying subcontexts is not yet supported.

9.7.5 Login User Name Change for ssoInfo Demo

The name of the user used for authentication in the `ssoInfo` demo has been changed from `"admin"` to `"adminuser"`. Using `"admin"` as the user name results in an authentication failure error.

9.7.6 Corrected JDBC Connect String for Third-Party Databases

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

The INCORRECT part of each 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;CreateDefaultPackage=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=gatewaydb"
                                    inactivity-timeout="30"
            />
```

9.7.7 SSL Configuration Correction

In the *Oracle Application Server Containers for J2EE Security Guide, 10g (9.0.4)*, in Chapter 3, "Configuring and Deploying the JAAS Preovider", in the "Configuring the JAAS Provider to Use SSL with Oracle Internet Directory" section, the instruction to set the `ldap.protocol` property to `ssl` is incorrect.

To determine whether to communicate with Oracle Internet Directory over SSL, Oracle JAAS looks at the `SSLOnly` property in the `$ORACLE_HOME/config/ias.properties` file. This information is set in the `ias.properties` file when the middle tier is associated with the infrastructure either during installation or through the Oracle Enterprise Manager.

9.7.8 Do Not Specify the location Attribute for LDAP in jazn.xml or orion-application.xml

Three configuration examples provided in the *Oracle Application Server Containers for J2EE Security Guide, 10g (9.0.4)*, Chapter 3, "Configuring and Deploying the JAAS Provider" contain unnecessary settings that should be removed.

In particular, the `location` attribute for `ldap` should not be set in the `$ORACLE_HOME/j2ee/home/config/jazn.xml` file or the `orion-application.xml` file.

JAAS reads the `location` property for the LDAP-based provider from `$ORACLE_HOME/config/ias.properties`. This information is set in the `ias.properties` file when the middle tier is associated with the infrastructure either during installation or through the Oracle Enterprise Manager.

For this reason, the `location` property is no longer needed in the `jazn` tag in the `jazn.xml` file or the `orion-application.xml` file.

Correct the following configuration examples provided in the *Oracle Application Server Containers for J2EE Security Guide, 10g (9.0.4)*, Chapter 3, "Configuring and Deploying the JAAS Provider":

- Section 9.7.8.1, "Correct the Configuration Examples in "Configuring the JAAS Provider to Use SSL ... ""

- Section 9.7.8.2, "Correct the Configuration Example in "Configuring Caching (LDAP-Based Provider Only)""

9.7.8.1 Correct the Configuration Examples in "Configuring the JAAS Provider to Use SSL ... "

Change the following code in both configuration examples in the "Configuring the JAAS Provider to Use SSL with Oracle Internet Directory" section:

Replace the following code:

```
< jazn provider="ldap" location="ldap://pixcn-sun.us.oracle.com:5000" >
```

with:

```
<jazn provider="ldap"/>
```

9.7.8.2 Correct the Configuration Example in "Configuring Caching (LDAP-Based Provider Only)"

Change the configuration example at the end of the "Configuring Caching (LDAP-Based Provider Only)" section. Replace the following code:

```
< jazn provider="LDAP" location="ldap://example.com:389" >
```

with:

```
<jazn provider="ldap"/>
```

9.7.9 JDK14 Is Installed with Oracle Application Server 10*g*

The following statement in the Introduction chapter of the Oracle Application Server Containers for J2EE Services Guide is incorrect:

"For optimum performance, run OC4J with the JDK that is installed with Oracle Application Server Release 2, which is JDK 1.3.x. "

The correct statement is as follows:

"For optimum performance, run OC4J with the JDK that is installed with Oracle Application Server 10*g*, which is JDK 1.4.x. "

10

Oracle HTTP Server

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

- Section 10.1, "General Issues and Workarounds"
- Section 10.2, "Configuration Issues and Workarounds"
- Section 10.3, "Documentation Errata"

10.1 General Issues and Workarounds

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

- Section 10.1.1, "OC4J Plug-in Usage with Standalone and Core Installation"
- Section 10.1.2, "Limited Concurrent Use of mod_oc4j and mod_jserv"
- Section 10.1.3, "Enabling mod_oprocmgr"

10.1.1 OC4J Plug-in Usage with Standalone and Core Installation

To use the OC4J plug-in with the OC4J standalone product without OPMN, only static routing to specific hosts and ports is allowed within the OC4J plug-in, and OC4J must be configured to use AJP. Using static routing with hosts and ports means that only `Oc4jMount` directives such as the following are supported:

```
Oc4JMount /j2ee/* ajp13://localhost:6001,localhost:6002
```

To enable AJP in the OC4J configuration, a line such as the following must be present in the `default-web-site.xml` file in the OC4J configuration:

```
<web-site port="3000" protocol="ajp13" display-name="OracleAS Java Web Site">
```

where the port value specifies the port that this OC4J process will listen on for incoming AJP requests.

10.1.2 Limited Concurrent Use of mod_oc4j and mod_jserv

Since both `mod_oc4j` and `mod_jserv` route requests for servlet containers, care must be taken when configuring both to run within a single Oracle HTTP Server instance. In particular, avoid using the `mod_jserv` directive `ApjServAction` as it might create routing issues. For example, if the use of this directive involves mapping all requests ending in `.jsp`, then requests that were meant to be serviced by OC4J through an `Oc4jMount` directive might be routed unsuccessfully to `mod_jserv`.

10.1.3 Enabling mod_oprocmgr

You must have at least one non-https port enabled for Oracle HTTP Server in order to enable `mod_oprocmgr`.

10.2 Configuration Issues and Workarounds

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

- Section 10.2.1, "Oracle HTTP Server (1.0.2.2.x) Cannot Be Used with Oracle Application Server (9.0.4.x)"
- Section 10.2.2, "Manually Editing mod_plsql Configuration Files"
- Section 10.2.3, "Invalid mod_plsql Configuration Files Do Not Appear in Oracle Enterprise Manager Interface"
- Section 10.2.4, "FastCGI Sockets Path Length Error"
- Section 10.2.5, "Oracle HTTP Server Does Not Start After Enabling Port Tunneling or SSL in mod_oc4j"
- Section 10.2.6, "ApJServManual setting Information for Enabling mod_jserv"

10.2.1 Oracle HTTP Server (1.0.2.2.x) Cannot Be Used with Oracle Application Server (9.0.4.x)

Oracle does not support using 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* (9.0.4.x). 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* (9.0.4.x). Use `mod_proxy` to route data between Oracle HTTP Server component supplied with Oracle9*i*AS Release 1 (1.0.2.2.x) andOC4J supplied with Oracle9*i*AS Release 1 (1.0.2.2.x).

10.2.2 Manually Editing mod_plsql Configuration Files

If you edit the `mod_plsql` configuration files *ORACLE_HOME*/Apache/modplsql/conf/dads.conf or *ORACLE_HOME*/Apache/modplsql/conf/cache.conf then you must follow these steps to synchronize DCM and Oracle Enterprise Manager:

- Run the `$ORACLE_HOME/dcm/bin/dcmctl -updateConfig -co HTTP_Server` on the command line.
- Restart Application Server Control, so that the `mod_plsql` administration in Oracle Enterprise Manager can pick up the changes.
- Restart Oracle HTTP Server to pick up the changes to the configuration files.

10.2.3 Invalid mod_plsql Configuration Files Do Not Appear in Oracle Enterprise Manager Interface

If you are using Application Server Control to configure `mod_plsql` files and upon further examination the files are corrupt or contain invalid syntax, there will be no configuration data displayed in Oracle Enterprise Manager. No configuration operations are performed.

10.2.4 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
```

10.2.5 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`.

10.2.6 ApJServManual setting Information for Enabling mod_jserv

When enabling `mod_jserv`, the `ApJServManual` directive works in "off" mode only when Apache is started using `apachectl start`, and not `opmnctl`.

10.3 Documentation Errata

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

- Section 10.3.1, "Additional Metric-based Load Balancing Information"

- Section 10.3.2, "Configuring Anonymous Access for IIS"

- Section 10.3.3, "Errors in Steps for Configuring OC4J Plug-in on Sun ONE"

- Section 10.3.4, "Error in Steps for Configuring Sun ONE Listener to Use Proxy Plug-in"

- Section 10.3.5, "Remove "Not Supported By Oracle" Note for Modules"

10.3.1 Additional Metric-based Load Balancing Information

The "Oracle HTTP Server Modules" chapter of the *Oracle HTTP Server Administrator's Guide* contains information about metric-based load balancing. For additional information on the topic, refer to the OC4J section of the *Oracle Application Server 10g Release Notes* and the *Oracle Application Server Containers for J2EE User's Guide*.

10.3.2 Configuring Anonymous Access for IIS

In the "Using Oracle Application Server Containers for J2EE Plug-in" appendix of the *Oracle HTTP Server Administrator's Guide*, add the following information to configure anonymous access for IIS:

Perform the following steps if you want OC4J to perform the authentication:

1. In the IIS Management GUI, right click on the default Web site and select Properties.

2. Select the Directory Security tab and click the Edit button under Anonymous Access and Authentication Control. Be sure that the Anonymous access is checked and that basic authentication and integrated Windows Authentication are both unchecked.

> **Note:** If you want IIS to perform authentication and simply pass the user name to OC4J, then do not disable authentication in IIS.

10.3.3 Errors in Steps for Configuring OC4J Plug-in on Sun ONE

"Configuring OC4J Plug-in on Sun ONE" section in "Using Oracle Application Server Containers for J2EE Plug-in" appendix of the *Oracle HTTP Server Administrator's Guide* contains the following errors:

1. Add the following lines at the end of `/sunone/https-mymachine/magnus.conf`:

   ```
   Init fn="load-modules" shlib="/sunone/opii.so" funcs=oppi_init,opii_
   objecttype,opii_service,opii_child_init
   ```

   should read:

   ```
   Init fn="load-modules" shlib="/sunone/opii.so" funcs=opii_init,opii_
   objecttype,opii_service,opii_child_init
   ```

2. Make the following modifications to `/sunone/https-mymachine/obj.conf`:

   a. Add the following line before any `ObjectType` line:

   ```
   ObjectType fn=opii_objecttype
   ```

   b. Add a Service line, such as:

   ```
   Service Type="oracle/opii" fn="opii_service" UserOutPutStreamSize = 8192
   ```

   should read:

   a. Add the following line before any `ObjectType` line:

   ```
   ObjectType fn=opii_objecttype
   ```

   b. Add a Service line, such as:

   ```
   Service type="oracle/opii" fn="opii_service"
   ```

> **Note:** You may need to use `UseOutputStreamSize` to optimize performance. Refer to Sun ONE Web Server documentation for details.

10.3.4 Error in Steps for Configuring Sun ONE Listener to Use Proxy Plug-in

Step 4 in "Configuring Sun ONE Listener to Use Proxy Plug-in" section in "Using Oracle Application Server Proxy Plug-in" appendix of the *Oracle HTTP Server Administrator's Guide* contains the following error:

Add the following line to the `<Object name=default>` section of the `obj.conf` file, before all other lines beginning with the word `ObjectType`:

```
ObjectType fn=op_objecttype UserOutputStreamSize=8192
```

should be

Add the following line to the `<Object name=default>` section of the `obj.conf` file, before all other lines beginning with the word `ObjectType`:

```
ObjectType fn=op_objecttype
```

10.3.5 Remove "Not Supported By Oracle" Note for Modules

"Oracle HTTP Server Modules" chapter of the *Oracle HTTP Server Administrator's Guide* states that the following modules are not supported by Oracle:

```
mod_asis
```

```
mod_auth_dbm
```

```
mod_cern_meta
```

```
mod_example
```

```
mod_imap
```

```
mod_log_agent
```

```
mod_nmap_static
```

These modules are supported by Oracle.

11

Oracle Application Server TopLink

This chapter describes issues with Oracle Application Server TopLink (OracleAS TopLink). It includes the following topics:

11.1 General Issues and Workarounds

This section describes general issues and their workarounds for OracleAS TopLink.

> **Note:** This section applies to all supported platforms. In OracleAS TopLink, file paths and script names are identical on all platforms. By default, this section uses the Windows file path separator ("\"). Substitute the file path separator appropriate for your platform as required.

It includes the following topics:

11.1.1 New Package Names

Beginning with Release 2 (9.0.3), the base package for the entire structure became **`oracle.toplink`**. Use the **Package Rename** tool to upgrade any existing application source code and OracleAS TopLink Mapping Workbench project that refers to a pre-Release 2 (9.0.3) versions.

> **Note:** If you are upgrading from a version previous to Release 2 (9.0.3), you must convert the package names before opening your project(s) in OracleAS TopLink 10*g* (9.0.4).

For more information on the Package Rename tool, see the *Oracle Application Server TopLink Getting Started Guide*.

11.1.2 API Modifications

In 10*g* (9.0.4), OracleAS TopLink modified the API as follows:

- For `DatabasePlatform.initializePreallocatedSequences()`: use `DatabaseSession.getSequencingControl().initializePreallocated()` instead.

- `DatabasePlatform.setUsesNativeSequencing(boolean)` is now marked as `INTERNAL` and should not be used by users. Use `DatabaseSession.getSequencingControl().shouldUseNativeSequencing()` and `shouldUseTableSequencing()` instead.

- Changes to `oracle.toplink.tools.codegen`. To maintain existing code, use the following:

    - For `AttributeDefinition`, use `ReflectiveAttributeDefinition` instead.

    - For `MethodDefinition`, use `ReflectiveMethodDefinition` instead.

    Additional code definition implementations include `NonreflectiveMethodDefinition` and `NonreflectiveAttributeDefinition`.

- Added `RemoteCORBAConnection.scrollableCursorPreviousObject`.

- Added `RemoteEJBConnection.scrollableCursorPreviousObject`.

- Added `RemoteJMSConnection.scrollableCursorPreviousObject`.

- Added `RemoteRMIConnection.scrollableCursorPreviousObject`.

11.1.3 OracleAS TopLink Examples

If you attempt to run the EJB 1.1 CMP Single Bean example with BEA Weblogic 6.1 on the Sybase SQL Server, Sybase throws a SQL error.

11.1.4 EJB QL Parsing and Running JSPs on BEA WebLogic 8.1 Service Pack 1

In OracleAS TopLink 10*g* (9.0.4), OracleAS TopLink builds and parses against ANTLR 2.70. BEA WebLogic 8.1 Service Pack 1 ships with ANTLR 2.72. Using OracleAS TopLink EJB QL parsing and running JSPs simultaneously in the same application with BEA WebLogic 8.1 SP1 causes parsing problems due to incompatibilities between the ANTLR versions. Consider the following:

- Section 11.1.4.1, "EJB QL parsing"

- Section 11.1.4.2, "Running JSPs"

11.1.4.1 EJB QL parsing

To use OracleAS TopLink EJB QL parsing with BEA WebLogic 8.1 SP1, without running JSPs simultaneously, place the `antlr.jar` file (version 2.70 provided with the OracleAS TopLink install), as the first item in the class path.

11.1.4.2 Running JSPs

To run JSPs with OracleAS TopLink with BEA WebLogic 8.1 SP1, without EJB QL simultaneously, remove the `antlr.jar` file (version 2.70) from the class path.

11.1.5 XML Parser Dependencies

Consider the following XML parser dependency issues:

- Section 11.1.5.1, "OC4J XML Parser Dependency"

- Section 11.1.5.2, "Crimson XML Parser Issue"

11.1.5.1 OC4J XML Parser Dependency

By default, both OC4J and OracleAS TopLink use the OracleAS XML Parser for Java v2. When using OC4J and OracleAS TopLink together, ensure that both use the same version of OracleAS XML Parser for Java v2. Failure to do so may result in XML parsing failures and application errors.

To determine what version of OracleAS XML Parser for Java v2 is used in your OracleAS TopLink installation:

1. Display the comment associated with the *<ORACLE_HOME>*`\lib\xmlparserv2.jar` file (where *<ORACLE_HOME>* is the directory in which you installed OracleAS TopLink).

   - On Windows, configure WinZip to display comments: select `Options > Configuration`, select the Miscellaneous tab, and ensure that the "Show comments when opening Zip files" check box is checked. Open the *<ORACLE_HOME>*`\lib\xmlparserv2.jar` file with WinZip.

   - On UNIX, use: `unzip -l <ORACLE_HOME>/lib/xmlparserv2.jar`

   The comment shows the build that this version of OracleAS XML Parser for Java v2 belongs to. For example: Label: `XDK_MAIN_SOLARIS_031006`.

2. Ensure that this build is the same as the build associated with the OracleAS XML Parser for Java v2 used in OC4J.

11.1.5.2 Crimson XML Parser Issue

Crimson (`http://xml.apache.org/crimson/`) is the XML parser supplied in the Java 2 Platform, Standard Edition (J2SE) and in some JAXP reference implementations.

If you use Crimson with the JAXP API to parse XML files whose system identifier is not a fully qualified URL, then XML parsing will fail with a "not valid URL" exception.

Other XML parsers defer validation of the system identifier URL until it is specifically referenced.

If you are experiencing this problem, consider one of the following alternatives:

- Ensure that your XML files use a fully qualified system identifier URL.

■ Use another XML parser (such as the OracleAS XML Parser for Java v2).

11.1.6 UTF-8 Encoding Exceptions

In 10*g* (9.0.4), OracleAS TopLink only supports UTF-8 encoding. The
SAXParseException with OracleAS TopLink Exception, **Error Code 9006** occurs if
you attempt to read a non-UTF-8 formatted XML file.

11.1.7 SAXParseException Error Message

■ *The markup in the document preceding the root element must be well-formed.*

■ *Start of root element expected.*

If any of these exceptions occurs, assess the possibility that UTF-8 encoding is the
issue.

11.1.8 Using OracleAS TopLink - Web Client with Right-to-left Languages

The OracleAS TopLink - Web Client does not correctly display text for some
right-to-left languages.

11.1.9 Prepared Statements may Fail to Execute After a loss of Communication to the Database

If you configure a Login or Query to use statement caching and communication to the
database is lost and then restored, previously cached statements may fail to execute.

For example, it is a common practice to define an exception handler and register it
with a Session using Session.setExceptionHandler(). When the exception
handler is invoked to handle a loss of communication and the handler reestablishes
the connection to the database, any attempt to re-execute a previously cached
statement will fail.

11.1.10 Using OracleAS TopLink with IBM WebSphere 5.1

When using OracleAS TopLink with WebSphere Application Server 5.1, we
recommend that applications be configured and deployed with their class loader mode
set to PARENT_FIRST.

If an application must be configured with its class loader mode set to
PARENT_LAST, then select one of the following options:

■ Remove (or rename) the <JAVA_HOME>\lib\jaxp.properties file, where
<JAVA_HOME> is typically <WebShpere_Install>\java\jre.

■ Place the xerces library included in the WebSphere installation after
xmlparserv2.jar in the same shared library. This file is located in
<WebShpere_Install>\java\jre\lib\xml.jar.

11.1.11 Using Discovery Through Clustering

Discovery through clustering is only supported for ClusteringService with JMS. The
new Remote Command Manager (RCM) should now be used for cache
synchronization instead of ClusteringService.

11.1.12 OracleAS TopLink Mapping Workbench

The following issues exist in OracleAS TopLink Mapping Workbench 10*g* (9.0.4):

- Section 11.1.12.1, "Specifying Oracle Databases"
- Section 11.1.12.2, "Migrating Projects from Earlier Versions"
- Section 11.1.12.3, "JDK Issue with Microsoft Windows and ATI Video Cards"
- Section 11.1.12.4, "Using Mapped Network Drives with Windows XP"
- Section 11.1.12.5, "Using JAWS"
- Section 11.1.12.6, "Icon Size"
- Section 11.1.12.7, "Referencing Large Class paths"
- Section 11.1.12.8, "Generating Source Code"
- Section 11.1.12.9, "Multiple Levels of Joining"
- Section 11.1.12.10, "Unsupported JREs"
- Section 11.1.12.11, "Invalid Warning Message"
- Section 11.1.12.12, "Improper Set Method for Array Type Attributes"
- Section 11.1.12.13, "Canceling in Expression Builder May Still Modify a Query"
- Section 11.1.12.14, "Multiple Mappings to Primary Key Field can Affect how the OracleAS TopLink Mapping Workbench Generates the ejb-jar.xml File"
- Section 11.1.12.15, "Code Generated Project Class Uses String Values for All Types in Expressions"

11.1.12.1 Specifying Oracle Databases

New Oracle9*i* and Oracle8*i* database-specific platform files have been introduced in this release. Previous releases included a generic Oracle database platform file. When importing an OracleAS TopLink Mapping Workbench 9.0.3 project that uses the generic Oracle database platform:

1. Select **Oracle8***i* or **Oracle9***i* as the Database Platform on the Database property sheet, as appropriate. If your project uses a pre-Oracle8*i* database, select Oracle. See "Working with Databases" in the *Oracle Application Server TopLink Mapping Workbench User's Guide* for more information.

> **Note:** To use OracleAS TopLink Mapping Workbench with Oracle Database 10g, select Oracle9*i*.

2. Save the project, close the project, then re-open the project.

11.1.12.2 Migrating Projects from Earlier Versions

If you are migrating an OracleAS TopLink Mapping Workbench project from a version prior to version 3.6, contact Oracle Support Services support for assistance at:

`http://metalink.oracle.com`

11.1.12.3 JDK Issue with Microsoft Windows and ATI Video Cards

On Microsoft Windows platforms, Java 2D functionality in J2SE 1.4.1 can cause a system crash (blue screen). Although the JDK 1.4.1_02 release fixes this bug, some

non-Java applications may trigger a system crash. If you still encounter this problem when you run the OracleAS TopLink Mapping Workbench, update your ATI driver.

The latest drivers for a particular card are usually available on the web site of your computer, video card, or video chip manufacturer. For more information, also see the J2SE 1.4.1 release documentation at:

```
http://java.sun.com/j2se/1.4.1/relnotes.html
```

11.1.12.4 Using Mapped Network Drives with Windows XP

On Microsoft Windows XP platforms with mapped network drives, the OracleAS TopLink Mapping Workbench File Chooser dialogs (such as Save File or Open File) may experience slow responses for opening and traversing directory trees. Unmapping the network drives to eliminate this behavior.

11.1.12.5 Using JAWS

Due to limitations in JAWS 4.5.1, input field labels in the OracleAS TopLink Mapping Workbench are not read properly. Oracle recommends using JAWS 3.7 and version 103 Access Bridge for maximum accessibility.

11.1.12.6 Icon Size

Changing the icon size of the OracleAS TopLink Mapping Workbench toolbar may cause the application to fail at the next startup. You must edit the `workbench.xml` file and change `small-icon="false"` to `"true"`.

11.1.12.7 Referencing Large Class paths

Referencing an extremely large directory (such as your root directory) or `.jar` file in your project's classpath may considerably slow the class chooser dialog and negatively impact performance.

11.1.12.8 Generating Source Code

If you attempt to generate source code for a descriptor but cancel the process before the OracleAS TopLink Mapping Workbench writes the new source code, a dialog indicates that the source code was successfully updated. However, if you canceled the process, the OracleAS TopLink Mapping Workbench did not overwrite any existing code.

In 10*g* (9.0.4), the OracleAS TopLink Mapping Workbench does not support generation of code for inner classes.

If you attempt to generate source code from a table with BLOBs, the generated Java code may contain errors in type the type definition and method parameters. You must edit the source code to eliminate the errors.

11.1.12.9 Multiple Levels of Joining

If you select **Use Joining** for a one-to-one mapping in the OracleAS TopLink Mapping Workbench, the generated SQL is incorrect and will return null instances.

Example 11–1

`Customer` has three objects linked by a 1:1 mapping: `Customer` has an `Address`; `Address` has a `Country`. Each class is mapped to a different table: `Customer` to CUSTOMER; `Address` to ADDRESS; `Country` to COUNTRY. With the Use Joining option, the OracleAS TopLink Mapping Workbench generates incorrect queries.

To join the relationships correctly, use the following syntax:

```
readAllByExample.addJoinedAttribute("address");
readAllByExample.addJoinedAttribute(tpBuilder.get("address").get("country"));
```

11.1.12.10 Unsupported JREs

Do not use the OracleAS TopLink Mapping Workbench with the Sun JRE 1.4. Refer to the *Oracle Application Server TopLink Getting Started Guide* for complete information on supported platforms.

11.1.12.11 Invalid Warning Message

When creating a variable one-to-one mapping, the OracleAS TopLink Mapping Workbench may incorrectly show the following warning message in the status bar:

The following specified Query Key Names are no longer valid: xxx

where *xxx* is a name of query key specified in Query Key Associations tab of mapping. This warning may be safely ignored.

The following OracleAS TopLink Mapping Workbench warning message may appear when a writable mapping and an aggregate mapping are associated with the same field:

The following fields have multiple writable mappings: <field name>.

If the aggregate mapping does not actually write to the field (for example, the field is used as part of a target foreign key reference), the warning may be safely ignored.

11.1.12.12 Improper Set Method for Array Type Attributes

The OracleAS TopLink Mapping Workbench does not generate proper set method for array type attributes.

11.1.12.13 Canceling in Expression Builder May Still Modify a Query

When using the OracleAS TopLink Mapping Workbench Expression Builder, it is possible to inadvertently modify a query even if you select cancel to discard your changes.

For example, if you create a nested compound query, edit the query to remove the compound component, and then press **Cancel** to discard the changes, the changes are still applied. If this occurs, you must edit the query again and replace the inadvertently removed compound component.

11.1.12.14 Multiple Mappings to Primary Key Field can Affect how the OracleAS TopLink Mapping Workbench Generates the ejb-jar.xml File

When using the OracleAS TopLink Mapping Workbench to create EJB 2.0 CMP bean descriptors, avoid creating multiple mappings to the bean's primary key field. If such a descriptor contains multiple mappings to its primary key field, the required direct-to-field mapping must be the last primary key mapping in the descriptor. If it is not, the OracleAS TopLink Mapping Workbench will fail to write the primary-key-field element to the `ejb-jar.xml` file.

For example, if the descriptor contains a direct-to-field mapping for the primary key followed by a one-to-one mapping using the primary key as a foreign key, then the primary-key-field element is not written to the `ejb-jar.xml` file.

11.1.12.15 Code Generated Project Class Uses String Values for All Types in Expressions

When you define an expression in the OracleAS TopLink Mapping Workbench, you can select the type of any literal value. If you export the project Java source, all literal values are written out as String type.

For example, if you define a query with a literal value (100000) of type Long and then export the project Java source, the literal value is written out as a String type.

Example 11–2   Query in Exported Project Java Source

```
ReadObjectQuery namedQuery0 = new
ReadObjectQuery(examples.sessions.threetier.model.Employee.class);
namedQuery0.setName("testQuery");
...
namedQuery0.setSelectionCriteria(expBuilder0.get("salary").equal("100000"));
descriptor.getQueryManager().addQuery("testQuery", namedQuery0);
```

11.2 Documentation Errata

This section describes known errors in the documentation. It includes the following topics:

- Section 11.2.1, "Configuring the OracleAS TopLink Web Client"

- Section 11.2.2, "OracleAS TopLink Mapping Workbench Tutorial"

- Section 11.2.3, "OracleAS TopLink Mapping Workbench User's Guide"

11.2.1 Configuring the OracleAS TopLink Web Client

In the "Configuring the Web Client" section of the *Oracle Application Server TopLink Application Developer's Guide*, the correct path of the web.xml file should be: *<ORACLE_HOME>*\toplink\config\toplinkwc.

When using the Web Client with Oracle Application Server Containers for J2EE, substitute your local *<J2EE_HOME>* directory in place of the *<ORACLE_HOME>*\toplink\examples\oc4j\904\server\ indicated in the document.

To deploy to BEA WebLogic, you must also define a reference to this datasource in the *<ORACLE_HOME>*\toplink\config\toplinkwc\ weblogic.xml file, as follows:

```
<reference-descriptor>
  <resource-description>
    <res-ref-name>jdbc/DataSourceName</res-ref-name>
    <jndi-name>jdbc/DataSourceName</jndi-name>
  </resource-description>
</reference-descriptor>
```

In the "Configuring the Application Server" section, the first step of the procedure (where you are instructed to copy the toplinkwc.ear file to an application server-specific directory) is not required. When you run the assembleWebClient script located in the *<ORACLE_HOME>*\toplink\bin directory, the system assembles and deploys the toplinkwc.ear file for you, as specified in the build.properties file.

11.2.2 OracleAS TopLink Mapping Workbench Tutorial

When completing the tutorials in the *Oracle Application Server TopLink Mapping Workbench User's Guide*, be aware of the following changes:

- To use sequencing, in addition to creating the sequence table from the OracleAS TopLink Mapping Workbench, you must also create the sequence table in the database.

- When creating the sequence table, use size **38** for both `SEQ_NAME` and `SEQ_ COUNT`.

- When implementing inheritance for the `BaseProject` descriptor, ensure that the **Read Subclass On Query** option is selected.

- Figure B-49 incorrectly omits the `BaseProject` class indicator type. Although `BaseProject` is an abstract class and does not require an indicator value, it is listed on the Inheritance tab.

11.2.3 OracleAS TopLink Mapping Workbench User's Guide

The OracleAS TopLink Mapping Workbench User's Guide contains the following documentation errata:

- In Chapter 2, "Understanding Projects", in the section entitled "Mapping EJB 2.0 Entities",

    "Update Descriptors from ebj-jar.xml"

    should be:

    "Update Project from ejb-jar.xml"

- In Chapter 6, "Understanding Relationship Mappings", in the section entitled "Working with One-to-One Mappings",

    `ADDRESS` row

    should be:

    `ADDRESS` table

- In Appendix C, "Troubleshooting", in the section entitled "Error Messages" under the error message No class indicator value should be defined for the abstract class [class name], the Cause and Action definitions are as follows:

    Cause: Abstracts class do not use class indicator values

    Action: On the Class Indicator Values tab, choose <none selected> as the Class Indicator Field.

Part III

Oracle Application Server Portal Issues

This part describes issues associated with the Oracle Application Server Portal (OracleAS Portal). It contains the following chapters:

- Chapter 12, "Oracle Application Server Portal"
- Chapter 13, "Oracle Ultra Search"
- Chapter 14, "Oracle Application Server Syndication Services"

12

Oracle Application Server Portal

This chapter describes issues with Oracle Application Server Portal (OracleAS Portal). It includes the following topics:

12.1 Configuration Issues and Workarounds

This section describes configuration related issues and their workarounds for OracleAS Portal:

12.1.1 Portal Service Monitoring Link Not Working

The **Portal Service Monitoring** link (in OracleAS Portal) provides direct access to the Oracle Enterprise Manager Application Server Control that is monitoring and managing the portal. This link can become misconfigured if you:

- Make OracleAS Web Cache configuration changes using the Portal Web Cache Settings Page in Application Server Control.

- Use the "-site" mode of the `ptlconfig` script.

The link does not work because in these specific cases the Application Server Control port is hardcoded to 1810.

Additionally, the **Portal Service Monitoring** link does not work if the Oracle Application Server instance name contains an underscore '_'.

As a workaround, run the script:

```
$ORACLE_HOME/portal/conf/ptlconfig -dad <dad name> -em
```

This script restores the link to use the correct port. To refresh the **Portal Service Monitoring** link, it is necessary to clear both the OracleAS Web Cache and the File System cache of OracleAS Portal content.

- To clear OracleAS Web Cache:

    - In the **Services** portlet, click **Global Settings**. By default, the Services portlet is on the Portal sub-tab of the Administer tab on the Portal Builder page.

    - Click the **Cache** tab and choose **Clear The Entire Web Cache.**

    - Click Apply or OK to clear the cache.

- To clear the File System Cache:

    - Clean up the OracleAS Portal file system cache. Do this by recursively deleting all files and directories in the middle-tier Oracle home under the `Apache/modplsql/cache` directory. Do not delete the cache directory itself.

    - If you have multiple middle-tiers accessing the OracleAS Portal Repository, repeat the preceding step for all middle-tiers.

    - Change the `PortalListeningHostPort` value to `"http://<host>:<port>"`

    The default location of the `Apache/modplqsl/cache` directory can be found in the configuration setting of the `PlsqlCacheDirectory` entry in the `Apache/modplsql/conf/cache.conf` file. If this location has been changed from its default, make sure that you clean up all files under your directory.

12.1.2 Portal Web Cache Settings Page Not Working Properly

The **Portal Web Cache Settings Page** in Oracle Enterprise Manager Application Server Control allows you to specify the OracleAS Web Cache settings that OracleAS Portal should use. However, any configuration changes that you make here are not reflected in the target if you change the **Listening Port SSL Enabled** property at the same time as other configuration changes, for example host and port number changes. As a result, the portal Homepage Download metric will fail in Application Server Control.

There are two possible workarounds:

- The first option resolves the issue within Oracle Enterprise Manager but there is a small amount of OracleAS Portal downtime between steps 1 and 2:

    1. In the **Portal Web Cache Settings Page**, set only the port property to a different port number and click OK.

    2. Open the **Portal Web Cache Settings Page** again, set only the port property to the *actual* port number and click OK.

- The second option does not result in any OracleAS Portal downtime but you must edit the configuration file manually:

1. Backup $MID_TIER_ORACLE_HOME/sysman/emd/targets.xml before making any changes.

2. Edit and save $MID_TIER_ORACLE_HOME/sysman/emd/targets.xml so that the property shown below has the correct host and port details:

   ```
   <Property NAME="PortalListeningHostPort"
   VALUE="myportal.us.oracle.com:8000"/>
   ```

   This property is located under the section starting with TYPE="oracle_portal". Make sure you choose the correct one, i.e. <Property NAME="portal_DAD" VALUE="portal"/> matches the portal application that needs updating.

3. Reload the targets in Oracle Enterprise Manager:

   ```
   $MID_TIER_ORACLE_HOME/bin/emctl reload
   ```

12.1.3 oracle.hhtp.configfile Property Must Be Set Manually In oc4j.properties

During Oracle Application Server Portal Developer Kit installation, the oracle.http.configfile property in oc4j.properties is not set automatically. Therefore you must update the oc4j.properties file manually. This file is located at:

- UNIX: <ORACLE_HOME>/j2ee/OC4J_Portal/config/oc4j.properties

- Windows: <ORACLE_HOME>\j2ee\OC4J_Portal\config\oc4j.properties

Add the following line, ensuring that you substitute the correct absolute path to your Oracle home:

```
oracle.http.configfile=<ORACLE_HOME>/portal/conf/cache.xml
```

12.1.4 Incorrect Rewrite Rules For Associating Federated Portal Adapter with SSL

The *Oracle Application Server Portal Configuration Guide* describes how to associate the Federated Portal Adapter with SSL (Section 6.3.2.1.4, "SSL Throughout OracleAS Portal"). The Rewrite Rules described in this section are incorrect. Instead of copying rewrite rules from the portal.conf file, you should add or edit the following lines in the virtual hosts section of your ssl.conf file, located in the MID_TIER_ORACLE_HOME/Apache/Apache/conf directory:

RewriteEngine On

RewriteOptions inherit

```
</VirtualHost>
```

12.1.5 Problems Logging into Two Oracle HTTP Servers on the Same Host

When two Oracle HTTP Servers are running on a single computer, such as when an infrastructure installation and a Portal and Wireless middle tier installation are both installed on a single computer, logging in to OracleAS Portal is not possible when using the Microsoft Internet Explorer Web browser. This behavior has been noted with versions 5.5 and 6.0 of Internet Explorer. This problem occurs when a browser redirect is issued from a port used by OracleAS Single Sign-On server to a port used by OracleAS Web Cache. The OracleAS Web Cache port is fronted by Oracle9iAS Portal. When Internet Explorer receives the redirect, it sets the Host: header incorrectly with the first port rather than the destination port.

When this error occurs with Internet Explorer, one of the following messages may be shown after an attempt to log in:

```
Error: Unexpected error encountered in wwsec_app_priv.process_signon
(ORA-06502: PL/SQL: numeric or value error: character string buffer too small)
(WWC-41417)
```

or

```
Error: The decryption of the authentication information was unsuccessful. This
may be caused by corruption of the data, an incorrect encryption key in this
application's configuration, or an illegal access attempt. Please notify your
administrator. (WWC-41454)
```

Although Internet Explorer sets the Host: header incorrectly in SSL or non-SSL mode, the problem only shows up in SSL mode. This is because OracleAS Web Cache is setup to map ports to a catch-all default HTTP port in non-SSL mode. The workaround is to use two separate computers; one computer for the Infrastructure install type, and one computer for the Portal and Wireless install type.

12.1.6 Monitoring OracleAS Portal Targets in an OracleAS Web Cache SSL Enabled Site

If you want to use Application Server Control to monitor OracleAS Portal over SSL (using an HTTPS URL), the Oracle Management Agent must be configured to recognize the Certificate Authority used by the Web site where that URL resides. The agent software is preconfigured to recognize most commercial Certificate Authorities that are likely to be used by secure Internet Web sites. However, if the Certificate Authority is not recognized by the agent, you will not be able to monitor the Providers or OracleAS Metadata Repository version for these OracleAS Portal targets (in Application Server Control).

See Also:

- "About Application Service Level Management" in the Enterprise Manager Online Help.

- "The Public Key Infrastructure Approach to Security" in Oracle Security Overview for an overview of Public Key Infrastructure features, such as Certificate Authorities.

- "Using Beacons to Monitor Remote URL Availability" in the Enterprise Manager Online Help.

To configure the agent 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 Web site 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 `myportal_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 here:

```
-----BEGIN CERTIFICATE-----
MIIDBzCCAnCgAwIBAgIQTs4NcImNY3JAs5edi/5RkTANBgkqhkiG9w0BAQQFADCB
... base64 certificate content...
-----END CERTIFICATE-----
```

2. Update the list of the agents Certificate Authorities, as follows:

a. Locate the `b64InternetCertificate.txt` file in the following directory of 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 top of the file, taking care to include all the Base64 text of the Certificate including the **BEGIN** and **END** lines.

3. Restart the Application Server Control.

```
emctl stop iasconsole
emctl start iasconsole
```

When you restart the Application Server Control, the agent detects your addition to the list of Certificate Authorities recognized by agent and you can successfully monitor OracleAS Portal Providers and view OracleAS Metadata Repository version information.

12.2 UI Issues and Workarounds

This section describes UI related issues and their workarounds for OracleAS Portal:

- Section 12.2.1, "Relative Links Converted to Absolute Links"
- Section 12.2.2, "Problems Adding Portlets to Pages - Provider Registration Failure"
- Section 12.2.3, "Extra Perspective Page Template if Upgrading from Oracle9iAS Portal 9.0.2.6"
- Section 12.2.4, "Custom Attributes Revert to Default Values When New Version Created"

12.2.1 Relative Links Converted to Absolute Links

This problem occurs when using the Rich Text Editor in Internet Explorer only. If you create a Text item containing a relative link, it is converted to an absolute link. This causes problems if your content is to be exported to another site. For example:

1. Create a Text item.

2. Switch to HTML mode in the Rich Text Editor.

3. Enter: `<IMG SRC="/images/home.gif" ALT="Home" BORDER=0>`

4. Click **OK**.

5. Edit the Text item.

Note that the *base* has been added to the URL, e.g. <IMG alt=Home src="http://webserver.us.abc.com:5000/images/home.gif" border=0>.

One workaround is to disable the Rich Text Editor. For details, see *Oracle Application Server Portal User's Guide*. Alternatively, apply the patch to Bug 3009204 (available on the Oracle*MetaLink* Web site at http://metalink.oracle.com). This patch provides a script that parses text items and converts absolute URLs to relative URLs.

12.2.2 Problems Adding Portlets to Pages - Provider Registration Failure

If you are unable to add portlets to a page, it may be due to a provider registration issue. You will not receive an error message if you register a provider that has two portlets with the same portlet ID, portlets with no names, or portlets with no IDs. However, in all these cases you are not able to add portlets from that provider onto pages, and so on.

12.2.3 Extra Perspective Page Template if Upgrading from Oracle9*i*AS Portal 9.0.2.6

If you previously upgraded to Oracle9*i*AS Portal 9.0.2.6 using version 1, 2, or 3 of the Oracle9*i*AS Portal 9.0.2.6 repository upgrade patch #2981297, and then upgraded to OracleAS Portal 10g (9.0.4), you may encounter a problem where you have two perspective page templates. This problem occurs if you previously upgraded to Oracle9*i*AS Portal 9.0.2.6, and then created additional perspectives in a page group that contained upgraded perspectives.

If you find that one or more of your upgraded page groups contains two perspective page templates, follow these steps for each affected page group:

1. Display the perspective page of one of the perspectives that was created after the upgrade to Oracle9*i*AS Portal 9.0.2.6 (but before the upgrade to OracleAS Portal 10*g* (9.0.4)).

2. Switch to Edit mode.

3. In the page toolbar, click **Edit Template**.

4. In the template toolbar, click **Template: Properties** (make sure you click the Properties link for the template and not for the page group).

5. Edit the Display Name of the template to something like <template_name>_ delete, and click **OK**.

6. Go to the Navigator and drill down to the templates area of the page group.

7. Delete the <template_name>_delete template.

8. Use the following scripts to delete all the perspective pages in the page group then recreate them using the correct perspective page template:

    - `ORACLE_HOME/portal/admin/plsql/wws/pstdefin.sql`

    - `ORACLE_HOME/portal/admin/plsql/wws/pstpgshw.sql`

    - `ORACLE_HOME/portal/admin/plsql/wws/pstundef.sql`

    - `ORACLE_HOME/portal/admin/plsql/wws/pstpgcre.sql`

    - `ORACLE_HOME/portal/admin/plsql/wws/pstprcpg.sql`

For information about these scripts, refer to *Oracle Application Server Portal Configuration Guide*.

12.2.4 Custom Attributes Revert to Default Values When New Version Created

The values of custom attributes revert to their default values when a new version is created in the following situations:

- When the attribute is hidden in the Edit Item page, the item is edited and a new version is created. In this case, the custom attribute is no longer shown in the region display. Currently, the only workaround is to always show custom attributes in the Edit Item page when using versioning.

- When an item is edited through WebDAV and versioning is enabled on the page (either Simple or Audit versioning). When versioning is enabled, WebDAV always creates a new version, and the value of any custom attribute is set to the default value in the new version. Currently, the only workaround is to not use custom attributes in combination with versioning and WebDAV.

12.3 OmniPortlet, Simple Parameter Form, Web Clipping Portlet Issues and Workarounds

This section describes issues relating to OmniPortlet, Web Clipping and Simple Parameter Form. These portlets are located in the Portlet Repository as follows: *Portlet Repository: Portlet Builders*.

- Section 12.3.1, "Browser Requirements"

- Section 12.3.2, "(OmniPortlet) Need to Refresh OmniPortlet Provider After Installation"

- Section 12.3.3, "(OmniPortlet) News Layout Scroll Type Not Supported in Netscape 4.79"

- Section 12.3.4, "(OmniPortlet) Chart Does Not Display Formatted Numeric Values"

12.3.1 Browser Requirements

To edit OmniPortlet, Web Clipping or Simple Parameter Form portlets, that is, set properties in Edit Defaults mode, you must use the following browser versions:

- Netscape 7.0 or higher.

- Microsoft Internet Explorer 5.5 or higher for Windows NT and Windows 2000

- Microsoft Internet Explorer 6.0 for Windows XP

If you use browser versions older than these, you may encounter JavaScript errors.

12.3.2 (OmniPortlet) Need to Refresh OmniPortlet Provider After Installation

If you want to use parameters and events with OmniPortlet, you must first refresh the OmniPortlet provider. To do this, follow these steps:

1. Login to OracleAS Portal.

2. Click the **Navigator** link.

3. Select the **Providers** tab.

4. Select **Locally Built Providers**.

5. Locate OmniPortlet Provider and click its **Refresh** link.

12.3.3 (OmniPortlet) News Layout Scroll Type Not Supported in Netscape 4.79

The *News Layout Scroll* type in OmniPortlet is supported on Microsoft Internet Explorer and Netscape 7.0. It does not work with Netscape 4.79.

12.3.4 (OmniPortlet) Chart Does Not Display Formatted Numeric Values

If numeric values in a data source contain formatted strings, commas or currency (e.g. $32,789.00), they are considered to be text and ignored when the chart is generated. As a workaround, remove formatting characters from numerical values.

12.4 Search Issues and Workarounds

This section describes issues relating to the search functionality in OracleAS Portal.

- Section 12.4.1, "Search Error - Page Group ID Does Not Exist (WWS-30641)"
- Section 12.4.2, "Maximum Return Value Does Not Work"
- Section 12.4.3, "Problems Saving Searches using Netscape 4.79"
- Section 12.4.4, "Result Attributes Not Displayed"
- Section 12.4.5, "Enabling/Disabling Oracle Text Impacts Perspective Selection"
- Section 12.4.6, "Issues With Multiple Search Portlets Placed on Search Result Pages"
- Section 12.4.7, "Promoting Perspectives to Shared Objects Impacts Search Results"
- Section 12.4.8, "Problems If Too Many Page Groups or Search Attributes Selected"

12.4.1 Search Error - Page Group ID Does Not Exist (WWS-30641)

These errors are displayed on pages containing search portlets or Basic Search Box items, if the page group of an associated search results page is deleted:

```
Error: An unexpected error has occurred (WWS-32100)
...
The Page Group ID does not exist. (WWS-30641)
```

Also, you are unable to access the **Search Settings** page to choose a new search results page. (The **Search Settings** page is accessible from the Services portlet which is on the Portal sub-tab of the Administer tab on the Portal Builder page.)

To resolve this issue, follow the instructions published in Bug 3263977 (available on the Oracle*MetaLink* Web site at `http://metalink.oracle.com`).

12.4.2 Maximum Return Value Does Not Work

You can build a custom search form (using the Custom Search portlet) that lets the user *Set the maximum number of results.* In this release, this option does not restrict the total number of results returned.

However, if you allow users to *Set the number of results per page* they can restrict how many results appear on each page.

12.4.3 Problems Saving Searches using Netscape 4.79

In Netscape 4.79 you may experience problems saving search results, if your search is based on more than one search term separated by spaces, for example, `sales targets`. This error is displayed: `The request had invalid syntax.`

12.4.4 Result Attributes Not Displayed

The Custom Search portlet allows you to choose which attributes are displayed with search results. However, some of the available attributes which are listed do not get displayed with search results as expected, that is Base Item Type, Display Parameter Form, Enable Item Check-Out, Link That Displays Item In New Browser Window, Oracle Reports Components, Rollover Image, Item Content, Portlet Content, Portlet Instance Global Unique Id, Provider Name, Updated Item Indicator, New Item Indicator.

12.4.5 Enabling/Disabling Oracle Text Impacts Perspective Selection

If Oracle Text is enabled you can restrict search results by one or more perspective. If Oracle Text is disabled you can restrict search results by a single perspective only. If you restrict your search results by perspective and then switch between Oracle Text being on then off (or off then on), perspective selection may not be as expected.

12.4.6 Issues With Multiple Search Portlets Placed on Search Result Pages

Search functionality is designed such that one search portlet maps to a single page. Therefore, if you choose to display search results on a page that contains multiple search portlets (Basic, Advanced, Custom or Ultra Search portlets) you will notice that all search portlets on the results page respond, i.e. search results are displayed in every search portlet. To avoid this behavior it is recommended that you display search results on pages that contain a single search portlet.

Similarly, when an Ultra Search portlet returns results, any other search portlets placed on the same page will respond. Therefore, do not place additional search portlets on a page that contain an Ultra Search portlet.

12.4.7 Promoting Perspectives to Shared Objects Impacts Search Results

(Oracle Text enabled only.) If you promote a perspective to Shared Objects and then search for items in that perspective, the items are not returned. As a workaround, drop and recreate your Oracle Text indexes after promoting the perspectives. For more information, refer to *Oracle Application Server Portal Configuration Guide*.

12.4.8 Problems If Too Many Page Groups or Search Attributes Selected

Search functionality can become inconsistent if the search criteria includes a large number of attributes and/or the user chooses a long list of page groups to search. This problem is due to URL size constraints. Here are examples of issues that can occur:

- Links do not work, for example, Saved Search, Bulk Action, Edit, etc. Note that these links do work when fewer attributes/page groups are selected.

- Search results page can lose search criteria when changing between tabs.

- Some search results can be lost whilst saving a search. Also, some attributes may be lost when the search is run again.

The workaround is to reduce the number of attributes and/or page groups available for user selection.

12.5 PDK Issues and Workarounds

Oracle Application Server Portal Developer Kit (PDK) version 9.0.4 is included with an OracleAS Portal & Wireless install. Release notes for the JPDK and PL/SQL PDK can be found at these mid-tier $ORACLE_HOME locations:

- **JPDK:** $ORACLE_HOME/portal/pdkjava/v2/pdkjava.v2.releasenotes.html
- **PL/SQL:** $ORACLE_HOME/portal/pdkjava/v2/pdkplsql.release.notes.html

12.5.1 Latest Version of OracleAS PDK

New versions of the OracleAS PDK are released periodically providing new features, new API's and additional documentation. To take advantage of all the latest features, download the latest PDK from Portal Center at:

http://portalcenter.oracle.com

Release notes for the latest OracleAS PDK version are available on Portal Center and also at these PDK download locations:

- `pdk\plsql\pdkplsql.release.notes.html`
- `pdk\jpdk\v2\pdkjava.v2.release.notes.html`

12.5.2 Support for WSRP and JSR 168

OracleAS Portal supports the building of JSR 168 portlets starting in Oracle Application Server 10*g* (9.0.4). OracleAS Portal does not yet support consumption of WSRP-enabled portlets. Hence, today you can only test your JSR 168 portlets against the hosted OracleAS Portal Verification Service (http://portalstandards.oracle.com/) or the Developers Preview for OracleAS Portal available for download. Please note that both the Developer's Preview and the hosted OracleAS Portal Verification Service are provided for development purposes only and, as such, should not be used for production systems. See also Section 12.7.1.11, "Registering JSR 168 Portlets".

12.6 NLS Issues and Workarounds

This section describes National Language Support (NLS) related issues in OracleAS Portal:

- Section 12.6.1, "Oracle Text Searching Limitation (Text Files and HTML Files)"
- Section 12.6.2, "BiDi Alignment Issues Using Netscape 7.0"
- Section 12.6.3, "Problems Opening Excel/Sylk Formatted Reports in Microsoft Excel"
- Section 12.6.4, "Unable to Separate Search Keywords With Double Byte Space Key"
- Section 12.6.5, "Text Entry Always Right to Left in BiDi Languages"
- Section 12.6.6, "NON ISO-8859 Web Page Limitation for URL Items"
- Section 12.6.7, "Non-ASCII Character Limitations"

- Section 12.6.8, "Shared Type Objects Cannot Be Exposed in Non-English Page Group"
- Section 12.6.9, "Issues With Oracle Ultra Search Portlet Help Page"
- Section 12.6.10, "OracleAS Portal Unable to Support Some Database Character Sets"

12.6.1 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 and the database character set is one of the following:

- US7ASCII
- WE8ISO8859P1
- JA16SJIS
- KO16KSC5601
- ZHS16CGB231280
- ZHT16BIG5

If the database character set is none of those listed but the document is in the WE8ISO8859P1 character set, the search feature also works correctly. In any other non-ASCII character set environment you can encounter this problem.

Note that there are no issues when searching binary files like Word, PDF, and so on.

12.6.2 BiDi Alignment Issues Using Netscape 7.0

Header images and some buttons are not aligned properly, due to a Mozilla issue.

12.6.3 Problems Opening Excel/Sylk Formatted Reports in Microsoft Excel

When you create an Excel/sylk formatted report, the file encoding is always the same as the database character set. You may not be able to open the file in Microsoft Excel like this. As a workaround, convert the exported files into native encoding.

For example, if the database character set is UTF8, Excel can not open exported reports as they are encoded by the UTF8 database character set. On a Japanese Windows system, Excel can open Shift_JIS encoded files only but to export files in Shift_JIS, the database character set must be JA16SJIS. So, if the database character set is EUC (another Japanese standard character set) or UTF8, the files will not open. You can use Notepad to open and save files in different character sets.

12.6.4 Unable to Separate Search Keywords With Double Byte Space Key

You cannot use a double byte space character to separate two search keywords. You must use a single byte space character.

12.6.5 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.

12.6.6 NON ISO-8859 Web Page Limitation for URL Items

You may not be able to display a NON ISO-8859-1 Web page using a URL item. Other portlets offer this functionality, so you may want to use one of these instead, that is portlets such as NLS URL Service and Web Clipping.

12.6.7 Non-ASCII Character Limitations

- Non-ASCII XML data is not displayed correctly in the XML Portlet. To display non-ASCII XML data, use OmniPortlet which has this functionality.

- Non-ASCII data from a specified URL is not displayed correctly in the URL Portlet. To display such data in a portlet, use the Web Clipping portlet which has this functionality.

- If you use non-ASCII characters in Web Provider Display Names, they are not displayed correctly. Similarly non-ASCII characters used in Provider Group Display Names can not be displayed.

- You may not use non-ASCII characters in the Name for portlets of Database Providers. However, you can use such characters in the Display Name.

- If a portlet name contains non-ASCII characters, the name does not display correctly when the portlet is previewed.

- (Internet Explorer only.) If you use the NON-UTF8 database character set, labels of form components may display incorrectly. This is not a problem in Netscape.

12.6.8 Shared Type Objects Cannot Be Exposed in Non-English Page Group

Shared type objects (page types, item types) always have English as the default language. If you create a page group in a language other than English, 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.

12.6.9 Issues With Oracle Ultra Search Portlet Help Page

If you click the Help link in the Oracle Ultra Search portlet, the help page displays invalid information in all languages.

As a work around, change the encoding to UTF8 in the appropriate help file, located at:

```
ORACLE_HOME/j2ee/OC4J_Portal/applications/UltrasearchPortlet/query/html
```

12.6.10 OracleAS Portal Unable to Support Some Database Character Sets

An '*Unsupported IANA character encoding*' exception is displayed in OracleAS Portal if the character set of the database is not supported by Java. Java (1.3, 1.4, 1.5) does not support the following character sets:

- NE8ISO8859P10

- CEL8ISO8859P14

If you need to use characters that are supported in these particular character sets, use the unicode character set AL32UTF8 instead.

12.7 Documentation Errata

This section describes known errors and omissions in OracleAS Portal documentation:

- Section 12.7.1, "Documentation Errors"

- Section 12.7.2, "Additional Documentation"

12.7.1 Documentation Errors

This section describes known errors in OracleAS Portal documentation. It includes the following topics:

- Section 12.7.1.1, "Editing Item/Portlet Properties"

- Section 12.7.1.2, "Editing Pending Items"

- Section 12.7.1.3, "Referencing the Current Version of Images"

- Section 12.7.1.4, "Working in List View"

- Section 12.7.1.5, "Unpublished Items Section Documented Incorrectly"

- Section 12.7.1.6, "Item Level Security and Page Caching"

- Section 12.7.1.7, "User Profile Help Incorrect"

- Section 12.7.1.8, "Defining a Display Style for Results from a Custom Search"

- Section 12.7.1.9, "Applying Background Color or Image to Page Portlets"

- Section 12.7.1.10, "Error Message WWC-40018 Incorrectly Listed as WWC-40019"

- Section 12.7.1.11, "Registering JSR 168 Portlets"

12.7.1.1 Editing Item/Portlet Properties

The online help states that clicking the **Edit** icon allows 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.

12.7.1.2 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 hasn't yet been approved by the first approver in the approval process.

12.7.1.3 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 filename in the reference (e.g. 1645.gif), 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, e.g. 1645.gif.

2. Update the image item and create a new version. The new version is given a new internal file name (e.g. 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 filename 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, use the durable link to the image item instead of the internal filename. 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 1.1.3.1 Understanding Page and Item URLs* in the *Oracle Application Server Portal User's Guide*.

12.7.1.4 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.

Sub-items - 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 can not 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 (e.g., Graphical View), you do not see these items in List View.

If you are using Netscape 4.8, you may notice that version information is incorrectly displayed under the Description column. This is not a problem in Internet Explorer.

12.7.1.5 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.

12.7.1.6 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.

12.7.1.7 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.

12.7.1.8 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.

12.7.1.9 Applying Background Color or Image to Page Portlets

If you want page portlets (including navigation pages) to display a background color or background image, 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.

12.7.1.10 Error Message WWC-40018 Incorrectly Listed as WWC-40019

The Web Cache connection error message WWC-40018 was incorrectly listed as WWC-40019 in the *Oracle Application Server Portal Error Messages Guide*.

12.7.1.11 Registering JSR 168 Portlets

The *OracleAS Portal Developer's Guide* provides instructions on how to register a JSR 168 portlet in a local instance of OracleAS Portal, Section 5.3.2.4.1, "Registering on a Local OracleAS Portal Instance." 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. Please note that the Developer's Preview is provided for development purposes only and, as such, should not be used for production systems.

12.7.2 Additional Documentation

This section describes known omissions and additions to the OracleAS Portal documentation. It includes the following topics:

- Section 12.7.2.1, "Public Users Cannot Search Pages with Item Level Security Enabled"

- Section 12.7.2.2, "Inaccurate Data in Log Registry Records"

12.7.2.1 Public Users Cannot Search Pages with Item Level Security Enabled

PUBLIC users are unable to search for items on pages where item level security is enabled.

12.7.2.2 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 Portal Metadata Repository.

12.7.2.3 Granting Privileges to New Providers

When you create/register a new provider, a page is created in the Portlet Repository under *Portlet Staging Area* to display portlets for that provider. This page is not visible to all logged in users. It is only visible to the user who published the provider and portal administrator. The publisher or portal administrator can change the provider page properties to grant privileges to appropriate users/groups, as required.

12.7.2.4 Using Unique Names for Custom Attributes

It is recommended that you name custom attributes such that they are unique across page groups. For example, you could include the page group name as a prefix or suffix.

If custom attributes do not have unique names, they appear duplicated when choosing search result attributes. For example, if they are both named 'MyCustomAttribute1' they are listed as:

```
MyCustomAttribute1
MyCustomAttribute1
```

This way, it is not possible to establish which attribute belongs to which page group. However, if you name them 'MyCustomAttribute_PG1' and 'MyCustomAttribute_PG2' they can be identified by their unique names:

```
MyCustomAttribute_PG1
MyCustomAttribute_PG2
```

12.7.2.5 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.

12.7.2.6 Portal Smart Text and Portal Smart Link Items

You can embed a page containing Portal Smart Text or Portal Smart Link items (published as a portlet) in another page. When you do this, the Portal Smart Text/Portal Smart Link items work within the context of the containing page. For

example, if you add the **Edit** Portal Smart Link item to Page A, publish the page as Portlet A and then place Portlet A on Page B, the **Edit** link will allow the user to edit Page B.

12.7.2.7 May Need to Invalidate Cache to Effect Search Setting Changes

If page caching is enabled, any changes you make on the Search Settings page may not be seen in existing search portlets immediately. For example, if you enable Oracle Text, the expected range of search operators are not available until the cache is cleared. Other settings which are not applied immediately include new Search Result Pages, Advanced Search Link/Page, and Internet Search Engine details.

The cache is cleared automatically every 24 hours for all search portlets. Alternatively, you can clear the cache manually using the OracleAS Web Cache Manager (accessible though the *Web Cache Administration* link in the **Services** portlet).

13

Oracle Ultra Search

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

- Section 13.1, "General Issues and Workarounds"
- Section 13.2, "Customer Database Install of the Oracle Ultra Search Backend"
- Section 13.3, "Documentation Errata"

13.1 General Issues and Workarounds

This section describes general issues and their workarounds for Oracle Ultra Search. It includes the following topics:

- Section 13.1.1, "Oracle Ultra Search URL Status Codes"
- Section 13.1.2, "Upgrading to Oracle Application Server 10g"
- Section 13.1.3, "Oracle Ultra Search and OracleAS Portal"
- Section 13.1.4, "Security Considerations When Using Restricting Access to a Data Source"
- Section 13.1.5, "Oracle Ultra Search Reconfiguration After Database Character Set Change"
- Section 13.1.6, "Crawl of Data Source with Multibyte Name Fails"
- Section 13.1.7, "Crawling Data in ISO-2022-JP Character Set Fails"
- Section 13.1.8, "Oracle Ultra Search does not Support All Database Character Sets"
- Section 13.1.9, "Oracle Ultra Search Configuration Assistant May Fail During Oracle Identity Management Upgrade"
- Section 13.1.10, "OracleAS RepCA Installation"
- Section 13.1.11, "Bugs"

13.1.1 Oracle Ultra Search URL Status Codes

Oracle Ultra Search uses a set of codes to indicate the crawling result of the crawled URL. Besides the standard HTTP status codes, it uses its own codes for non-HTTP related issues. Only URLs with a status of 200 will be indexed. Table 13–1 lists the Oracle Ultra Search status codes.

Table 13–1 Oracle Ultra Search *Crawler URL Status Codes*

Code	Description
200	URL OK
400	Bad Request
401	Authorization required
402	Payment required
403	Access forbidden
404	Not found
405	Method not allowed
406	Not acceptable
407	Proxy authentication required
408	Request timeout
409	Conflict
410	Gone
414	Request-URI too large
500	Internal server error
501	Not implemented
502	Bad gateway
503	Service unavailable
504	Gateway timeout
505	HTTP version not supported
902	Timeout reading document
903	Filtering failed
904	Out of memory error
905	IOEXCEPTION in processing URL
906	Connection refused
907	Socket bind exception
908	Filter not available
909	Duplicate document detected
910	Duplicate document ignored
911	Empty document
951	URL not indexed
952	URL crawled
953	Metatag redirection
954	HTTP redirection
955	Black list URL
956	URL is not unique
957	Sentry URL (URL as a placeholder)
958	Document read error

Table 13–1   (Cont.) Oracle Ultra Search *Crawler URL Status Codes*

Code	Description
959	Form login failed
1001	Data type is not TEXT/HTML
1002	Broken network data stream
1003	HTTP redirect location does not exist
1004	Bad relative URL
1005	HTTP error
1006	Error parsing HTTP header
1007	Invalid URL table column name
1008	JDBC driver missing
1009	Binary document reported as text document
1010	Invalid display URL

13.1.2 Upgrading to Oracle Application Server 10g

Per the *Oracle Application Server 10g Upgrading to 10g (9.0.4)* document, you must apply database 9.0.1.5 patch set before you upgrade Oracle9*i*AS 9.0.2 to Oracle Application Server 10*g*.

After you apply the patch set, ***do not*** perform the following post install actions as described in the patch set note:

"Execute the following steps only if you have installed Oracle Ultra Search in the database you are attempting to modify."

Instead, perform the following post install steps:

- `CONNECT / AS SYSDBA`

- `GRANT SELECT ON SYS.DBMS_LOCK_ALLOCATED TO WKSYS;`

- `ALTER USER WKSYS ACCOUNT UNLOCK;`

- `ALTER PACKAGE WKSYS.WK_CRW COMPILE BODY;`

- `ALTER PACKAGE WKSYS.WK_SNAPSHOT COMPILE BODY;`

13.1.3 Oracle Ultra Search and OracleAS Portal

Oracle Ultra Search can only crawl public Oracle AS Portal sources. See the *Oracle Application Server Portal Configuration Guide* for how to set up public pages.

13.1.4 Security Considerations When Using Restricting Access to a Data Source

This section covers important security considerations when using a single ACL to restrict access to a data source.

An Oracle Ultra Search data source can be protected by a single administrator specified ACL. This ACL specifies which users and groups are allowed to view the documents belonging to that data source.

Oracle Ultra Search uses the Oracle Server's ACL evaluation engine to evaluate permissions when queries are performed by search users. This ACL evaluation engine is a feature of Oracle XML database. If an Oracle Ultra Search query attempts to

retrieve a document that is protected by an administrator specified ACL, the ACL is evaluated and subsequently cached.

The duration an ACL is cached is controlled by an XDB configuration parameter. See the chapter titled "Oracle XML DB Resource Security" in *Oracle XML DB Developer's Guide*. The XDB documentation indicates that the `/xdbconfig/sysconfig/acl-max-age` parameter should be modified. The value is a number in seconds that determines how long ACLs are cached. See the chapter on "Installing and Configuring Oracle XML DB" for information on altering this configuration parameter.

Because ACLs are cached, it is important to remember that changes to an administrator specified ACL may not propagate immediately. This only applies to database sessions that existed before the change was made.

13.1.5 Oracle Ultra Search Reconfiguration After Database Character Set Change

Two SQL scripts (`wk0prefcheck.sql` and `wk0idxcheck.sql`) under `$ORACLE_HOME/ultrasearch/admin/` are used for this reconfiguration.

- `wk0prefcheck.sql` is invoked under `wksys` to reconfigure default cache character set and index preference.

- `wk0idxcheck.sql` is needed for reconfiguring instance(s) created before database character set change; for example, the default instance. This script must be invoked by the instance owner and `wk0prefcheck.sql` must be run first as it depends on reconfigured default settings generated by `wk0prefcheck.sql`.

- Running `wk0idxcheck.sql` will also drop and recreate the Oracle Text index used by Oracle Ultra Search. So, if there are already data sources indexed, then you must re-crawl all of the data sources.

- Note that `wk0idxcheck.sql` must be run once for each instance. If there are two instances "inst1" and "inst2" owned by "owner1" and "owner2" respectively, then `wk0idxcheck.sql` should be run twice; once by "owner1" and once by "owner2".

13.1.6 Crawl of Data Source with Multibyte Name Fails

An Oracle Ultra Search crawl of a data source with a multibyte name will fail. An error of the file not being found occurs if the local environment that starts the Oracle database is not compatible with the locale's target files.

To correct this problem, you must set the correct locale, restart the Oracle database, and force Oracle Ultra Search to re-crawl the data source.

For example:

1. Shutdown the Oracle database instance with the following command:

   ```
   SQL> shutdown immediate
   ```

2. Set the locale to `'ja'` using the following commands:

   ```
   > setenv LANG ja
   > setenv LC_ALL ja
   ```

3. Restart the Oracle database instance with the following command:

   ```
   SQL> startup
   ```

4. Restart the Oracle Ultra Search schedule with a forced re-crawl.

13.1.7 Crawling Data in ISO-2022-JP Character Set Fails

If you plan to use Ultra Search on data in the ISO-2022-JP character set, then you must download SUN's JDK 1.4.2_04 or later, install it on the host machine(s) of the Ultra Search backend (that is, the database where the Ultra Search schema resides), and point the Ultra Search backend to the new JDK installation.

To point the Ultra Search backend to a particular JDK (in other words, to set the JDK that is to be used for running the Ultra Search crawler), run the `ORACLE_HOME/ultrasearch/admin/wkrepca.sql` script with SQL*Plus. You must connect as the `wksys` user and pass to the script the path to the JDK installation. For example:

```
sqlplus wksys/schema_password @ORACLE_HOME/ultrasearch/admin/wkrepca.sql
/usr/local/jdk1.4/bin/java
```

13.1.8 Oracle Ultra Search does not Support All Database Character Sets

Oracle Ultra Search does not support database character sets that are not supported by Oracle Text. For example, the AL32UTF8 character set is not supported.

For Unicode support, use UTF8.

For the complete list of supported database character sets, see the *Oracle Text Reference* for Lexer Types.

13.1.9 Oracle Ultra Search Configuration Assistant May Fail During Oracle Identity Management Upgrade

When upgrading to *Oracle Application Server 10g*, the Oracle Ultra Search Configuration Assistant may fail while upgrading to Oracle Identity Management. This occurs because the `WKSYS` password that is changed using `SQL` is not synchronized with the password in the OracleAS Metadata Repository.

To prevent configuration assistant failure:

1. Start Oracle Directory Manager with the following command:

    ```
    % $ORACLE_HOME/bin/oidadmin
    ```

2. Log in to Oracle Directory Manager as the `orcladmin` user.

3. In the System Objects frame:

    - expand `Entry Management`
    - expand `cn=OracleContext`
    - expand `cn=Products`
    - expand `cn=OracleAS`
    - expand `cn=OracleAS Infrastructure Databases`
    - expand the `orclReferenceName` for the OracleAS Metadata Repository.

4. Select the `OrclResourceName` entry for schema `WKSYS`.

    Select the Properties tab to view the randomized password in the `orclpasswordattribute` field.

5. Use `sqlplus` to login to the OracleAS Infrastructure 10g OracleAS Metadata Repository.

    ```
    sqlplus /nolog
    ```

6. Perform the following commands:

```
SQL> CONNECT / AS SYSDBA
SQL> ALTER USER WKSYS IDENTIFIED BY <randomized password>
```

13.1.10 OracleAS RepCA Installation

For Oracle Ultra Search, installation of OracleAS RepCA is not a schema only installation; it is the full installation and configuration of the Oracle Ultra Search backend. Oracle recommends that you backup your existing `ORACLE_HOME/ultrasearch` directory and then copy the new version of Oracle Ultra Search from the OracleAS RepCA installation disc to the Oracle home directory.

For Oracle Application Server Real Application Clusters (RAC) where the Oracle home is not on a Cluster File System, the copy of new information into the Oracle home is not complete. The Oracle Ultra Search installation from the OracleAS RepCA installation disc is not applied to each Oracle Application Server instance in the RAC. You must backup each existing `ORACLE_HOME/ultrasearch` directory and copy the new version of Oracle Ultra Search from the OracleAS RepCA installation disc for each Oracle home of the RAC.

13.1.11 Bugs

■ **Bug 3186386**: Creating or Editing Oracle Ultra Search ACLs Fails in Non-SSO Mode

An Oracle Ultra Search Administrator can log in as a database administrator or an SSO user who has been granted administrative privileges. In this release, when logging in as a database administrator, then under certain circumstances, the administrator will not be able to create nor edit administrator-specified ACLs for a data source. An "Access Denied" error will be encountered when attempting to create or modify ACLs. The workaround is to always log in as an SSO user in order to create/modify ACLs for a data source.

■ **Bug 3411206:** Default instance has incorrect indexing preference if database character set is UTF8 or any Asian language character set

The default instance is created along with the seed database and is set to English/ISO8859. During installation, if you choose to have a database character set (for example, UTF8) that handles multibyte languages like Chinese, then the default instance should be updated. The workaround for this is to run `$ORACLE_HOME/ultrasearch/admin/wk0prefcheck.sql` under `wksys` to confirm the index preference setting, and then run `$ORACLE_HOME/ultrasearch/admin/wk0idxcheck.sql` under the instance owner to correct the problem. All data sources (if any) under the default instance will need to be recrawled. If the database character set is JA16EUC, then you should apply the workaround for bug 3411046 first.

■ **Bug 3411046:** Wrong filter output character set for database character set change to JA16EUC

If the database character set has been changed to JA16EUC after Ultra Search installation and `wk0prefcheck.sql` or `wk0idxcheck.sql` has been run, then the cache file character set will be set to a wrong value 'EUC_JP'. The workaround is to modify the line "Encoding:= 'EUC_JP' " in `wk0prefcheck.sql` and `wk0idxcheck.sql` to "Encoding:= 'Unicode' " and then to rerun `wk0prefcheck.sql` and `wk0idxcheck.sql`.

- **Bug 3318301:** Korean lexer is not available if the database character set is KO16MSWIN949

  Korean document indexing is not available if the database character set is KO16MSWIN949.

  There is the same problem for Japanese lexer if the database character set is JA16EUCTILDE, JA16EUCYEN, JA16SJISTILDE or JA16SJISYEN.

  There is the same problem for Chinese lexer if the database character set is ZHS32GB18030, ZHT16MSWIN950 or ZHT16HKSCS.

  The workaround is to obtain an updated `wk0prefcheck.sql` and `wk0idxcheck.sql` to patch the installation. An updated `wk0pref.sql` is needed if Ultra Search is reinstalled.

XML DB Dependency—the following two XML database bugs are identified in the 9.2.0.4 database release. They will be fixed in post 9.2.0.4 database patch release.

- **Bug 3172282**: Oracle Core Dumps When an Attempt Is Made to List All Aces for a Specific ACL

  When using Oracle 9.2.0.4, the Oracle Ultra Search Administrators will not be able to view administrator specified ACLs after creation. As a result, these ACLs cannot be edited or modified. Administrators must therefore assume responsibility for keeping track of permissions specified in these ACLs. Furthermore, because ACLs cannot be viewed, they cannot be edited. As a result, if an ACL has to be changed, you must drop the existing data source, re-create it, and assign a new ACL with the new permissions.

- **Bug 3176161**: Updating `resource_view` with `updatexml` Causes Core Dump

  When using Oracle 9.2.0.4, this bug prevents ACLs stored in the XDB repository from being updated. Therefore, even if bug 3172282 is fixed (and the administrator can view an administrator specified ACL after creation), the ACL cannot be successfully edited. As a result, if an ACL has to be changed, you must drop the existing data source, re-create it, and assign a new ACL with the new permissions.

13.2 Customer Database Install of the Oracle Ultra Search Backend

Oracle Ultra Search can be installed on top of an existing Oracle 9*i* (9.0.1.4) or later database. This can be done in one of two ways:

- Section 13.2.1, "Installation Using Oracle Application Server Repository Creation Assistant"

- Section 13.2.2, "Manual Installation with wk0setup"

13.2.1 Installation Using Oracle Application Server Repository Creation Assistant

Oracle Application Server Repository Creation Assistant (OracleAS RepCA) converts a customer database into an OracleAS Metadata Repository. OracleAS RepCA will install all of the Oracle Application Server component schemas and also install the Oracle Ultra Search backend.

OracleAS RepCA is only available in the Oracle Application Server release. OracleAS RepCA is the recommended way of installing Oracle Ultra Search backend onto a customer database. Although there is the overhead of having all the other Oracle Application Server component schemas installed along with Oracle Ultra Search, you will get the benefits of OracleAS Infrastructure 10*g* (for example, Identity Management Integration, well defined processes for IM re-association, and so forth).

For details on how to use OracleAS RepCA to create an MR, see the "Using an Existing Database for the OracleAS Metadata Repository" section of the *Oracle Application Server 10g Installation Guide*.

IMPORTANT: For Oracle Ultra Search, there is a required post-OracleAS RepCA install configuration step. Oracle Ultra Search crawler is a Java application that requires JDK 1.4.1 or later. Oracle Ultra Search is configured by OracleAS RepCA to use the default JDK installation (for example, `$ORACLE_HOME/jdk/bin/java`), which in the pre-10*g* `ORACLE_HOME` is pre-JDK 1.4.1; thus, unless your `$ORACLE_HOME/jdk/bin/java` is already JDK 1.4.1 or later, you must perform the following steps:

1. Install JDK 1.4.1 or later on the local system.

2. Go to the `ultrasearch/admin` directory of the OracleAS RepCA CD. Then run the `wkrepca.sql` script in SQL*Plus. You must connect as the `wksys` user and pass to the script the path to the JDK 1.4.1 or later Java executable. For example:

   ```
   sqlplus wksys/wksys password@repca_cd/ultrasearch/admin/wkrepca.sql
           /usr/local/jdk1.4/bin/java
   ```

13.2.2 Manual Installation with wk0setup

If you want to install only the Oracle Ultra Search backend into a customer database, you can opt for manual installation of Oracle Ultra Search backend. To illustrate this process here, we use the following values and conventions:

ORACLE_HOME—the Oracle home directory of the target database

SH — the source directory, the directory on the OracleAS RepCA CD, that contains the Oracle Ultra Search directory (for example OracleAS RepCA)

Following are the steps involved in a manual installation of the Oracle Ultra Search backend:

1. Back up the `$ORACLE_HOME/ultrasearch` directory. You can do this by renaming this directory to `$ORACLE_HOME/ultrasearch.old`.

2. Copy *SH* `/ultrasearch` to `$ORACLE_HOME/ultrasearch`.

3. Change directory to `$ORACLE_HOME/ultrasearch/admin`.

4. If the Oracle Ultra Search schema `wksys` already exists on the target database then de-install it by running the following:

   ```
   @ sqlplus /nolog @$ORACLE_HOME/ultrasearch/admin/wk0deinst.sql sys SYSPW CSTR
   ```

   See the following section for the meaning of each parameter.

5. Run the SQL*Plus script `wk0setup.sql`.

 For example:

```
sqlplus /nolog @$ORACLE_HOME/ultrasearch/admin/wk0setup.sql $ORACLE_HOME CSTR sys SYSPW 'as sysdba'
WKSYSPW TBLSPC TMPTBLSPC portal CFS oui PSEP JDBCDRV JDBCNLS JEXEC CTXHX JDBC_NODE JDBC_ALL
$ORACLE_HOME
```

where the various parameters are as follows (parameters should be enclosed in single quotes to avoid misinterpretation):

- *CSTR*—TNS alias preceded with '`@`' (for example, `@inst1`), this parameter can also be passed in as a single white space (' ')

- *SYSPW*—password for the SYS user/schema

- *WKSYSPW*—password to be used for the Oracle Ultra Search schema `wksys`

- *TBLSPC*—tablespace for `wksys`

- *TMPTBLSPC*—temporary tablespace for `wksys`

- *CFS*—if *ORACLE_HOME* is on a Cluster File System (CFS) then 'true'; else 'false'

- *PSEP*—path separator (for example, on UNIX this is ':', on Windows it is ';')

- *JDBCDRV*—path to JDBC drivers, `classes12.zip` (for example, `$ORACLE_HOME/jdbc/lib/classes12.zip`)

- *JDBCNLS*—path to `nls_charset12.zip` or `orai18.jar` (for example, `$ORACLE_HOME/jdbc/lib/nls_charset12.zip`)

- *JEXEC* – Java executable path (for example, `/packages/jdk1.4.1/bin/java`). Note that this has to point to a JDK 1.4.1 or later installation

- *CTXHX* – path to `INSOFILTER`, `ctxhx` (for example, `$ORACLE_HOME/ctx/bin/ctxhx`)

- *JDBC_NODE* – thin JDBC connect string, and only the part after the '@' (for example, *HOST*:*PORT*:*SID*); note that in case of RAC, this connect string must be to the current node

- *JDBC_ALL* – same as *JDBC_NODE*, but in case of RAC with CFS true, this JDBC string should include all the RAC nodes (hint: use TNS syntax)

13.2.2.1 Backend Reconfiguration After a Database Character Set Change

If the database character set has been changed after Oracle Ultra Search installation, then you must reconfigure the Oracle Ultra Search backend so that it can adapt to the new character set.

Two SQL scripts (`wk0prefcheck.sql` and `wk0idxcheck.sql`), located in `$ORACLE_HOME/ultrasearch/admin/`, are used for this reconfiguration:

- `wk0prefcheck.sql` is invoked under wksys to reconfigure default cache character set and index preferences.

  Running `wk0idxcheck.sql` also drops and re-creates the Oracle Text index used by Oracle Ultra Search. If there are already data sources indexed, you must force a re-crawl of all of the data sources.

  `wk0idxcheck.sql` must be run once for each instance. For example, if there are two instances, "inst1" and "inst2," owned by "owner1" and "owner2," respectively, then `wk0idxcheck.sql` should be run twice: once by "owner1" and once by owner2.

- `wk0idxcheck.sql` is needed for reconfiguring instance(s) created before the database character set change (for example, the default instance). This script must be invoked by the instance owner, and `wk0prefcheck.sql` must be run first, as it depends on reconfigured default settings generated by `wk0prefcheck.sql`.

13.3 Documentation Errata

This section describes documentation errata for the *Oracle Ultra Search User's Guide*. It includes the following topics:

- Section 13.3.1, "General Corrections"

- Section 13.3.2, "Section 1.3.4 - Secure Search"

- Section 13.3.3, "Section 2.2.2 - Configure a Secure Oracle Ultra Search Installation"

- Section 13.3.4, "Section 2.5.4 - Installing the Middle Tier with the Oracle Application Server Release"

- Section 13.3.5, "Section 2.5.4.1 - Configuring the Middle Tier with Oracle HTTP Server and OC4J"

- Section 13.3.6, "Section 2.5.4.5 - Editing the ultrasearch.properties File"

- Section 13.3.7, "Section 2.6.2 Configuring the Backend on Remote Crawler Hosts"

- Section 13.3.8, "Section 5.1.1 - Ultra Search Security Model"

- Section 13.3.9, "Section 7.5.2 - Remote Crawler Profiles"

13.3.1 General Corrections

References to the "temporary directory" in the tuning and administration chapters should read "cache directory" instead.

13.3.2 Section 1.3.4 - Secure Search

Oracle Ultra Search only supports the "Crawl ACLs from the Data Source" mode for user-defined data source types where the crawler agent retrieves the ACL from the data source along with other document attributes. You cannot get ACL from a data source if it is a Web, table, portal, email, or file type.

With agent APIs, there is a new URL property "UrlData.ACL" that allows the agent to set the ACL of the URL submitted. There is also a new `AclHelper` class in the Agent APIs. This generates the ACL string to make sure that the ACL string format is correct.

Only Distinguished Name (DN) and Global User Id (GUID) can be used as the principal of an ACL.

13.3.3 Section 2.2.2 - Configure a Secure Oracle Ultra Search Installation

The following additions and corrections apply to setting up a secure Oracle Ultra Search installation. Before you can set up a secure Oracle Ultra Search installation, you must:

- Install or upgrade the Oracle Database version 9.2.0.4 or higher. The document incorrectly reads version 10.1.0 or higher.

- Install Oracle Internet Directory. The middle tier and IM (identity management) version should be 9.0.4 or higher.

  The document currently states that you can use OracleAS RepCA to convert a 9.2.0.4 database to an Oracle Application Server 9.0.4 metadata repository. It should add that you can do this if you have a 9.2.0.4 database.

- Register the database to Oracle Internet Directory.

  You can use OracleAS RepCA to register the database to Oracle Internet Directory. After registration, you need to perform these manual steps:

  - Add the distinguished name of the database to the database server parameter file, spfile.ora, as an RDBMS_SERVER_DN initialization parameter value.

  - Restart the database, so that the new initialization parameter takes effect.

- Configure the Oracle-Oracle Internet Directory SSL link (previously, the "SSL" was omitted). To establish a secure connection between database and Oracle Internet Directory, follow the instructions in the following books:

  - **Configuring Oracle Internet Directory for SSL**: "Secure Sockets Layer (SSL) and the Directory," chapter in the Oracle 9.2 release of the *Oracle Internet Directory Administrator's Guide*

  - **Configuring the database for SSL**: "Managing Enterprise User Security" chapter (Part II, Task 1 - Task 3), in the Oracle Database 9.2 release of the *Oracle Advanced Security Administrator's Guide*

Also, the reference to the *Oracle Database Administrator's Guide* for details on configuring the database to use Oracle Identity Management and Oracle Internet Directory should be ignored.

13.3.4 Section 2.5.4 - Installing the Middle Tier with the Oracle Application Server Release

If you checked the "OracleAS Portal" option on the "Configuration Options" Oracle Installer screen, then the configuration steps in the following section are automatically performed by the Oracle Portal Configuration Assistant (OPCA).

You do not need to perform any additional manual steps as indicated in the section text ("Editing the data-sources.xml File"). Everything is configured automatically.

13.3.5 Section 2.5.4.1 - Configuring the Middle Tier with Oracle HTTP Server and OC4J

For `application.xml` file, under the `<orion-application>` tag, change the following:

Change:

```
<library path="$ORACLE_HOME/ultrasearch/lib/ultrasearch_query.jar" />
<library path="$ORACLE_HOME/ultrasearch/webapp/config" />
<library path="$ORACLE_HOME/jlib/uix2.jar" />
<library path="$ORACLE_HOME/jlib/share.jar" />
<library path="$ORACLE_HOME/jlib/regexp.jar" />
<library path="$ORACLE_HOME/lib/mail.jar" />
<library path="$ORACLE_HOME/lib/activation.jar" />
<library path="$ORACLE_HOME/lib/xmlparserv2.jar" />
<library path="$ORACLE_HOME/jdbc/lib/nls_charset12.zip" />
<library path="$ORACLE_HOME/jdbc/lib/classes12.jar" />
```

to:

```
<library path="$ORACLE_HOME/ultrasearch/lib/ultrasearch_query.jar" />
<library path="$ORACLE_HOME/ultrasearch/webapp/config" />
<library path="$ORACLE_HOME/jlib/uix2.jar" />
<library path="$ORACLE_HOME/jlib/share.jar" />
<library path="$ORACLE_HOME/jlib/regexp.jar" />
<library path="$ORACLE_HOME/jdbc/lib/nls_charset12.zip" />
<library path="$ORACLE_HOME/jlib/repository.jar"/>
<library path="$ORACLE_HOME/jlib/ohw.jar"/>
<library path="$ORACLE_HOME/jlib/ldapjclnt9.jar"/>
<library path="$ORACLE_HOME/j2ee/home/jazn.jar"/>
<library path="$ORACLE_HOME/portal/jlib/ptlshare.jar"/>
<library path="$ORACLE_HOME/portal/jlib/pdkjava.jar"/>
```

For the `default-web-site.xml` under the `<web-site>` tag, add the following:

Change:

```
<web-app application="UltrasearchAdmin" name="admin" root="/ultrasearch/admin" />
<web-app application="UltrasearchQuery" name="query" root="/ultrasearch/query"/>
<web-app application="UltrasearchPortlet" name="query" root="/provider/ultrasearch" />
```

To:

```
<web-app application="UltrasearchQuery" name="query" root="/ultrasearch/query"/>
<web-app application="UltrasearchQuery" name="welcome" root="/ultrasearch" />
<web-app application="UltrasearchAdmin" name="admin" root="/ultrasearch/admin" />
<web-app application="UltrasearchAdmin" name="admin_sso" root="/ultrasearch/admin_sso" />
<web-app application="UltrasearchAdmin" name="ohw" root="/ultrasearch/ohw" />
```

13.3.6 Section 2.5.4.5 - Editing the ultrasearch.properties File

The content of the `ultrasearch.properties` file has changed.

Here is an example of the `ultrasearch.properties` file:

```
connection.driver=oracle.jdbc.driver.OracleDriver
#If set, The JDBC connection URL specified here will override the dynamically
#acquired one from OID.
#This setting is also used by the 9i query sample (gsearch.jsp)
#Example: connection.url=jdbc:oracle:thin:@<host>:<port>:<sid>
connection.url=%JDBC_CONN_STR%
oracle.net.encryption_client=REQUESTED
oracle.net.encryption_types_client=(RC4_56,DES56C,RC4_40,DES40C)
oracle.net.crypto_checksum_client=REQUESTED
oracle.net.crypto_checksum_types_client=(MD5)
oid.app_entity_cn=m16bi.sgtcnsun03.cn.oracle.com
domain=us.oracle.com
```

You no longer need to configure the JDBC connect string in the `ultrasearch.properties` file. The database connect information is taken from Oracle Internet Directory.

> **Note:** The Oracle Ultra Search 9*i* query sample pages (`gsearch.jsp`) will no longer work out of the box. You must use a separate property file or edit the `ultrasearch.properties` file.

13.3.7 Section 2.6.2 Configuring the Backend on Remote Crawler Hosts

Step 4 should read as follows:

4. Invoke the registration script.

Start up SQL*Plus as the `WKSYS` super-user and enter the following:

```
@full_path_of_registration_script
```

The registration script for RMI-based remote crawling is the following:

```
$REMOTE_ORACLE_HOME/ultrasearch/tools/remotecrawler/scripts/<platform>/register.sql
```

The registration script for JDBC-based remote crawling is the following:

```
$REMOTE_ORACLE_HOME/ultrasearch/tools/remotecrawler/scripts/<platform>/register _jdbc.sql
```

For example, if the value for `$REMOTE_ORACLE_HOME` on a UNIX host is `/home/oracle9i`, then enter the following at the SQL*Plus prompt to register an RMI-based remote crawler:

```
/home/oracle9i/ultrasearch/tools/remotecrawler/scripts/unix/register.sql
```

Likewise, if you are running SQL*Plus on Windows, and `$REMOTE_ORACLE_HOME` is in `d:\Oracle\Oracle9i`, then enter the following at the SQL*Plus prompt to register a JDBC-based remote crawler:

```
d:\Oracle\Oracle9i\ultrasearch\tools\remotecrawler\scripts\winnt\register_jdbc.sql
```

13.3.8 Section 5.1.1 - Ultra Search Security Model

For Oracle Ultra Search to access secure Web sites, you may need to import certificates into the crawler's trust store and the Oracle Containers for J2EE (OC4J) JVM's trust store.

The Oracle Ultra Search administration tool is a Web application that runs within the OC4J JVM. Secure portal instances require clients to authenticate with SSL. To discover page groups in secure portal instances, the Oracle Ultra Search administration tool must make HTTPS network calls.

By default, the OC4J JVM recognizes certificates of well-known certificate authorities. However, if the secure portal instance uses a self-signed certificate or a certificate signed by an unknown certificate authority, then you must import the portal's certificate into the OC4J JVM's truststore. This can be done with the keytool utility provided by Sun Microsystems.

The OC4J JVM default truststore is located at `$ORACLE_HOME/jdk/jre/lib/security/cacerts`.

> **See Also:** Sun Microsystems documentation for more information about using Sun's keytool key and certificate management utility, for information on customization of the SSL service, and for information on truststore management.
>
> OracleAS Containers for J2EE documentation for information on configuring OC4J to use a different truststore.

13.3.9 Section 7.5.2 - Remote Crawler Profiles

At the end of this section the following note should be present:

> **Note:** The remote crawler cache directory must be mounted to the server side crawler cache directory (specified under the **Crawler->Settings** tab); otherwise, the documents cannot be indexed.

14

Oracle Application Server Syndication Services

This chapter describes issues with Oracle Application Server Syndication Services (OracleAS Syndication Services). It includes the following topic:

- Section 14.1, "Documentation Errata"

14.1 Documentation Errata

This section describes documentation errata for OracleAS Syndication Services. It includes the following topic:

- Section 14.1.1, "Notes Regarding Incremental Updates for File and WebDAV Connectors"

14.1.1 Notes Regarding Incremental Updates for File and WebDAV Connectors

Incremental updates are based on the last modification date of the files and the Web distributed authoring and versioning (WebDAV) resources being accessed. In principle, the files delivered from one update to the next are determined by scanning the source directory and identifying all the elements whose modification date is later than the previous update time. In some operating systems, when moving files from one location to another, the modification date of the files will not be updated and the moved resources will therefore retain the original modification time.

This behavior should be kept in mind when moving files into a directory used by OracleAS Syndication Services as a content source. In fact, if the original modification date of the moved files is earlier than the time of the last update, then those files will not be delivered in the next incremental update. The files can be pulled by a full update in this case.

A copy of the files in the directory will not present this issue as the modification date is set to current date by the copy command.

Part IV

Oracle Application Server Wireless Issues

This part describes issues associated with the OracleAS Wireless. It contains the following chapters:

- Chapter 15, "Oracle Application Server Wireless"

15

Oracle Application Server Wireless

This chapter describes issues with Oracle Application Server Wireless (OracleAS Wireless). It includes the following topics:

- Section 15.1, "General Issues and Workarounds"
- Section 15.2, "Configuration Issues and Workarounds"
- Section 15.3, "Documentation Errata"

15.1 General Issues and Workarounds

This section includes information and workarounds for general issues in OracleAS Wireless. It includes the following topics:

- Section 15.1.1, "Multi-Channel Gateway Usage"
- Section 15.1.2, "Performance Optimization and JSP Files Modification"
- Section 15.1.3, "Messaging Transport"
- Section 15.1.4, "Multi-byte Usernames in Jabber Not Supported"
- Section 15.1.5, "Driver Name Change"
- Section 15.1.6, "Push SOAP URL"
- Section 15.1.7, "Broken Images in Some MXML Messages"
- Section 15.1.8, "Premature Delivery of Notifications"
- Section 15.1.9, "XHTML and XForms"
- Section 15.1.10, "Errors with Localized Voice Message for Device Validation in Customization Portal"
- Section 15.1.11, "Unavailable Functionality for Re-Created SSO Users"
- Section 15.1.12, "Working with Signature Capture Form Control"
- Section 15.1.13, "Integrating Oracle Application Server Wireless with Web Cache"
- Section 15.1.14, "Integrating Oracle Application Server Wireless with Oracle Portal"
- Section 15.1.15, "Oracle Application Server Wireless log.xml File does not Support NLS"
- Section 15.1.16, "POST Method is Not Supported by All Markup Languages"
- Section 15.1.17, "Model Object Changes Not Propagated Across Applications"
- Section 15.1.18, "Webclipping Help Page Restriction"

- Section 15.1.19, "Invalid User Account"
- Section 15.1.20, "Webclipping Output May be Displayed in Different Language"
- Section 15.1.21, "Avoid Sending Short Message with Japanese Language Strings"
- Section 15.1.22, "Do not Store Messages with Korean Characters"

> **Note:** For more information about Performance issues and strategies, see the OracleAS Wireless section of Oracle Technology Network.

15.1.1 Multi-Channel Gateway Usage

To use Multi-Channel Gateway, you must create and deploy your web application. You can use any web technology to develop your application. You can use either static or dynamic pages. Also, you can use either Mobile XML or XHTML markup language. The only requirement is that the application is accessible through HTTP(S) protocol. You application may or may not run on the same machine as the Multi-Channel Gateway.

For simplicity, we assume that the application is a simple JSP (`Hello.jsp`). The URL to access this JSP directly is: `http://myhost:8080/jsp/Hello.jsp`.

The Multi-Channel Gateway is another web application that can be accessed using the following URL: `http://hostname:7777/mcs/remote/` (7777 is the default port for *Oracle9i*AS Wireless). But by accessing the Multi-Channel Gateway URL, you will not get any content because the Multi-Channel Gateway does not produce content. In order to access your own application (the content source) from your device through the Multi-Channel Gateway you must specify a special URL. To illustrate how that URL is created, consider the sample URL:

```
http://myhost:8080/jsp/Hello.jsp
```

The URL that you must enter in your device is:

```
http://hostname:7777/mcs/remote/http/myhost/8080/jsp/Hello.jsp
```

Here is how the above URL was created:

1. Get the basic Multi-Channel Gateway URL. That is, `http://hostname:7777/mcs/remote/`

2. Create the absolute URL (including the port number even if you use the default port number: `80` for HTTP and `443` for HTTPS) to your application.

3. Replace the `://` and `:` in your application original URL with `/` (That is, change from `http://myhost:8080/jsp/Hello.jsp` to `http/myhost/8080/jsp/Hello.jsp`

4. Append the modified URL to the Multi-Channel Gateway URL.

Passing parameters to your web application is very simple. Just use the standard URL syntax and append the query string at the end of the URL.

For example: If you want to pass `fname` and `lname` parameters to your `Hello.jsp` then use the following syntax:

```
http://hostname:7777/mcs/remote/http/myhost/8080/jsp/Hello.jsp?fname=John&lname=Doe
```

When a request is received from the user device to the Multi-Channel Gateway, it recreates the original application URL, that is:

```
http://myhost:8080/jsp/Hello.jsp
```

and sends a request to that URL. The Multi-Channel Gateway uses the same HTTP method that the user device used to send the request (If the user device used GET, then the Multi-Channel Gateway will use GET to access the back end application. Currently only GET and POST are supported.)

15.1.2 Performance Optimization and JSP Files Modification

In general, Oracle Application Server Containers for J2EE (OC4J) examines JavaServer Pages (JSP) files to detect changes, then recompiles. However, this OC4J behavior was changed in regards to the JSP files that are deployed inside the *ptg* web application.

If you make changes to these included, precompiled JSP files, OC4J will not detect and compile the changes in those JSP files.

> **See:** For more information on OC4J Configuration, see "JSP Configuration Parameters" in *Oracle Application Server Containers for J2EE Support for JavaServer Pages Developer's Guide*.

For example, all JSP files that are deployed inside the *ptg* web application are precompiled. If for some reason you want to modify those JSP files, then you can no longer use the precompiled class files; you must change the OC4J settings to enable JSP compilation. To do that, modify the web.xml file for the *ptg* application, located in:

```
[ORACLE_HOME]/OC4J_Wireless/applications/ptg/ptg-web/WEB-INF/web.xml.
```

In order to avoid this problem (in which modifications to JSP files do not take effect), and to optimize the performance of some of the JSP files included in Oracle Application Server Wireless, you must modify the web.xml file, as detailed below:

1. Delete the following from the file:

```
<!--
WARNING!!! Overridden JSP engine settings
With this configuration the JSP files in this application will NOT be
recompiled.
Any changes to the JSP source files will NOT take effect.
If you want to switch back to the default JSP engine settings simply comment
out
the servlet declaration and mapping for the jsp servlet below.
-->
<servlet>
<servlet-name>jsp</servlet-name>
<servlet-class>oracle.jsp.runtimev2.JspServlet</servlet-class>
<!-- you can disable page scope listener if you
don't need this function. -->
<init-param>
<param-name>check_page_scope</param-name>
<param-value>true</param-value>
</init-param>
<!-- you can set main_mode to "justrun" to speed up
JSP dispatching, if you don't need to recompile
your JSP anymore. You can always switch your
main_mode. Please see our doc for details -->
<init-param>
```

```
<param-name>main_mode</param-name>
<param-value>justrun</param-value>
</init-param>
<load-on-startup>0</load-on-startup>
</servlet>
<servlet-mapping>
<servlet-name>jsp</servlet-name>
<url-pattern>/*.jsp</url-pattern>
</servlet-mapping>
<servlet-mapping>
<servlet-name>jsp</servlet-name>
<url-pattern>/*.JSP</url-pattern>
</servlet-mapping>
<servlet-mapping>
<servlet-name>jsp</servlet-name>
<url-pattern>/*.jspx</url-pattern>
</servlet-mapping>
<servlet-mapping>
<servlet-name>jsp</servlet-name>
<url-pattern>/*.sqljsp</url-pattern>
</servlet-mapping>
<servlet-mapping>
<servlet-name>jsp</servlet-name>
<url-pattern>/*.SQLJSP</url-pattern>
</servlet-mapping>
```

2. You must also delete the `ORACLE_HOME/j2ee/OC4J_Wireless/applications/ptg/ptg-web/WEB-INF/classes/_modules` directory, and all *class* files in the `ORACLE_HOME/j2ee/OC4J_Wireless/applications/ptg/ptg-web/WEB-INF/classes` directory whose names start with an underscore (_).

3. Restart the OC4J_Wireless application.

15.1.3 Messaging Transport

The following Messaging issues exist:

- Due to a bug in the device, sending MMS messages with the Subject containing non-ASCII characters to the Nokia 3650 is not supported.

- Sending SyncML server settings to the Nokia 3650 is not supported.

- All pre-seeded site-level drivers are enabled by default. You can disable unwanted drivers for better performance.

- Messaging Transport supports sending messages in English only over Enhanced Messaging Services (EMS). Other languages are supported on SMS and MMS.

15.1.4 Multi-byte Usernames in Jabber Not Supported

Jabber, the backend used with Instant Messaging, does not support multi-byte usernames; the Instant Messaging module consequently does not support multi-byte usernames.

15.1.5 Driver Name Change

In the User Interface and documentation, all references to *XMSDriver* should read *PushDriver*.

15.1.6 Push SOAP URL

The Push SOAP URL has changed in this release. If you are using the XMS client against a newly installed instance of Oracle Application Server Wireless, the client must be updated to use the new URL. By default, the new URL will be `/xms/webservices` (rather than `/push/webservices`) as in earlier releases.

If the instance has been upgraded from the 9.0.2 to the 9.0.4 release, the old URL (`/push/webservices`) will still be valid, though the application will in fact be running the 9.0.2 code base. As such, this URL is intended for backward compatibility only; you should update the clients of the SOAP API to use the new URL (`/xms/webservices`).

15.1.7 Broken Images in Some MXML Messages

MXML messages containing an image reference with the attribute `addImageExtension=true`, when sent using XMS to an email recipient, may appear with broken in-line images on certain email clients. The workaround for this problem is to:

1. Go to the **Foundation** tab in Oracle Application Server Wireless Tools.

2. Select the *ASYNC* device.

3. Click **Edit**.

4. Go to the *Browser* section and navigate to the *Image File MIME types* table.

5. Move the following MIME types from the left pane to the right pane:

   - image/bmp bmp
   - image/png png
   - image/tiff tif
   - image/gif gif
   - image/jpeg jpg

6. Click **Apply** to save the changes.

15.1.8 Premature Delivery of Notifications

Notification messages sent through email to users that have a sending window specified in their contact rules may be delivered prematurely. That is, if a notification is generated at 9:00AM, and the user has specified in his contact rules that he does not want any emails until 10:00AM, the message will be sent immediately, rather than delayed for 60 minutes.

There is no workaround for this issue.

15.1.9 XHTML and XForms

This section describes issues with XHTML and XForms. It includes the following topics:

- Section 15.1.9.1, "Async Support for XHTML/XForms"
- Section 15.1.9.2, "Error Using Back Button with XForms"
- Section 15.1.9.3, "Showing Radio Buttons, Checkboxes and Select List with XForms"

■ Section 15.1.9.4, "Form Submission using XForms"

15.1.9.1 Async Support for XHTML/XForms

To develop Async services using XForms, *item element*, instead of *itemset*, should be used to represent the option list for the elements `select` and `select1`.

15.1.9.2 Error Using Back Button with XForms

The browser **Back** button cannot be (reliably) used with XForms web applications. Oracle Application Server caches the state of a form on the server to support multiple round trips between the browser and the Application Server. When using the browser **Back** button, the browser (cache) does not fetch the current state from the server; this may result in a conflict. Also on certain actions (such as XForms `submit`) the Application Server (after the submit) clears the state (on the server), and the server throws an error if resubmit is tried (using the browser **Back** button).

15.1.9.3 Showing Radio Buttons, Checkboxes and Select List with XForms

XForms uses the `select1` and `select` controls to show the intent that one or more may be selected from a list of values. To show radio buttons, checkboxes or select lists, use these controls. Also use the *appearance* attribute to control the type of `select1` or `select` the UI will display. Use `appearance="full"` to display a radio button (in the case of `select1`) or checkbox (in the case of `select`).

15.1.9.4 Form Submission using XForms

When XForms documents use the *post submission* method, the XForms processor does not submit the `xmlns` namespace attributes (default namespace and namespace prefixes used) in the submitted XML (instance) data. This is a known bug, and authors can work around this problem by defining the namespace prefixes in the instance data's root element.

15.1.10 Errors with Localized Voice Message for Device Validation in Customization Portal

The device validation message through the voice channel will only work when the user's locale is set to *English*, and the message is rendered by a voice gateway with an English Automatic Speech Recognition (ASR) engine. Any other settings for the user locale or the gateway ASR engine are unsupported and will likely cause errors in message delivery.

15.1.11 Unavailable Functionality for Re-Created SSO Users

Re-created SSO users of the Oracle Application Server Wireless Tools cannot access some of the tools' functionality. If a user is deleted and then re-created, then that user cannot use all of the functionality of the Wireless Tools. This problem occurs because of the way the SSO server caches GUID information for the users. To solve this problem, restart the SSO server.

15.1.12 Working with Signature Capture Form Control

Some browsers (such as the Spectrum24® WebClient for Palm Computing Platform) support the ability to capture signatures. Applications developed using OracleAS Wireless XML can generate the target markup required to support signature capture. In this release, the following browsers are supported for signature capture:

- Symbol Spectrum24® WebClient for Palm Computing Platform Version 2.8-10 for Palm OS 4.1

- Microsoft Pocket Internet Explorer 4.1 on Microsoft Pocket PC

- Microsoft Pocket Internet Explorer on Microsoft CE3 or later

On supported Microsoft Pocket PC and Windows Mobile platforms, the Oracle Signature Capture Plug-in for Pocket Internet Explorer must be installed. The Oracle Signature Capture Plug-in is available for download from Oracle MetaLink at `http://metalink.oracle.com` or contact Oracle Support.

15.1.13 Integrating Oracle Application Server Wireless with Web Cache

WebCache supports MobileXML documents, but does not support documents that are written in XHTML+XForms or XHTML-MP.

15.1.14 Integrating Oracle Application Server Wireless with Oracle Portal

In order for devices to use this function, they (devices) must send the appropriate HTTP Accept header.

15.1.15 Oracle Application Server Wireless log.xml File does not Support NLS

In this release, the Oracle Application Server Wireless `log.xml` file does not support NLS.

15.1.16 POST Method is Not Supported by All Markup Languages

The XForms transformer sometimes outputs markup language that includes the `POST` method. Therefore devices that do not support the `POST` method, such as old J-Phone Type C2 devices in Japan, are not supported with XForms.

15.1.17 Model Object Changes Not Propagated Across Applications

If you use the Wireless model API, and make changes in the Wireless persistent objects, include the following in your web application `web.xml` file to ensure that the changes are propagated across all web applications:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<!DOCTYPE web-app PUBLIC
"-//Sun Microsystems, Inc.//DTD Web Application 2.3//EN"
"http://java.sun.com/dtd/web-app_2_3.dtd">
<web-app>
<!-- ... -->
<filter-mapping>...</filter-mapping>
<listener>
<listener-class>oracle.panama.servlet.CacheManagerListener</listener-class>
</listener>
<servlet>...</servlet>
<!-- ... -->
</web-app>
```

15.1.18 Webclipping Help Page Restriction

When you access the webclipping functionality of the OracleAS Wireless Webtool, and you use the Netscape Web browser and Japanese is your browser language, you will not be able to correctly view the Webclipping help pages.

15.1.19 Invalid User Account

When you access the OracleAS Wireless portal by an HDML simulator and try to login with an invalid user account, the non-ascii data in the username is displayed as corrupted data or changed to another string.

15.1.20 Webclipping Output May be Displayed in Different Language

When you use OracleAS Wireless Webclipping, the output may display in a language dissimilar to the language of your user profile; that is the language you use to loging in to Webtool. The Webclipping manager uses your Web browser language as the default.

If you want the output of OracleAS Wireless Webclipping to appear in a specific language please refer to the **Help** of your Web browser for how to set the browser language.

15.1.21 Avoid Sending Short Message with Japanese Language Strings

If you use UP.SDK 3.3.1 simulator to connect to OracleAS Wireless portal, specifically ptg/rm, and then go to SMS and send a short message with Japanese strings and save it, the saved Japanese message will be garbled.

15.1.22 Do not Store Messages with Korean Characters

If you login into OracleAS Wireless portal, select **PIM > Shortmessage**, and create a predefined Short Message using Korean characters and then save it, you will find the SMS saved. However, if you select Pick Message and try to select the saved message, you will find that the saved message is not present.

Oracle recommends not storing a short message in Korean characters when accessing the OracleAS Wireless portal.

15.2 Configuration Issues and Workarounds

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

- Section 15.2.1, "Configuration Assistant Hanging for Wireless on 10g 64-bit Database"

- Section 15.2.2, "Oracle Application Server Wireless Standalone Instance Names Must be Single-byte Alphanumeric Characters"

- Section 15.2.3, "Potential Conflicts in Application Entities Based on OID"

- Section 15.2.4, "OC4J_Wireless"

- Section 15.2.5, "Updating Oracle Application Server Wireless Hostname"

- Section 15.2.6, "Oracle Application Server Workflow Integration"

- Section 15.2.7, "OracleAS Wireless Site URLs Incorrect"

- Section 15.2.8, "Discovering New Devices or Simulators Using the Openwave Plug-in"
- Section 15.2.9, "Integrating Oracle Application Server Wireless with Oracle Internet Directory"
- Section 15.2.10, "Unable to Log Into Studio and Customization Tools"

15.2.1 Configuration Assistant Hanging for Wireless on 10g 64-bit Database

Before recreating a 10g database on the same machine as the original database, using the same Service Name and SQL*Net port as the original database, then you should shut down any middle tiers that are trying to connect to the database. This is done so that the database does not receive many incorrect username/password requests (If it does, the account will be locked out).

If you must keep the middle tier running while creating the new database, then set `failed_login attempts` to `UNLIMITED` as a workaround.

15.2.2 Oracle Application Server Wireless Standalone Instance Names Must be Single-byte Alphanumeric Characters

Oracle Application Server Wireless standalone instance names can only contain single-byte alphanumeric characters. This includes the instance names for messaging gateway, notification engine, data feed engine, notification event collector, performance logger and location event server.

15.2.3 Potential Conflicts in Application Entities Based on OID

Oracle Application Server Wireless middle tiers installed against the common meta data repository (Oracle Application Server Wireless schema) share a common application entity in OID. The application entity is created as part of the *first* Oracle Application Server Wireless middle tier installation, and is owned by the OID user who installs that middle tier. Subsequent Oracle Application Server Wireless middle tiers installed against the same meta data repository use the application entity that was created as part of the first middle tier installation.

Subsequent Oracle Application Server Wireless middle tier installations against a meta data repository should be done by the same OID user who installed the first Oracle Application Server Wireless middle tier.

If you want to use a different OID user to install subsequent Oracle Application Server Wireless middle tiers, then you must add the OID user as a shared owner of the application entity before starting any subsequent Oracle Application Server Wireless middle tier installations.

To add a shared owner for a Oracle Application Server Wireless application entity:

1. Find the name of the Oracle Application Server Wireless application entity by executing

   `$ORACLE_HOME/wireless/bin/getAppEntityName.sh[bat]`

   from the first middle tier. This script prints the name of the Oracle Application Server Wireless application entity.

2. Use the OID Deployment Delegation Console or OID Directory Manager to add the new OID user as a Component Owner for the Oracle Application Server Wireless application entity name returned in the previous step.

> **See:** For more details, see "Using Deployment Delegation Console to Add Users to Groups" in *Oracle Application Server 10g Installation Guide*.

15.2.4 OC4J_Wireless

If your OC4J_Wireless server must support a large number of concurrent users, increase the maximum memory size to 1 GB (or more) using the following JVM options:

```
-Xms512m -Xmx1024m
```

You can increase the MaxClients parameter in httpd.conf to support higher hit rates. For example, by setting MaxClients to *1024* in httpd.conf, you can allow up to 1024 concurrent HTTP requests. Consequently, you can expect an increased number of Application Server threads in the OC4J_Wireless instance. Ensure you reduce the thread stack size to 256k in order to support large numbers of Application Server threads in OC4J_Wireless. The default stack size in the Solaris environment is *512k*. The stack size is set by the following JVM option:

```
-Xss256k
```

If you are running OC4J_Wireless instances on multi-CPU machines, you can set the JVM options to enable the Parallel GC algorithm in JDK 1.4. You may set the ParallelGCThreads parameter to the number of CPUs in your host. For 4-CPU Solaris machines, the following JDK 1.4 JVM options have been found to increase the performance of the OC4J_Wireless instances:

```
-XX:+UseParallelGC -XX:ParallelGCThreads=4
```

The following GC tuning parameters provide better performance for the OC4J_Wireless:

```
-XX:NewRatio=2 -XX:SurvivorRatio=16
```

15.2.5 Updating Oracle Application Server Wireless Hostname

Instructions for updating the Oracle Application Server Wireless port *and* hostname are detailed in *OracleAS 10g Administrator's Guide*. If you want to update the hostname *only*, without updating the port:

Re-register Wireless with SSO by running the following command on the middle-tier host:

```
ORACLE_HOME/wireless/bin/reRegisterSSO.sh new_wireless_url oracle_home
administrator_dn
```

```
where:
```

new_wireless_url: Wireless HTTP URL with the new Web Cache listener port.

oracle_home: Middle-tier Oracle home whose Web Cache port you are changing.

administrator_dn: OID administrator.

For example, if you have changed the Web Cache listener port to 7779 on the middle-tier installation in /home/oracle on host myhost:

```
ORACLE_HOME/wireless/bin/reRegisterSSO.sh http://myhost:7779/ptg/rm
/home/oracle cn=orcladmin
```

15.2.6 Oracle Application Server Workflow Integration

For a user to be able to receive Workflow notifications properly, ensure the following settings in the customization portal are set properly:

- A device should be created and validated.

- The option, *Allow other applications to access my user profile*, in the User Profile section should be checked.

- The Contact Rules section should not have *Unavailable* checked.

Also, a setting must be set properly on the Workflow home page.

To do so:

1. Log on to your Workflow home page.

2. Click **User Preferences**. The value for *Send me electronic mail notifications* cannot be *Do not send me mail*. If it is, the user must change it by clicking **Update**. Choose any option except for *Do not send me mail* or *Plain text summary mail*.

3. To confirm your change, click **OK**.

To enable the Workflow worklist application, the Workflow folder must be made visible. To do this:

1. Log on to the Oracle Application Server Wireless tool.

2. Click the **Content** tab on the top right to go to the *Publish Content* page.

3. Select the *Workflow* folder and click **Edit**.

4. Check the *Visible* box and click **Apply**.

15.2.7 OracleAS Wireless Site URLs Incorrect

During 9.0.4 middle tier installation, WebCache must be configured with the HTTPS Port number. If WebCache is not configured with the HTTPS Port number, then Oracle Application Server Wireless will by default set its HTTPS Port to zero.

After you configure WebCache with the correct HTTPS Port, you must use Oracle Enterprise Manager to reconfigure all of the HTTPS-related URL parameters.

15.2.8 Discovering New Devices or Simulators Using the Openwave Plug-in

If you use the plug-in interface that is provided by Openwave, change the user agent of the HDML_EZweb logical device to:

```
UP.Browser/3.0*UP.Link/3*, UP.Browser/3.2.9.1-*UP.Link/3*"
```

15.2.9 Integrating Oracle Application Server Wireless with Oracle Internet Directory

Run Oracle Directory Integration Server (`odisrv`) when you want to synchronize data between Oracle Application Server Wireless and OID.

15.2.10 Unable to Log Into Studio and Customization Tools

A problem has been reported regarding logging into Customization and Studio Tools. This was caused by configuring JServ before configuring Wireless. You should configure Wireless before you configure JServ. If you have problems running JServ and OC4J together, see "Using JServ and OC4J Together" in the *Oracle HTTP Server Administrator's Guide.*

15.3 Documentation Errata

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

- Section 15.3.1, "Determining a User's Locale"
- Section 15.3.2, "Documenting UNIX Ports"
- Section 15.3.3, "Account Numbers in Oracle Application Server Wireless Tool"
- Section 15.3.4, "MXML Tag Glossary"
- Section 15.3.5, "Configuring Oracle Application Server Wireless for Voice Applications"
- Section 15.3.6, "Locations of Audio Parameters"
- Section 15.3.7, "Grammar.jsp"
- Section 15.3.8, "Driver Attributes"
- Section 15.3.9, "Jabber Example"
- Section 15.3.10, "More Tuning Information"
- Section 15.3.11, "Updated URLs"
- Section 15.3.12, "Using Web Services"
- Section 15.3.13, "CMG MMS Driver"
- Section 15.3.14, "Unable to Change User Password in Customization"
- Section 15.3.15, "No Error Given When Adding an Already Existing User"
- Section 15.3.16, "Error Message When Updating a User Group"
- Section 15.3.17, "Device Search Results not Refreshed"
- Section 15.3.18, "Location Search Does Not Return Location Name"

15.3.1 Determining a User's Locale

Section 15.2.2.1 of the *Oracle Application Server Wireless Administrator's Guide* should read as follows:

The Oracle Application Server Wireless Web Server (`ptg/rm`) determines the locale of a user in the following order:

1. Use `PAlocale` (if present).
2. Use the Accept_Language HTTP header (if present).
3. Use the site default locale.

15.3.2 Documenting UNIX Ports

Throughout the documentation, you can substitute UNIX for Solaris in all instances except for the Oracle Application Server Wireless tuning described in Chapter 13 of the *Oracle Application Server Wireless Administrator's Guide* ("Optimizing *Oracle Application Server Wireless*"). The tuning knobs described in this chapter are Solaris-specific.

15.3.3 Account Numbers in Oracle Application Server Wireless Tool

When you create or modify a device using the Oracle Application Server Wireless Tool, you enter the Primary Phone Number for the device. This number becomes the Account Number for the device. The online Help sometimes refers to the Primary Phone Number in places where the user interface displays the label *Account Number*. The correct usage is Account Number.

15.3.4 MXML Tag Glossary

The online MXML tag glossary omits the `dtmf` attribute `<SimpleMenu>`.

This attribute controls whether or not DTMF keys are assigned to the first 9 `<SimpleMenuItem>`s automatically.

Values for the `dtmf` attribute are *true* or *false*; the default is *false*.

15.3.5 Configuring Oracle Application Server Wireless for Voice Applications

The following changes to the documentation in *Oracle Application Server Wireless Administrator's Guide* have occurred since the book was released:

- Section 9.2.2, "Configuring and Testing Voice-Enabled Applications" should be removed as the information is no longer necessary.

- Section 9.2.3.1, "Provisioning Mobile Studio for Voice Access": in addition to the existing step, you must set the `PAlogin` parameter (`PAlogin=true`).

15.3.6 Locations of Audio Parameters

The `ORACLE_SERVICES_PIM_MAIL_AUDIO_TMP_DIR` and `ORACLE_SERVICES_PIM_MAIL_AUDIO_TMP_URL` parameters are in the Mail application, not the Voice Main Menu application as stated in Section 9.2.3.2.5, "Configuring the Voice Main Menu to Prefetch the Mail Application" in *Oracle Application Server Wireless Administrator's Guide*.

15.3.7 Grammar.jsp

The following notes apply to Section 9.2.4.1, "Testing the General Commands" in *Oracle Application Server Wireless Administrator's Guide*:

- The path to grammer.jsp is incorrect. The path to `globalGrammar.jsp` on the integrated instance is: `<IAS-HOME>/j2ee/OC4J_Wireless/applications/modules/modules-web/common/jsp/globalGrammar.jsp`.

- The following text is no longer valid:

  "Modify the following file for the My Oracle main menu, or another .JSP for a personalized menu: `<iasw-root>/iaswv20/wireless/j2ee/applications/voice/voice-web/mainmenu/MOCGrammar.jsp`"

15.3.8 Driver Attributes

The following changes to driver attributes (in Section 10.6.1, "Pre-Built Drivers" of *Oracle Application Server Developer's Guide*) have been made:

- For the UCP Driver, the `sms.server.default.encoding` attribute:

The default encoding of the text message. The default value is *IA5*. For multi-byte languages (such as Chinese), the attribute must be set to UCS-2. The attribute `sms.message.chunksize` should be set accordingly (that is, the chunksize should be no more than 160 if the encoding is IA5; no more than 70 if the encoding is UCS-2).

- For the SMPP Driver, the `sms.server.default.encoding` attribute:

The default encoding of the text message. The default value is *IA5*. For multi-byte languages (such as Chinese), the attribute must be set to UCS-2. The attribute `sms.message.chunksize` should be set accordingly (that is, the chunksize should be no more than 160 if the encoding is IA5; no more than 70 if the encoding is UCS-2).

15.3.9 Jabber Example

In Section 10.6.1.9.1, "About Jabber" in *Oracle Application Server Wireless Developer's Guide*, a figure is mistakenly referenced. Instead, this paragraph is appropriate:

Consider a scenario in which an Oracle Application Server Wireless instance is connected to MSN through Jabber's MSN transport gateway using the ID *oracleagent@msn.com*. End users on MSN can then access applications on the Oracle Application Server Wireless instance by sending messages to this ID (*oracleagent@msn.com*) from their client.

15.3.10 More Tuning Information

Tuning information has changed and has been enhanced since publication of the Oracle Application Server Wireless books. See Oracle Technology Network for the latest information about tuning Oracle Application Server Wireless.

15.3.11 Updated URLs

Some URLs have changed since publication of the OracleAS Wireless books. Table 15–1 details the changes.

Table 15–1 OracleAS Wireless *Changed URL*

Existing URL	Should Be...
`http://software.palm.com/download.jsp`	`http://software.palm.com`
`http://java.sun.com/products/Javacomm/`	`http://java.sun.com/products/javacomm/`
`http://messenger.us.oracle.com/push/webservices`	`http://messenger.oracle.com/push/webservices`
`http://mobile.us.oracle.com/ompm/site/product/devices/certified/certified_gateways_wap.jsp`	`http://www.otn.oracle.com/.` `Go to the Mobile Tech Center.`
`http://mservice.oracle.com/`	`http://www.otn.oracle.com/.` `Go to the Mobile Tech Center.`
`http://software.palm.com/download.jsp`	`http://software.palm.com/`
`http://vvsp.local.hostname:vvsp.local.port/`	`Not a link; example only.`

Table 15–1 (Cont.) OracleAS Wireless ***Changed URL***

Existing URL	Should Be...

`http://www.otn.oracle.com/docs/`
`products/oracle9i/doc_library/`
`901_%20doc/nav/docindex.htm`
	`Disregard reference.`

`http://www.otn.oracle.com/wireless`	`http://www.otn.oracle.com`
`http://xmlns.oracle.com/2002/MobileXML`	`http://xmlns.oracle.com`

15.3.12 Using Web Services

Section 14.2.3, "*Using Web Services"* did not include mention of mobile positioning support. The correct paragraph should read:

Oracle Application Server location services support the use of Web services with wireless applications that use the capabilities of the `Geocoder`, `Mapper`, `Router`, or `YPFinder` interfaces. Application developers do not need to add special coding if the application runs within OracleAS Wireless. Rather, Web services are integrated as service proxies for geocoding, mapping, routing, and business directory (YP), and mobile positioning support.

15.3.13 CMG MMS Driver

This section replaces the information about the CMG MMS Driver included in *OracleAS Wireless Developer's Guide*.

This driver provides the ability to send and receive MMS messages to and from a CMG MMSC (Multimedia Messaging Service Center). The driver has been updated to work with the CMG MMSC API for VAS v1.1.1 library. Since the earlier versions are no longer available from CMG and v1.1.1 is not backward compatible with any earlier versions, you must upgrade to this version.

15.3.13.1 Required Third-Party Software

This driver requires the CMG MMSC API for VAS v1.1.1 (`mmscapi.jar` and `mmscapi.war`), available from CMG (`http://www.cmgwds.com`). You must add the `mmscapi.jar` library to the CLASSPATH in `$ORACLE_HOME/opmn/conf/opmn.xml` (in UNIX) or `$ORACLE_HOME\opmn\conf\opmn.xml` (in Windows).

15.3.13.2 Class Name

`oracle.panama.messaging.transport.driver.mms.CMGMMSDriver`

15.3.13.3 Configuration

- `mms.cmg.account.id`—The MSISDN of the VAS application, or the short identification number as registered with the CMG MMSC. This is required.

- `mms.cmg.account.alias`—The application alias configured in the CMG U-power web interface. This is required.

- `mms.cmg.account.password`—The password to authenticate the VAS application as registered with the CMG MMSC. This is required.

- `mms.cmg.config.file`—The path to the core configuration file for the CMG MMSC API. This is required. For details regarding the contents of this file, refer to the User Manual that is packaged with the CMG MMSC API distribution. A

sample configuration file is included: (`$ORACLE_HOME\wireless\messaging\drivers\cmg\CMGMMSDriver.cfg`) with this driver.

- `mms.cmg.debug`—Enable logging extra debug information to the file. Options: *true* (debug enabled), *false*, or leave blank (debug disabled).

- `mms.cmg.billing.category`—MMSC Billing Category (optional). This value is used to send custom billing category information to the MMSC. For details and examples of the billing category, refer to the User Manual that is packaged with the CMG MMSC API distribution.

- `mms.cmg.billing.price`—MMSC Billing Price Value (optional). This value is used to send custom billing price information to the MMSC. For details and examples of the billing price, refer to the User Manual that is packaged with the CMG MMSC API distribution.

15.3.13.4 Additional Configuration

To configure the driver to receive MMS messages, you must perform these steps:

1. Package the mmscapi.war file into a `cmgmmsc.ear` file as follows:

    a. Unzip `$ORACLE_HOME\wireless\messaging\drivers\cmg\cmgmmsc.ear.zip` into an empty directory. This creates the following directory structure: `\META-INF\application.xml, \META-INF\MANIFEST.MF`

    b. Copy mmscapi.war into this directory and rename this file to `cmgmmsc.war`. This creates the final directory structure: `\META-INF\application.xml, \META-INF\MANIFEST.MF, \cmgmmsc.war`

    c. Zip this directory structure and rename the zip file to `cmgmmsc.ear`.

    d. Copy `cmgmmsc.ear` to `$ORACLE_HOME\wireless\j2ee\applications\`

2. In `$ORACLE_HOME\wireless\j2ee\config\wireless-web-site.xml`, add: `<web-app application="cmgmmsc" name="cmgmmsc" root=/"cmgmmsc" load-on-startup="true"/>`

3. In `$ORACLE_HOME\wireless\j2ee\config\wireless-server.xml`, add: `<application name="cmgmmsc" path="../applications/cmgmmsc.ear" auto-start="true" />`

4. Start the OracleAS Wireless instance, which will auto-deploy the `cmgmmsc.ear` file.

5. After the auto-deploying is complete, in `$ORACLE_HOME\wireless\j2ee\applications\cmgmmsc\cmgmmsc\WEB-INF\web.xml`:

    - Edit the trace directory and filename.

    - Add the following section:
      ```
      <servlet-mapping>
        <servlet-name>
          HttpReceive
        </servlet-name>
        <url-pattern>
          /HR
        </url-pattern>
      </servlet-mapping>
      ```

6. Back up (rename the file's extension to anything except *.jar*) `$ORACLE_HOME\wireless\lib\log4j-core.jar` and `$ORACLE_HOME\wireless\lib\log4j.jar`. Copy `$ORACLE_HOME\wireless\j2ee\applications\cmgmmsc\cmgmmsc\WEB-INF\lib\log4j-1.2.5.jar` to `$ORACLE_HOME\wireless\lib\log4j-core.jar`.

7. Restart the OracleAS Wireless instance.

   The servlet `HttpReceive` runs within the OracleAS Wireless instance, and requires RMI to communicate with the CMGMMSDriver. Further details are provided in the User Manual that is packaged with the CMG MMSC API distribution.

15.3.14 Unable to Change User Password in Customization

End users only have permission to change their passwords if that permission has been granted by the Administrators. If permission is not granted, then the Change Password field will be greyed-out (disabled).

For more information on enabling password resets, see *OracleAS Wireless Administrator's Guide*.

15.3.15 No Error Given When Adding an Already Existing User

If you attempt to add a user or group using an existing user name or group name, the existing user/group data is updated. The expected behavior would be for an error to be generated, but instead, the existing information is silently updated.

15.3.16 Error Message When Updating a User Group

When editing a user group's data with faulty information (such as a name that already exists), an error is displayed. When you alter the details and click Finish, a new entity is created.

15.3.17 Device Search Results not Refreshed

When a search is performed for Devices on one tab of the Webtool (such as Foundation), the search results persist, even when a search for devices is done on another tab of the webtool (such as Services).

15.3.18 Location Search Does Not Return Location Name

After creating a Location from Address and searching on that new Location's name, the Location's information is returned, but the Location name does not appear.

Part V

Caching Issues

This part describes issues associated with Caching components. It contains the following chapters:

-

16

Oracle Application Server Web Cache

This chapter describes the issues associated with Oracle Application Server Web Cache (OracleAS Web Cache). It includes the following topics:

- Section 16.1, "General Issues and Workarounds"
- Section 16.2, "Configuration Issues and Workarounds"
- Section 16.3, "Documentation Errata"

16.1 General Issues and Workarounds

This section describes general issues and their workarounds for OracleAS Web Cache. It includes the following topics:

- Section 16.1.1, "Security"
- Section 16.1.2, "Compressed Content Not Displaying Correctly in Browsers"
- Section 16.1.3, "Cookie and JavaScript in Pages Monitored by End-User Performance Monitoring"
- Section 16.1.4, "Performance Degradation and Memory"
- Section 16.1.5, "Disk Space and Service Interruption"
- Section 16.1.6, "Impact of HTTP Traffic Changes"
- Section 16.1.7, "Change in Behavior of Responses to Range Requests"

16.1.1 Security

When you configure OracleAS Web Cache to cache Web pages other users can access these pages if they know the URLs. For this reason, do not create cache secure content.

16.1.2 Compressed Content Not Displaying Correctly in Browsers

When you enable compression, some browser bugs effect compression and the output HTML. You may have to perform additional configuration to use compression for certain browsers types, or you may have to disable compression for specific browsers with bugs.

> **See Also:**
>
> - *Oracle Application Server Web Cache Administrator's Guide* for an initial list of browser limitations
> - Vendor documentation for the browser

16.1.3 Cookie and JavaScript in Pages Monitored by End-User Performance Monitoring

End-user performance monitoring creates an additional cookie and inserts JavaScript into pages. The application may generate cookies and JavaScript that conflict with additional cookies and JavaScript created by End-User Performance Monitoring. If this behavior causes a problem for an application, then disable this feature in the End-User Performance Monitoring page (**Logging and Diagnostics** > **End-User Performance Monitoring**) of OracleAS Web Cache Manager.

16.1.4 Performance Degradation and Memory

Because OracleAS Web Cache is an in-memory cache, it is best to deploy OracleAS Web Cache on a dedicated computer to minimize paging. Unless the computer is dedicated to run OracleAS Web Cache, ensure the maximum cache size does not exceed 20 percent of the total memory.

If the time taken to cache or invalidate objects increases, check if the computer is paging. Paging can severely degrade performance. To configure OracleAS Web Cache to work efficiently on a computer with paging, either deploy OracleAS Web Cache on a dedicated computer or reduce the maximum cache size and maximum cached object size.

If OracleAS Web Cache uses more memory than the maximum cache size, the increase may be caused by numerous simultaneous requests for documents that are larger than the maximum cached object size. In this situation, because the documents are not cached, OracleAS Web Cache uses more memory processing the requests and forwarding them to the origin server than it would to cache the documents. Review access logs to determine if many simultaneous requests for large documents have been made and adjust the size of the maximum cached object size so that those documents are cached. In addition, check to be sure that a caching rule or response header specifies that the documents be cached.

To modify the maximum cache size or the maximum cached object size, set new limits for the **Maximum Cache Size** and **Maximum Cached Object Size** in the Resource Limits page (**Properties** > **Resource Limits**) of OracleAS Web Cache Manager.

> **See Also:** *Oracle Application Server Web Cache Administrator's Guide* for more information about recommended topologies

16.1.5 Disk Space and Service Interruption

A system without enough disk space can cause OracleAS Web Cache to fail. Ensure there is sufficient space on the partition that contains the log files.

16.1.6 Impact of HTTP Traffic Changes

When OracleAS Web Cache is added to an existing application Web server environment, HTTP traffic changes effect the following aspects of the application:

- Protocol/Hostname/Port Mapping

  To ensure traffic is directed through OracleAS Web Cache, configure all absolute URLs to use the protocol, host name, and port number of OracleAS Web Cache. Also, ensure the `Port` directive in the Oracle HTTP Server `httpd.conf` file specifies the OracleAS Web Cache listening port.

- SSL Processing

Add certificate management to OracleAS Web Cache, if the connection between the client and OracleAS Web Cache is HTTPS, but the connection between OracleAS Web Cache and the origin server is HTTP.

- Page Delivery Timing

  For compressed pages or pages that requires processing, OracleAS Web Cache waits for an entire page from the origin server before it sends it to the browser.

- HTTP Protocol

  OracleAS Web Cache transparently performs the following:

  - OracleAS Web Cache upgrades and downgrades the protocol version between the origin server and browser.

  - For cacheable objects, OracleAS Web Cache sends content to browsers with the `Content-Length` response header instead of chunked encoding for the initial request.

  - For cache hits, OracleAS Web Cache overwrites the `Content-Length` response-header field whenever it is different from what the origin server sent. This feature ensures browsers receive full page content.

16.1.7 Change in Behavior of Responses to Range Requests

In previous releases, when OracleAS Web Cache received a request for a multi-part document with an HTTP `Range` request-header field and that document was not already cached, OracleAS Web Cache requested the entire document from the origin server and served it to the client. If the document was already cached, OracleAS Web Cache served only the part that the client requested.

In this release, when OracleAS Web Cache receives a request for a multi-part document with an HTTP `Range` request-header field and that document is not already cached, OracleAS Web Cache now requests the partial document from the origin server. OracleAS Web Cache correctly returns the response (which could be an entire or partial document depending on what it received from the origin server) to the client.

However, OracleAS Web Cache caches only responses that are entire documents; it does not cache responses that are range responses. This caching behavior will be fixed in a future release.

16.2 Configuration Issues and Workarounds

This section describes configuration issues and their workarounds for OracleAS Web Cache. It includes the following topics:

-

16.2.1 How To Get Started with Configuration

Use OracleAS Web Cache Manager to configure OracleAS Web Cache. Once configuration is complete, you can use the Application Server Control to start, stop, or restart the cache, as well as monitor cache and origin server status.

To use OracleAS Web Cache Manager:

1. If not currently logged on to the OracleAS Web Cache computer, log in with the user ID of the user that performed the installation.

2. Start OracleAS Web Cache with the Oracle Process Manager and Notification (OPMN) Server. From the command line, enter:

   ```
   opmnctl startproc ias-component=WebCache
   ```

3. Point your browser to the OracleAS Web Cache Welcome URL:

   ```
   http://web_cache_hostname:4000/webcacheadmin
   ```

4. When prompted for the administrator user ID and password, enter either the user name, ias_admin, or the OracleAS Web Cache administrator user name, administrator, for the user name. If you supplied a password during the installation, enter that password.

OracleAS Web Cache uses two configuration files: webcache.xml and internal.xml. The OracleAS Web Cache Manager writes its configuration information to the webcache.xml file. OracleAS Web Cache uses internal.xml file. These files are located in the $ORACLE_HOME/webcache directory on UNIX and ORACLE_HOME\webcache directory on Windows. Do not edit these configuration files manually, except in the cases described in these Release Notes, or when directed to do so by Oracle Support Services. Improper editing of these configuration files may cause problems in OracleAS Web Cache.

> **See Also:** *Oracle Application Server Web Cache Administrator's Guide* for complete configuration coverage

16.2.2 Common Configuration Mistakes

Common configuration mistakes include:

- Not mapping sites correctly to origin servers in the Site-to-Server Mapping page (**Origin Servers, Sites, and Load Balancing** > **Site-to-Server Mapping**). When sites are not mapped, OracleAS Web Cache directs requests to the default Oracle HTTP Server. Other site configuration errors include:

  - Not specifying all the site aliases

  - Misuse of the wildcard character *

  - Creating multiple site-to-server mappings for a site with multiple origin servers

- Port conflicts

  > **See Also:** Section 16.2.3, "Port Conflicts" for more information.

- Ping URL

When configuring the **Ping URL** field in the Origin Server page (**Origin Servers, Sites, and Load Balancing** > **Origin Servers**), how you enter the URL depends on the origin server. For an application Web Server, enter either a relative or fully-qualified URL that includes the domain name, or site name, representing the virtual host of the application Web server. For a proxy server, enter a fully-qualified URL that includes the domain name, or site name, representing the virtual host of the origin server behind the proxy server. Ensure the URL is cached.

■ Running `webcached` with root privilege

You must configure `webcached` to run with root privilege when privileged port numbers less than 1024, there are more than 1,024 file descriptors, or the current `opmnctl` or `webcachectl` user does not match the configured user in the Process Identity page (**Properties** > **Process Identity**) of OracleAS Web Cache Manager.

> **See Also:** *Oracle Application Server Web Cache Administrator's Guide* for complete configuration details

16.2.3 Port Conflicts

By default, OracleAS Web Cache is configured to use the following default HTTP ports:

■ Listen requests: 7777

■ Administration requests: 4000

■ Invalidation requests: 4001

■ Statistics requests: 4002

If these ports are in use, then the installation procedure attempts to assign other port numbers from a range of possible port numbers.

At the end of installation, OracleAS Web Cache attempts to start. If there are port conflicts, then OracleAS Web Cache may fail to start.

> **See Also:** *Oracle Application Server Web Cache Administrator's Guide* for more information about configuring ports, resolving port conflicts, and event log messages related to port conflicts

16.2.4 Caching Large Objects

To specify a maximum cached object size, go to the Resource Limits page (**Properties** > **Resource Limits**) of OracleAS Web Cache Manager.

If you specify a maximum cached object size, only documents that are not larger than a specified size and that match the caching rules will be stored in the cache. Objects larger than the specified size will not be cached, even if they meet other caching rules. The default is 100 KB for 9.0.4 installations. For upgraded caches, the default is that no limit is specified. If you want to apply the default to upgraded caches, modify the entry for **Maximum Cached Object Size** in the Resource Limits page.

If you have documents that are larger than the maximum cached object size and those documents are requested frequently, consider increasing the **maximum cached object size** limit.

The setting for the maximum cached object size is ignored if no `Content-Length` header is present in the response.

> **See Also:** *Oracle Application Server Web Cache Administrator's Guide* for more information about configuring resource limits

16.2.5 Removing a Cache from a Cluster Before Running chgiphost.sh

The script `chgiphost.sh` enables you to change the host name or IP address of a computer. If the computer contains a middle-tier instance that is part of OracleAS Web Cache cluster, remove the instance from the cache prior to running this script.

> **See Also:**
>
> - *Oracle Application Server Web Cache Administrator's Guide* for more information about removing cache clusters
>
> - *Oracle Application Server 10g Administrator's Guide* for more information about using the `chgiphost.sh` script

16.2.6 Sending Invalidation Requests Between Cache Cluster Members During Upgrade

If you have a OracleAS Web Cache cluster, you can upgrade one cache cluster member at a time. The caches will continue to respond to requests. However, because other cluster members have a different version of the configuration, the caches will not forward requests to those cache cluster members operating with a different version. Instead, if the requested document is not cached by that cache or by cluster members with the same version of the configuration, OracleAS Web Cache forwards the request to the origin server. In this situation, the Operations page (**Operations** > **Cache Operations**) in OracleAS Web Cache Manager indicates that the **Operation Needed** is **Incompatible software version**.

When the cache cluster members are not running the same version of OracleAS Web Cache, you can still invalidate documents and you can propagate the invalidation to other cluster members, but the invalidation request must originate with the cache that is operating with the earlier version, such as 9.0.2 or 9.0.3, of OracleAS Web Cache.

> **See Also:** *Oracle Application Server 10g Upgrading to 10g (9.0.4)* for more information about upgrading OracleAS Web Cache to 10g (9.0.4), including information about upgrading cache cluster members

16.2.7 Binding Session Associated with Multiple Cookies

To configure OracleAS Web Cache to bind user sessions to an origin server, you associate a site with a session definition name in the Session Binding page (**Origin Servers, Sites, and Load Balancing** > **Session Binding**) in OracleAS Web Cache Manager. If you want OracleAS Web Cache to bind user sessions with multiple cookies when any cookie is set, select a session of `Any Set Cookie`. When selecting `Any Set Cookie`, in **Session Binding Cookie**, click **Enable** to instruct OracleAS Web Cache to include a `Set-Cookie` response-header in the response.

> **See Also:** *Oracle Application Server Web Cache Administrator's Guide* for more information about configuring session binding settings

16.2.8 Reloading Issue with Cache Operations Success Message in Internet Explorer Browser

When you submit a successful operation in the Cache Operations page (**Operations** > **Cache Operations**) in OracleAS Web Cache Manager, a Success message box appears. When you click **OK** to acknowledge the message, on some version of Internet

Explorer, the Success dialog box reloads the OracleAS Web Cache Manager interface into the message box itself.

16.3 Documentation Errata

This section describes known errors in the documentation.

- Section 16.3.1, "Running webcached with Root Privilege"
- Section 16.3.2, "Dummy Origin Server Wallet"

16.3.1 Running webcached with Root Privilege

Chapter 8, "Specialized Configuration," in the *Oracle Application Server Web Cache Administrator's Guide* provides a procedure called "Running webcached with Root Privilege" that describes running `webcached` as the root privileges for the following cases:

- Privileged port numbers less than 1024 are being used for OracleAS Web Cache listening ports.

- There are more than 1,024 file descriptors being used for connections to OracleAS Web Cache.

- The current `opmnctl` or `webcachectl` user does not match the configured user in the Process Identity page (**Properties > Process Identity**) of OracleAS Web Cache Manager.

This procedure, which includes information for changing the process identity of the OracleAS Web Cache processes, is not accurate for the first two bulleted points. For privileged ports and to increase the file descriptor limit for OracleAS Web Cache, you can use the `setroot` command of the `webcache_setuser.sh` to provide OracleAS Web Cache with root privilege without requiring changing the process identity settings.

To provide OracleAS Web Cache with root privilege, perform the following as the root user:

1. From `$ORACLE_HOME/webcache/bin`, execute:

   ```
   webcache_setuser.sh setroot <user_ID>
   ```

   where `<user_ID>` is the OracleAS user that performed installation.

2. Log out of the computer, and re-login as user that installed OracleAS.

3. Start OracleAS Web Cache.

16.3.2 Dummy Origin Server Wallet

The *Oracle Application Server Web Cache Administrator's Guide* and the online help for OracleAS Web Cache Manager does not describe the fact that a dummy wallet is located in `$ORACLE_HOME/webcache/wallets/default` on UNIX and `ORACLE_HOME\webcache\wallets\default` on Windows. This wallet is intended for testing purposes for OracleAS Web Cache HTTPS communication to origin servers. For a production environment, use the procedures described in the documentation to create a new wallet with Oracle Wallet Manager. By default, Oracle Wallet Manager stores wallets in directory `/etc/ORACLE/WALLETS/user_name` on UNIX and `%USERPROFILES%\ORACLE\WALLETS` on Windows.

Part VI

Business Intelligence Issues

This part describes issues associated with Business Intelligence components. It contains the following chapters:

- Chapter 17, "Oracle Application Server Discoverer"
- Chapter 18, "Oracle Reports"
- Chapter 19, "Oracle Application Server Personalization"

17

Oracle Application Server Discoverer

This chapter describes issues associated with Oracle Application Server Discoverer (OracleAS Discoverer). It includes the following topics:

- Section 17.1, "General Issues and Workarounds"
- Section 17.2, "Configuration Issues and Workarounds"
- Section 17.3, "Useful Information"
- Section 17.4, "Documentation Errata"

17.1 General Issues and Workarounds

This section describes general issues and their workarounds for OracleAS Discoverer. It includes the following topics:

- Section 17.1.1, "Certification Information"
- Section 17.1.2, "Internal Error on Exiting Discoverer Plus"
- Section 17.1.3, "OracleAS Discoverer Plus and Internet Browsers with Pop-Ups Disabled"
- Section 17.1.4, "Launching OracleAS Discoverer Plus from a Netscape v7.0 Browser"
- Section 17.1.5, "Problems Launching Microsoft Internet Explorer v6.0 when Exporting to Excel"
- Section 17.1.6, "Issue Running OracleAS Discoverer Plus on NT with Sun Java Plug-In 1.4.1"
- Section 17.1.7, "Problem With Microsoft Internet Explorer, HTTP 1.1 Protocol and Compressed Data"
- Section 17.1.8, "Effective Font Sizes in OracleAS Discoverer Viewer using Netscape 4.7 Browser"
- Section 17.1.9, "Known Issues when using OracleAS Discoverer with Netscape 4.x"
- Section 17.1.10, "Error: Could Not Open Web Cache Connection (WWC-40019)"
- Section 17.1.11, "Unable to launch OracleAS Discoverer Java Plus with Turkish Locale with Jinitiator 1.3"
- Section 17.1.12, "Microsoft Excel May Hang or Errors When Re-opening a File Exported From OracleAS Discoverer in a Non-English Locale"
- Section 17.1.13, "Buttons Not Displayed, or Text Only in English"

- [Section 17.1.14, "English Text Appearing in Non-English Locale"](#)

17.1.1 Certification Information

For the latest certification information, which supersedes that in the Oracle Application Server Discoverer documentation, please refer to:

```
http://metalink.oracle.com
```

17.1.2 Internal Error on Exiting Discoverer Plus

If workbook scheduling is not enabled on your system, you might see the following error message when you exit Discoverer Plus:

An internal error has occurred. If this persists, please contact your Discoverer manager

This error occurs because Discoverer is attempting to get the status of a user's scheduled workbooks by querying V$PARAMETER. Use one of the following workarounds to resolve this issue:

- Set up workbook scheduling functionality, as described in the *Oracle Discoverer Administrator Administration Guide* and *Oracle Developer Suite Release Notes*.

- Set the default value of the ShowExpiredRunsOnExit preference to 0.

- In Discoverer Plus, choose Tools | Options | General and select the **Don't show expired results on exit, delete results automatically** checkbox.

17.1.3 OracleAS Discoverer Plus and Internet Browsers with Pop-Ups Disabled

OracleAS Discoverer Plus appears as a pop-up window from the main Discoverer Connections page. However, some Internet browsers provide an option to disallow pop-up windows. If your browser has such an option and Discoverer Plus is not appearing when you select a connection, make sure the browser's option to disallow pop-up windows is turned off.

17.1.4 Launching OracleAS Discoverer Plus from a Netscape v7.0 Browser

To successfully launch Discoverer Plus from a Netscape v7.0 browser, follow the instructions below to change your Netscape preferences:

1. Select Edit | Preferences | Helper Applications from the Netscape menu bar.

2. Clear the **Always use the Netscape Plug-in Finder Service** check box.

17.1.5 Problems Launching Microsoft Internet Explorer v6.0 when Exporting to Excel

If you are exporting from Discoverer Plus to Microsoft Excel using Microsoft Internet Explorer v6.0, a separate browser window might not launch as expected. This problem is due to a change in behavior in Microsoft Internet Explorer v6.0.

Follow the instructions below to work around the problem by specifying the Discoverer middle tier as a trusted site in Microsoft Internet Explorer (the menu options mentioned below are correct at the time of writing):

1. Select Tools | Internet Options from the Microsoft Internet Explorer menu bar to display the Internet Options dialog.

2. Display the Security tab.

3. Select the Trusted Sites icon and click the Sites button to display the Trusted sites dialog.

4. Enter the URL of the Discoverer middle tier in the format:

http://*<host.domain>*:*<port>*

where:

- *<host.domain>* is the server name and domain on which the Oracle HTTP Server is installed

- *<port>* is the port number (typically 7777 or 7778) on which Discoverer is installed

17.1.6 Issue Running OracleAS Discoverer Plus on NT with Sun Java Plug-In 1.4.1

If you want to use Discoverer Plus on an NT client, use JInitiator 1.3.1.9 or the Sun Java Plug-In 1.4.2. This is due to issues with the Sun Java Plug-In 1.4.1.

17.1.7 Problem With Microsoft Internet Explorer, HTTP 1.1 Protocol and Compressed Data

There is a known issue (user fails to see a page) with Microsoft Internet Explorer where the first 2048 bytes of data sent by a web server using HTTP compression are lost. To find out more information about this problem, go to the following link:

```
http://support.microsoft.com/default.aspx?scid=kb;en-us;Q313712
```

Follow the instructions below to work around the problem by specifying HTTP 1.0 on the client to disable HTTP compression:

1. Select Tools | Internet Options from the Microsoft Internet Explorer menu bar to display the Internet Options dialog.

2. Display the Advanced tab.

3. Clear both of the following check boxes (in the HTTP 1.1 settings category):

- the **Use HTTP 1.1** check box

- the **Use HTTP 1.1 through proxy connections** check box

17.1.8 Effective Font Sizes in OracleAS Discoverer Viewer using Netscape 4.7 Browser

There is a known issue with the rendering of fonts in Discoverer Viewer with the Netscape 4.7 browser. This is due to limited support for Cascading Style Sheets (CSS) in Netscape 4.7, which causes the font size specified in the CSS to be ignored.

To correct this problem, upgrade to a newer version of a supported browser.

17.1.9 Known Issues when using OracleAS Discoverer with Netscape 4.x

The following are known issues when using Discoverer with Netscape 4.x:

- it is not possible to filter the workbook list using non-ASCII characters when using Discoverer Viewer with Netscape 4.x

- it is not possible to use non-ASCII parameters when using Discoverer Viewer with Netscape 4.x

- it is not possible to create private connections using non-ASCII characters when using Discoverer with Netscape 4.x

- browser window re-sizing is disabled when using Discoverer Plus with Netscape 4.x

The workaround is to use a later version of Netscape.

17.1.10 Error: Could Not Open Web Cache Connection (WWC-40019)

This error message might appear if you perform a new Oracle Application Server Business Intelligence and Forms type installation with an existing OracleAS Infrastructure 10*g*, and you subsequently edit and try to publish a Discoverer portlet.

The workaround is to make sure that OracleAS Web Cache is disabled for OracleAS Portal content.

1. Log in to OracleAS Portal as the Portal administrator (e.g. with the username Portal).

2. Display the Administer tab.

3. Display the Portal sub-tab.

4. Select the Global Settings link in the Services area.

5. Display the Cache tab.

6. Clear the **Enable Web Cache for Caching Portal Content** check box.

7. Make sure that the **Host Name** field is set correctly.

   Note: If more than one Oracle Application Server middle tier has been installed, the Host Name is updated with the most recent Oracle Application Server installation. You might need to change the Host Name to that of a previous Oracle Application Server installation.

8. Save the changes you have made by clicking Apply or OK.

17.1.11 Unable to launch OracleAS Discoverer Java Plus with Turkish Locale with Jinitiator 1.3

If your locale is set to Turkish, you cannot launch OracleAS Discoverer Plus using JInitiator 1.3.1.8.

The workaround is to use the Sun Java Plug-In 1.4.1. Note that this issue is fixed in later versions of JInitiator (1.3.1.16).

17.1.12 Microsoft Excel May Hang or Errors When Re-opening a File Exported From OracleAS Discoverer in a Non-English Locale

If you are using OracleAS Discoverer in a non-English locale and you export to an Excel pivot table, Excel might hang or error when re-opening the file.

The workaround is to disable macros when re-opening the file.

17.1.13 Buttons Not Displayed, or Text Only in English

Following installation of Oracle Application Server, you may not see complete translation in OracleAS Discoverer Viewer and OracleAS Discoverer Connection page. Some buttons, text or links may be displayed only in English.

To correct this problem, re-start all of your OPMN services after installation of Oracle Application Server.

17.1.14 English Text Appearing in Non-English Locale

If you are using OracleAS Discoverer Viewer in a non-English locale, English language text might appear instead of the expected language (for example, in buttons, prompts, and links).

The workaround is to restart the OC4J_BI_Forms service using Oracle Enterprise Manager Application Server Control.

17.2 Configuration Issues and Workarounds

This section describes configuration issues and their workarounds for OracleAS Discoverer. It includes the following topic:

- Section 17.2.1, "Always Use HTTPS URL When Plus Transport Is HTTPS"
- Section 17.2.2, "Error when configuring OracleAS Discoverer after installation"

17.2.1 Always Use HTTPS URL When Plus Transport Is HTTPS

Chapter 12, "Maintaining security with OracleAS Discoverer" of the *Oracle Application Server Discoverer Configuration Guide* describes how Discoverer middle tier administrators can specify HTTPS as the Discoverer Plus transport protocol (used for communicating between the applet and the middle tier). Having specified the HTTPS protocol, the *Oracle Application Server Discoverer Configuration Guide* also instructs administrators to give end users a HTTPS URL to start Discoverer Plus. However, if end users attempt to use the default HTTP URL to start Discoverer Plus, the following error message will be displayed:

Unable to connect to Oracle Discoverer Appplication Server. Attempt 1. RMI protocol over HTTPS transport: no response from web server at <url>.

To correct this problem, end users must use the HTTPS URL to start Discoverer Plus.

17.2.2 Error when configuring OracleAS Discoverer after installation

When you install Oracle Application Server, you can specify that OracleAS Discoverer is configured for you during installation.

You can also configure OracleAS Discoverer after installation, using Oracle Application Server Control. If you do configure OracleAS Discoverer after installation, you might see the following error message when you display Discoverer configuration pages:

An error occurred:oracle.disco.oem.configuration. DiscoConfigurationException:

Cannot find element: configuration Entity Path [system/configuration] not valid. Check log to see if the PlugIn was loaded

If you see the above error message, restart Oracle Application Server Control from the command line as follows:

1. Stop Oracle Application Server Control by typing the following at the command prompt:

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

2. Start Oracle Application Server Control by typing the following at the command prompt:

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

17.3 Useful Information

This section describes useful information for OracleAS Discoverer. It includes the following topics:

17.3.1 Upgrading from Oracle Discoverer 3.1

If you are upgrading from Oracle Discoverer 3.1, the *Oracle Discoverer Administrator Administration Guide* documents the requirement to upgrade the EUL to Discoverer 4.1 as an intermediate step.

For the purposes of this upgrade, if you are not already in possession of Oracle Discoverer Administration Edition 4.1, it will be made available on the Oracle Technology Network:

```
http://otn.oracle.com
```

17.3.2 Manually Editing the End User Layer Tables

Do NOT manually edit the End User Layer (EUL) tables or their contents (e.g. by using SQL*Plus), unless specifically directed to do so by Oracle Support or Development. Manual editing of the EUL tables is not supported and any manual changes can result in a corrupt EUL.

17.3.3 Refresh Query For End Users Only Able to Run Scheduled Workbooks

For end users who are only able to run scheduled workbooks, note that the Refresh button on the Scheduling Manager dialog will not re-run the query from the base tables, but from the table that stores the scheduled workbook results. This is also the case for the 'Run query automatically' option on the General tab of the Options dialog.

17.3.4 Availability of HWOnline files

Previous versions of Oracle Discoverer shipped with the files HWOnline.htm and Memo.doc, which were used to demonstrate 'drill out' functionality. To reduce disk space requirements and installation time, these files and instructions for their use will be made available from the Oracle Technology Network:

```
http://otn.oracle.com
```

17.3.5 Formatting – Font Size of Axis Labels

In previous versions of Discoverer, the font size of an axis item was automatically set to be slightly larger than the data. From the 9.0.4 release onwards, the default font size of the axis label will be the same size as the data.

17.3.6 Scheduling and aggregation

Note the following if you intend to schedule workbooks that contain:

- DISTINCT aggregates (e.g. COUNT DISTINCT, SUM DISTINCT)
- calculations that include the CASE expression
- calculations that include analytic functions
- calculations that include PL/SQL functions

Regardless of the option actually selected on the Aggregation tab of the Options dialog for the workbook, Discoverer will process the scheduled workbook as if you had selected the **Show <Non-aggregable label>, the "values that cannot be aggregated" option, set on the Sheet Format tab** option.

In addition, note that the **Show the aggregated value calculated by the database. The database uses the same aggregation method as Discoverer** option on the Aggregation tab of the Options dialog is not available for scheduled workbooks.

17.3.7 Additional OracleAS Discoverer Portlet Provider Configuration Parameters to Improve Performance

Table 17–1 shows additional settings in the `configuration.xml` file that enable you to improve the performance of the OracleAS Discoverer session pool when using OracleAS Discoverer Portlet Provider.

Table 17–1 OracleAS Discoverer Portlet Provider Configuration Parameters

Setting	Description
/disco:configuration/portlet/ @maxSessionAgeHour	Specifies the maximum amount of time (in hours) that a Discoverer session is allowed to be in the session pool. When this time has passed, the Portlet Provider removes this session from the pool.
	The default value for this setting is 1 hour. In most situations, the default value will be satisfactory.
	Specify a lower value if sessions are consuming too much memory. If you lower this value, memory consumption is reduced because sessions are recycled faster and memory used by the recycled sessions is returned to the operating system. However, note that there will be a slight increase in refresh times because sessions will have to be restarted.
	Note that maxSessionAgeHour is an absolute timeout. Even if a session in the pool is being used frequently (i.e. is never inactive for more than the maxSessionInactivityPeriodMinute), the session will be removed when the maxSessionAgeHour value is reached.
/disco:configuration/portlet/ @maxSessionInactivityPeriodMinute	Specifies the maximum amount of time (in minutes) that a Discoverer session is allowed to be inactive in the session pool. When this time has passed, the Portlet Provider removes this session from the pool.
	The default value for this setting is 10 minutes. In most situations, the default value will be satisfactory.
	Specify a lower value if sessions are consuming too much memory. If you lower this value, memory consumption is reduced because sessions are recycled faster and memory used by the recycled sessions is returned to the operating system. However, note that there will be a slight increase in refresh times because sessions will have to be restarted.
	Note that maxSessionInactivityPeriodMinute only applies to session inactivity and a running query is not considered inactivity. In other words, a session will not be terminated because it is running a query that takes longer than the time specified by maxSessionInactivityPeriodMinute.

17.3.8 Setting Oracle Discoverer Registry Variables for Use by Oracle Discoverer EUL Command Line for Java commands

When using some of the commands provided by the Oracle Discoverer EUL Command Line for Java, you might want to explicitly set certain Discoverer registry variables, as shown in Table 17–2:

Table 17–2 OracleAS Discoverer Registry Variables

Command	Discoverer Registry Variable
-export	ArchiveCacheFlushInterval
	FormatXML
	ExportJoinFromMaster
-refresh_<object>	DefaultPreserveDisplayPropertyForRefresh
	EnableTriggers
-import	FormatXML
-connect -apps_user	AppsFNDNAM
	AppsGWYUID
-load	SetNULLItemHeadingOnBulkLoad
	MaxNumberJoinPredicates
all commands	SqlTrace

On Windows platforms, Discoverer registry variables are stored in the Windows Registry. On UNIX platforms, Discoverer registry variables are stored in the .reg_key.dc file.

To set these Discoverer registry variables, do one of the following:

- (on Windows only) specify values for registry variables as required by editing the Windows Registry using regedit or regedt32

- (on Windows and UNIX) specify values for registry variables as required by entering the following at the command prompt:

  ```
  dis51pr -setadminpref <registry variable name> <value>
  ```

For more information about Discoverer registry variables (including descriptions, default values and allowable values), see:

- *Oracle Discoverer Administrator Administration Guide*

- *Oracle Application Server Discoverer Configuration Guide*

17.3.9 Additional Oracle Discoverer Registry Variables

Table 17–3 shows additional Discoverer registry variables are available, in addition to those documented in the *Oracle Discoverer Administrator Administration Guide* and the *Oracle Application Server Discoverer Configuration Guide*.

Table 17–3   Additional DIscoverer Registry Variables

Category	Discoverer registry variable	Description	Default	Valid Values
Database	DefaultPreserve DisplayProperty ForRefresh	When refreshing, specifies whether an updated item description is discarded and replaced with the original description, or whether the updated description is retained.	0	0 = Use updated description 1 = Use original description
Database	EnableTriggers	Specifies whether database triggers are disabled. For example, Discoverer attempts to make a database call for every new column found during a refresh. If this value is set to 0, Discoverer will not make the database call.	0	0 = Disable database triggers 1 = Enable database triggers
Database	ExportJoinFrom Master	When exporting a business area, specifies whether joins from the master folder are also exported.	0	0 = Do export joins from Master Folder Any value other than 0 = Do not export joins from the Master Folder
Database	SetNULLItem HeadingOnBulk Load	When performing a bulk load, specifies whether item headings are set to the same value as item display names, or set to null.	0	0 = Set item headings to item display names 1 = Set item headings to null

17.3.10 Migrating OracleAS Discoverer Viewer Customizations

If you are upgrading from earlier versions of Discoverer and you have customized Discoverer Viewer, you might have to manually edit files and reapply your customizations. For more information:

- if you are upgrading from 4.1 to 9.0.4, see the *Oracle Application Server Discoverer Configuration Guide*

- if you are upgrading from 9.0.2 to 9.0.4, see the *Oracle Application Server 10g Upgrading to 10g (9.0.4)*

If you do customize Discoverer Viewer, you are responsible for migrating customizations across Discoverer versions. Depending on the changes you have made, it is possible that you will be unable to simply replace files delivered in a new version of Discoverer with your customized files. You might have to manually edit the new files to include your customizations.

17.3.11 Running the Oracle Discoverer EUL Command Line for Java (UNIX only)

To run the Oracle Discoverer EUL Command Line for Java on UNIX, a number of environment variables must be set correctly. You can either set the environment variables explicitly using the discwb.sh script or implicitly using the eulapi script, as described below:

- to explicitly set the environment variables before issuing Discoverer EUL Command Line for Java commands, type the following at the command line prompt from which you will be issuing those commands:

  ```
  <ORACLE_HOME>/discoverer/discwb.sh
  ```

  Subsequently, you can enter Discoverer EUL Command Line for Java commands by typing:

  ```
  java -jar <ORACLE_HOME>/discoverer/lib/eulbuilder.jar -<command list>
  ```

  For example, to refresh a folder called Sales1, you might type the following:

  ```
  java -jar <ORACLE_HOME>/discoverer/lib/eulbuilder.jar -connect jchan/12345@my_
  database -refresh_folder Sales1
  ```

- to implicitly set the environment variables when you run Discoverer EUL Command Line for Java commands, use the eulapi script in the <ORACLE_HOME>/bin directory to run commands. For example, to refresh a folder called Sales1, you might type the following:

  ```
  <ORACLE_HOME>/bin/eulapi -connect jchan/12345@my_database -refresh_folder
  Sales1
  ```

  Hint: To avoid entering <ORACLE_HOME>/bin each time you run the eulapi script, run discwb.sh first.

17.3.12 OracleAS Discoverer and Real Application Clusters (RAC)/Transparent Application Failover (TAF)

OracleAS Discoverer's support for Transparent Application Failover (TAF) on a Real Application Cluster (RAC) system requires a failover mode of 'select', as shown in the example tnsnames.ora entry below:

```
NAME =
(DESCRIPTION=
```

```
(ADDRESS=
(PROTOCOL=tcp)
(HOST=servername)
(PORT=1521))
(CONNECT_DATA=
(SERVICE_NAME= NAME)
(FAILOVER_MODE=
        (TYPE=select)
        (METHOD=basic)
        (RETRIES=4)
        (DELAY=15))))
```

Oracle Corporation recommends initially setting RETRIES and DELAY to the values given in the example above (i.e. 4 and 15 respectively). However, you might need to increase these values for your own system.

In certain rare scenarios, end users might see an error message if failover occurs. When they acknowledge the error message, their sessions will continue as normal. A fix for these scenarios is planned for release as a patch to the 9.0.4 release.

17.3.13 XWindow Display No Longer Required

Section 2.12, "How to run Discoverer Viewer over HTTP" of the *Oracle Application Server Discoverer Configuration Guide* states:

If you install OracleAS in a UNIX environment, an XWindow display must be available to the Discoverer servlet to support Discoverer Viewer's graphing and charting functionality. For more information about setting the DISPLAY environment variable to refer to the X Server, see the *Oracle Application Server 10g Installation Guide*.

An XWindow display is no longer required.

17.4 Documentation Errata

This section describes known errors in the documentation. It includes the following topics:

- Section 17.4.1, "Extra Step Required When Registering Discoverer Portlet Provider with OracleAS Portal"

- Section 17.4.2, "Corrections to Configuration Settings in 'configuration.xml' File"

- Section 17.4.3, "Missing '-jar' in Example Syntax given for Running Oracle Discoverer EUL Command Line for Java commands"

- Section 17.4.4, "Required EUL Version Incorrectly Stated as 5.1, Should be 5.0.2"

- Section 17.4.5, "Incorrect default setting shown for the ShowExpiredRunsOnExit preference"

- Section 17.4.6, "Incorrect Commands to Upgrade User Level Preferences from 1.0.2.2 to 9.0.4"

17.4.1 Extra Step Required When Registering Discoverer Portlet Provider with OracleAS Portal

Section 9.4, "How to register Discoverer Portlet Provider with OracleAS Portal" of the *Oracle Application Server Discoverer Configuration Guide* should contain an extra step as shown below:

- 9. d. Change the User Login Frequency to Once per User Session.

17.4.2 Corrections to Configuration Settings in 'configuration.xml' File

Section A.4, "List of configuration settings in configuration.xml"of the *Oracle Application Server Discoverer Configuration Guide*: includes a table that contains a number of minor errors, as shown below:

Table 17–4   Corrections Table

Setting	Correction
/disco:configuration/portlet /@maximumSessions	Should read: /disco:configuration/portlet/@maxSessions
/disco:configuration/servlet /xsl_translator/stylesheet _pool	Should read: /disco:configuration/servlet/xsl_translator/@stylesheet_pool
query_progress_delay	This parameter can no longer be set globally in the configuration.xml file. This parameter can still be set on a per user basis as described in section 11.8, "Discoverer Viewer URL Parameters" of the *Oracle Application Server Discoverer Configuration Guide*.

17.4.3 Missing '-jar' in Example Syntax given for Running Oracle Discoverer EUL Command Line for Java commands

The examples in sections 1.7 and 1.9 of the *Oracle Discoverer EUL Command Line for Java User's Guide* are missing the '-jar' part of the command line syntax. When running the command line for Java, use the following syntax:

```
java -jar eulbuilder.jar -<command list>
```

17.4.4 Required EUL Version Incorrectly Stated as 5.1, Should be 5.0.2

The *Oracle Application Server Discoverer Configuration Guide* contains the following paragraph on page xii and on page 1-17:

Before users can use Discoverer to analyze data, the database **must** contain a Discoverer EUL Version 5.1. The Discoverer manager must have created or updated the End User Layer (EUL) Version 5.1 with Oracle Discoverer Administrator Version 9.0.4 or later (shipped as part of Oracle Developer Suite 10*g* (9.0.4)).

The EUL version given in the above paragraph is incorrect. The paragraph should read:

Before users can use Discoverer to analyze data, the database **must** contain a Discoverer EUL Version 5.0.2. The Discoverer manager must have created or updated the End User Layer (EUL) Version 5.0.2 with Oracle Discoverer Administrator Version 9.0.4 or later (shipped as part of Oracle Developer Suite 10*g* (9.0.4)).

Similarly, the *Oracle Application Server Discoverer Configuration Guide* contains the following paragraph on page D-5:

If you have an existing Discoverer Release 4.1 EUL, you must upgrade the EUL from Release 4.1 to Version 5.1 using Discoverer Administrator Version 9.0.4.

The above paragraph should read:

If you have an existing Discoverer Release 4.1 EUL, you must upgrade the EUL from Release 4.1 to Version 5.0.2 using Discoverer Administrator Version 9.0.4.

17.4.5 Incorrect default setting shown for the ShowExpiredRunsOnExit preference

Section 8.8, "List of Discoverer User Preferences" of the *Oracle Application Server Discoverer Configuration Guide* incorrectly shows the default setting of the ShowExpiredRunsOnExit preference as 0. The default setting of the preference is actually 1.

17.4.6 Incorrect Commands to Upgrade User Level Preferences from 1.0.2.2 to 9.0.4

Section D3.1.2, "How to upgrade user level preferences from Discoverer Release 4.1 to Discoverer Version 9.0.4 on UNIX" of the *Oracle Application Server Discoverer Configuration Guide* contains two instances where you are instructed to enter the following command:

```
prompt> <ORACLE_HOME_2>/discoverer/bin/dis51pr -migrate
```

In both instances, the command to enter should be:

```
prompt> <ORACLE_HOME_2>/discoverer/util/migrateprefs.sh -from 102
```

18

Oracle Reports

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

- Section 18.1, "General Issues and Workarounds"
- Section 18.2, "Configuration Issues and Workarounds"
- Section 18.3, "Administration Issues and Workarounds"
- Section 18.4, "NLS-Specific Issues and Workarounds"
- Section 18.5, "Documentation Errata"

> **Note:** Refer to Oracle Reports' documentation page on OTN, (`http://www.oracle.com/technology/documentation/reports.html`) to download the latest version of the *Oracle Reports online help*.

18.1 General Issues and Workarounds

This section describes general issues and their workarounds for Oracle Reports. It includes the following topics:

- Section 18.1.1, "Viewing the rwconverter Help on Oracle Application Server"
- Section 18.1.2, "Creating an Express Server Query"
- Section 18.1.3, "Inserting a Graph in the Paper Design View for a Matrix-with-Group Report"
- Section 18.1.4, "Using the Report Wizard or Data Wizard on Solaris 2.9 Solaris"
- Section 18.1.5, "Running a Report to DelimitedData on OracleAS Portal"
- Section 18.1.6, "Running a Simple Matrix Report to the Web"
- Section 18.1.7, "FTP and WebDaV Destinations Not Supported from Reports Builder"
- Section 18.1.8, "Oracle JDeveloper Integration"
- Section 18.1.9, "OracleAS Reports Services Demos Will Not Work if JServ is Configured"

18.1.1 Viewing the rwconverter Help on Oracle Application Server

In an Oracle Application Server-only installation, the *Oracle Reports online help* system is not installed. If you click **Help** in the **Convert** dialog box (the user interface to `rwconverter`), the following message is displayed:

```
REP-544: on-line help system is not available
```

To view the *Oracle Reports online help*, you can do either of the following:

- Install Oracle Developer Suite. This installation includes the *Oracle Reports online help*.

- Access the *Oracle Reports online help* on the Oracle Technology Network (OTN):

  1. Navigate to http://otn.oracle.com/reports/help/.

  2. Use the Index and Search tabs to find the information you need. For example, on the Search tab, type **Convert dialog box** to display the help topic for the **Convert** dialog box.

18.1.2 Creating an Express Server Query

If you create an Express Server query without installing the appropriate files, you will see the following error message:

```
REP-0069:Internal Error
XR-3013: The Express xConnect.ini file is missing or incomplete
```

Workaround

Ensure that you have the required Express Server connection files present on your machine before creating an express query.

> **Note:** Refer to the Express PDS help on OTN (http://otn.oracle.com/reports/help/), for more information on configuring and using the Oracle Express Pluggable Data Source.

18.1.3 Inserting a Graph in the Paper Design View for a Matrix-with-Group Report

In the Paper Design view of a Matrix-with-Group report, inserting a graph with a once-per-group position causes Reports Builder to fail.

Workaround

Insert the graph in the Paper Layout view rather than in the Paper Design view.

18.1.4 Using the Report Wizard or Data Wizard on Solaris 2.9 Solaris

On Solaris 2.9, Reports Builder stops responding if you invoke either the Report Wizard or the Data Wizard after accessing any of the following:

- Oracle Reports online help

- Data Model Editor

- Text Query Editor

- JDBC Query Editor

- OLAP Query Editor

Reports Builder may stop responding when you use the query editor from the Report Wizard's data panel.

To fix this issue, you must download the patch at the following location: http://metalink.oracle.com. The ARU patch number is: 5188895.

To enable the fix, you must set the `REPORTS_SOLARIS_9` environment variable to `YES` after you install the patch.

18.1.5 Running a Report to DelimitedData on OracleAS Portal

If you have registered your Reports Server in OracleAS Portal, then you cannot run a report to `DESFORMAT=DELIMITEDDATA` using that Reports Server.

To work around this issue, you must either unregister your Reports Server from OracleAS Portal or use a standalone Reports Server to run the report to `DESFORMAT=DELIMITEDDATA`.

18.1.6 Running a Simple Matrix Report to the Web

A simple matrix report created and run to the Web by using the Run Web Layout functionality does not display correctly.

To fix this issue, you must download the patch from the following location: `http://metalink.oracle.com`.

- The ARU patch number for Solaris is 5147755.

18.1.7 FTP and WebDaV Destinations Not Supported from Reports Builder

Currently there is no support for FTP and WebDaV destinations from the Reports Builder environment. However, they are supported from the Reports Runtime and the Reports Server environments.

18.1.8 Oracle JDeveloper Integration

This section describes issues with Oracle JDeveloper integration. It includes the following topics:

- Section 18.1.8.1, "Deadlock When Debugging JSP Reports in Oracle JDeveloper"
- Section 18.1.8.2, "Graph Not Appearing in Oracle JDeveloper"
- Section 18.1.8.3, "Reports In-process Server"

18.1.8.1 Deadlock When Debugging JSP Reports in Oracle JDeveloper

When debugging an OracleAS Reports Services JSP in Oracle JDeveloper, you must disable any breakpoints that are not of source type. If you do not disable these breakpoints, a deadlock is detected. You can disable breakpoints that are not of source type in the **Breakpoints** window.

18.1.8.2 Graph Not Appearing in Oracle JDeveloper

When running a JSP report with the `rw:graph` tag in Oracle JDeveloper, the image is not visible in the browser. To fix this problem, set the `IMAGEURL` parameter in the `rwservlet.properties` file in *ORACLE_HOME*`/reports/conf`:

```
IMAGEURL=http://host:port/Workspace-Project-context-root/servlet/
oracle.reports.rwclient.RWClient
```

18.1.8.3 Reports In-process Server

If the Java Virtual Machine (JVM) is set to `ojvm`, `minimal`, or `vanilla` in Oracle JDeveloper's Virtual Machine settings (**Project Settings > Runner > Virtual Machine**), the rwservlet's in-process server is not stopped when JDeveloper's embedded OC4J

server is terminated. As a result, a port conflict occurs the next time OC4J is started. To avoid this problem, do one of the following:

- Set the JVM to `hotspot`.

- Disable the in-process server in `ORACLE_HOME/reports/conf/rwservlet.properties` by setting:

  `server_in_process=no`

- Use the standalone Reports Server instead.

18.1.9 OracleAS Reports Services Demos Will Not Work if JServ is Configured

If you configure JServ and OracleAS Reports Services in the same application server instance, you will not be able to run OracleAS Reports Services demos.

18.2 Configuration Issues and Workarounds

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

- Section 18.2.1, "Implementing Removal of DISPLAY and Printer Dependencies"

- Section 18.2.2, "Printing on Solaris Version 2.9"

- Section 18.2.3, "Using the Graph Wizard in a Multibyte Environment"

- Section 18.2.4, "Repairing Fonts Not Appearing Correctly in Web Source View"

- Section 18.2.5, "Configuring Reports Server for a Heavily Loaded Machine"

- Section 18.2.6, "Changing the Administrator Login by Using Reports Queue Manager"

- Section 18.2.7, "Improving Image Resolution of Graphs Output to a PDF File or a Printer"

- Section 18.2.8, "Specifying the Values for Oracle Reports' Java Virtual Machine"

- Section 18.2.9, "Resolving Reports-Portal Integration Error in a Mixed Version Environment"

18.2.1 Implementing Removal of DISPLAY and Printer Dependencies

With Oracle Reports 10*g* (9.0.4), it is no longer necessary to have the `DISPLAY` environment variable or a valid printer defined at runtime (`PRINTER` or `TK_PRINTER`).

Even if the environment variable `DISPLAY` is defined, the X-Windows display surface will not be used by default.

For existing customers upgrading to Oracle Reports 10*g* (9.0.4), this change may impact the appearance, number of pages, output file size, or performance of existing reports. If necessary, the previous behavior can be restored by setting the environment variables `DISPLAY` to the active X-Windows display surface and `REPORTS_DEFAULT_DISPLAY` to `NO`.

- *Oracle Application Server Reports Services Publishing Reports to the Web* and the *Reports Builder Online Help* for more information on the REPORTS_DEFAULT_DISPLAY environment variable and screenprinter.ppd.

- Section "Fonts in Report Output" in the chapter "Managing Fonts in Oracle Reports" in *Oracle Application Server Reports Services Publishing Reports to the Web*.

18.2.2 Printing on Solaris Version 2.9

If you print a report using the destype=printer **and** the desname=*printer_name* command line options on Solaris 2.9, you may encounter the following errors:

```
REP-0069: Internal error
REP-57054: Inprocess job terminated with error
REP-50157: Error while sending file to printer 2op837a.Exit with error code 1
```

To resolve this issue, you must do the following:

> **Note:** Create a backup of the rwlpr.sh file before proceeding. On Solaris, rwlpr.sh is the printing script file located in the *ORACLE_HOME*/bin/ directory. This script file supports lp and lpr commands by default.

1. Navigate to the following line at the end of the file:

   ```
   #either LPR or LP Command was found
   ```

2. Add an OR operator to the existing if...else condition.

   ```
   if [ `uname -r` = "5.8" ] || [ `uname -r` = "5.9" ] # If Solaris Release 5.8 /
   5.9
     ...
     else
     # parse and Fix the command Line as Required by lp
     ...
       if [ `uname -r` = "5.8" ] || [ `uname -r` = "5.9" ]# If Solaris Release
       5.8/ 5.9
   ```

   The if...else if condition checks for the Solaris Release version. Based on the version number, it strips the quotes from the printer name and passes it to the print command.

18.2.3 Using the Graph Wizard in a Multibyte Environment

On Solaris, invoking the Graph Wizard in a multibyte (Japanese, Simplified Chinese, and Korean) environment causes Reports Builder to stop responding.

To work around this issue, you must:

1. Install J2SE Version 1.4.2 on your machine. J2SE 1.4.2 is downloadable at Sun's site.

2. Set the path to the J2SE home in the reports.sh file:

   ```
   PATH=$J2SEHOME/bin:$ORACLE_HOME/jdk/bin:$ORACLE_HOME/bin:${PATH};
   export PATH
   ```

3. Modify `LD_LIBRARY_PATH` in reports.sh to point to the location of the J2SE home:

```
LD_LIBRARY_PATH=$J2SEHOME/lib/sparc:$ORACLE_HOME/jdk/jre/lib/sparc:
$ORACLE_HOME/lib:${LD_LIBRARY_PATH}; export LD_LIBRARY_PATH
```

18.2.4 Repairing Fonts Not Appearing Correctly in Web Source View

Text in the user interface of Reports Builder, such as the window title, uses fonts taken from the system resource files for the current language. These system resource files are supplied with the Oracle Reports installation. In Oracle Reports, you can map these fonts in the `[RWBUILDER]` section of `uifont.ali`. If found, the mapped font is used instead of the original font; if not, Oracle Reports uses the original font.

> **Note:** The mapped font needs to be a fixed-width font.

In the Web Source view of the Report Editor, the following languages may appear garbled: Arabic, Central European languages, Cyrillic, Greek, Hebrew, Japanese, Thai, and Turkish. To work around this issue, you can set the font names for Reports Builder in `uifont.ali` as follows:

```
[rwbuilder]
.....AR8MSWIN1256="Courier New"
.....CL8MSWIN1251="Courier New"
.....EE8MSWIN1250="Courier New"
.....EL8MSWIN1253="Courier New"
.....IW8MSWIN1255="Courier New"
.....JA16SJIS="MS Gothic"
.....TH8TISASCII="Andale Duospace WT"
.....TR8MSWIN1254="Courier New"
```

You can download a copy of the Andale Duospace WT (fixed-width) font from Oracle *Metalink*, (http://metalink.oracle.com). The ARU number is 2638552.

18.2.5 Configuring Reports Server for a Heavily Loaded Machine

Before you deploy a report on a machine that is either slow or heavily loaded, you may want to configure the following:

- Ping timeout (OPMN-side): Ping timeout is the measure that OPMN uses to determine the time that it must wait for a callback from an in-process Reports Server (in `OC4J_BI_FORMS`), before considering it as a timeout.

  The default timeout period is 150. This period is calculated from: ping timeout, ping interval, and number of retries. The default values for these are:

  ping timeout = 30 seconds

  ping interval = 20 seconds

  number of retries = 3

  > **Note:** The number of retries is applicable only when OPMN successfully connects to OC4J and receives regular ONS notifications from the process.

Based on these values, there will be three ping attempts with a timeout of 30 seconds each at 20 second intervals. The first ping is done after the specified ping interval. Thus, from the time OC4J is started by OPMN, approximately 150 (20 + 3*30 + 2*20) seconds will elapse before the process is considered unresponsive and restarted. If OPMN connects to OC4J but OC4J is too slow in sending regular ONS notifications, then the 30 second timeout is applicable.

> **See Also:** *Oracle Application Server Reports Services Publishing Reports to the Web* for more information on the `opmn.xml` file.

- Callback timeout (Reports Server-side): Callback timeout is the measure that Reports Server uses to determine the time that it must wait for a response from the engine before timing out. You can specify this value in the Reports Server configuration file, *server_name*.`conf`. This time out period is in milliseconds.

  For example:

  ```
  <engine id="rwEng" class="oracle.reports.engine.EngineImpl" initEngine="1"
  maxEngine="1" minEngine="0" engLife="50" maxIdle="30" callbackTimeOut="80000">
  ```

  > **Note:** Increase the timeout when the machine is very slow.

18.2.6 Changing the Administrator Login by Using Reports Queue Manager

In Oracle Reports, if you use the Reports Queue Manager to change the administrator password, you will be unable to perform the following actions from Oracle Enterprise Manager/OPMN:

- Start or stop the Reports Server.

- View the Reports Server's metrics.

Recommendation

The recommended way of managing a Reports Server is through Oracle Enterprise Manager/OPMN.

However, if you change the administrator password by using Reports Queue Manager, you must do the following:

1. Add the modified username and password to the `targets.xml` file under the specified Reports Server entry.

2. Set `ENCRYPTED=FALSE`.

   For example:

   ```
   <Property NAME="UserName" VALUE="foo" ENCRYPTED="FALSE"/>
   ...
   ...
   <Property NAME="Password" VALUE="hello123" ENCRYPTED="FALSE"/>
   ```

3. Restart Oracle Enterprise Manager. When Oracle Enterprise Manager restarts, it will encrypt the username and password and set `ENCRYPTED=TRUE`.

18.2.7 Improving Image Resolution of Graphs Output to a PDF File or a Printer

The `REPORTS_GRAPH_IMAGE_DPI` environment variable specifies a dots per inch (DPI) value for graphs output to a a PDF file or a printer. The default value for this

environment variable is set at 72 DPI to minimize the time taken to generate the report as well as to reduce the report file size.

If you specify a value higher than 72 DPI, you will see an improvement in the image resolution for graphs sent to a PDF file or a printer. However, this affects the time taken to generate the report output as well as the file size.

> **Note:** With the value of 250:
>
> - The time taken to generate a report with an Oracle Reports graph increases 5 to 6 times when compared to the time taken to generate the same report with the value set to 72 DPI.
>
> - The PDF file size also increases 5 to 6 times.

Valid Values

72 through 300

Default

72

Usage Notes

- On Linux, set the environment variable in `reports.sh`.

- On UNIX, set the environment variable in `.reports.sh`

  When you set a DPI value greater than 250 and your chart is bigger than 5"x5" (approximately), you may also need to change the JVM heap size value via `REPORTS_JVM_OPTIONS` to avoid the `Out Of Memory` error for the JVM.

  > **See Also:** *Oracle Application Server Reports Services Publishing Reports to the Web* for more information on setting the JVM options.

- This variable is currently not supported in Oracle Reports distribution functionality as this is specific to PDF and printer outputs only.

18.2.8 Specifying the Values for Oracle Reports' Java Virtual Machine

You may want to set the JVM options explicitly to get certain, specific functionality from the JVM that aren't enabled, by default. To do so, use the command line keyword `JVMOPTIONS` to set options for either Reports Runtime, Reports Builder, or Reports Converter's Java Virtual Machine (JVM).

For example, you could use the following command line to start Reports Builder with a 512 MB heap space:

```
rwbuilder jvmoptions=-Xmx512M
```

Multiple options can be passed, in which case the options must be enclosed in quotes:

```
rwbuilder jvmoptions="-Xmx256M -Xms=128M"
```

Syntax `JVMOPTIONS={options in reports runtime, reports builder, reports converter JVM}`

Default `-Xmx256M`

> **Note:** The value set using the `jvmoptions` keyword will override the value in the `REPORTS_JVM_OPTIONS` environment variable, if set.

18.2.9 Resolving Reports-Portal Integration Error in a Mixed Version Environment

In OracleAS Portal, when configuring Oracle Reports Security settings for Reports Definition File Access, you may encounter an error when editing a reports definition file, when you click **Run** or **Run as Portlet**.

```
500 Internal Server Error
Unexpected Error. Please contact Administrator
```

This error occurs when all of the following conditions are true:

- Running in a mixed 9.0.2/9.0.4 environment, with the middle-tier (MT) and Identity Management (IM) using version 9.0.4, and with the metadata repository (MR) using version 9.0.2.

- Running Oracle Reports within OracleAS Portal, using the SSOCONN parameter.

- The connection resource specified in the SSOCONN parameter has not been created in the Oracle Internet Directory server.

To implement the workaround, perform the following steps:

1. In the 9.0.4 IM *ORACLE_HOME*, open the following file in a text editor:

   ```
   ORACLE_HOME/Apache/Apache/conf/mod_osso.conf
   ```

2. Add the following flag:

   ```
   OssoRedirectByForm on
   ```

   For example:

   ```
   <IfModule mod_osso.c>
   OssoIpCheck off
   OssoIdleTimeout off
   OssoConfigFile
   /private1/iasinst/install_set1/904infra/Apache/Apache/conf/osso/osso.conf
   OssoRedirectByForm on
   </IfModule>
   ```

18.3 Administration Issues and Workarounds

This section describes administration issues and their workarounds for Oracle Reports. It includes the following topics:

- Section 18.3.1, "Authenticating Enterprise Manager Access to Reports Server Information"

- Section 18.3.2, "Running Reports on OracleAS Portal as an Item Link"

18.3.1 Authenticating Enterprise Manager Access to Reports Server Information

The `identifier` element in *server_name*.conf contains a new value, `SERVERACCESSKEY`. This value is used to ensure that the Reports Server information in Enterprise Manager is secure.

The following authentication is implemented:

- The value of the identifier element in the *server_name*.conf file is encrypted and is of the form %SERVERACCESSKEY_ USER%/%SERVERACCESSKEY_PASSWORD%. For example:

```
<identifier confidential="yes" encrypted="no">
%SERVERACCESSKEY_USER%/%SERVERACCESSKEY_PASSWORD%</identifier>
```

- The corresponding entries in the targets.xml file are:

```
<Property NAME="UserName" VALUE="%SERVERACCESSKEY_USER%" ENCRYPTED="FALSE"/>
<Property NAME="Password" VALUE="%SERVERACCESSKEY_PASSWORD%"
ENCRYPTED="FALSE"/>
```

The default installation ensures that the install time values of %SERVERACCESSKEY_ USER% and %SERVERACCESSKEY_PASSWORD% match those in targets.xml.

> **Note:** %SERVERACCESSKEY_USER% and %SERVERACCESSKEY_ PASSWORD% in *server_name*.conf and targets.xml must match for the Reports Server pages in Enterprise Manager to display data correctly.

To change the user name and password:

1. Edit the *ORACLE_HOME*/reports/conf/*server_name*.conf file, as follows:

```
<identifier confidential="yes" encrypted="no">new_
username/new_password</identifier>
```

2. Edit the *ORACLE_HOME*/sysman/emd/targets.xml file, as follows:

```
<Property NAME="UserName" VALUE="new_username" ENCRYPTED="FALSE"/>
<Property NAME="Password" VALUE="new_password" ENCRYPTED="FALSE"/>
```

3. Restart Enterprise Manager and Reports Server. The user name and password in *server_name*.conf and targets.xml will be encrypted after the restart.

> **Note:** Beginning with Oracle Reports 10*g* (9.0.4), Oracle Enterprise Manager (Enterprise Manager) will not use Oracle Internet Directory authentication to access Reports Server information. It will use the SERVERACCESSKEY value to implement the authentication.

18.3.2 Running Reports on OracleAS Portal as an Item Link

When you install OracleAS Portal with a non-default language setting, some entries required to publish a report as an item link on a portal page are not installed automatically. You must install the language of your choice by using the rwlang.sql script.

Thus, you must run the script rwlang.sql (*ORACLE_ HOME*/portal/admin/plsql/wwd/) if:

- You have selected at least one language in addition to the default ("US") at the time of installing OracleAS Portal.

  AND

- You want to publish a report as an item link in OracleAS Portal.

> **Note:** This is a one time post-installation task and will ensure that
> you can publish a report as an item link on OracleAS Portal.

To run the script:

1. Change the directory to *ORACLE_HOME*`/portal/admin/plsql/wwd/`.

2. Run `sqlplus`.

3. Log on to OracleAS Portal using the portal schema.

> **Note:** This is the portal schema used to install OracleAS Portal
> PL/SQL packages.

4. Run the `rwlang.sql` script with the following parameters:

   `@rwlang.sql` *language_list*

   where

   language_list is the list of languages separated by commas.

   For example, to install French and Japanese:

   `@rwlang.sql` *f,ja*

Usage Notes

- There should be no space before or after the comma (,) because `sqlplus` treats the language list as two parameters, instead of one parameter separated by a comma (,).

- The header of the `rwlang.sql` script contains the complete list of all language abbreviations. Edit the script file using any text editor to find out the various abbreviations.

18.4 NLS-Specific Issues and Workarounds

This section describes NLS-specific issues and their workarounds for Oracle Reports. It includes the following topics:

- Section 18.4.1, "Opening/Running an Encoded JSP Report"

- Section 18.4.2, "Embedding a Character Set in a JSP file Dynamically"

- Section 18.4.3, "Running a Multibyte Report Containing an Embedded Oracle Object"

- Section 18.4.4, "Providing the location to a characterset-specific Tk2Motif.rgb file"

- Section 18.4.5, "Viewing Oracle Enterprise Manager Screens in Non-European Languages"

- Section 18.4.6, "Running Oracle Reports in a Japanese Environment on HP-UX"

- Section 18.4.7, "Specifying the Encoding of an XML PDS Report"

18.4.1 Opening/Running an Encoded JSP Report

If your JSP report's character encoding (for example, `EUC-JP`) differs from the character set portion of the `NLS_LANG` environment variable (for example, `JA16SJIS`), you will get the following errors:

- When running the JSP file

  ```
  REP-6106 or 6104 with javax.servlet.jsp.JspException  (multibyte)
  REP-0495 Unable to tokenize the query (singlebyte)
  ```

- When opening the JSP file using Reports Builder

  ```
  REP-0069 Internal Error or REP-6106
  ```

To work around this issue, you must ensure that your JSP report's character encoding matches the IANA encoding corresponding to Reports Builder's character set portion of the `NLS_LANG` variable.

For example:

JSP Report encoding:

```
<%@ page contentType="text/html;charset=EUC-JP" %>
<META http-equiv="Content-Type" content="text/html;charset=EUC-JP">
```

This JSP file needs to be encoded in the character set (`EUC-JP`).

Reports Builder encoding:

```
NLS_LANG=JAPANESE_JAPAN.JA16EUC
```

In this example, the JSP report's encoding (`EUC-JP`) matches Reports Builder's character set portion of `NLS_LANG`, that is, `JA16EUC`.

18.4.2 Embedding a Character Set in a JSP file Dynamically

In Oracle Reports, Web-report templates are configured for Western European character encoding by default. However, for other languages, you can specify the character encoding for every JSP file by using both the charset attribute of the `<Meta>` tag and the `<%@page%>` page directive.

To dynamically associate the appropriate character encoding with the JSP file, you can make the following modifications:

1. Edit the `rw*.html` files and the `blank_template.jsp` file:

   a. Modify the page directive to read

   ```
   <%@ page contentType="text/html;charset=yourIANAencoding" %>
   ```

   where:

   yourIANAencoding is the IANA encoding name that corresponds to the `NLS_CHARACTERSET` portion of the `NLS_LANG` variable.

   b. Modify the `<Meta>` tag inside the `<Head>` tag to read:

   ```
   <meta http-equiv="Content-Type"
   content="text/html;charset=yourIANAencoding" />
   ```

> **Note:** The template files, i.e., `rw*.html`, and `blank_`
> `template.jsp`, are located in the *ORACLE_*
> *HOME*`/reports/templates/` directory.

2. Edit the `template.xsl` (*ORACLE_HOME*`/reports/templates/`) file:

   a. Modify the `<xsl:output>` tag to read:

   ```
   <xsl:output
        method="jsp"
        indent="yes"
        encoding="yourIANAencoding"
      />
   ```

   where:

   `yourIANAencoding` is the IANA encoding name that corresponds to the `NLS_CHARACTERSET` portion of the `NLS_LANG` variable.

   b. Add the page directive to the file:

   ```
   <%@ page contentType="text/html;charset=yourIANAencoding" %>
   ```

   c. Add or modify the `<META>` tag inside the `<HEAD>` tag:

   ```
   <meta http-equiv="Content-Type"
   content="text/html;charset=yourIANAencoding" />
   ```

   where:

   `yourIANAencoding` is the IANA encoding name that corresponds to the `NLS_CHARACTERSET` portion of the `NLS_LANG` variable.

18.4.3 Running a Multibyte Report Containing an Embedded Oracle Object

Reports Builder stops responding when you run a multibyte report containing an embedded Oracle Object type. This issue is known to occur on Windows and LINUX platforms.

18.4.4 Providing the location to a characterset-specific Tk2Motif.rgb file

Oracle Reports locates the `Tk2Motif.rgb` file based on the language portion of the `NLS_LANG` environment variable, by default. This file location varies based on the language setting: *ORACLE_HOME*`/guicommon9/tk90/admin/<language>`

> **Note:** The `Tk2Motif.rgb` file contains resource settings for the Motif version of the Oracle Toolkit, for example, the font mapping between Oracle Reports `NLS_CHARACTERSET` and X fonts.

If Oracle Reports locates a `Tk2Motif.rgb` file whose character set setting differs from the character set portion of your `NLS_LANG`, then you may get the `REP-3000` error.

For example:

If you have set `NLS_LANG=AMERICAN_AMERICA.JA16EUC`, then Oracle Reports locates the file from the following directory:

ORACLE_HOME`/guicmmon9/tk90/admin/Tk2Motif.rgb`

This causes the `REP-3000` error, as this `Tk2Motif.rgb` file is designed for the `WE8ISO8859P1` character set and not for the `JA16EUC` character set.

You can set the value of the `TK90_UNKNOWN` to the location of your characterset-specific `Tk2Motif.rgb` file.

Valid Values   The location to the valid `TK2Motif.rgb` file.

Example
```
$ORACLE_HOME/guicommon9/tk90/admin/JA
(NLS_LANG=AMERICAN_AMERICA.JA16EUC)
```

18.4.5 Viewing Oracle Enterprise Manager Screens in Non-European Languages

In Oracle Enterprise Manager Application Server Control, you may see garbled titles on the following Reports Server pages for non-Western-European languages:

- Engine

- Configuration

- Edit Configuration File

18.4.6 Running Oracle Reports in a Japanese Environment on HP-UX

If you want to use Oracle Reports in the HP-UX Japanese environment with `NLS_LANG=JAPANESE_JAPAN.JA16SJIS`, you will need to modify the appropriate `Tk2Motif.rgb` file before using Oracle Reports because this file contains `EUC` encoded Japanese resources.

Convert the `Tk2Motif.rgb` file to `EUC` encoding, or remove the last seven entries from this file. Otherwise, Oracle Reports may fail.

> **Note:**   The `Tk2Motif.rgb` file for the Japanese environment is: `$ORACLE_HOME/guicommon9/tk90/admin/JA/Tk2Motif.rgb`.

18.4.7 Specifying the Encoding of an XML PDS Report

The `Tk2Motif.rgb` file for the Japanese environment is: `$ORACLE_HOME/guicommon9/tk90/admin/JA/Tk2Motif.rgb`.

When you create a report against an XML data source, you must ensure that the encoding of both the XML file (data source) as well as the DTD matches the encoding of Reports Builder.

When you create an XML report against a table -- for example, a Japanese table-- the group element name is in the table's language that is Japanese. To match the data source, you should set the group's element name in the DTD to Japanese. The XML and DTD files can be in any encoding that supports Japanese, for example, `Shift_JIS`, `EUC-JP`, or `UTF-8`. However, when the encoding of the XML data source as well as the DTD differs from Reports Builder, you will see the following error:

```
ERR-063001 xxx.dtd null
```

> **Note:**   This error is not displayed if you use an XML schema to define the rules.

To work around this issue, you must ensure that both the data source XML files as well as the DTD file for an XML report is encoded in the character set portion of Reports Runtime `NLS_LANG`.

For example, if your `NLS_LANG=JAPANESE_JAPAN.JA16SJIS`, then both your data source XML file as well as your DTD file should be encoded in `Shift_JIS`.

18.5 Documentation Errata

This section describes known errors in the documentation.

- Chapter 8, sections 8.1.2 through 8.2, of the *Oracle Application Server Reports Services Publishing Reports to the Web* manual specifies the `reports.sh` file as containing the `REPORTS_CLASSPATH` variable on Solaris. The `REPORTS_CLASSPATH` variable is located in the `reports.sh` file for all UNIX platforms.

- Chapter 19, "Managing and Monitoring OracleAS Reports Services", of the *Oracle Application Server Reports Services Publishing Reports to the Web* manual may show screenshots that do not reflect the latest updates to the Oracle Enterprise Manager user interface.

- Due to improvements on OTN, the URL that directly accesses the Oracle Reports Documentation page is incorrect in the documentation. Instead of `http://otn.oracle.com/docs/products/reports/content.html`, the revised URL is `http://otn.oracle.com/documentation/reports.html`.

- Chapter 13, section 13.3.3.2, of the *Oracle Application Server Reports Services Publishing Reports to the Web* manual contains certain steps that have not been updated. The section, Section 18.5.1, "Deploying an Oracle Reports JSP to an OC4J_BI_FORMS Instance", outlines the entire section with the updated steps for your convenience.

18.5.1 Deploying an Oracle Reports JSP to an OC4J_BI_FORMS Instance

This section outlines the updated steps needed to deploy an Oracle Reports JSP file to either an existing or a new instance of OC4J_BI_FORMS.

18.5.1.1 Using an Existing Instance

1. Ensure that you have created the J2EE application. Refer to *Oracle Application Server Reports Services Publishing Reports to the Web* for more information on creating a J2EE application for Oracle Reports.

2. In Oracle Enterprise Manager, display the detail page for your middle-tier.

3. Under System Components, click **OC4J_BI_Forms**.

4. In the OC4J_BI_FORMS page, click **Administration**.

5. Under Deployed Applications, click **Deploy EAR file** to deploy the EAR file you created.

6. On the first page of the Deploy Application wizard, click **Browse** to select the J2EE application (EAR file) to be deployed or enter the location of the EAR file you created.

7. Under Application Name, specify a unique application name for this application. For example, MyReportApp.

8. From the Parent Application list, select the parent application and click **Continue**.

9. On the URL Mapping page, note that the text in the URL Mapping field is the name your users will enter to access the new application.

10. In the URL Mapping field, add a forward slash (/) to the beginning of the application name, since it is part of a URL address. For example:

    `/MyReportApp`

11. Click **Finish**.

12. On the next page, click **Deploy**.

13. On the OC4J_BI_Forms detail page that displays, you should now see your application (MyReportApp) listed under Deployed Applications.

14. Click your application name (MyReportApp).

15. On the Application page, under Properties, click **General**.

16. Under Library Paths, click **Add Another Row**, then add the following path to the `rwrun.jar` library:

    `$ORACLE_HOME\reports\jlib\rwrun.jar`

17. Add another row with the following path to the `zrclient.jar` library:

    `$ORACLE_HOME\jlib\zrclient.jar`

18. Click **Apply**, then click **OK**.

19. Click **Stop**, then **Start** to restart your application so that the new library paths take effect.

18.5.1.2 Using a New Instance

1. Ensure that you have created the J2EE application. Refer to *Oracle Application Server Reports Services Publishing Reports to the Web* for more information on creating a J2EE application for Oracle Reports.

2. In Oracle Enterprise Manager, display the detail page for your middle-tier.

3. Click **Create OC4J Instance**.

4. Type the name of your OC4J instance.

5. Click **Create**.

6. Once the OC4J instance is created, click **OK**.

7. On Application Server page, under System Components, you should now see the new OC4J instance.

   Now, you must manually configure the OC4J to support connection to a Reports Server and the security integration.

8. Copy the following properties and their definitions in the `oc4j.properties` file from an existing OC4J instance, for example the OC4J_BI_FORMS instance (`$ORACLE_HOME/j2ee/OC4J_BI_FORM/config/oc4j.properties`), into the `oc4j.properties` file of your new OC4J instance (`$ORACLE_HOME/j2ee/your application/config/oc4j.properties`):

   - `oracle.home`

   - `oracle.path`

9. In the `opmn.xml` file in your `$ORACLE_HOME/opmn/conf` directory, add the `PATH` (Windows) or `LD_LIBRARY_PATH` (UNIX) to your new OC4J instance:

a. In `$ORACLE_HOME/opmn/conf/opmn.xml`, find the XML element that describes your new OC4J instance:

```
<process-type id="<your application>" module-id="OC4J">
 <module-data>
         <category id="start-parameters">
            <data id="java-options" value="-server
 -Djava.security.policy=$ORACLE_HOME/j2ee/MyOC4JInst/config/java2.policy
 -Djava.awt.headless=true"/>
            <data id="oc4j-options" value="-properties"/>
         </category>
         <category id="stop-parameters">
            <data id="java-options"
 value="-Djava.security.policy=$ORACLE_
HOME/j2ee/MyOC4JInst/config/java2.policy -Djava.awt.headless=true"/>
         </category>
      </module-data>
      <start timeout="900" retry="2"/>
      <stop timeout="120"/>
      <restart timeout="720" retry="2"/>
      <port id="ajp" range="3301-3400"/>
      <port id="rmi" range="3201-3300"/>
      <port id="jms" range="3701-3800"/>
      <process-set id="default_island" numprocs="1"/>
   </process-type>
```

b. Add the `PATH` (Windows) or `LD_LIBRARY_PATH` (UNIX), module data properties by copying them from the OC4J_BI_FORMS instance in the same `opmn.xml` file, for example:

```
<environment>
         <variable id="LD_LIBRARY_PATH" value="$ORACLE_
HOME/lib:$ORACLE_HOME/network/lib:$ORACLE_HOME/jdk/jre/lib/sparc"/>
      </environment>
      <category id="start-parameters">
            <data id="java-options" value="-server
 -Djava.security.policy=$ORACLE_HOME/j2ee/OC4J_BI
_Forms/config/java2.policy -Djava.awt.headless=true -Xmx512M
 -Xbootclasspath/p:$ORACLE_HOME/vbroker4/lib/vbjboot.jar "/>
            <data id="oc4j-options" value="-properties
 -userThreads "/>
         </category>
         <category id="urlping-parameters">
            <data
 id="/MyReportsApp*/rwservlet/pingserver?start=auto" value="200"/>
         </category>
      <dependencies>
         <database infrastructure-key="portal"/>
         <managed-process process-type="HTTP_Server"
 process-set="HTTP_Server" ias-component="HTTP_Server" autostart="true"/>
      </dependencies>
```

*where **MyReportsApp** is your newly created Web application name for Oracle Reports.

c. Restart the OC4J instance.

19

Oracle Application Server Personalization

This chapter describes issues with Oracle Application Server Personalization (OracleAS Personalization). It includes the following topics:

- Section 19.1, "General Issues and Workarounds"
- Section 19.2, "Configuration Issues and Workarounds"
- Section 19.3, "Administrative Issues and Workarounds"
- Section 19.4, "Documentation Errata"

19.1 General Issues and Workarounds

This section describes general issues for OracleAS Personalization and their workarounds. It includes the following topics:

- Section 19.1.1, "Correct Name of Product"
- Section 19.1.2, "Advanced Button Brings Up "404 File Not Found" Message"
- Section 19.1.3, "Sorting by ID and Sorting by Type Do Not Work"
- Section 19.1.4, "Performance and Data Sizing"
- Section 19.1.5, "SSL Mode"
- Section 19.1.6, "RE Package Deployment Causes Failure if Different MTR Referenced"
- Section 19.1.7, "RE Package Deployment Causes Failure if RE Sessions Are Active"

19.1.1 Correct Name of Product

The correct name of the product is "Oracle Application Server Personalization." The product was formerly known as "Oracle9*i* Personalization" and in some instances may be referred to as "Oracle9*i* Personalization" or "Oracle Personalization" or "OP". The correct abbreviation is "OracleAS Personalization", not "OP".

19.1.2 Advanced Button Brings Up "404 File Not Found" Message

This can happen with some versions of some browsers if a user clicks the Advanced button (at the bottom of the Log page) to bring up Message Viewer window when that window is still open from an earlier clicking on Advanced button.

19.1.3 Sorting by ID and Sorting by Type Do Not Work

For both sessionful and sessionless REAPI calls, for recommendation content, sorting by ID and sorting by Type do not work, whether "Ascend" or "Descend" is selected. No workaround.

19.1.4 Performance and Data Sizing

The table below shows the performance results on three data sets. The build time is linear in the number of customers and quadratic in the average profile size. We obtained the results shown here on a Sun Enterprise 450 (4 x UltraSPARC-II 400MHz) with 4096 megabytes of memory. Based on these numbers, it is possible to estimate the build time for any arbitrary data set.

Dataset	# of Cust	# of Items	Avg. Profile Size	Avg. Rating Profile	Avg. Purch. Profile	Avg. Nav. Profile	Build Time	# of Rules Agg. Model	# of Rules Cross- Sell Model
1	1000	50K	50	8	17	25	1 min	9152	155
2	5000	50K	71	8	27	36	3 min	166588	37
3	1000	50K	100	16	34	50	5 min	313154	2997

The column headings have the following meanings:

- **Dataset:** An identifier for the dataset.

- **# of Cust:** The number of registered customers, which is the number of records in the MTR_CUSTOMER table.

- **# of Items:** The number of items, which is the number of records in the MTR_ ITEM table

- **Avg. Profile Size:** The number of items in each customer's profile; this is the sum of average rating profile, average purchasing profile, and average navigation profile.

- **Avg. Rating Profile:** The average number of rating items in each customer's profile. Can be computed by dividing the number of records in MTR_RATING_ DETAIL by the number of distinct CUSTOMER_IDs in MTR_RATING_DETAIL.

- **Avg. Purch. Profile:** The average number of purchasing items in each customer's profile. Can be computed by dividing the number of records in MTR_ PURCHASING_DETAIL by the number of distinct CUSTOMER_ID's in MTR_ PURCHASING_DETAIL.

- **Avg. Nav. Profile:** The average number of navigation items in each customer's profile. Can be computed by dividing the number of records in MTR_ NAVIGATION_DETAIL by the number of distinct CUSTOMER_IDs in MTR_ NAVIGATION_DETAIL.

- **Build Time:** The total time taken to build the aggregated model and the cross-sell model.

- **# of Rules Agg. Model:** The number of rules in the aggregated model.

- **# of Rules Cross- Sell Model:** The number of rules in the cross-sell model.

19.1.4.1 MOR Temp Space

Use the following formula to calculate a rough estimate for the number of bytes of MOR temp space required:

$$(54 * P^2 * C) / 2$$

where P is the average profile size and C is the number of customers. Each item pair generated during a build takes 54 bytes, which is the space needed to store a record with two item columns and a count column. For the model build to run, the available temp space should be more than the estimated temp space requirement for the P and C values of the dataset.

19.1.5 SSL Mode

As of OracleAS Personalization release 10*g* (9.0.4), SSL mode is not required by the OracleAS Personalization Administrative UI, but we recommend that users log in to the OracleAS Personalization Administrative UI using SSL mode. If you log in to the Administrative UI not using SSL, you will get a warning message. (The message is displayed in English only.)(See also Section 19.4.1.)

19.1.6 RE Package Deployment Causes Failure if Different MTR Referenced

When a new model package is deployed to a recommendation engine that references an MTR other than the one that was in the RE, all the current user sessions are terminated, and their session data is sync'd to the old MTR. This means that all current sessions are invalidated.

19.1.7 RE Package Deployment Causes Failure if RE Sessions Are Active

A REAPI call may fail right after a new package is deployed onto an RE when there are active RE sessions. The workaround is to retry the call.

Java code that accomplishes this is provided below. (The code catches the exception after the try block that includes a REAPI call and checks to determine whether one of three specified errors is found; if one of the three is found, it reinvokes the REAPI method.)

```
filename: RetryTest.java

// Copyright (c) 2003 Oracle Corp
/*
 * This code snippet demonstrates a work-around
 * to overcome ORA-04068 error in calling REAPI
 * right after a new package is deployed
 */

import oracle.dmt.op.re.reapi.rt;
import java.lang.Long;
import java.sql.*;
import java.io.IOException;

/*
 * Class RetryTest
 * <P>
 */
public class RetryTest
{
  /*
    * main
    * @param args
```

```
 */
public static void main(String[] args) throws ClassNotFoundException
{
  REProxy proxy = REProxy.getProxy();
  String custID = "945";                  // arbitrary, for demo only
  String sessionID = "101";               // arbitrary, for demo only
  TuningSettings tunings;
  FilteringSettings filters;
  IdentificationData idData;
  String[] m_catList = new String[1];
  RecommendationContent recContent;
  RecommendationList rec;

  try {
    proxy.createCustomerSession(custID, sessionID);

    // create settings data
    idData = IdentificationData.createSessionful(sessionID,
                                                 Enum.User.CUSTOMER);
    idData.userID = "user1";          // arbitrary, for demo only
    tunings = new TuningSettings(Enum.DataSource.NAVIGATION,
                                 Enum.InterestDimension.INTEREST,
                                 Enum.PersonalizationIndex.HIGH,
                                 Enum.ProfileDataBalance.BALANCED,
                                 Enum.ProfileUsage.EXCLUDE);
    m_catList[0] = "socks";           // arbitrary, for demo only
    filters = new FilteringSettings();
    filters.categoryList = m_catList;
    filters.categoryMembership = Enum.CategoryMembership.EXCLUDE_LEAVES;
    filters.categoryFiltering  = Enum.Filtering.ON;
    recContent = new RecommendationContent(Enum.Sorting.ASCENDING);

    rec = proxy.recommendTopItems(idData,
                                  10,
                                  tunings,
                                  filters,
                                  recContent);
    System.out.println("Done!");      // arbitrary, for demo only
    proxy.releaseProxy();
  } catch(BadDBConnectionException bdbe) {
      bdbe.printStackTrace();
  } catch (SQLException se) {
    if (isNewDeploy(se))
      return (recommendTopItems(idData, 10, tunings, filters, recContent));
    else
      System.err.println(se);
  } catch (IOException ioe) {
    System.err.println(ioe);
  } catch(BadDBConnectionException bdbe) {
      bdbe.printStackTrace();
  }
}

/*
 * isNewDeploy - find out if a brand new package is deployed
 */
private boolean isNewDeploy(SQLException e) {
  String st = e.getMessage();
  String functionName = "isNewDeploy";
  try {
```

```
          if (debugAll() || debugApi())
            m_log.logT(functionName + " SQLException catched: " + e.getMessage());
          if (st.indexOf("ORA-04068") >= 0)
            return true;
          else
            return false;
      } catch (NullPointerException npe) {
        return false;
      }
    }
  }
}
```

19.2 Configuration Issues and Workarounds

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

- Section 19.2.1, "Configuration of SSL for OracleAS Personalization"

- Section 19.2.2, "Native Character Sets Limitation"

- Section 19.2.3, "Deselected Personalization Missing from Configure Component Option"

- Section 19.2.4, "Need to Use SERVICE_NAME Instead of SID to Work in the RAC"

- Section 19.2.5, "Configuration Script Cannot Be Invoked in Non-English Locales"

19.2.1 Configuration of SSL for OracleAS Personalization

This section describes the steps required to configure `https` so that you can access the OracleAS Personalization Administrative User Interface in SSL mode.

When you install Oracle Application Server Business Intelligence, check the option box to configure Oracle Personalization.

Use the OracleAS Personalization Schema Creation Wizard to configure OracleAS Personalization schemas in the customer database. Follow these steps:

1. Edit `$ORACLE_HOME/opmn/conf/opmn.xml` and search for `ssl-disabled` in the `<ias-component id=HTTP_Server>` element. Change the start mode from `ssl-disabled` to `ssl-enabled`. After you make the change, the entry should be as follows:

   ```
   <data id="start-mode" value="ssl-enabled"/>
   ```

2. Reload OPMN using the following command:

   ```
   opmnctl reload
   ```

3. Note the two following port numbers from those listed in the file `$ORACLE_HOME/install/portlist.ini`:

   ```
   Oracle HTTP Server Listen (SSL) port = 4444
   Web Cache HTTP Listen (SSL) port = 4443
   ```

   The following example uses port 4444 for Apache in SSL mode and port 4443 for Web Cache in SSL mode. Adjust your setting to the port values set in `portlist.ini`.

4. With a browser login to the Web Cache Administrative User Interface at `http://<host>:4000/webcacheadmin/`.

5. Add <u>Listen Ports</u>

   ```
   IP: ANY
   Port 4443
   Protocol: HTTPS
   Wallet : $OH/webcache/wallets/default/
   ```

   Do not check Require Client-Side Certificate.

6. Add <u>Origin Server</u>

   ```
   Hostname: <host>
   Port: 4444
   Routing: ENABLE
   Capacity: 100
   Failover Threshold: 5
   Ping URL: /
   Ping Interval (seconds): 10
   Protocol: https
   ```

7. Add <u>Site Definitions</u>

   ```
   Host Name: <host>
   Port Number: 4443
   HTTPS Only Prefix:
   Client-Side Certificate: Not Required
   Default Site: No
   Create Alias from Site Name with/without www: No
   ```

8. Add <u>Site-to-Server Mapping</u> (Insert before last record)

   a. Select the SSL that you just configured from Site Definitions in the combo box.

   b. Check the SSL Web Server you configured.

   c. Exclude `Unrestricted`.

9. Click Apply Changes at the very top right hand part of the screen.

10. Click Restart button under Cache Operations.

11. Log in to Enterprise Manager for your OracleAS Business Intelligence instance.

12. Select OC4J_BI_Forms and click Restart.

13. Select HTTP Server and click Stop.

14. Select HTTP Server again and click Start. (You must Stop and Start the server; Restart will not pick up all the changes.)

SSL should now work. Try connecting to `https://<host>:4443/OP/Admin`.

19.2.2 Native Character Sets Limitation

OracleAS Personalization is certified against UTF8 only.

19.2.3 Deselected Personalization Missing from Configure Component Option

Follow these steps to configure the OracleAS Personalization administrative servlet if the servlet was unchecked during the initial Oracle Application Server Business Intelligence installation:

1. Locate the `.ear` file that contains the OracleAS Personalization Administrative User Interface servlet. It is found in `ORACLE_HOME` for the Oracle Application Server Business Intelligence Installation and is named

`$ORACLE_HOME/mp/web-app/op.ear`.

Be sure that you can reference the `.ear` file from where you start your web browser.

2. From the Enterprise Manager screen that manages the Oracle Application Server Business Intelligence instance where you wish to configure the OracleAS Personalization Administrative UI, click the OC4J_BI_Forms component link.

3. Click the Applications link on the OC4J: OC4J_BI_Forms page.

4. Click the "Deploy Ear file" button on the OC4J:OC4J_BI_Forms:Applications page.

5. Click the "Browse" button for the J2EE Application fill-in field and navigate to the `op.ear` file referenced in Step 1. Then

   a. Type OP in the Application Name field.

   b. Select default for the Parent Application.

   c. Click the Continue button.

6. The default URL mappings of `/OP` and `/redemo` are correct, so click the Finish button. (The OracleAS Personalization Administrative UI does not use Single Sign On; therefore, you do not need to configure JAZN on the next page. Click Finish now.)

7. Configure the Customer Database schemas using the Personalization Schema Creation Wizard (`opconfig`).

8. Restart the OC4J_BI_Forms J2EE container using Enterprise Manager before logging into the OracleAS Personalization Administrative UI.

19.2.4 Need to Use SERVICE_NAME Instead of SID to Work in the RAC

The OPCONFIG wizard could not create schemas in the RAC test system because it connects to Oracle using the SID in the `CONNECT_DATA` record in the `tnsnames.ora` file. For RAC, SID must be changed to `SERVICE_NAME`.

19.2.5 Configuration Script Cannot Be Invoked in Non-English Locales

The script `opconfig.sh` can't be invoked in a non-English environment when the input method is on. This is caused by JDK 1.4.1 issues.

You can work around this problem by installing JDK 1.4.2 and setting JAVA_HOME to the JDK 1.4.2 install directory before you start the configuration wizard. Another workaround is to turn off the input method before you start the configuration wizard.

19.3 Administrative Issues and Workarounds

This section describes administrative issues for OracleAS Personalization and their workarounds. It includes the following topics:

- Section 19.3.1, "JDBC Drivers"

- Section 19.3.2, "Customer Database"

- Section 19.3.3, "Restrictions on Passwords"

- Section 19.3.4, "Mixed Database and Browser Languages Not Supported"

- Section 19.3.5, "OracleAS Personalization Home Directory"

- Section 19.3.6, "Changed OP MTR Columns"

■ Section 19.3.7, "High Availability for OracleAS Personalization"

19.3.1 JDBC Drivers

The OracleAS Personalization documentation omits mention of what kind of JDBC drivers customers can use. You can use the JDBC drivers that go with the database where the OracleAS Personalization Recommendation Engine is runs.

19.3.2 Customer Database

OracleAS Personalization requires a customer database in addition to the database included with Oracle Application Server. The customer database must be Oracle9*i* release 1.

19.3.3 Restrictions on Passwords

Because of password encryption and decryption, there are two restrictions on passwords for OracleAS Personalization users:

■ OracleAS Personalization users must not enter passwords with trailing blanks.

■ User passwords are limited to 30 or fewer characters, the standard Oracle limit.

19.3.4 Mixed Database and Browser Languages Not Supported

NLS_LANGUAGE determines the language for OracleAS Personalization messages. OracleAS Personalization does not translate messages to a language specific to a browser session. This is by design: the OracleAS Personalization Administrative UI is an administrative type of UI, and its user is assumed to be able to read the language specified by database NLS_LANGUAGE.

19.3.5 OracleAS Personalization Home Directory

As of release 9.0.4, the directory in whichOracleAS Personalization lives has changed from $ORACLE_HOME/dmt to $ORACLE_HOME/mp.

19.3.6 Changed OP MTR Columns

Several tables in the OP MTR had columns of type VARCHAR2 (4000) changed to type VARCHAR2(1000 CHAR). This change was made to the DESCRIPTION column in the following tables:

■ MTR_TAXONOMY

■ MTR_CATEGORY

■ MTR_HOTPICK_GROUP

■ MTR_ITEM

In addition, NLS_LENGTH_SEMANTICS was set to CHAR for all of these tables.

19.3.7 High Availability for OracleAS Personalization

The OracleAS Personalization Recommendation Engine Application Programming Interface (REAPI) can be embedded in a highly available web application such as OracleAS Portal.

19.4 Documentation Errata

This section describes known errors in OracleAS Personalization documentation. It includes the following topics:

- Section 19.4.1, "Errors in Oracle Application Server Personalization User's Guide"
- Section 19.4.2, "Errors in Oracle Application Server Personalization Programmer's Guide"
- Section 19.4.3, "Missing Code Sample in the Programmer's Guide, Sections 9.1.1 and 9.1.2"
- Section 19.4.4, "Missing Code Sample in Programmer's Guide, Section B.3.2"

19.4.1 Errors in *Oracle Application Server Personalization User's Guide*

Wherever the documentation says to log in by entering "`http`", it is recommended that you enter "`https`" instead. This is not a requirement, but it is a recommendation. When you log in by entering "`http`", you receive a warning that your session will not be secure. (See also Section 19.1.5.)

Note the following errors and their corrections:

- Page 2-1, line 9:

  ```
  http://hostname>/OP/Admin/
  ```

  should be

  ```
  http://<hostname>:<port>/OP/Admin
  ```

- Page 3-5, line 6:

  Recommend Top Items page

  should be

  Recommend TopN Items page

- Page 3-5, line 7:

  Number of recommendations to display: 10

  should be

  Number of recommended items: 10

- Page 3-6, 11th line from bottom:

  # of Recommended Items: 10

  should be

  Number of Recommended Items: 10

- Page 3-8, line 5:

  Items

  should be

  Item Entry

- Page 3-9, line 3:

  Number of recommendations to display: 10

  should be

Number of recommended items: 10

19.4.2 Errors in *Oracle Application Server Personalization Programmer's Guide*

Note the following errors and their corrections:

- Page 2-5, line 14:

  ```
  http://server/redemo/
  ```

  should be

  ```
  http://<hostname>:<port>/redemo
  ```

- Page 7-10, line 9:

  ```
  get Database URL()
  ```

  should be

  ```
  getDatabaseURL()
  ```

- Page 10-9:

  ```
  getDatabaseAlias()
  ```

  should be

  ```
  getDBAlias()
  ```

- Page 8-2, lines 10 and 11:

  ```
  LoadCustomerProfiles()
  PurgeCustomerProfiles();
  ```

  should be

  ```
  LoadCustomerProfiles()
  PurgeCustomerProfiles()
  ```

19.4.3 Missing Code Sample in the Programmer's Guide, Sections 9.1.1 and 9.1.2

The code samples in sections 9.1.1 and 9.1.2 of the *Oracle Application Server Personalization Programmer's Guide* are missing. What is provided there is a list of the major steps required to perform the functions. The file REBatchTest.java contains sample code that shows how to invoke recommendTopItems and crossSellForItem.

The file REBatchTest.java is available on any system where OracleAS Personalization is installed, in the directory ORACLE_HOME/mp/reapi/batch/.

19.4.4 Missing Code Sample in Programmer's Guide, Section B.3.2

The sample program in Section B.3.2 of the *Oracle Application Server Personalization Programmer's Guide* is not a sample program; instead, it is a repetition of the properties file batchtest.txt (Section B.3.1.)

The sample program that should be in Section B.3.2. is the file REBatchTest.java, available on any system where OracleAS Personalization is installed, in the directory ORACLE_HOME/mp/reapi/batch/.

Part VII

E-Business Integration Issues

This part describes issues associated with the E-Business components. It contains the following chapters:

- Chapter 20, "Oracle Application Server ProcessConnect"
- Chapter 21, "Oracle Workflow"
- Chapter 22, "Oracle Application Server InterConnect"

20

Oracle Application Server ProcessConnect

This chapter describes issues with Oracle Application Server ProcessConnect (OracleAS ProcessConnect). It includes the following topics:

20.1 Technology Adapter Issues and Workarounds

This section describes technology adapter issues and workarounds for OracleAS ProcessConnect. It includes the following topics:

- Section 20.1.7, "File/FTP Adapter: Microsoft FTP Server Is Not Supported"
- Section 20.1.8, "Advanced Queuing Adapter Exchange Protocol"
- Section 20.1.9, "Advanced Queuing Adapter with an 8.1.7 Application (Spoke) Database"
- Section 20.1.10, "Adapters and NullPointerException Errors During Translation"

20.1.1 Oracle Database Adapter: Port Value

The Oracle Database adapter delivery channel must have a value for the port if you use the Oracle Call Interface (OCI) connection (bug 3031166).

Explanation

If an OCI connection is specified in the Oracle Database adapter delivery channel and the port value is empty, then an error will occur if you select the delivery channel to browse interactions.

Workaround

Ensure that a value is specified for the port if an OCI connection is used. The actual value is not used.

20.1.2 Oracle Database Adapter: Table Definition Changes

The Oracle Database adapter does not support changes to table definitions while running (bug 3112202).

Explanation

If a table definition is dropped and recreated, or altered so that the columns are different, then the interaction will fail.

Workaround

Do not change the columns in a table used by an Oracle Database adapter interaction after deployment.

20.1.3 Oracle Database Adapter: XML Parsing Error When Creating a Native Event

A runtime error occurs when executing an interaction for a stored procedure that has OUT arguments and no package name. The XML for the OUT arguments is populated incorrectly (bug 3359643).

Workaround

Put the stored procedure under a package name. Create the interaction using the stored procedure.

20.1.4 Oracle Database Adapter: Creating Interactions Using Schemas with the Same Table Name

You cannot use the read record from the interface table adapter exchange protocol and have two schemas with the same table names. When you try to create an interaction for each schema, you receive the following errors when creating the second interaction (bug 3220416):

```
Error -: AIP-12207: Failed while creating Interaction
```

```
Error -: AIP-16012: Parameter: adapter Exchange Protocol is unique for object
Interaction
```

Explanation

OracleAS ProcessConnect uses table names to name interactions and Oracle records. The second interaction creation fails because the table names are the same. Interaction names and Oracle record names must be unique under unique key constraints.

Workaround

1. Set a view on the second table.

2. Create an interaction based on that view.

20.1.5 Web Service Adapter and HTTP Adapter: Proxy Host Name

When specifying the proxy host for the Web Service and HTTP adapters, specify only the host name.

Correct: `'proxy.foo.com'`

Incorrect: `'http://proxy.foo.com'`

20.1.6 Web Service Adapter: Web Services Description Language

The Web Services Description Language (WSDL) file must have all `xmlns` tags in the `schema` element (bug 3152573).

Explanation

In a WSDL file, if the `schema` element uses namespace prefixes that are defined in the enclosing `definitions` element, but which are not defined in the `schema` element, then an error will occur when the native event wizard is run for the interaction records.

Workaround

Edit the WSDL file so that the `schema` element defines all namespaces used.

Valid:

```
<definitions xmlns:s="http://www.w3.org/2001/XMLSchema"
             xmlns:s0="http://www.foo.com"
             targetNamespace="http://www.foo.com"
             xmlns="http://schemas.xmlsoap.org/wsdl/">
  <types>
    <s:schema elementFormDefault="qualified"
              xmlns:s="http://www.w3.org/2001/XMLSchema"
              targetNamespace="http://www.foo.com">
    ...
```

Invalid:

```
<definitions xmlns:s="http://www.w3.org/2001/XMLSchema"
             xmlns:s0="http://www.foo.com"
             targetNamespace="http://www.foo.com"
             xmlns="http://schemas.xmlsoap.org/wsdl/">
  <types>
    <s:schema elementFormDefault="qualified"
              targetNamespace="http://www.foo.com">
    ...
```

20.1.7 File/FTP Adapter: Microsoft FTP Server Is Not Supported

In OracleAS ProcessConnect 9.0.4, the File/FTP adapter does not recognize the nonmainstream FTP result codes returned by the Microsoft FTP server. Specifically the Microsoft FTP server returns the result code 125 in response to commands like NLST (directory listing), RETR (file get) and STOR (file put). Since the File/FTP adapter is expecting the mainstream result code 150 (used by most FTP server products), it will not detect any files in an inbound directory hosted on the Microsoft FTP server, because it responds with result code 125.

20.1.8 Advanced Queuing Adapter Exchange Protocol

When using Oracle Object Queue with payload fields, all binary members (BLOBs and RAWs) of the object type that are not marked as payload fields should be encoded with the default character set of the platform.

20.1.9 Advanced Queuing Adapter with an 8.1.7 Application (Spoke) Database

If you are using an 8.1.7 application (spoke) database with the Advanced Queuing adapter, you must perform the following tasks:

1. Use a text editor to copy and paste the following into an ASCII file:

```
connect sys/password;
create function substrc(str in varchar2, i1 in number, i2 in number)
    return varchar2 is
    begin
        return substr(str, i1, i2);
    end;
/
create public synonym substrc for substrc;
grant all on substrc to public;
```

2. Save the ASCII file with a SQL extension (for example, named substrc_ patch.sql).

3. Change password to the password for the sys account of the 8.1.7 application database.

4. Use SQL*Plus to run this SQL script against the 8.1.7 application database.

20.1.10 Adapters and NullPointerException Errors During Translation

OracleAS ProcessConnect provides several levels of logging configuration parameters. All the configuration parameters include oracle.tip.DiagnosticLevel as part of their names. The configuration parameters are in the tip.properties file that is accessible from the Server Properties page link at the bottom of an OracleAS ProcessConnect middle-tier instance page in Oracle Enterprise Manager (bug 3173735).

Explanation

You can receive a NullPointerException error during translation if an oracle.tip.DiagnosticLevel parameter is set to the debug mode logging level.

Workaround

Set the appropriate oracle.tip.DiagnosticLevel parameter value to error instead of debug.

> **See Also:** *Oracle Application Server ProcessConnect User's Guide* for instructions on accessing the Server Properties page configuration parameters, specifically:
>
> - **Chapter:** 18, "System Management with Oracle Enterprise Manager"
>
>   **Heading:** "Oracle Application Server ProcessConnect Monitoring and Administration Tasks"
>
>   The Server Properties page online Help also describes the various levels of `oracle.tip.DiagnosticLevel` configuration parameters.

20.2 Application Adapter Issues and Workarounds

This section describes issues and workarounds for the design-time configuration of the following application adapters:

- Oracle Application Server Integration Adapter for PeopleSoft 8
- Oracle Application Server Integration Adapter for SAP R/3
- Oracle Application Server Integration Adapter for Siebel 2000
- Oracle Application Server Integration Adapter for J.D. Edwards OneWorld XE

20.2.1 License Registration During Installation

The installer for OracleAS ProcessConnect does not register the license for the application adapters correctly.

Workaround

> **Note:** The variable *ORACLE_HOME* points to the absolute path of the current ORACLE_HOME.

1. Set the environment variable `LD_LIBRARY_PATH` to include

   `ORACLE_HOME/ip/adapters/lib`

2. Run the following:

   ```
   ORACLE_HOME/ip/adapters/bin/licreg
   ORACLE_HOME/ip/adapters/config/acboip.lic
   ```

20.2.2 Installer Does Not Set CLASSPATH Correctly

The installer for OracleAS ProcessConnect does not set the CLASSPATH correctly for design-time configuration of the application adapters.

Workaround

> **Note:** Replace all *ORACLE_HOME* variables with the actual path of your Oracle Home.

1. In *ORACLE_HOME*/opmn/conf/opmn.xml, add the following XML segment under the <environment> element, which is under <process-type id="OC4J_ProcessConnect" module-id="OC4J">.

```
<variable id="CLASSPATH" value="ORACLE_HOME/ip/adapters/lib/appadapters.jar"
append="true"/>
<variable id="CLASSPATH" value="ORACLE_HOME/ip/adapters/lib/Connector.jar"
append="true"/>
<variable id="CLASSPATH" value="ORACLE_HOME/ip/adapters/lib/Kernel.jar"
append="true"/>
<variable id="CLASSPATH" value="ORACLE_HOME/ip/adapters/lib/SiebelDataBean.jar"
append="true"/>
<variable id="CLASSPATH" value="ORACLE_HOME/ip/adapters/lib/SiebelTC_enu.jar"
append="true"/>
<variable id="CLASSPATH" value="ORACLE_HOME/ip/adapters/lib/SiebelTcCommon.jar"
append="true"/>
<variable id="CLASSPATH" value="ORACLE_HOME/ip/adapters/lib/SiebelTcOM.jar"
append="true"/>
<variable id="CLASSPATH" value="ORACLE_HOME/ip/adapters/lib/psjoa.jar"
append="true"/>
```

2. In *ORACLE_HOME*/j2ee/OC4J_ ProcessConnect/config/application.xml, replace the last library path with the following:

   Correct:

```
<!-- Comment the following element to use principals.xml -->
<library path="ORACLE_HOME/ip/config"/>
<principals path="./principals.xml"/>

<log>
```

   Incorrect:

```
<!-- Comment the following element to use principals.xml -->
<library path="ORACLE_HOME/ip/config"/>
<library path="ORACLE_HOME/ip/adapters/lib/appadapters.jar"/>
<library path="ORACLE_HOME/ip/adapters/lib/Connector.jar"/>
<library path="ORACLE_HOME/ip/adapters/lib/Kernel.jar"/>
<library path= "/private/sabburi/midtier/ip/adapters/lib/SiebelDataBean.jar"/>
<library path="ORACLE_HOME/ip/adapters/lib/SiebelTC_enu.jar"/>
<library path="ORACLE_HOME/ip/adapters/lib/SiebelTcCommon.jar"/>
<library path="ORACLE_HOME/ip/adapters/lib/SiebelTcOM.jar"/>
<library path="ORACLE_HOME/ip/adapters/lib/psjoa.jar"/>
<principals path="./principals.xml"/>

<log>
```

   This results in the deletion of the other adapter libraries below the comment line.

3. In *ORACLE_HOME*/j2ee/OC4J_ ProcessConnect/application-deployments/integration/orion-appl ication.xml, add the following lines in bold:

```
<library path="ORACLE_HOME/lib/dms.jar"/>
<library path="ORACLE_HOME/jlib/uix2.jar"/>
<library path="ORACLE_HOME/jlib/rts2.jar"/>
<library path="ORACLE_HOME/jlib/ohw.jar"/>
<library path="ORACLE_HOME/jlib/regexp.jar"/>
<library path="ORACLE_HOME/jlib/share.jar"/>
<library path="ORACLE_HOME/lib/xmlparserv2.jar"/>
```

```
<library path="ORACLE_HOME/ip/lib/ip.jar"/>
<library path="ORACLE_HOME/rdbms/jlib/xsu12.jar"/>
<library path="ORACLE_HOME/ip/lib/chartbuilder.jar"/>
<library path="ORACLE_HOME/ip/adapters/lib/legacyadapters.jar"/>
<library path="ORACLE_HOME/ip/adapters/lib/appadapters.jar"/>
<library path="ORACLE_HOME/ip/lib/xdb_g.jar"/>
<library path="ORACLE_HOME/jlib/gss-1_2.zip"/>
<principals path="principals.xml"/>
```

20.3 Integration Adapter for Tuxedo Issues and Workarounds

This section describes issues and workarounds for Oracle Application Server Integration Adapter for Tuxedo, a legacy adapter available in OracleAS ProcessConnect. It includes the following topics:

- Section 20.3.1, "Problems in Oracle Connect"

- Section 20.3.2, "Importing Metadata to Oracle Connect"

20.3.1 Problems in Oracle Connect

In Oracle Connect, the following problems occur:

- String fields are padded instead of null-terminated.

- Arrays do not include a counter.

- Services that rely on large Field Manipulation Language (FML) files return an error.

Refer to bug 3212302 for patch information.

20.3.2 Importing Metadata to Oracle Connect

When importing metadata to Oracle Connect, in the Oracle Studio Import Metadata perspective, from a Field Manipulation Language (FML) file, the following problems occur:

- String fields are defined incorrectly in the generated XML metadata.

- Arrays do not include a counter.

Refer to bug 3212314 for patch information.

20.4 Schema Password Issues and Workarounds

If you do not select the Identity Management Access option when you install OracleAS ProcessConnect, you can see the following error when specifying the ProcessConnect and Workflow schema passwords on the Specify Metadata Repository for ProcessConnect Information screen:

```
An error occurred while validating the password of the ProcessConnect schema.
Either the schema does not exist in the database or an invalid password has been
specified.
```

Workaround

Unlock and change both schema passwords. See page 2-4 of *Oracle Application Server ProcessConnect Installation Guide* for instructions.

20.5 Modeling Tool and User Interface Issues and Workarounds

This section describes modeling tool and user interface issues for OracleAS ProcessConnect. It includes the following topics:

- Section 20.5.1, "Administration Tab May Hang"
- Section 20.5.2, "Starting, Stopping, and Restarting the OC4J_ProcessConnect Instance"
- Section 20.5.3, "Session Timeout"
- Section 20.5.4, "Netscape Problem with Pop-Up Windows"
- Section 20.5.5, "Supported Web Browsers"
- Section 20.5.6, "User Interface Operations Can Be Slow"
- Section 20.5.7, "Multiple Users Updating an Object"

20.5.1 Administration Tab May Hang

In the OracleAS ProcessConnect user interface tool, clicking on the Administration tab may cause the system to hang under certain environment settings and operating systems (a few cases have been observed under Linux).

Workaround

Copy the following (that is, replace the existing file):

```
"$ORACLE_HOME/ip/install/administration.uix" to "$ORACLE_HOME/j2ee/
OC4J_ProcessConnect/applications/integration/ip/pages/adm inistration/administration.uix"
```

However, this causes the link to Enterprise Manager to disappear. To connect to Enterprise Manager, use another browser window and enter the URL specified on page 18-5 of the *Oracle Application Server ProcessConnect User's Guide* and repeated here:

To access OracleAS ProcessConnect from the Oracle Enterprise Manager Application Server Control:

Go to the following URL:

```
http://hostname:port/
```

where:

hostname is the name of the host on which the OracleAS ProcessConnect middle-tier instance is installed

port is the number assigned when you installed OracleAS ProcessConnect. At the end of installation, the port number is displayed.

20.5.2 Starting, Stopping, and Restarting the OC4J_ProcessConnect Instance

On the ProcessConnect Enterprise Manager homepage, the **Start All / Stop All / Restart All** button does not affect the OC4J_ProcessConnect instance (bug 3167662).

Workaround

Start, stop, and restart OC4J_ProcessConnect separately.

20.5.3 Session Timeout

A default session timeout is specified in the `web.xml` file and is configurable.

Explanation

Short session timeouts result in discarded session objects and hence stale pages.

The `web.xml` file is located at

`$ORACLE_HOME/j2ee/OC4J_ProcessConnect/applications/integration/ip/WEB-INF/web.xml`

Workaround

After the browser has timed out, log in to the user interface tool. Go to the OracleAS ProcessConnect homepage and click through the tabs to reach the page where you timed out. Add the following to `web.xml` to configure the session timeout, where `120` is the session duration in minutes before timing out:

```
<session-config>
<session-timeout>120</session-timeout>
</session-config>
```

20.5.4 Netscape Problem with Pop-Up Windows

Netscape 4.78 and 4.79 have problems with pop-up windows, such as when you attempt to create an event body element and click the flashlight icon to select a datatype.

Workaround

Upgrade to Netscape 4.8, Netscape 7.0, or Internet Explorer 5.5.

20.5.5 Supported Web Browsers

Table 20–1 lists the supported Web browsers of the operating systems from which you can access the OracleAS ProcessConnect user interface tool:

Table 20–1   Supported Web Browsers

Operating System	Supported Browser
Red Hat Linux 2.1 (AS/ES) and United Linux 1.0	Netscape 4.78
	Netscape 4.79
	Netscape 4.80
	Netscape 7.0
	Netscape 7.0.2
Red Hat Linux 3.0	Netscape 7.0
	Netscape 7.0.2
HP-UX	Netscape 4.78
	Netscape 4.79
	Netscape 7.0
Solaris 8	Netscape 7.0
Windows NT and 2000	Internet Explorer 5.5
Windows XP	Internet Explorer 6.0

20.5.6 User Interface Operations Can Be Slow

During some user interface operations, the browser appears to be hanging.

Explanation

Some user interface operations can take several minutes to complete. For example, importing a large XSD with a few hundred datatypes can take up to ten minutes. Wait and allow the operation to complete.

20.5.7 Multiple Users Updating an Object

Multiple users cannot export the repository simultaneously.

Explanation

In the current release, if an object is being viewed by one user and another user updates it, the first user may not see the latest version of that object until the cache is flushed to the database. In the case of concurrent updates, only the last update will be effective.

20.6 Agreement Validation When Using D3L Issues and Workaround

If you get error AIP-17301, "The inbound interaction spec type associated with the translator {0} must have a parameter value that is associated with an event body element of a native event type," then do the following (bug 3042640):

1. Log in to SQL*Plus as the design repository owner (`ip`).

2. Issue the following commands:

    ```
    update TIP_ADAPTERPARAMETER_T
      set ISMANDATORY = 'N'
      where NAME = 'Namespace' and
            DESCRIPTION like 'XSD%';
    ```

3. Commit the change.

See WebIV Note # 263536.1.

20.7 Export/Import Issues

All agreements are imported in the Draft state, even if they were approved before the export. You must approve the relevant agreements before creating and deploying a configuration.

20.8 Configuration Creation and Deployment Issues and Workarounds

When you create a new configuration, all the business processes and related objects are picked up. The configuration is created successfully only if all of these objects are valid. You may get validation errors due to extra business processes or objects that are created but not used in the integration.

Workaround

Ensure that extra objects are deleted or validated before creating the configuration.

20.9 Deployment Issues and Workarounds

During deployment, the modeling tool waits for the existing configuration to quiesce before deploying the new one. Sometimes this quiescing takes a long time.

Explanation

If quiescing takes more than 3 to 4 minutes, then there are two possibilities:

1. The currently active configuration is still processing some messages.

   or

2. The active configuration is still waiting for external events.

Workaround

If the coordination reports show that you do not have any open coordinations and you do not expect any more external events, then you can abort the quiescing configuration.

20.10 Oracle Wallet Manager Utility Issues

This section provides a clarification to the *Oracle Application Server ProcessConnect User's Guide*, specifically:

Chapter: 20, "Oracle Application Server ProcessConnect Security"

Heading: "Setting Up SSL for the Oracle Application Server ProcessConnect B2B Adapter"

Start Oracle Wallet Manager by entering `owm` at the command prompt before performing the HTTP client steps in "Setting Up SSL for the Oracle Application Server ProcessConnect B2B Adapter" (bug 3146118).

20.11 Reassociating the ProcessConnect Middle Tier to Another Metadata Repository

The following steps are valid only for a J2EE installation (nonhigher J2EE installation).

1. Edit the following file so that `IASSchema=false`.

   ```
   $ORACLE_HOME/ip/config/ConfigTool.properties
   ```

   All other properties should be set to true.

2. Run ConfigTool at the command prompt and set the correct environmental variables:

   ```
   java oracle.tip.install.ConfigTool oracle_home null ip_passwd wf_passwd dbhost
   dbport dbservicename null null null null null
   ```

   Where:

   oracle_home is the current oracle home for this installation.

   ip_passwd is the password for the ip schema in the new database.

   wf_passwd is the password for the `owf_mgr` schema in the new database.

   dbhost is the hostname for the new database.

   dbport is the port for the new database.

dbservicename is the service name for the new database.

(Note: There is a total of 12 parameters.)

After reassociation, refer to the reassociation topics on migrating OracleAS ProcessConnect and workflow seed and data to a new metadata repository in the *Oracle Application Server 10g Administrator's Guide*.

20.12 Unsupported XSD Construct Issues and Workarounds

This section describes additional unsupported XSD constructs. It supplements Appendix A, "Native Formats and Translators" of the *Oracle Application Server ProcessConnect User's Guide*. It includes the following topics:

- Section 20.12.1, "A complexType Containing a Wildcard Element"
- Section 20.12.2, "Nested Substitution Groups"
- Section 20.12.3, "Cardinality on Anonymous Members"
- Section 20.12.4, "Members with type="xs:anySimpleType""

20.12.1 A complexType Containing a Wildcard Element

A complexType containing a wildcard element (any tag) cannot have any other members. A runtime error occurs if WildcardMember is not the only member of its owning datatype (bug 3112007). A runtime error occurs with the complexContent extension when wildcards are restricted (bug 3115819).

Explanation

In XMLSchema, a wildcard member element is allowed on any complex type *if* it is the last member element to occur. For example:

```
<xs:complexType name="Colour">
  <xs:sequence>
    <xs:element name="saturation" type="xs:string"/>
    <xs:any processContents="skip" maxOccurs="2"/>
  </xs:sequence>
</xs:complexType>
```

Another way for an XSD to define types with multiple elements and a wildcard is with the complexContent extension and restriction. If a type is defined with a single wildcard member, it cannot be used as a base for a complexContent extension, because this is equivalent to having a type with the base wildcard plus additional members specified in the extended type. Similarly, no complexContent type derived by extension can contain a wildcard member unless its base type is empty.

Unsupported:

```
<xs:complexType name="Colour1">
  <xs:sequence>
    <xs:any processContents="skip" maxOccurs="1"/>
  </xs:sequence>
</xs:complexType>

<xs:complexType name="Colour2">
  <xs:complexContent>
    <xs:extension base="Colour1">
      <xs:sequence>
        <xs:element name="hue" type="xs:string"/>
      </xs:sequence>
```

```
        </xs:extension>
      </xs:complexContent>
 </xs:complexType>

 <xs:complexType name="Colour3">
     <xs:complexContent>
      <xs:extension base="Colour2">
        <xs:sequence>
           <xs:element name="saturation" type="xs:string"/>
           <xs:any processContents="skip" maxOccurs="2"/>
        </xs:sequence>
      </xs:extension>
    </xs:complexContent>
 </xs:complexType>
```

OracleAS ProcessConnect has only limited support for wildcard members and mandates that a `complexType` containing a wildcard member cannot contain any other member elements or attributes. Additionally, there is no support for wildcard members in types used as a base for a `complexContent` extension, and no support for wildcard members in derived `complexContent` types. In the preceding example, `Colour1` on its own is supported in ProcessConnect. `Colour2` is not supported because its base type contains a wildcard. `Colour3` is not supported because it is derived in 2 steps from `Colour1`, which contains a wildcard, and contains a wildcard member in addition to another member.

The following example removes the unsupported structures.

Supported:

```
<xs:complexType name="Colour1">
  <xs:sequence>
    <xs:any processContents="skip" maxOccurs="1"/>
  </xs:sequence>
 </xs:complexType>
```

Unsupported wildcard structures are not detected at design time but will fail at runtime (AIP-10403, the invocation engine failed when raising a business event after executing the step). Before you create native events or business datatypes, all occurrences must be removed from XSDs.

Workaround

If you know the expected content of the wildcard, you can replace the wildcard member with the expected content.

A more generic workaround is to define a group containing the wildcard member and then replace the wildcard in the original type with a reference to the group, as follows:

```
<xs:complexType name="Colour">
  <xs:sequence>
    <xs:element name="hue" type="xs:string"/>
    <xs:group ref="wild"/>
  </xs:sequence>
</xs:complexType>

<xs:group name="wild">
  <xs:sequence>
    <xs:any processContents="skip" maxOccurs="2"/>
  </xs:sequence>
</xs:group>
```

20.12.2 Nested Substitution Groups

A runtime error occurs with nested substitution groups (bug 3112030).

Explanation

XMLSchema allows an element that is the head of one substitution group to be a member of another. ProcessConnect does not allow a substitution group to contain other substitution groups. Nested substitution groups are not caught at design time, but will cause runtime errors. To avoid this, all occurrences must be removed before creating native events or business datatypes.

In the following example, `WritingImplement` is the top-level substitution group. It has two members, `Pen` and `Pencil`. `Pencil` is also the head of a separate substitution group containing `DisposablePencil` and `MechanicalPencil`.

The following does not work because `Pencil` is in substitution group `WritingImplement`.

Unsupported:

```
<xs:element name="subsgrp">
  <xs:complexType>
    <xs:sequence>
      <xs:element ref="WritingImplement"/>
      <xs:element ref="Pen"/>
      <xs:element ref="Pencil"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>

<xs:element name="WritingImplement" abstract="true"/>

<xs:element name="Pen" substitutionGroup="WritingImplement" type="penType"/>

<xs:element name="Pencil" substitutionGroup="WritingImplement"/>
<xs:element name="MechanicalPencil" substitutionGroup="Pencil" type="pencilType"/>
<xs:element name="DisposablePencil" substitutionGroup="Pencil" type="pencilType"/>
```

Workaround

Flatten the nested substitution groups into a single group containing the members of all the nested groups as well as the original group members. Each reference to any of the nested substitution groups is replaced with a reference to the flattened group (shown in bold in the following examples). In the following example, the members of substitution group `Pencil` are moved to `WritingImplement`. The reference to `Pencil` is changed to `WritingImplement`. However, the reference to `Pen` is not changed, since `Pen` is not the head of another substitution group.

Supported:

```
<xs:element name="subsgrp">
  <xs:complexType>
    <xs:sequence>
      <xs:element ref="WritingImplement"/>
      <xs:element ref="Pen"/>
      <xs:element ref="WritingImplement"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>

<xs:element name="WritingImplement" abstract="true"/>
```

```
<xs:element name="Pen" substitutionGroup="WritingImplement" type="penType"/>

<xs:element name="Pencil" substitutionGroup="WritingImplement" type="pencilType"/>
<xs:element name="MechanicalPencil" substitutionGroup="WritingImplement" type="pencilType"/>
<xs:element name="DisposablePencil" substitutionGroup="WritingImplement" type="pencilType"/>
```

20.12.3 Cardinality on Anonymous Members

A runtime error occurs with an anonymous choice group that has `maxOccurs` unbounded (bug 3133105).

Explanation

OracleAS ProcessConnect fails at runtime on anonymous members with cardinality. This structure is not detected at design time, so all occurrences must be removed from the XSD before importing it. Failure to do so will cause runtime errors. Anonymous members are created from nested choice or sequence groups and references to reusable groups. These can occur in an XSD as long as they do not have `minOccurs` or `maxOccurs` set to a value other than 1.

In the following example, the nested choice group, nested sequence group, and group ref are all invalid since they have cardinality.

Unsupported:

```
<xs:complexType name="Document>
    <xs:sequence>
      <xs:choice minOccurs="0" maxOccurs="unbounded">
        <xs:element name="text" type="xs:string"/>
        <xs:sequence minOccurs="1" maxOccurs="2">
          <xs:element name="warning" type="xs:string"/>
          <xs:element name="code" type="xs:int"/>
        </xs:sequence>
      </xs:choice>
      <xs:group ref="mygroup minOccurs="0"/>
    </xs:sequence>
</xs:complexType>
```

Workaround

There is currently no workaround for this unsupported structure.

20.12.4 Members with type="xs:anySimpleType"

A runtime error occurs when `anySimpleType` has a `whiteSpace` facet with a null `facetValue` (bug 3133329).

Explanation

The XMLSchema scalar type `anySimpleType` in namespace `http://www.w3.org/2001/XMLSchema` is the base type from which all scalar types must be derived. In a schema, it can also be used directly as the type for an element or as the base type of a scalar type.

Supported (`whiteSpace` value is set):

```
<xsd:simpleType name="ID">
  <xsd:restriction base="xsd:anySimpleType">
    <xsd:whiteSpace value="preserve">
  </xsd:restriction>
```

```
</xsd:simpleType>
```

Unsupported (`whiteSpace` value is not set):

```
<xsd:complexType name="Comment">
  <xsd:attribute name="severity" type="xsd:anySimpleType">
</xsd:complexType>

<xsd:simpleType name="SKU">
  <xsd:restriction base="xsd:anySimpleType">
    <xsd:length value="10">
  </xsd:restriction>
</xsd:simpleType>
```

OracleAS ProcessConnect requires every scalar type that appears in an instance to have a value for the `whiteSpace` facet. Since `anySimpleType` does not have a value for this facet, it cannot be used directly as the type for a member. You can use `anySimpleType` as the base type for another `simpleType` if the derived type declares a value for the `whiteSpace` facet. In the preceding example, `Comment` is not allowed because it has an attribute whose type is `anySimpleType`. `ID` is derived from `anySimpleType`, but it specifies a value for `whiteSpace` and is therefore valid. `SKU` is not allowed because it is derived directly from `anySimpleType` and does not provide a `whiteSpace` value.

Workaround

When `anySimpleType` is used as the base for another scalar type, add a `whiteSpace` facet to the derived type. Modify the type `SKU` as follows:

```
<xsd:simpleType name="SKU">
  <xsd:restriction base="xsd:anySimpleType">
    <xsd:length value="10">
    <xsd:whiteSpace value="preserve">
  </xsd:restriction>
</xsd:simpleType>
```

For an element whose type is `anySimpleType`, change the type to `string`. `Comment` becomes:

```
<xsd:complexType name="Comment">
  <xsd:attribute name="severity" type="xsd:string">
</xsd:complexType>
```

20.13 Deinstalling OracleAS ProcessConnect

This section describes a potential problem when deinstalling OracleAS ProcessConnect (bugs 2940328 and 3092893).

The deinstall operation removes the `Components` line in `ORACLE_HOME/config/ias.properties`. This may cause a problem when you reinstall OracleAS ProcessConnect against the same `ORACLE_HOME`.

After deinstalling ProcessConnect, add the following in `ORACLE_HOME/config/ias.properties`, depending on your installation type:

- If J2EE and WebCache are installed on the middle tier, add:

  ```
  Components=Apache,J2EE,WebCache,JServ
  ```

- If Portal and Wireless are installed on the middle tier, add:

  ```
  Components=Apache,J2EE,WebCache,JServ,Portal,Wireless
  ```

■ If Business Intelligence and Forms are installed on the middle tier, add:

```
Components=Apache,J2EE,WebCache,JServ,Portal,Wireless,Discoverer,Personalizatio
n,Reports,Forms
```

20.14 Other Known Issues

The following are known issues in OracleAS ProcessConnect.

■ Creation of a native event type for a seeded interaction will fail. No warning is given to the user (bug 2815475).

■ If a data definition description language (D3L) definition contains a field of type `termstring` and the `endchar` attribute character is not found in the native wire message (for inbound translations), the D3L parser will spin and eventually cause a Java OutOfMemoryError (bug 3076754).

20.15 Documentation Errata

This section describes known errors in the documentation. It includes the following topics:

■ Section 20.15.1, "Correction to Selecting a Rule from the Datatype Transformation Map List (Tutorial)"

■ Section 20.15.2, "Correction to Deleting a Native Event (Tutorial)"

■ Section 20.15.3, "Corrections to the HTTP Adapter Postinstallation Tasks"

■ Section 20.15.4, "Corrections to Table 8-4, Advanced Queuing Adapter Naming Conventions"

■ Section 20.15.5, "Corrections to Anonymous Choice Group That Has maxOccurs Unbounded"

20.15.1 Correction to Selecting a Rule from the Datatype Transformation Map List (Tutorial)

This section provides corrections and clarifications to the *Oracle Application Server ProcessConnect User's Guide*, specifically:

Chapter: 7, "Tutorial of an Integration Within an Enterprise"

Heading: "Creating the Rule for the Outbound Event Transformation Map"

Page: 7-35

In steps 11 through 13, you must select a rule from the **Datatype Transformation Map** list *before* you can click **Append**. Therefore, perform steps 11 through 13 in the following order:

11. Select **copy:from=string->to=string** from the **Datatype Transformation Map** list.

12. Click **Append**. This takes you to the Add Transformation Rules page.

13. Click **Expand All** for the **Targets** table.

20.15.2 Correction to Deleting a Native Event (Tutorial)

This section provides corrections and clarifications to the *Oracle Application Server ProcessConnect User's Guide*, specifically:

Chapter: 7, "Tutorial of an Integration Within an Enterprise"

Heading: "Task 3: Deleting a Native Event"

Page: 7-79

Before deleting the HR New Ad native event described in task 3, you must first delete the event map associated with this native event. Delete this event map from the Native Event Type Details: HR New Ad page.

20.15.3 Corrections to the HTTP Adapter Postinstallation Tasks

This section provides corrections and clarifications to the *Oracle Application Server ProcessConnect User's Guide*, specifically:

Chapter: 8, "Oracle Application Server ProcessConnect Technology Adapters"

Heading: "HTTP Adapter Postinstallation Tasks"

Page: 8-50

- In Step 1, the file to open is `orion-application.xml` file, and *not* `jazn-data.xml`. Both files are located in the directory specified in Step 1.

- In Step 2, do *not* add `<principals path="principals.xml" />`, shown for the `orion-application.xml` file. This line already appears in this file.

  Instead, add the three lines shown immediately following that line to the `orion-application.xml` file:

  ```
  <security-role-mapping name="sr_manager">
    <group name="managers"/>
  </security-role-mapping>
  ```

- In Step 3, the file to open is `jazn-data.xml` file, and *not* `orion-application.xml`.

- In Step 4, add the entire realm section shown in Step 4 to the `jazn-data.xml` file.

- In Step 9, test that you have correctly configured your environment by invoking the following URL:

  ```
  http://hostname:port/integration/transportServletB
  ```

  Or, if you enabled SSL with the HTTP adapter in Steps 5 through 7, use HTTPS:

  ```
  https://hostname:port/integration/transportServletB
  ```

  The `B` appended to `transportServlet` tests that you have correctly configured your environment in the `orion-application.xml` and `jazn-data.xml` files. If you do not specify `B`, the environment configuration is not tested and a more general set of testing details is provided.

  > **Note:** Do not delete the `/tmp/tsvalidation.log` file after starting Oracle Enterprise Manager. The information in this file is useful for debugging purposes.

20.15.4 Corrections to Table 8-4, Advanced Queuing Adapter Naming Conventions

This section provides corrections and clarifications to the *Oracle Application Server ProcessConnect User's Guide*, specifically:

Chapter: 8, "Oracle Application Server ProcessConnect Technology Adapters"

Heading: "Advanced Queuing Adapter Design-Time Tasks"

Page: 8-15

The last three adapter exchange protocols in Table 8-4 that have descriptions beginning with "Enqueue to..." are for the *outbound* direction, and not the inbound direction.

20.15.5 Corrections to Anonymous Choice Group That Has maxOccurs Unbounded

This section provides corrections and clarifications to the *Oracle Application Server ProcessConnect User's Guide*, specifically:

Appendix: A, "Native Formats and Translators"

Heading: "Choice or sequence with minOccurs="0", maxOccurs greater than 1 except if parent is choice or sequence, or both"

Page: A-8

The discussion is incorrect. See Section 20.12.3, "Cardinality on Anonymous Members" on page 20-15 for an explanation.

21

Oracle Workflow

This chapter discusses the following topics:

- Section 21.1, "Configuration Issues and Workarounds"
- Section 21.2, "Administration Issues and Workarounds"
- Section 21.3, "Documentation Errata"

21.1 Configuration Issues and Workarounds

This section describes configuration issues and their workarounds for Oracle Workflow.

21.1.1 Oracle Workflow in Oracle Application Server and Oracle E-Business Suite

Do not install the standalone Oracle Workflow server in an Oracle E-Business Suite database. If you want to use the version of Oracle Workflow available with Oracle Application Server 10*g* (9.0.4), or any Oracle Application Server components that depend on this version of Oracle Workflow, then you must install the Oracle Workflow server into a database that is not used for an Oracle E-Business Suite instance.

If you implement Oracle Application Server 10*g* (9.0.4) with Oracle E-Business Suite, the Oracle Workflow Configuration Assistant will not install the standalone version of the Oracle Workflow server in that database. You can continue to use the version of the Oracle Workflow server embedded in Oracle E-Business Suite instead.

If you choose to install the Oracle Application Server Metadata Repository 10*g* (9.0.4) into a database used by Oracle E-Business Suite, the Oracle Workflow Configuration Assistant will not install the standalone version of the Oracle Workflow server in that database. You can continue to use the version of the Oracle Workflow server embedded in Oracle E-Business Suite instead, although there may be some limitations in Oracle Application Server functionality. Refer to Oracle*MetaLink* Note 251627.1 (http://metalink.oracle.com) for more information.

21.1.2 Oracle Workflow Component Versions

The version of the Oracle Workflow server components installed in your database, including the Oracle Workflow schema, must match the version of your Oracle Workflow middle tier components. That is, if you want to use Oracle Workflow Release 2.6.3, then both the Oracle Workflow server and middle tier components must be the Release 2.6.3 components, available with Oracle Application Server 10*g* (9.0.4).

If you want to use an existing Oracle9*i* Application Server Release 2 (9.0.2) infrastructure database that already has Oracle Workflow Release 2.6.2 installed, then

you must upgrade that Oracle Workflow server installation to Release 2.6.3 before using it with an Oracle Application Server 10*g* (9.0.4) middle tier home. To upgrade the Oracle Workflow server installation to Release 2.6.3, run the Oracle Workflow Configuration Assistant with the Upgrade option from the `wf` subdirectory in your Oracle Application Server 10*g* (9.0.4) middle tier home.

> **Note:** Do not use the Oracle Application Server Repository Creation Assistant (OracleAS RepCA) to upgrade an existing Oracle Workflow server installation. Use the Oracle Workflow Configuration Assistant to properly upgrade to Oracle Workflow Release 2.6.3.

21.1.3 Configuring Oracle Workflow Manager

If you want to use the Oracle Workflow Manager component within the Oracle Enterprise Manager Application Server Control, including Oracle Workflow administration features and the Java-based Workflow Notification Mailer, run the Workflow Configuration Assistant to configure Oracle Workflow Manager.

- If you install Oracle Workflow from the Oracle Content Management Software Development Kit CD and the Oracle Universal Installer automatically launches the Workflow Configuration Assistant during the installation, Oracle Workflow Manager is configured automatically.

- If you run the Workflow Configuration Assistant manually, from any Oracle Home where Oracle Workflow files have been installed, then you must first edit the Workflow Configuration Assistant script to provide installation parameters that specify the Oracle Application Server instance and the database where your Oracle Workflow installation resides. The Workflow Configuration Assistant requires this information to configure Oracle Workflow Manager information in the targets.xml file for the Oracle Enterprise Manager Application Server Control.

If you want to configure Oracle Workflow Manager when running the Workflow Configuration Assistant manually, edit the Workflow Configuration Assistant script in the following directory:

- On UNIX: $*ORACLE_HOME*/wf/install/wfinstall.csh

- On Windows NT: %*ORACLE_HOME*%\wf\install\wfinstall.bat

Open the script in a text editor and locate the line similar to the following:

```
. . . repository.jar" WorkflowCA /wfdir <workflow_directory> /orahome <oracle_
home> /ospath $PATH
```

For example:

```
. . . repository.jar" WorkflowCA /wfdir /d1/iasinstall/m21pw1/wf /orahome
/d1/iasinstall/m21pw1 /ospath $PATH
```

Edit the script to append the parameters required for Oracle Workflow Manager after the /wfdir, /orahome, and /ospath parameters:

```
. . . repository.jar" WorkflowCA /wfdir <workflow_directory> /orahome
<oracle_home> /ospath $PATH /iasname <schema_name.machine_name> /iasmachine
<machine_name>
/iasport <port_number> /iassid <database_SID> /jdbcconnnode <connect_string>
/fileupdate true
```

Specify the parameter values as follows:

- /iasname - The name of your Oracle Application Server instance, specified in the following format: *schema_name.machine_name*

- /iasmachine - The host name of your Oracle Application Server instance.

- /iasport - The database listener port number for the database where the Oracle Workflow schema resides.

- /iassid - The System Identifier (SID) for the database where Oracle Workflow is installed.

- /jdbcconnnode - The JDBC connect identifier to access a remote database, specified in the following format: *host:port:sid*

- /fileupdate - You must specify `true` as the value of this parameter in order to update the targets.xml file for the Oracle Enterprise Manager Application Server Control.

Save your changes to the script, and start the Workflow Configuration Assistant using the following commands:

- On UNIX:

  $*ORACLE_HOME*/wf/install/wfinstall.csh

- On Windows NT:

  %*ORACLE_HOME*%\wf\install\wfinstall.bat

The Oracle Workflow Configuration Assistant window will appear to let you enter the remaining configuration parameters, including additional parameters required if you want to run the Workflow Notification Mailer. For more details, see your installation documentation.

21.1.4 Running the Workflow Configuration Assistant in Silent Mode

If you start the Workflow Configuration Assistant manually, you can choose to run it in silent mode by first editing the script to enter all your configuration parameters. In this case, you must specify all required parameters as well as any conditionally required parameters for features you want to use.

Edit the Workflow Configuration Assistant script in the following directory:

- On UNIX: $*ORACLE_HOME*/wf/install/wfinstall.csh

- On Windows NT: %*ORACLE_HOME*%\wf\install\wfinstall.bat

Open the script in a text editor and locate the line similar to the following:

```
. . . repository.jar" WorkflowCA /wfdir <workflow_directory> /orahome
<oracle_home> /ospath $PATH
```

For example:

```
. . . repository.jar" WorkflowCA /wfdir /d1/iasinstall/m21pw1/wf /orahome
/d1/iasinstall/m21pw1 /ospath $PATH
```

Edit the script to append your additional parameters after the /wfdir, /orahome, and /ospath parameters:

```
. . . repository.jar" WorkflowCA /wfdir <workflow_directory> /orahome
<oracle_home> /ospath $PATH /wfacct <workflow_schema> /
wfpasswd <workflow_schema_password> /syspasswd <SYS_password> /instype
<installation_type> /orasid <database_SID> /constr <connection_string>
```

The script must include the following required parameters to run the Workflow Configuration Assistant in silent mode:

- /wfdir - The Oracle Workflow directory within your Oracle Home directory. The default directory is: `$ORACLE_HOME/wf`

- /orahome - Your Oracle Home directory.

- /wfacct - The user name of your Oracle Workflow database account. The default Workflow account for a fresh installation is `owf_mgr`.

- /wfpasswd - The password for your Oracle Workflow database account.

- /syspasswd - Your SYS password. See your Oracle DBA if you need more information.

> **Note:** If you choose to enter these passwords in the script in order to run the Oracle Workflow Configuration Assistant in silent mode, ensure that you take precautions to protect the file so that only authorized administrators can access this sensitive information.

- /instype - Specify `Install` to perform a fresh installation of Oracle Workflow, or to reinstall Oracle Workflow Release 2.6.3. Specify `Upgrade` to upgrade an existing installation of Oracle Workflow Release 2.6.0, Release 2.6.1, or Release 2.6.2. Specify `"add language"` to load a language into your existing installation of Oracle Workflow.

- /nlsopt - If you specified Add language for the /instype parameter, then you must also specify the /nlsopt parameter with the language code for the language you want to add. Oracle Workflow Server supports the languages supported by Oracle Application Server:

  - AR - Arabic
  - PTB - Brazilian Portuguese
  - FRC - Canadian French
  - CS - Czech
  - DK - Danish
  - NL - Dutch
  - US - English
  - SF - Finnish
  - F - French
  - D - German
  - EL - Greek
  - IW - Hebrew
  - HU - Hungarian
  - I - Italian

- JA - Japanese

- KO - Korean

- ESA - Latin American Spanish

- N - Norwegian

- PL - Polish

- PT - Portuguese

- RO - Romanian

- RU - Russian

- ZHS - Simplified Chinese

- SK - Slovak

- E - Spanish

- S - Swedish

- TH - Thai

- ZHT - Traditional Chinese

- TR - Turkish

For a list of standard language abbreviations in the Oracle Database, see: Locale Data, *Oracle National Language Support Guide*.

- /orasid - The System Identifier (SID) or TNS name for the database where Oracle Workflow is installed.

- /constr - The connect string for the database where Oracle Workflow is installed.

You can also specify the following additional parameters if you want to use the corresponding features.

- /tablespace - A valid tablespace name that you want to assign to the Oracle Workflow database account. If you do not specify this parameter, the default tablespace for the Oracle Workflow database account in a fresh installation defaults to USERS. This parameter is valid only when you are performing a fresh installation of Oracle Workflow. You cannot change the tablespace for Oracle Workflow during an upgrade.

- /debug - Specify `true` if you want the Workflow Configuration Assistant to write debug information to the workflow.log file, or `false` if you do not want to log this information.

- Specify these parameters if you want to integrate with Oracle Internet Directory as your Oracle Workflow directory service.

    - /ldaphost - The name of the host on which your Lightweight Directory Access Protocol (LDAP) directory resides.

    - /ldapport - The port on the host.

    - /ldapuser - The LDAP user account used to connect to the LDAP server. This user name must have write privileges and is required to bind to the LDAP directory. For example: `cn=orcladmin`

    - /ldapopwd - The password for the LDAP user account.

    - /ldaplogbase - The LDAP node under which change logs are located. For example: `cn=changelog`

- ■ /ldapuserbase - The LDAP node under which user records can be found. For example: cn=Base, cn=OracleSchemaVersion

- ■ Specify these parameters if you want to use Oracle Workflow Manager.

    - ■ /iasname - The name of your Oracle Application Server instance, specified in the following format: *schema_name.machine_name*

    - ■ /iasmachine - The host name of your Oracle Application Server instance.

    - ■ /iasport - The database listener port number for the database where the Oracle Workflow schema resides.

    - ■ /iassid - The System Identifier (SID) for the database where Oracle Workflow is installed.

    - ■ /jdbcconnnode - The JDBC connect identifier to access a remote database, specified in the following format: *host:port:sid*

    - ■ /fileupdate - You must specify true as the value of this parameter in order to update the targets.xml file for the Oracle Enterprise Manager Application Server Control.

- ■ Specify these parameters if you want to use the Workflow Notification Mailer. Note that if you specify these parameters, you must also specify the Oracle Workflow Manager parameters.

    - ■ /mailserver - The name of the inbound IMAP mail server.

    - ■ /mailuser - The user name of the mail account that the notification mailer uses to send and receive e-mail messages.

    - ■ /mailhtml - The base URL that identifies the Web agent defined for Oracle Workflow in Oracle HTTP Server. The HTML agent should be specified in the following format:

      ```
      http://<server.com:portID>/pls/wf
      ```

      where <server.com:portID> represents the server and TCP/IP port number on which your web listener accepts requests.

    - ■ /mailhost - The name of the outbound SMTP mail server.

    - ■ /mailreply - The address of the e-mail account that receives incoming messages, to which notification responses should be sent.

Save your changes to the script, and start the Workflow Configuration Assistant using the following commands:

- ■ On UNIX:

  ```
  $ORACLE_HOME/wf/install/wfinstall.csh
  ```

- ■ On Windows NT:

  ```
  %ORACLE_HOME%\wf\install\wfinstall.bat
  ```

If the script includes all the minimum required parameters, then it performs the configuration silently, without displaying the Oracle Workflow Configuration Assistant window.

21.1.5 LDAP Port

If you choose to integrate with Oracle Internet Directory, you specify Lightweight Directory Access Protocol (LDAP) server information for your LDAP directory, either in the Workflow Configuration Assistant or in the Global Workflow Preferences page within Oracle Workflow. The port you specify to connect to the LDAP server must be a non-Secure Sockets Layer (non-SSL) port.

21.1.6 ecxutils.jar Errors

In some cases the workflow.log file produced during installation and configuration of Oracle Workflow may show errors in loading a file named ecxutils.jar. You can safely ignore these errors.

21.1.7 Changing the Workflow Directory Service Implementation After Installation

During the installation and configuration of Oracle Workflow, you choose the type of directory service to implement. You can either integrate with Oracle Internet Directory (OID) and Oracle Application Server Single Sign-On, or you can use Oracle Database users and roles as your directory repository for Oracle Workflow.

If necessary, you can change your directory service implementation after the initial installation and configuration are complete.

For more information, see Setting Up Oracle Workflow, *Oracle Workflow Administrator's Guide.*

21.1.7.1 Converting from Oracle Database Users to Oracle Internet Directory

1. Ensure that the DBMS_LDAP PL/SQL package is loaded in your database. This package contains the functions and procedures that can be used to access data from LDAP servers and is required for LDAP synchronization. To check whether the DBMS_LDAP package is already installed, connect to SQL*Plus and use the following command:

```
desc DBMS_LDAP
```

If the DBMS_LDAP package does not already exist, load it manually by running the `catldap.sql` script located in the `<ORACLE_HOME>/rdbms/admin` directory. Run this script as the SYS user. For example, use the following command:

```
sqlplus "SYS/<SYS password> as sysdba" @$ORACLE_HOME/rdbms/admin/catldap.sql
```

2. Run the `<ORACLE_HOME>/wf/sql/wfdircsv.sql` script to implement Oracle Workflow directory service views that support OID integration. For example, use the following command:

```
sqlplus owf_mgr/<passwd> @$ORACLE_HOME/wf/sql/wfdircsv.sql
```

3. Load the appropriate version of the WFA_SEC package, which contains Oracle Workflow security functions and procedures. To load this package, log on to SQL*Plus as the Oracle Workflow database user and run the `<ORACLE_HOME>/wf/sql/wfsecssb.sql` script. For example, use the following command:

```
sqlplus owf_mgr/<passwd> @$ORACLE_HOME/wf/sql/wfsecssb.sql
```

4. Update the Database Access Descriptor (DAD) for Oracle Workflow in the Oracle HTTP Server dads.conf file, specifying the following parameters. You can either use Oracle Enterprise Manager to update the DAD or edit the dads.conf file directly. The DAD should be named `/pls/your_Workflow_DAD`. For example: `/pls/wf`

- PlsqlDatabaseUsername - Oracle Workflow schema

- PlsqlDatabasePassword - Oracle Workflow schema password

- PlsqlDatabaseConnectString - Database connect string

- PlsqlDefaultPage - `wfa_html.home`

- PlsqlSessionStateManagement - `StatelessWithResetPackageState`

- PlsqlAuthenticationMode - `Basic`

5. Protect the Oracle Workflow DAD by adding the following entry in your mod_osso configuration file. Replace "your_Workflow_DAD" with the name of your DAD.

```
<Location /pls/your_Workflow_DAD>
   require valid-user
   authType Basic
</Location>
```

For more information, see: Developing Applications Using mod_osso, *Oracle Application Server Single Sign-On Application Developer's Guide*.

After you update the DAD and the mod_osso configuration file, restart Oracle HTTP Server.

6. Set the following LDAP preferences in the Global Workflow Preferences page. For details, see: To Set Global User Preferences, *Oracle Workflow Administrator's Guide*.

- LDAP Host

- LDAP Port

- LDAP User Name

- LDAP Password

- LDAP Changelog Base Directory

- LDAP User Base Directory

7. Migrate your existing Workflow user information to Oracle Internet Directory. You must perform a one-time migration of existing Oracle Workflow user information to OID to enable single sign-on and single administration. Ensure that you migrate all the necessary data from WF_LOCAL_USERS as well as any other user tables in which you previously stored user information. After performing the migration, you should maintain your user information only through OID.

OID provides a migration tool called ldifmigrator. To use this tool, you must extract your user information from the database into an intermediate LDAP Data Interchange Format (LDIF) file, with substitution variables wherever necessary. The ldifmigrator tool converts the intermediate entries in the file to actual LDIF entries by replacing the variables based on arguments provided at runtime or information retrieved from the LDAP directory. The LDIF file produced by the ldifmigrator can then be uploaded into OID using OID bulk tools.

For more information about the ldifmigrator, the format required for the intermediate LDIF file, and OID bulk upload tools, see: Appendix A: Syntax for LDIF and Command-Line Tools, *Oracle Internet Directory Administrator's Guide*.

8. Use the WF_LDAP APIs to periodically synchronize your Oracle Workflow directory service with OID. For instructions, see: Synchronizing Oracle Workflow Directory Services with Oracle Internet Directory, Setting Up Oracle Workflow, *Oracle Workflow Administrator's Guide*.

21.1.7.2 Converting from Oracle Internet Directory to Oracle Database Users

1. Stop any database jobs you have scheduled to execute the WF_LDAP APIs to synchronize your Oracle Workflow directory service with OID. For more information, see: Synchronizing Oracle Workflow Directory Services with Oracle Internet Directory, Setting Up Oracle Workflow, *Oracle Workflow Administrator's Guide*.

2. Update the Database Access Descriptor (DAD) for Oracle Workflow in the Oracle HTTP Server dads.conf file, specifying the following parameters. You can either use Oracle Enterprise Manager to update the DAD or edit the dads.conf file directly. The DAD should be named `/pls/your_Workflow_DAD`. For example: `/pls/wf`

   - PlsqlDatabaseConnectString - Database connect string
   - PlsqlDefaultPage - `wfa_html.home`
   - PlsqlSessionStateManagement - `StatelessWithResetPackageState`
   - PlsqlAuthenticationMode - `Basic`

   Ensure that you do not specify a database user name or password, in order to enable mod_plsql database authentication.

3. Delete the entry for your Workflow DAD from the mod_osso configuration file.

   After you update the DAD and the mod_osso configuration file, restart Oracle HTTP Server.

4. Run the `<ORACLE_HOME>/wf/sql/wfdirouv.sql` script to map the Oracle Workflow directory service views to your Oracle Database users and roles. For example, use the following command:

   ```
   sqlplus owf_mgr/<passwd> @$ORACLE_HOME/wf/sql/wfdirouv.sql
   ```

   The `wfdirouv.sql` script sets each native Oracle Database user's e-mail address to the user's respective username. As a minimal setup step, you should edit the script to either link your native Oracle Database users to an existing mail directory store through the WF_ROLES view definition or, if the usernames and e-mail account names match, then simply add the domain for your organization, such as '`@oracle.com`', to the usernames in the WF_USERS view definition. Typically, the columns that you change are EMAIL_ADDRESS in WF_USERS and EMAIL_ADDRESS in WF_ROLES. For more information, see: Setting Up Oracle Workflow, *Oracle Workflow Administrator's Guide.*

5. Load the appropriate version of the WFA_SEC package, which contains Oracle Workflow security functions and procedures. To load this package, log on to SQL*Plus as the Oracle Workflow database user and run the `<ORACLE_HOME>/wf/sql/wfsecwsb.sql` script. For example, use the following command:

   ```
   sqlplus owf_mgr/<passwd> @$ORACLE_HOME/wf/sql/wfsecwsb.sql
   ```

6. Clear the following LDAP preferences in the Global Workflow Preferences page. For details, see: To Set Global User Preferences, *Oracle Workflow Administrator's Guide*.

- LDAP Host
- LDAP Port
- LDAP User Name
- LDAP Password
- LDAP Changelog Base Directory
- LDAP User Base Directory

21.2 Administration Issues and Workarounds

This section describes administration issues and their workarounds for Oracle Workflow.

21.2.1 Java-Based Workflow Notification Mailer

In Release 2.6.3, Oracle Workflow includes a Java-based notification mailer program, implemented as a service component within the Generic Service Component Framework, which communicates notifications to users via e-mail and interprets responses. Oracle Workflow provides one seeded notification mailer service component called the Workflow Notification Mailer. This program requires an outbound SMTP mail server and an inbound IMAP mail server.

The new Java-based implementation of the notification mailer replaces the C-based Notification Mailer program that was used in previous releases of Oracle Workflow. If you are upgrading an existing installation of Oracle Workflow to Release 2.6.3, note that the executable file for the C-based Notification Mailer is replaced with a stub file during the upgrade, and you can no longer run that version of the Notification Mailer. Instead, use the Oracle Workflow Manager component within the Oracle Enterprise Manager Application Server Control to run the Java-based Workflow Notification Mailer.

21.3 Documentation Errata

This section describes known errors in the documentation.

21.3.1 Database Access Descriptor

In the *Oracle Workflow Installation Notes for Oracle Content Management SDK*, the description of the Workflow Configuration Assistant states that if you choose the Install or Upgrade options, the Workflow Configuration Assistant creates a Database Access Descriptor (DAD) for Oracle Workflow in the mod_osso configuration file within your Oracle HTTP Server installation. The DAD is actually created in the `dads.conf` file within your Oracle HTTP Server installation.

21.3.2 DBMS_LDAP Package

In the *Oracle Workflow Installation Notes for Oracle Content Management SDK*, the "Oracle Workflow Server Installation" section lists "Load DBMS_LDAP package (conditionally required)" as step 4, after running the Oracle Universal Installer and the Oracle

Workflow Configuration Assistant. If you plan to integrate with Oracle Internet Directory (OID) and Oracle Application Server Single Sign-On as your Oracle Workflow directory service, this step should actually be performed as a pre-installation step. Please ensure that the DBMS_LDAP PL/SQL package is loaded in your database before you run the Oracle Universal Installer and the Oracle Workflow Configuration Assistant.

If you do run the Oracle Universal Installer and the Oracle Workflow Configuration Assistant, specifying LDAP values for OID integration, without having the DBMS_ LDAP package installed in your database, you may encounter invalid packages after the Oracle Workflow Configuration Assistant completes. In this case, load the package as described in the *Oracle Workflow Installation Notes for Oracle Content Management SDK*, and then recompile the Oracle Workflow schema. For instructions, see the *Oracle Database Supplied PL/SQL Packages and Types Reference*.

22

Oracle Application Server InterConnect

This chapter describes issues with Oracle Application Server InterConnect (OracleAS InterConnect). It features the following topic:

- Section 22.1, "General Issues and Workarounds"
- Section 22.2, "Administration Issues and Workarounds"
- Section 22.3, "Documentation Errata"

22.1 General Issues and Workarounds

This section describes general issues and their workarounds for OracleAS InterConnect. It includes the following topic:

- Section 22.1.1, "Siebel Adapter—Supported Systems"
- Section 22.1.2, "Oracle HTTP Adapter and the Internet Information Server"

22.1.1 Siebel Adapter—Supported Systems

The OracleAS InterConnect Adapter for Siebel 2000 supports 6.2.1 Enterprise Edition with patch 110 or higher. The patch is necessary to resolve a memory leak on the Siebel server when any kind of remote client is used. All instructions in the patch 110 *Maintenance Release Guide* from Siebel Systems must be followed carefully. The most important instruction that addresses the server side memory leak is the setting of the Siebel server `recyclefactor` component parameter. Set the `recyclefactor` parameter to a value greater than the default value of zero. The *Maintenance Release Guide* recommends a value of 3. This will improve server performance and memory usage. This step must be completed for all object managers in use.

22.1.2 Oracle HTTP Adapter and the Internet Information Server

Oracle supports using Microsoft Internet Information Server (IIS) with the HTTP adapter for Oracle Application Server 10g(9.0.4). This support is provided through use of the OracleAS Proxy Plugin for Microsoft IIS for inbound communications.

22.2 Administration Issues and Workarounds

This section describes administration issues and their workarounds for OracleAS InterConnect. It includes the following topic:

- Section 22.2.1, "Data Definition Description Language Enhancement"

22.2.1 Data Definition Description Language Enhancement

This section describes data definition description language enhancements. It includes the following topics:

- Section 22.2.1.1, "Integrate Transport Properties"
- Section 22.2.1.2, "Allow Multiple Imparrays"

22.2.1.1 Integrate Transport Properties

This enhancement allows the Data Definition Description Language (D3L) author to add a new type of member, property. Syntax, to a D3L structure, in addition to `fields` and `pads`. For example:

```
<struct ...
   ...
   <property name="prop_name" />
   ...
</struct>
```

> **Note:** There is no type definition associated with this structure element.

The modified D3L Data Type Definition (DTD) for this new structure element is:

```
<!ENTITY % StructElements
   "field | property | pad"
>

<!ELEMENT property EMPTY >
   <!ATTLIST property
      %FieldAttributes;
>
```

The semantics of this new structure element is to link data in a transport protocol header with the message payload. In other words, when a D3L containing a structure with one, or more, property member(s) is imported in iStudio, it will create a String `OAI` attribute with the name specified in the property `name` attribute.

At runtime, this `OAI` attribute will be populated with the value of a transport protocol header, `inbound-to-hub`, which name matches the `name` attribute of the property member. Vice versa, for outbound messages, the OracleAS InterConnect message `payload` property value will define the value of the corresponding protocol header.

For example, if using OracleAS InterConnect Adapter for FTP, the file structure would be:

```
<struct ..>
   <property name="filename" />
<field ...
```

In this case, the OracleAS InterConnect Application View attribute `filename`, that is derived from the D3L definition, would be assigned the name of the actual file being passed to D3L. For outbound message, the value will determine the physical filename being used to store the file.

If using OracleAS InterConnect Adapter for HTTP, an example file structure would be:

```
<struct ..>
   <property name="Host" />
   <property name="Referer" />
<field name="...> < ...
```

> **Note:** This is a dynamic payload dependent feature, which will override settings in the `adapter.ini` file and/or Application View Meta Data Modify Fields. Therefore, the property `ota.send.endpoint` could be overridden by a corresponding message attribute defined via the D3L.

22.2.1.2 Allow Multiple Imparrays

The D3L syntax allows you to create multiple nested imparrays for outbound translations (`app-to-native` or `hub-to-spoke`).

Intuitively it makes sense to allow multiple nested imparrays to match multiple nested arrays in XML since XML does not have the need to declare the length of an array. For example:

```
<array1>
   <array2>..</array2>
   <array2>..</array2>
</array1>
<array1>
   <array2>..</array2>
   <array2>..</array2>
<array2>..</array2>
```

If this XML message was published by OracleAS InterConnect Adapter for AQ, and consumed by OracleAS InterConnect Adapter for FTP that is running in D3L mode, the above structure would then be matched by the following D3L structure:

```
<imparray id="array1">
   <imparray id="array2">
      ..
```

Since D3L does not perform parsing for `app-to-native` translation, also known as `production`, the above D3L is entirely possible. However, for `native-to-app` translations, the above D3L would be invalid since a single imparray by itself would consume the rest of the native message.

> **Note:** This new imparray semantics depart from the design principle that D3L is a fully bidiretional symmetric translator and can perform both `native-to-app` and `app-to-native` translation using just one the same D3L definition.

Finally, the D3L translator will determine, at runtime, whether multiple nested imparrays exist in a D3L. If multiple nested imparrays are detected, the translator will prevent the D3L from being used for parsing purposes (`native-to-app` translations). If not detected, the D3L translator will flag an error condition.

22.3 Documentation Errata

This section describes known errors in the documentation. It includes the following topic:

- Section 22.3.1, "Oracle Application Server InterConnect Installation Guide"
- Section 22.3.2, "Oracle Application Server InterConnect Users Guide"
- Section 22.3.3, "Incorrect Operating System Requirement Listed in OracleAS InterConnect Guides"

22.3.1 *Oracle Application Server InterConnect Installation Guide*

Chapter 4 of the *Oracle Application Server InterConnect Installation Guide* has the following incorrect statement:

"1. Start the hub database. This is the Oracle8*i* or Oracle9*i* database."

The Oracle8*i* database cannot be used as a hub database.

22.3.2 *Oracle Application Server InterConnect Users Guide*

This section describes known errors in the Oracle Application Server InterConnect Users Guide. It includes the following topics:

- Section 22.3.2.1, "Incorrect Screen Shots"
- Section 22.3.2.2, "Incorrect User Interface Descriptions"

22.3.2.1 Incorrect Screen Shots

The screen shots shown in Chapter 9, "Runtime Management" on pages 9-3, 9-4, and Figure A-8 in Appendix A, "Integration Scenario" are incorrect.

22.3.2.2 Incorrect User Interface Descriptions

The following user interface descriptions are incorrect:

- On Page 2-10, under the **Procedure Menu** heading:
  - **Invoke** should be **Invoke Procedure**
  - **Implement** should be **Implement Procedure**
- On Page 2-12, under the **Design Navigation Tree** heading:
  - **Each object type in the Deploy Navigation tree is.....** should be **Each object type in the Design Navigation tree is.....**
- On Page 2-13, under the **Context Menus** heading, in the **Context Menu Options** table:
  - **WF Builder, Launch WF Home Page** should be **Workflow Builder, Launch Workflow Home Page**
  - **Deploy, Edit Configuration, Launch WF Home Page** should be **Deploy to Workflow, Edit Workflow Configuration, Launch Workflow Home Page**
- On page 2-13, under the **Creating a New Workspace** heading:
  - **The New Workspace Dialog displays** should be **The Create Workspace Dialog displays**.
- On page 6-12, under the **Adding Mapping Variables** heading:

- **To add mapping variables, use the Mapping dialog** should be **To add mapping variables, use the Mapping Parameter dialog**.

  ■ On page 7-12, the first sentence on the page:

  - **The Subscribe Activity Wizard displays** should be **The Subscribe Wizard displays**.

  ■ On page A-9, Step 7:

  - **Click OK** should be **Click Save**.

22.3.3 Incorrect Operating System Requirement Listed in OracleAS InterConnect Guides

The Operating System Requirements table in the OracleAS InterConnect guides list the incorrect version of IBM-AIX 5. The Oracle Application Server 10*g* (9.0.4) version of InterConnect can run on IBM-AIX 5L 5.2 or higher versions and not 5.1. The incorrect requirement is listed in the following guides:

■ *OracleAS InterConnect Installation Guide*

■ *OracleAS InterConnect Adapter for AQ Installation and User's Guide*

■ *OracleAS InterConnect Adapter for DB Installation and User's Guide*

■ *OracleAS InterConnect Adapter for MQSeries Installation and User's Guide*

■ *OracleAS InterConnect Adapter for FTP Installation and User's Guide*

■ *OracleAS InterConnect Adapter for HTTP Installation and User's Guide*

■ *OracleAS InterConnect Adapter for SMTP Installation and User's Guide*

■ *OracleAS InterConnect Adapter for OA Installation and User's Guide*

Part VIII

Management and Security Issues

This part describes issues associated with Management and Security. It contains the following chapters:

23

Oracle Internet Directory

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

- Section 23.1, "General Issues and Workarounds"

- Section 23.2, "Configuration Issues and Workarounds"

- Section 23.3, "Upgrade Issues and Pre-Upgrade Tasks"

- Section 23.4, "Administration Issues and Workarounds"

- Section 23.5, "Documentation Errata"

23.1 General Issues and Workarounds

This section describes general issues and their workarounds for Oracle Internet Directory. It includes the following topics:

- Section 23.1.1, "OIDMON Behavior when the Oracle Internet Directory Database Shuts Down or Fails"

- Section 23.1.2, "Oracle Directory Server Instances Can Listen on Both SSL-Enabled and Non-SSL-Enabled LDAP Ports"

- Section 23.1.3, "Reverting from Incomplete Bulkload Operations"

- Section 23.1.4, "Plug-in Features not Supported in a Directory Server Running Against Oracle9i Database Server Release 9.2"

- Section 23.1.5, "Modifications on ROOT DSE Fail if ref Attribute Has a Value"

- Section 23.1.6, "Rolling Back Interrupted Bulkload Operations"

23.1.1 OIDMON Behavior when the Oracle Internet Directory Database Shuts Down or Fails

OID Monitor needs information in the database to handle shutdown gracefully.

In a high availability scenario, OID Monitor does not automatically shut down if the database fails. Instead, OID Monitor tries to connect to the database repeatedly so that, when the database starts, OID Monitor can restart the Oracle Internet Directory server instances.

Consequently, OID Monitor cannot be shutdown gracefully if the database is not available. The user must force kill the OID Monitor process by using the appropriate mechanism on the given operating system.

If the database is down for a long time, then OID Monitor cannot restart the other Oracle Internet Directory server instance when the database is restarted. The user must force kill the OID Monitor process and restart it after the database is restarted.

23.1.2 Oracle Directory Server Instances Can Listen on Both SSL-Enabled and Non-SSL-Enabled LDAP Ports

Two separate instances are not required as in previous versions of Oracle Internet Directory.

23.1.3 Reverting from Incomplete Bulkload Operations

If loading fails when using bulkload.sh in bulk mode, then you can restore the directory to its original shape by using the following option:

```
bulkload.sh -connect connect_string -recover
```

However, when you do this, none of the indexes are created. To recreate indexes, use:

```
bulkload.sh -connect connect_string -index.
```

23.1.4 Plug-in Features not Supported in a Directory Server Running Against *Oracle9i* Database Server Release 9.2

In Oracle Application Server *10g* (9.0.4), the following plug-in features are not supported in the directory server running against *Oracle9i* Database Server Release 9.2:

- 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

23.1.5 Modifications on ROOT DSE Fail if ref Attribute Has a Value

If the ref (referral) attribute is set to a non-empty value in the root DSE entry, then any modification to the root DSE entry is attempted on the directory server referred to in this attribute. To make modifications to the root DSE entry on the original server where the ref attribute has a non-empty value, the managedDSA control should be passed. To pass the control, use the -M option of ldapmodify.

23.1.6 Rolling Back Interrupted Bulkload Operations

If bulkload.sh operations are interrupted, then the directory administrator can restore the directory to its original state by using the new -recover flag. If the directory is non-empty, then any indexes must be re-created after a rollback. To re-create indexes, use:

```
bulkload.sh … -index
```

23.2 Configuration Issues and Workarounds

This section describes configuration issues and their workarounds for Oracle Internet Directory. It includes the following topics:

- Section 23.2.1, "Need to Set ACL Policy on Groups Container after Upgrade from Release 9.0.2"

23.2.1 Need to Set ACL Policy on Groups Container after Upgrade from Release 9.0.2

When upgrading Oracle Internet Directory from Release 9.0.2 to Release 9.0.4, the following ACL policy needs to be set on the groups container in the realm. The ACL policy should allow members of the group `cn=Common Group Attributes,cn=groups,Oracle_Context_DN` browse, search, and read access for private and public groups—that is, for groups where `orclIsVisible` is either not set or is set to `TRUE` or `FALSE`. This ACL is described in the *Oracle Internet Directory Administrator's Guide*, in Chapter 17, in the section "Default Privileges for Reading Common Group Attributes".

The "Common Group Attributes" group is used by OracleAS Portal to query private and public groups. The ACI must to be added on the groups container. Change the *Realm DN* to the DN of the Realm and the *DN of groups container in the realm* to the appropriate group search base.

```
dn: DN of groups container in the realm
changetype: modify
add: orclaci
orclaci: access to entry filter=(!(orclisvisible=false)) by group="cn=Common Group
Attributes,cn=groups, cn=Oracle Context, Realm DN" (browse)
orclaci: access to attr=(*) filter=(!(orclisvisible=false)) by group="cn=Common
Group Attributes,cn=groups,cn=Oracle Context, Realm DN" (search, read)
orclaci: access to entry filter=(orclisvisible=false) by group="cn=Common Group
Attributes,cn=groups,cn=Oracle Context, Realm DN" (browse)
orclaci: access to attr=(*) filter=(orclisvisible=false) by group="cn=Common Group
Attributes,cn=groups, cn=Oracle Context, Realm DN" (search, read)
```

23.2.2 Oracle Internet Directory Generates Duplicate authpassword Verifiers

If the `commonUserSearchBase` attribute value in the Product Common entry of the Root Oracle Context overlaps with the values for the same attribute in the Realm Oracle Context, then duplicate authpassword verifiers are generated for users in those realms. Hence, the `commonUserSearchBase` attribute in the Common Product entry (`cn=common,cn=products,cn=OracleContext`) should not be populated.

23.2.3 During Installation, Do not Choose a DN Immediately under the Root DSE as the Default Identity Management Realm DN

During Oracle Internet Directory installation, the Oracle Installer suggests a default value for the default identity management realm. You can choose either this default value or a customized one. However, choosing a DN immediately under the root—that is, a one-level DN—causes problems in the OracleAS Single Sign-On configuration.

23.2.4 Changing Naming Contexts When Relied on for Partial Replication Is not Supported

If you are configuring partial replication from specific naming contexts in an Oracle Internet Directory node to fan-out replication nodes, then do not change the names of these naming context entries in the source node.

23.2.5 Deploying Oracle Application Server Single Sign-On Against Fan-out Replicas

After configuring partial replication from specific naming contexts in an Oracle Internet Directory node to other fan-out replication nodes, you can configure OracleAS Single Sign-On independently against any or all of these nodes. To deploy OracleAS Single Sign-On against a replication node, follow these steps:

1. Locate the database registration entry of the database on the replica node.

   ```
   $ORACLE_HOME/bin/ldapsearch -h replica host -p port -D cn=orcladmin
   -w super user password -b "cn=oraclecontext" -s one "objectclass=orcldbserver"
   dn
   ```

   This returns a list of DNs of all the databases registered in Oracle Internet Directory in the form of `cn=short database name,cn=oraclecontext`. Find the one that corresponds to the underlying database of the replica node.

2. Identify the ReplicaID of the replica node. Get the ReplicaID of the replica node from the root DSE entry at the following replica node:

   ```
   $ORACLE_HOME/bin/ldapsearch -h replica host -p port -D cn=orcladmin
   -w super user password -b "" -s base "objectclass=*" orclreplicaid
   ```

3. Modify the replication configuration DN. Create a file `repid.ldif` as follows:

   ```
   dn: orclreplicaid=ReplicaID from Step 2, cn=replication configuration
   changetype: modify
   replace: seeAlso
   seeAlso: DB registration DN from Step 1
   ```

4. Use ldapmodify to upload the LDIF file `repid.ldif` to the replica host:

   ```
   $ORACLE_HOME/bin/ldapmodify -h replica host -p port -D cn=orcladmin
   -w super user password -v -f repid.ldif
   ```

23.2.6 Refer to the File portlist.ini after Installing Oracle Internet Directory for LDAP Port Assignment

During installation of Oracle Application Server or third-party products, you are prompted for an Oracle Internet Directory or LDAP port. To find the specific port number assigned to Oracle Internet Directory at installation, see the file $ORACLE_HOME/install/portlist.ini f.

The default port for enabling LDAP at Oracle Internet Directory installation time is 389. The Oracle Installer always tries that port as its first choice. However, on many

UNIX machines, `/etc/services` includes a line for LDAP reserving port 389. With that line there, the Installer opts instead for a port number between 3060 to 3129, inclusive.

To confirm the port at which Oracle Internet Directory is running, simply run the ldapbind command-line tool, supplying either the host name and port number specified in the `portlist.ini` file or an alternative port specified during the Oracle Internet Directory installation.

23.2.7 Use the Oracle Internet Directory Self-Service Console to Change Passwords When Required by Password Policy

Oracle Internet Directory *10g* (9.0.4) enables prompting of users to change their passwords after initial login. Users must change their passwords by using the Oracle Internet Directory Self-Service Console Password Change screen. Using other mechanisms may not satisfy the password change requirement, and users may be prompted to change their password the next time they log in as well.

23.2.8 Required Attributes Cannot Be Excluded from Partial Replication

Partial replication enables you to exclude certain attributes from replication. You do this by adding those attributes to the `excludedAttributes` attribute of the `cn=NamingContext` entry. However, if you exclude required attributes, then replication fails.

Attributes that cannot be excluded are specified in the *Oracle Internet Directory Administrator's Guide*. These can include attributes not considered mandatory for user-defined object class definitions. For example, even if `cn` is an optional attribute for one or more user-defined object class definitions, it still cannot be excluded from partial replication.

23.2.9 Completely Unspecified Access Rights Result in "Access Granted"

Adding access control information for each type of directory access to the root DSE of each DIT ensures that attempts to access directory data resolve appropriately. Appropriate resolution involves either granting or denying access to the requested resource. Without such top-level policies, attempts to access resources stored in Oracle Internet Directory can result in an "Unresolved" ACI determination as documented in Chapter 14 of the *Oracle Internet Directory Administrator's Guide*. When an ACI determination is "Unresolved", Oracle Internet Directory grants access to the requested resource.

23.2.10 Instructions to Start Oracle Internet Directory in Fan-Out Installation

In an Oracle Application Server fan-out installation, which consists of Identity Management components and OracleAS Metadata Repository without any other options, perform the following steps to start Oracle Internet Directory:

1. Execute the `oidpasswd` to create wallets

2. Verify that opmn is responsive.

   ```
   > opmnctl ping
   ```

3. Change the status of the `ias-component=OID` in the `ORACLE_HOME/opmn/conf/opmn.xml` file from **disabled** to **enabled**.

4. Reload the `opmn.xml` file using the following command

```
> opmnctl reload
```

5. Start the fan-out installation of Oracle Internet Directory with the following command:

```
> opmnctl startproc ias-component=OID fan-out installation
```

23.3 Upgrade Issues and Pre-Upgrade Tasks

This describes Oracle Internet Directory upgrade issues and pre-upgrade tasks. It includes the following topics:

- Section 23.3.1, "Verify Oracle Internet Directory Password Before Upgrade"
- Section 23.3.2, "orcladmin User Must Exist in Default Realm"
- Section 23.3.3, "Purge Change Log Entries After Replica Upgrade"

23.3.1 Verify Oracle Internet Directory Password Before Upgrade

As a pre-upgrade check, verify that the Oracle Internet Directory superuser password conforms to the standard defined in the *Oracle Application Server 10g Administrator's Guide* and the *Oracle Application Server 10g Installation Guide*.

The Oracle Internet Directorydatabase schema password is set to the same value as the Oracle Internet Directory superuser password during upgrade.

If the password does not follow the defined standard, you can reset the password by completing the following steps:

1. Create an LDIF file supwd.ldif with a line break after each line entry:

   ```
   dn:

   changetype: modify

   replace: orclsupassword

   orclsupassword: <new password e.g. welcome1>
   ```

2. ```
   ORACLE_HOME\bin\ldapmodify -h <oid host> -p <non SSL port> \

   -D <OID superuser DN> -w <OID superuser password> -v -f
   supwd.ldif
   ```

23.3.2 orcladmin User Must Exist in Default Realm

If the orcladmin user does not exist in the default realm, then your Oracle Internet Directory upgrade will fail during use of the Oracle Internet Directory Upgrade assistant.

Before running the upgrade, you must check whether the orcladmin user exists by performing the following LDAP queries:

1. Obtain the default subscriber DN:

   ```
   ORACLE_HOME\bin\ldapsearch -h <oid host> -p <non-ssl port> -D <OID superuser>
   -w <OID superuser password> -b "cn=common,cn=products,cn=oraclecontext" -s base
   "objectclass=*" orcldefaultsubscriber
   ```

2. Obtain the user nickname and user search base attribute

   ```
   ORACLE_HOME\bin\ldapsearch -h <oid host> -p <non-ssl port> -D <OID superuser>
   ```

```
-w <OID  superuser password> -b
"cn=common,cn=products,cn=oraclecontext,<default subscriber DN>" -s base
"objectclass=*" orclcommonnicknameattribute orclcommonusersearchbase
```

3. Search for the `orcladmin` user

```
ORACLE_HOME\bin\ldapsearch -h <oid host> -p <non-ssl port> -D <OID superuser>
-w <OID superuser password> -b "<user search base DN>" -s sub "<user nickname
attribute>=orcladmin"
```

If the last `ldapsearch` command does not return anything, then you must create the
`orcladmin` user in the Oracle Internet Directory using the following steps:

1. Create a `ldif` file named `orcl.ldif` with the following contents:

```
dn: cn=orcladmin, <User_Search_Base>
changetype: add
uid: orcladmin
mail: orcladmin
givenName: orcladmin
cn: orcladmin
sn: orclAdmin
description: Seed administrative user for subscriber.
objectClass: top
objectClass: topobjectclass: personobjectclass:
organizationalPersonobjectClass: inetorgpersonobjectClass:
orcluserobjectClass: orcluserV2
objectclass: person
objectclass: organizationalPerson
objectClass: inetorgperson
objectClass: orcluser
objectClass: orcluserV2
```

2. Run the following command:

```
OH\bin\ldapadd h <oid host> -p <non-ssl port> -D <OID superuser> \ -w <OID
superuser password> -v f orcl.ldif
```

23.3.3 Purge Change Log Entries After Replica Upgrade

This note is applicable only to Oracle Internet Directory instances that are part of a
directory replication group (DRG).

When you upgrade replicas in a DRG from 9.0.4.0.0 or 9.0.4.1.0 to 9.0.4.2.0, changes are
made to the schema entry (`cn=subschemasubentry`) and catalogs entry
(`cn=catalog`). These changes, if replicated to other nodes in the replication group,
will fail because the same changes were already made when the other node was
upgraded.

To prevent this failure, purge these changes before they are propagated by the
replication server. Proceed as follows:

1. To identify the change logs that need to be purged, execute the following SQL as
   the ODS user:

```
select chg_no from ods.asr_chg_log where lower(target_dn) in
('cn=subschemasubentry', 'cn=catalogs') and retry_cnt = -1;
```

2. Once you have all the change log numbers, purge them using the `hiqpurge.sh`
   tool.

Do not attempt to delete those rows using the SQL DELETE command, since the ods.asr_chg_log table is in active use by database replication.

23.4 Administration Issues and Workarounds

This section describes administration issues and their workarounds for Oracle Internet Directory. It includes the following topics:

- Section 23.4.1, "Partial Replication Cannot Handle ldapmoddn Changing the Root Entry of a Naming Context"

- Section 23.4.2, "Unlocking Privileged User Accounts"

- Section 23.4.3, "Restarting Directory Replication and Directory Integration and Provisioning Server Instances in Real Application Cluster or Rack-Mounted Mode"

- Section 23.4.4, "Oracle Internet Directory Servers Can Be Started Only by the Operating System User Who Installed the Oracle Internet Directory Software"

- Section 23.4.5, "ODS Database User Password Can Be Changed Only by Using the oidpasswd Tool"

- Section 23.4.6, "Application Server Control Does Not Display Port Status Information if Oracle Directory Server is Running in SSL Mode Only"

- Section 23.4.7, "Replication Server Might Fail to Start Due to oidctl Flag Arguments"

23.4.1 Partial Replication Cannot Handle ldapmoddn Changing the Root Entry of a Naming Context

Partial replication does not support changing the root entry of a naming context by using ldapmoddn.

23.4.2 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, a realm-specific privileged 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 account password by using Oracle Directory Manager.

23.4.3 Restarting Directory Replication and Directory Integration and Provisioning Server Instances in Real Application Cluster or Rack-Mounted Mode

If the primary node running either the directory replication server (`oidrepld`), or the directory integration and provisioning server (`odisrv`), or both, fails, then the OID Monitor on the secondary node starts these processes on the secondary node after five minutes. However, when the primary node is restarted, these servers are not automatically restarted on the primary node.

Normal shutdown is not treated as a failover. If all the processes are stopped normally, then the OID Monitor running on the secondary node does *not* start these processes on the secondary node after five minutes. Moreover, as in the case of a failure, when the primary node is restarted, these servers are not automatically restarted on the primary node.

23.4.4 Oracle Internet Directory Servers Can Be Started Only by the Operating System User Who Installed the Oracle Internet Directory Software

The Oracle Internet Directory servers—that is, the directory server, the directory replication server, and the directory integration and provisioning server daemons—can be started only by the operating system user who installed the Oracle Internet Directory software.

23.4.5 ODS Database User Password Can Be Changed Only by Using the oidpasswd Tool

To change the ODS database user password, you must use the oidpasswd tool. If you change the ODS database user password by any other means, then Oracle Internet Directory instances fail to start.

23.4.6 Application Server Control Does Not Display Port Status Information if Oracle Directory Server is Running in SSL Mode Only

If one or more Oracle directory servers are running only in SSL mode, then the Application Server Control does not display the port status information for those servers.

23.4.7 Replication Server Might Fail to Start Due to oidctl Flag Arguments

OIDMON might fail to start up OIDREPLD if the last flags argument to `oidctl` is non-numeric. For example, this command line has a non-numeric value as the last flags argument to `oidctl`:

```
oidctl server=oidrepld configset=1 instance=1 connect=inst1 flags="-p 3000 -m
false" start
```

As a work around, rearrange the flags arguments so that the last value is numeric. For example:

```
oidctl server=oidrepld configset=1 instance=1 connect=inst1 flags="-m false -p
3000" start
```

23.5 Documentation Errata

This section describes errors in the documentation for Oracle Internet Directory. It includes this topics:

- Section 23.5.1, "Parameters in init$ORACLE_SID.ora Are not Loaded Automatically at Database Startup"

- Section 23.5.2, "Oracle Internet Directory Supports SSL and Non-SSL Modes on One Server Instance"

- Section 23.5.3, "Using Content Rules to Preclude Attributes Is not Supported in This Release"

- Section 23.5.4, "StopOdiServer.sh Tool Syntax"

- Section 23.5.5, "Additional Information for Configuring a Replica for Automatic Bootstrapping"

- Section 23.5.6, "Error in Table A-37 Provisioning Subscription Tool Parameters"

- Section 23.5.7, "Oracle Internet Directory Administrator's Guide Documentation Omissions"

- Section 23.5.8, "Oracle Internet Directory Application Developer's Guide Documentation Errata"

- Section 23.5.9, "Errors in Oracle Internet Directory Application Developer's Guide Chapter "Developing Oracle Internet Directory Server Plug-ins""

- Section 23.5.10, "Replication Chapter Should Refer to Appendix in Oracle Application Server 10g Administrator's Guide"

23.5.1 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.

23.5.2 Oracle Internet Directory Supports SSL and Non-SSL Modes on One Server Instance

The *Oracle Internet Directory Administrator's Guide* incorrectly states that, if you intend to support both SSL and non-SSL clients on the same host, then you must configure two distinct server instances. In release 9.0.4., Oracle Internet Directory supports both SSL and non SSL modes on one server instance.

23.5.3 Using Content Rules to Preclude Attributes Is not Supported in This Release

The *Oracle Internet Directory Administrator's Guide* incorrectly states that you can use content rules to preclude attributes from entries. This functionality is not supported in this release of Oracle Internet Directory.

23.5.4 StopOdiServer.sh Tool Syntax

The path name for the `StopOdiServer.sh` tool described in Appendix A, "Syntax for LDIF and Command-Line Tools" in the section "The StopOdiServer.sh Tool Syntax" is displayed incorrectly. The path name should be:

```
$ORACLE_HOME/ldap/odi/admin/stopodiserver.sh
```

The usage is:

```
$ORACLE_HOME/ldap/admin/stopodiserver.sh
        [ -LDAPhost LDAP_server_host ]
        [ -LDAPport LDAP_server_port ]
        [ -binddn super_user_dn (default cn=orcladmin ) ]
        [ -bindpass bind_password (default=welcome) ]
        -instance instance_number_to_stop
```

23.5.5 Additional Information for Configuring a Replica for Automatic Bootstrapping

The *Oracle Internet Directory Administrator's Guide* instructions for configuring a replica for automatic bootstrapping are missing some additional information. On page 25-25, the section "Task 3: Configure the Replica for Automatic Bootstrapping" fails to specify which replica entry's status is to be updated, and on which node it is to be updated.

The following additional information is needed:

To use the automatic bootstrap capability, set the `orclreplicastate` attribute of the consumer's replica subentry to 0 at the consumer node as follows:

1. Edit the sample file `mod.ldif` as follows:

   ```
   Dn: orclreplicaid=<consumer replica's unique replica identifier>
   cn=replication configuration
   changetype:modify
   add:orclreplicastate
   orclreplicastate: 0
   ```

2. Use `ldapmodify` to update the replica subentry `orclreplicastate` attribute as follows:

   ```
   @ ldapmodify -D "cn=orcladmin" -w administrator_password -h <host of consumer
   replica> -p <port> -f mod.ldif
   ```

23.5.6 Error in Table A-37 Provisioning Subscription Tool Parameters

In Table A-37 of *Oracle Internet Directory Administrator's Guide*, the entry for event_subscription contains errors. It should read as follows:

Table 23–1   Provisioning Subscription Tool Parameters

Name	Description	Operations	Mandatory/Optional
event_subscription	Events for which Directory Integration and Provisioning should send notification to this application. Format of this string: "[USER]GROUP]:[Domain of interest]:[DELETE | ADD| MODIFY(list of attributes separated by commas)]" Multiple values may be specified by listing the parameter multiple times each with different values. No defaults.	create/modify	Mandatory for outbound events only

23.5.7 *Oracle Internet Directory Administrator's Guide* Documentation Omissions

The following useful information was omitted from the *Oracle Internet Directory Administrator's Guide*:

- On page 25-23, in the section "Installing an LDAP-Based Replica," there is no explanation as to why you should deselect everything in the Select Configuration Options screen. The reason is that you should install and configure replication before you deploy other components.

- In the same section, after the command line for creating the wallet, there is no explanation as to why the wallet is necessary. The wallet is necessary because it contains the replication server identity that is used when connecting to Oracle Internet Directory for bootstrapping purposes.

23.5.8 *Oracle Internet Directory Application Developer's Guide* Documentation Errata

The *Oracle Internet Directory Application Developer's Guide* contains the following documentation errata:

- The sentence on page 2-13:

    "You must be connected as SYSUSER using the SQL*Plus command line tool."

    should be:

    "You must be connected as SYSDBA using the SQL*Plus command line tool."

- The sentence on page 3-11,in the section titled, "C API for User Creation":

    "Oracle Internet Directory 10*g* (9.0.4) does not support the PL/SQL API for user creation functionality."

    should be:

    "Oracle Internet Directory 10g (9.0.4) does not support the C API for user creation functionality."

23.5.9 Errors in *Oracle Internet Directory Application Developer's Guide* Chapter "Developing Oracle Internet Directory Server Plug-ins"

In Table 5-2, "Operation-Based and Attribute-Based Plug-in Procedure Signatures," the values shown in the `IN Parameters` column for some invocation contexts are incorrect. They should be changed as follows:

- The values in the `IN Parameters` column for "Before ldapadd" should be ldapcontext, DN, Entry.

- The values for "With ldapadd" should be ldapcontext, DN, Entry.

- The values for "With ldapadd but replacing the default server behavior " should be ldapcontext, DN, Entry

- The values for "After ldapadd" should be ldapcontext, Add result, DN, Entry.

All instances of "plugin" should be changed to "plug-in."

23.5.10 Replication Chapter Should Refer to Appendix in *Oracle Application Server 10g Administrator's Guide*

Users configuring LDAP-based replication, as described in Chapter 25 of *Oracle Internet Directory Administrator's Guide*, might also wish to consult "Supplementary Procedures for Configuring LDAP-Based Replicas" in *Oracle Application Server 10g Administrator's Guide*.

24

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 24.1, "General Issues and Workarounds"
- Section 24.2, "Configuration Issues and Workarounds"
- Section 24.3, "Administration Issues and Workarounds"
- Section 24.4, "Documentation Errata"

24.1 General Issues and Workarounds

This section describes general issues and their workarounds for Oracle Delegated Administration Services. It includes the following topics:

- Section 24.1.1, "Use the Oracle Internet Directory Self-Service Console to Change Passwords When Required by Password Policy"
- Section 24.1.2, "Realm Values Cannot Be Edited with Oracle Delegated Administration Services Configuration Privileges in Releases 9.0.2 and 9.0.4"
- Section 24.1.3, "Roles with No Members Are not Displayed in Role Assignment Section in Create/edit User"
- Section 24.1.4, "Group Owner Unable to Edit Groups Created in the Same Session"
- Section 24.1.5, "Restarting Oracle Internet Directory Results in DAS Session Error"

24.1.1 Use the Oracle Internet Directory Self-Service Console to Change Passwords When Required by Password Policy

Oracle Internet Directory 10*g* (9.0.4) enables prompting of users to change their passwords after initial login. Users must change their passwords by using the Oracle Internet Directory Self-Service Console Password Change screen. Using other mechanisms may not satisfy the password change requirement, and users may be prompted to change their password the next time they log in as well.

24.1.2 Realm Values Cannot Be Edited with Oracle Delegated Administration Services Configuration Privileges in Releases 9.0.2 and 9.0.4

In Releases 9.0.2 and 9.0.4 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.

24.1.3 Roles with No Members Are not Displayed in Role Assignment Section in Create/edit User

Workaround: 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
```

24.1.4 Group Owner Unable to Edit Groups Created in the Same Session

After creating a group, the owner of the group cannot edit the group in the same session. Workaround: Logout, close the browser, then login again.

24.1.5 Restarting Oracle Internet Directory Results in DAS Session Error

If you restart your Oracle Internet Directory, DAS sessions that are already logged in will return an error or will not return entries for all searches.

Do one of the following to address this issue:

- Logout of the DAS session and log back in when Oracle Internet Directory has restarted completely.

- Restart DAS when Oracle Internet Directory is restarted.

24.2 Configuration Issues and Workarounds

This section describes configuration issues and their workarounds for Oracle Delegated Administration Services. It includes the following topics:

- Section 24.2.1, "Deploying Oracle Delegated Administration Services on a Separate Host"

- Section 24.2.2, "Default Realm Administrator Lacks Necessary Configuration Privileges"

- Section 24.2.3, "Configuring Oracle Delegated Administration Services to Run Against an Oracle Internet Directory Installation Upgraded from 9.0.2 to 9.0.4"

- Section 24.2.4, "Configuring Oracle Delegated Administration Services to Reside on the OracleAS Portal Middle-Tier"

24.2.1 Deploying Oracle Delegated Administration Services on a Separate Host

To configure Oracle Delegated Administration Services in a separate Oracle Home, you perform a standalone installation of it. To do this, you select the Identity

Management installation type, and, on the Configuration Options screen, select **Delegated Administration Services**.

> **See Also:** *Oracle Application Server 10g Installation Guide* for Release 10*g* (9.0.4).

24.2.2 Default Realm Administrator Lacks Necessary Configuration Privileges

When logging in to Oracle Internet Directory Self-Service Console, the administrator of the default realm does not have the necessary privileges to create users or change DAS configuration. The workaround is:

1. In Oracle Directory Manager, navigate to: `cn=userpassword,` `cn=attributes,cn=User Configuration,cn=Attribute` `Configuration,cn=DAS,cn=Products, cn=OracleContext,DN` of the realm.

2. Select the above entry and change the value of `orcldasviewable` to `0`.

3. Choose **Apply**.

4. Restart the Oracle Internet Directory Self-Service Console.

24.2.3 Configuring Oracle Delegated Administration Services to Run Against an Oracle Internet Directory Installation Upgraded from 9.0.2 to 9.0.4

Perform the following step to make Oracle Delegated Administration Services 10*g* (9.0.4) work against an installation of Oracle Internet Directory that has been upgraded from Release 9.2 to Release 9.0.4.

Modify the ACL on the container `cn=users,`*realm DN* and `cn=groups,`*realm DN* to allow anonymous browse access.

24.2.4 Configuring Oracle Delegated Administration Services to Reside on the OracleAS Portal Middle-Tier

In some cases, creating a single domain with secjsdom.sql is not sufficient to resolve the JavaScript cross-domain scripting restrictions. In the following situations, you may need to deploy Oracle Delegated Administration Services on the OracleAS Portal middle-tier:

1. Your users are on Netscape 7 or higher versions, or on browsers that do not properly implement the option of setting a common JavaScript domain.

2. You are doing virtual hosting with hostnames that do not have a common Host domain.

3. You have subscribers using branded URLs, again without a common domain.

To avoid the issues of cross-domain scripting and browser restrictions with support of the common domain directives in JavaScript, you can install Oracle Delegated Administration Services directly on the OracleAS Portal middle-tier. Oracle Delegated Administration Services can then be used to support the lists of values that need to write values back to the OracleAS Portal forms.

24.3 Administration Issues and Workarounds

This section describes administration issues and their workarounds for Oracle Delegated Administration Services. It includes the following topics:

24.3.1 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**.

24.3.2 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, a realm-specific privileged 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.

24.3.3 Running Oracle Delegated Administration Services in One DNS Domain and OracleAS Portal in Another

If you are running Oracle Delegated Administration Services in one domain, and OracleAS Portal in another, then, in the *Oracle Application Server Portal Configuration Guide*, follow the instructions in Section 6.1.6.2, "Relationship Between OracleAS Portal and Oracle Internet Directory".

24.4 Documentation Errata

This section describes errors in the documentation for Oracle Delegated Administration Services. It includes the following topics:

- Section 24.4.1, "Online Help Incorrectly States How to Edit Identity Management Realms"

- Section 24.4.2, "Online Help for "Configure Roles" Screen Does Not Display"

24.4.1 Online Help Incorrectly States How to Edit Identity Management Realms

The online help for the Oracle Internet Directory Self-Service Console incorrectly states that, after searching for a particular realm, you can modify it by selecting it from the search results page and choosing **Proceed**. However, the search results page enables you only to view, and not to modify, the selected realm. To modify a realm configuration, select the **Configuration** tab, enter your changes, then choose **Submit**. For instructions on viewing and modifying configuration settings for a realm, see the Chapter 31, "Oracle Internet Directory Self-Service Console" in the *Oracle Internet Directory Administrator's Guide*.

24.4.2 Online Help for "Configure Roles" Screen Does Not Display

In the Oracle Internet Directory Self-Service Console, the Configure Roles page (Step 5 of the "Configure User Entry" task) has help icons at the top and bottom of the page that generate the error message "The requested topic could not be found."

25

Oracle Directory Integration and Provisioning

This chapter describes the issues associated with Oracle Directory Integration and Provisioning. It includes the following topics:

- Section 25.1, "Configuration Issues and Workarounds"
- Section 25.2, "Administration Issues and Workarounds"
- Section 25.3, "Documentation Errata"

25.1 Configuration Issues and Workarounds

This section describes configuration issues and their workarounds for Oracle Directory Integration and Provisioning. It includes the following topics:

- Section 25.1.1, "Specify Encoding in the Property File Before Using the Directory Integration and Provisioning Assistant"
- Section 25.1.2, "When a Directory Integration Profile Is Created by Using Oracle Directory Manager, ACIs Are not Set Up Correctly"
- Section 25.1.3, "Align the Location of the Default Identity Management Realm with the Third-Party Directory Domain"
- Section 25.1.4, "Directory Integration and Provisioning Server Status Post-Installation"
- Section 25.1.5, "Two Oracle Internet Directory Plug-in Features Are not Supported after Upgrade from Oracle Internet Directory Release 9.2"

25.1.1 Specify Encoding in the Property File Before Using the Directory Integration and Provisioning Assistant

You must specify the encoding used by an LDIF if the file:

- Is generated by using a utility of a third-party directory
- Contains NLS data
- Is processed on a different platform

This is because, by default, the Directory Integration and Provisioning Assistant assumes that the file is processed on the system on which it was generated.

To specify encoding, use the `odip.bootstrap.srcenc` property of the configuration property file used for bootstrapping. For more details, see the Directory Integration and Provisioning Assistant documentation in Chapter 37 of the *Oracle Internet Directory Administrator's Guide*.

25.1.2 When a Directory Integration Profile Is Created by Using Oracle Directory Manager, ACIs Are not Set Up Correctly

When a profile is created using the Create Like functionality in Oracle Directory Manager, the ACIs are not copied properly. The workaround is as follows:

Create LDIF file `profileacl.ldif`:

```
dn: orclODIPAgentName=<Profile Name>,cn=subscriber profile,cn=changelog
subscriber, cn=oracle internet directory
changetype: modify
replace: orclaci
orclaci: access to attr = (*) by group="cn=odisgroup,cn=odi,cn=oracle internet
directory" (read,write,search,compare)
orclaci: access to entry by group="cn=odisgroup,cn=odi,cn=oracle internet
directory" (browse,proxy)
```

Upload the file:

```
$ORACLE_HOME/bin/ldapmodify -h <OID host> -p <OID port> -D <OID superuser> -w <OID
superuser password> -v -f profileacl.ldif
```

25.1.3 Align the Location of the Default Identity Management Realm with the Third-Party Directory Domain

If you are installing the Oracle Identity Management infrastructure with the aim of eventually synchronizing with a third-party directory, then align the location of the default identity management realm with the third-party domain. For example, if your third-party domain is `sales.acme.com`, then locate the root of your Oracle identity management realm at `dc=sales, dc=acme, dc=com`.

If you have already installed an infrastructure, and the realm you specified is not aligned with that of the third-party directory, then you have two options depending on whether you are already using that realm:

- If you have not installed any other middle tiers against this infrastructure, then re-install the infrastructure and choose the correct default realm location. To make sure that the user and group objects are stored correctly in the DIT, see "Customizing Identity Management Realms Based on Deployment Requirements" located at `http://otn.oracle.com`.

- If you are already using the non-aligned realm, then follow the instructions in "Customizing Identity Management Realms Based on Deployment Requirements" located at `http://otn.oracle.com`.

> **See Also:** Part VII of the *Oracle Internet Directory Administrator's Guide* for fuller instructions on integrating Oracle Internet Directory and third-party directories

25.1.4 Directory Integration and Provisioning Server Status Post-Installation

Only after Oracle Internet Directory is installed along with the infrastructure does the OID configuration Assistant launch the directory integration and provisioning server. In standalone installations of Oracle Directory Integration and Provisioning, the OID Configuration Assistant simply registers the server, and does not launch it.

The restriction behind all of this is that two instances of the directory integration and provisioning server cannot have either the same instance number or the same configuration set number.

The first instance of the directory integration and provisioning server always starts by using instance number 1 and configuration set number 0. If another instance of the server is then launched from another installation, then it, too, tries to use instance number 1 and configuration set number 0. As a result, the second instance errors out because that instance number and configuration set number are already in use.

However, because the directory integration and provisioning server is registered, you can manually launch an instance of it. You do this by using the script $*ORACLE_ HOME*/bin/odisrv. When you do this, be sure that the server instance does not have the same instance number or configuration set number as any other currently running instance.

25.1.5 Two Oracle Internet Directory Plug-in Features Are not Supported after Upgrade from Oracle Internet Directory Release 9.2

In Oracle Application Server 10*g* (9.0.4), the following plug-in features are not supported in the directory server running against Oracle9*i* Database Server Release 9.2:

- 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.

25.2 Administration Issues and Workarounds

This section describes administration issues and their workarounds for Oracle Directory Integration and Provisioning. It includes the following topics:

- Section 25.2.1, "Restarting Directory Replication and Directory Integration and Provisioning Server Instances in Real Application Cluster or Rack-Mounted Mode"

- Section 25.2.2, "Using Real Application Clusters and the Directory Integration and Provisioning Service"

- Section 25.2.3, "Required User Schema in Windows-Synchronized Realms"

- Section 25.2.4, "Synchronizing Selected Types of Objects from Active Directory to Oracle Internet Directory"

- Section 25.2.5, "Password Synchronization from Oracle Internet Directory to Active Directory"

- Section 25.2.6, "Group Names with Special Characters Cannot Be Synchronized with Microsoft Active Directory"

25.2.1 Restarting Directory Replication and Directory Integration and Provisioning Server Instances in Real Application Cluster or Rack-Mounted Mode

If the primary node that is running either the directory replication server (oidrepld), or the directory integration and provisioning server (odisrv), or both, fails, then, after five minutes, the OID Monitor on the secondary node starts these processes on the secondary node. However, when the primary node is restarted, these servers are not automatically restarted on the primary node.

Normal shutdown is not treated as a failover. If all the processes are stopped normally, then the OID Monitor running on the secondary node does *not* start these processes on the secondary node after five minutes. Moreover, as in the case of a failure, when the

primary node is restarted, these servers are not automatically restarted on the primary node.

25.2.2 Using Real Application Clusters and the Directory Integration and Provisioning Service

Suppose that you have the following scenario:

- Oracle Internet Directory is configured in Real Application Clusters (RAC) mode.

- The directory integration and provisioning server is executing as part of an Oracle Directory Integration and Provisioning-only installation on another node.

- The Oracle Internet Directory node against which the directory integration and provisioning server is executing fails.

In this scenario, the directory integration and provisioning server cannot transparently switch execution to one of the other RAC-enabled Oracle Internet Directory nodes. As a result, the directory integration and provisioning server also aborts, and must be started manually by using the `$ORACLE_HOME/bin/odisrv` script.

25.2.3 Required User Schema in Windows-Synchronized Realms

In Microsoft Windows-connected deployments, users in one identity management realm may need to be able to authenticate locally—that is, to Oracle Internet Directory—while those in others realms may need to be authenticated by Microsoft Active Directory. The external authentication plug-in must be configured only for the identity management realms whose users authenticate to Microsoft Active Directory.

All users within such realms need to include the attributes defined in the object class `orclADUser`, which contains the required attributes for Windows authentication. All users created in Microsoft Active Directory and synchronized into Oracle Internet Directory have these attributes by default, because Microsoft Active Directory creates them by default. Conversely, users provisioned within such realms by Oracle Internet Directory and synchronized into Microsoft Active Directory do not by default inherit from the correct schema unless properly configured.

This can be accomplished in multiple ways:

By default, none of the preseeded users in the realm have the `orclSAMAccountName` attribute populated. You must, therefore, populate this attribute to `orcladmin` under the realm.

25.2.4 Synchronizing Selected Types of Objects from Active Directory to Oracle Internet Directory

If you are synchronizing user entries from Microsoft Active Directory to Oracle Internet Directory, and you need to synchronize only certain types of objects, then be sure to populate the connected directory search filter appropriately. For example, if you are synchronizing changes to user and group information, but not changes to computer information, then the value of this attribute must be as follows:

```
SEARCHFILTER=(|(objectclass=group)(&(objectclass=user)(!(objectclass=computer))))
```

Use Oracle Directory Manager or the Directory Integration and Provisioning Assistant to update this attribute.

25.2.5 Password Synchronization from Oracle Internet Directory to Active Directory

The Oracle directory server enables password modifications in both SSL and non-SSL mode, but Microsoft Active Directory supports them in SSL mode only. Thus, synchronization of passwords from Oracle Internet Directory to Microsoft Active Directory can happen only if the following are true:

- The Oracle directory server is executing in server authentication SSL mode

- The directory integration and provisioning server is connected to Microsoft Active Directory in that mode.

> **See Also:** Chapter 43, "Integration with the Microsoft Windows Environment" in *Oracle Internet Directory Administrator's Guide*

25.2.6 Group Names with Special Characters Cannot Be Synchronized with Microsoft Active Directory

The samaccountname attribute in Active Directory does not allow special characters. As a result, if Oracle Internet Directory is the source of truth for group names for Active Directory, and if a group name, found in its cn attribute, contains special characters, then export synchronization fails. This is because the Oracle Internet Directory cn attribute is mapped to the samaccountname attribute in Microsoft Active Directory. For user entries, a workaround exists: In the mapping configuration file, map some other attribute containing no special characters to the Microsoft Active Directory samaccountname attribute.

For groups, however, there is no mandatory attribute in the orclGroup object class other than cn available to map to samaccountname. For this reason, there can be no special characters in Oracle Internet Directory group names being exported to Microsoft Active Directory.

25.3 Documentation Errata

This section describes errors in the documentation for Oracle Directory Integration and Provisioning. It includes the following topics:

- Section 25.3.1, "Incorrect Wording About Supported Configurations for Integrating with Microsoft Active Directory".

- Section 25.3.2, "Incorrect Wording About Configuring the Default Integration Profile for Two-Way Synchronization with Microsoft Active Directory"

25.3.1 Incorrect Wording About Supported Configurations for Integrating with Microsoft Active Directory

In the *Oracle Internet Directory Administrator's Guide*, in Chapter 43, "Integration with the Microsoft Windows Environment," in the section "Supported Configurations for Integrating with Microsoft Active Directory," the following wording is incorrect: "Password synchronization. In this environment, synchronization ensures only the creation of footprints on the SunONE Directory Server." The correct wording is: "Password synchronization. In this environment, synchronization ensures only the creation of footprints on the Microsoft Active Directory."

Similarly, the following wording is incorrect: "In a deployment with SunONE Directory Server as the central repository". The correct wording is: "In a deployment with Microsoft Active Directory as the central repository."

25.3.2 Incorrect Wording About Configuring the Default Integration Profile for Two-Way Synchronization with Microsoft Active Directory

In the *Oracle Internet Directory Administrator's Guide*, in Chapter 43, "Integration with the Microsoft Windows Environment," in the section "Configuring the Default Integration Profile for Two-Way Synchronization," the following wording is incorrect: "`modifiersname != DN` of the user account with which changes are made by the export profile in SunONE".

The correct wording is: "`modifiersname != DN` of the user account with which changes are made by the export profile in Microsoft Active Directory."

26

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 26.1, "Documentation Errata"

26.1 Documentation Errata

This section describes documentation errata with the *Oracle Application Server Single Sign-On Administrator's Guide*. It includes the following topics:

- Section 26.1.1, "Oracle Application Server Single Sign-On Administrator's Guide"

26.1.1 *Oracle Application Server Single Sign-On Administrator's Guide*

In Chapter 14, "Exporting and Importing Data", in the section "Verifying That Export and Import Succeeded", the sentence:

"import operations, open `ssomig.log` and check for errors."

should be:

"After completing export and import operations, open `ssomig.log` and check for errors."

27

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 27.1, "Configuration Issues and Workarounds"

27.1 Configuration Issues and Workarounds

This section describes configuration issues and their workarounds for OracleAS Certificate Authority. It includes the following topic:

- Section 27.1.1, "Do Not Enroll an OCA Web Administrative Certificate with a DC Value"
- Section 27.1.2, "Error Message Using Netscape Browser"

27.1.1 Do Not Enroll an OCA Web Administrative Certificate with a DC Value

On `zh`, `zh_CN.GBK`, `zh_TW.BIG5`, and `ko` Solaris locales, you cannot enroll an OCA Web Administrative certificate with a DC value. To enroll a Web Administrative certificate with DC value, click **Advanced DN** on the OCA Administrative Web page and then enter a DN with a valid DC value. For example, `cn=sgtcnsun03WCN, ou=SGT, o=Oracle, c=CN, dc=oracle`.

27.1.2 Error Message Using Netscape Browser

Using Netscape 4.7x browsers with OCA, you can in some circumstances receive the following message:

`"The Security library has encountered an improperly formated DER-encoded message".`

This message indicates that when the OCA certificate was issued, the DN for the certificate included non-printable or other special characters, causing the issuer to use a special set of characters that Netscape cannot handle.

To correct this problem, re-issue the server certificate using only allowed printable characters in the DN. The following characters are allowed for the OCA certificate DN:

- lowercase and uppercase letters including the space character
- the numbers 0 through 9
- the characters **+ ' , - . / : = ?** (does not include the underscore character)

28

Oracle Enterprise Manager

This chapter describes issues with Oracle Enterprise Manager. It includes the following topics:

- Section 28.1, "General Issues and Workarounds"
- Section 28.2, "Documentation Errata"

28.1 General Issues and Workarounds

This section describes general issues and their workarounds for the Oracle Enterprise Manager Application Server Control. It includes the following topics:

- Section 28.1.1, "Using Multiple Browser Windows When Managing Multiple Application Servers on the Same Host"
- Section 28.1.2, "Oracle HTTP Server Must Be Running To Collect OC4J Metrics"
- Section 28.1.3, "Virtual Hosts Must Have at Most One IP:Port Pair"
- Section 28.1.4, "Protocol Used for OracleAS Web Cache Admin Port Must Match the Protocol for the Statistics Port"
- Section 28.1.5, "No Support for Path Information When Configuring JAZN"
- Section 28.1.6, "Lookup Error When Deploying OC4J Application"
- Section 28.1.7, "OC4J Restart Required After Adding Users on the OC4J Security Page"
- Section 28.1.8, ""SMISession has been invalidated" Error in Browser Window"
- Section 28.1.9, "NLS_LANG and LC_ALL (OS Default Locale) Must Be Defined Before Starting Management Processes"
- Section 28.1.11, "Problems Displaying XML Log Files in the Log Viewer"
- Section 28.1.12, "Problems with the Oracle Application Server 10g Application Server Control After Deinstalling Oracle Application Server 9.0.2 or 9.0.3"
- Section 28.1.13, "Performance Notes for the Application Server Control"
- Section 28.1.14, "Heap Usage Metric Incorrect on Linux and HP-UX"
- Section 28.1.15, "Oracle HTTP Server Listener Port May Be Listed Twice"
- Section 28.1.16, "Misleading Error Message When Applying Properties to an OC4J Instance within an Oracle Application Server Cluster"
- Section 28.1.17, "Unknown Oracle Home Error When Changing the Metadata Repository for an Application Server Instance"

- Section 28.1.18, "Administration Tasks Performed Via the Command Line Are Not Reflected in Application Server Control Pages"

- Section 28.1.19, "Problems When Using Internet Explorer 5.5 in SSL Mode"

- Section 28.1.20, "No Support for Changing Schema Passwords for OracleAS ProcessConnect or Oracle Workflow Components"

- Section 28.1.21, "Home Instance Disabled By Default in Infrastructure Installations"

- Section 28.1.22, "Using the Infrastructure Page for Standalone Versions of OracleAS Forms Services and OracleAS Reports Services"

- Section 28.1.23, "Errors and Limitations When Editing HTTP Server Advanced Properties in Netscape Navigator"

- Section 28.1.24, "Workaround for Redeploying WAR Applications With Enterprise Manager"

- Section 28.1.25, "Page Cannot Be Displayed Error When Linking to Web Cache Administration Pages"

- Section 28.1.26, "Deinstalling or Removing an Enterprise Manager Grid Control 10.1.0.2 Management Agent on a Computer with Oracle Application Server 10g (9.0.4)"

- Section 28.1.27, "Enable Cookies for OracleAS Web Cache Management and Functionality Monitoring in Application Server Control"

- Section 28.1.28, "Problem Viewing Performance Charts and Configuring Identity Management Using a Macintosh Browser"

- Section 28.1.29, "Problems with the Progress Page When Using a Macintosh Browser"

28.1.1 Using Multiple Browser Windows When Managing Multiple Application Servers on the Same Host

When you are making configuration changes within the **Application Server Control**, the browser keeps track of the state of your editing session. For example, the browser keeps track of the changes you make and your location within on-screen configuration wizards before you click **Finish** or **Apply**.

A problem with the browser state can occur if you have installed multiple application server instances on a single host and you open two or more browser windows to manage the OC4J instances on the host. If you switch between the windows while making configuration changes, you could experience some unpredictable behavior. For example, the browser may display a message saying that the session has expired.

To avoid this problem, start a new browser instance from the desktop and close any new windows opened from the original browser session.

If you are using Netscape 7 you will need to create a new Netscape Profile for additional browser windows.

28.1.2 Oracle HTTP Server Must Be Running To Collect OC4J Metrics

In order to collect performance metrics for the OC4J instances in an application server installation, the Oracle HTTP Server for the application server instance must be up and running. If the Oracle HTTP Server component is down, OC4J metrics will not be collected and, as a result, will not be available in the Application Server Control.

28.1.3 Virtual Hosts Must Have at Most One IP:Port Pair

The Application Server Control does not support the ability to enter multiple IP address pairs in the Virtual Host directive in the Oracle HTTP Server httpd.conf configuration file.

In other words, do not enter more than the following in the httpd.conf file when using the Application Server Control to manage your Oracle HTTP Server instance:

```
<VirtualHost 1.2.3.4:5678 >
  ...
</VirtualHost>
```

28.1.4 Protocol Used for OracleAS Web Cache Admin Port Must Match the Protocol for the Statistics Port

Oracle Application Server Web Cache provides two ports. One port is the Administration port, which is used to access the Web Cache Manager. The other port is used to gather Web Cache performance statistics.

If you change the protocol for Oracle Application Server Web Cache, you must be sure to use the same protocol for the Administration Port and the Statistics port. If the protocol for these two ports does not match, the Application Server Control may not be able to gather performance metrics and the link to the Web Cache Manager on the Web Cache target home page will not function properly.

28.1.5 No Support for Path Information When Configuring JAZN

OC4J security employs a user manager to authenticate and authorize users and groups that attempt to access a J2EE application. One of the user managers that can be used to designate the users and groups for an application is the JAZN user manager.

With the Enterprise Manager Application Server Control, you can specify that the JAZN user manager be associated with an application. Using the Deploy Application: User Manager page for Enterprise Manager, you can specify that the application use either a JAZN XML configuration or a JAZN LDAP configuration.

When you use Enterprise Manager to specify an XML-based JAZN configuration, the following line is entered into the `orion-application.xml` file:

```
<jazn provider="XML" location="./jazn-data.xml" />
```

When you use Enterprise Manager to specify an LDAP-based JAZN configuration, the following line is entered in the orion-application.xml file:

```
<jazn provider="LDAP" default-realm="sample_subrealm" />
```

Some applications may prefer to specify a JAZN configuration by providing a path to a jazn.xml file, but Enterprise Manager does NOT support this type of JAZN configuration. This type of JAZN configuration would be specified as follows in the orion-application.xml file:

```
<jazn config="jazn.xml"/>
```

If you manually specify this type of JAZN configuration in the `orion-application.xml` file, you will either NOT be able to use the Enterprise Manager OC4J Security page or you may experience problems even after apparently using the page successfully.

For more information about using user managers specifying users and groups for a J2EE application, see *Oracle Application Server Containers for J2EE Security Guide*.

28.1.6 Lookup Error When Deploying OC4J Application

When you are attempting to deploy an OC4J application using the Application Server Control, you may receive the following error:

```
Deployment failed: Nested exception
Root Cause: Lookup error: javax.naming.NoPermissionException: Not allowed to
look up java:comp/ServerAdministrator, check the namespace-access tag setting
in orion-application.xml for details;
```

This error may appear if the user manager for the OC4J default application does not include the user admin and the group administrators.

To view or define the users and groups for the default application user manager:

1. Navigate to the OC4J home page for the OC4J instance you used to deploy your application.

2. Click **Applications** to display the list of application deployed in the selected OC4J instance.

3. Click the **Default Application Name**, which appears at the top of the Applications page.

   Enterprise Manager displays the OC4J Application home page for the default application.

4. Scroll to the bottom of the page and click **Security**.

   Enterprise Manager displays the Security page, which lists the Groups and Users.

28.1.7 OC4J Restart Required After Adding Users on the OC4J Security Page

After you make changes on the OC4J Security page, you must restart the OC4J instance in order for the changes to take effect. For example, if you add the user admin user and the administrators group as described in Section 28.1.6, you must restart the OC4J instance to complete the procedure.

28.1.8 "SMISession has been invalidated" Error in Browser Window

In some cases, you may see the following error message displayed in your browser window:

```
The SMISession has been invalidated. Resolution: Please close the current
SMISession, start another one and reapply the actions
```

To resolve this issue, click the **Refresh Data** icon located to the right of the time stamp, or close and reopen the browser to start a new session. This error can be the result of multiple users performing conflicting configuration actions on a single Enterprise Manager Application Server Control at the same time.

28.1.9 NLS_LANG and LC_ALL (OS Default Locale) Must Be Defined Before Starting Management Processes

If in a non-English environment, you launch a command line tool (for example, opmnctl or emctl) to start a process, make sure the operating system default locale and the NLS_LANG settings are configured properly.

28.1.9.1 Checking the Operating System Locale

To make sure the default locale is set properly, 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
```

For the specific value in each operating system, refer to the platform-specific documentation.

28.1.9.2 Checking the NLS_LANG Setting

To check the NLS_LANG setting:

1. Make sure the NLS_LANG environment variable is set with the appropriate and compatible value with the OS default locale setting. For the specific value for the language, refer to the Globalization Support Guide of the Oracle product you are using.

2. Check to see if the NLS_LANG setting exists in following file:

    ```
    $ORACLE_HOME/opmn/conf/opmn.xml
    ```

3. If opmn.xml exists, make sure the NLS_LANG setting in the opmn.xml file is identical to the NLS_LANG environment variable.

4. 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>
    ```

28.1.10 Newly Created Virtual Host Access Log Not Available in the Log Viewer

When operations that affect the name, location, or creation of HTTP Server logs are performed (for example, if you create a new HTTP Server virtual host), the Log File Viewer may not reflect these updates. For example, the log files for the newly created virtual host may not appear in the Log Viewer.

This problem is caused because the Log File Viewer may cache information about HTTP Server log files. Press the **Refresh Data** icon on the Log File Viewer page to workaround this situation and discover the current log files.

28.1.11 Problems Displaying XML Log Files in the Log Viewer

Depending upon the version of Internet Explorer and the server platform that the application server is running on, you may not be able to display log files that are stored in XML format.

For example, if you click the name of a log file on the Log File page the Application Server Control may display an error rather than the contents of the log file.

To work around this problem, try using a different browser or browser version to display the XML log file.

28.1.12 Problems with the Oracle Application Server 10g Application Server Control After Deinstalling Oracle Application Server 9.0.2 or 9.0.3

In certain situations, deinstallation of 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 Application Server 10g directories to be overwritten with incorrect information.

The Enterprise Manager control scripts in 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 using the emctl command on UNIX or the Services control panel on Windows.

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:.

28.1.13 Performance Notes for the Application Server Control

The following performance notes can help improve the overall performance of the Oracle Enterprise Manager Application Server Control in specific usage situations.

28.1.13.1 Deployment Performance in Internet Explorer and Netscape Navigator 7.0

If you attempt to deploy an OC4J application while using Microsoft Internet Explorer or Netscape 7.0, the file upload may take an extremely long time (for example, 10 minutes for a 45MB `.ear` file as compared to 15 seconds with Netscape 7.1). This has a direct impact on the OC4J deployment wizard performance.

If you are using Netscape Navigator, upgrade to Netscape 7.1.

If you are using Internet Explorer, refer to the following Microsoft knowledge base article, which addresses this problem:

```
http://support.microsoft.com/default.aspx?scid=kb;en-us;329781
```

28.1.13.2 Problems Deploying Large OC4J Applications

When attempting to deploy a large application (greater than 50MB EAR or WAR file), the default configuration for the DCM Daemon is insufficient. Attempting to deploy such a large application will result in an Out Of Memory error.

To resolve this issue, use the Application Server Control to increase the java heap for the DCM Daemon:

1. Navigate to the Application Server home page in the Application Server Control.

2. Click **Process Management** to edit the `opmn.xml` file.

3. Locate the DCM Daemon configuration section and append the following string to the value section of the java-parameters data tag:

   `-Xmx<nnn>MB`

   For example:

   `-Xmx128M`

4. Save the file.

28.1.13.3 Agent Memory Errors

Oracle Application Server includes a version of the Oracle Management Agent that gathers monitoring data for the Application Server Control. If the Management Agent is running out of memory while collecting application server metrics, the memory available to the JVM running within the Management Agent can be increased (default is 64M).

Within the `emd.properties` file, the `agentJavaDefines` property can have the `-Xmx<nnn>M` (for example, `-Xmx128M`) qualifier appended to it to increase the amount of java heap available to the Management Agent JVM. The Management Agent must be restarted for the qualifier to be recognized.

The `emd.properties` files is located in the following directory:

```
(UNIX) $ORACLE_HOME/sysman/config/
(Windows) $ORACLE_HOME/sysman/config/
```

28.1.13.4 Additional Performance Notes

To retrieve cached metrics (metrics which are collected by default and stored in the agents memory) for pages within the Application Server Control, define the environment variable EM_OC4J_OPTS to the following before starting the Application Server Control:

```
-Doracle.sysman.refreshFlag=true
```

To disable the processing page so that the Application Server Control waits for start, stop, and other such actions, define the environment variable EM_OC4J_OPTS to the following before starting the Application Server Control:

```
-Doracle.sysman.eml.util.iAS.waitForCompletion=true
```

To increase the timeout (default is 2 seconds) for status and host related metric retrieval for non-opmn managed components on the Application Server home page, define the environment variable EM_OC4J_OPTS to the following before starting the Application Server Control:

```
-Doracle.sysman.ias.ApplicationServerObject.timeout=true
```

28.1.14 Heap Usage Metric Incorrect on Linux and HP-UX

In the Application Server Control, the value displayed for the "Heap Usage (MB)" field in the Status section of the HTTP Server home page is not accurate for HTTP Server instances running on Linux and HP-UX platforms.

28.1.15 Oracle HTTP Server Listener Port May Be Listed Twice

On the ports page of the Application Server Control, an additional Oracle HTTP Server Listener row for Oracle HTTP Server Listener with Oracle HTTP Server Diagnostic port may be listed twice. This may happen if you execute an OPMN reload operation after making changes to the `opmn.xml` file. The double port listing typically occurs when a new OC4J instance is created.

The duplicate row will go away when you restart Oracle HTTP Server.

28.1.16 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.

28.1.17 Unknown Oracle Home Error When Changing the Metadata Repository for an Application Server Instance

From the Infrastructure page in Application Server Control, you can change the Metadata Repository used by a mid tier. After changing the Metadata Repository, the following error may appear:

```
Error retrieving information of database managed cluster. Cluster Manager
initialization failure Root Cause: Unknown Oracle_Home:
"/private/iasinst/OraHome1". Resolution: Please refer to the base exception for
resolution, or call Oracle support.
```

To avoid this problem, review the check box on the last page of the Change Database Managed Cluster wizard. By default, this check box is selected for backup and recovery scenarios. However, in cases where you want to change the Metadata Repository due to reasons other than backup and recovery, you should clear the check box.

If it is too late to avoid the problem described above, then work around the error by going through the Change Database Managed Cluster wizard a second time to revert back to the original Metadata Repository. Then run the Change Database Managed Cluster wizard a third time to change the Metadata Repository to the proper database and clear the check box on the last page of the wizard.

If you perform an OracleAS Infrastructure installation, then the OC4J instance labeled 'home' will be enabled by default. However, if you perform an Oracle Application Server J2EE and Web Cache, Portal and Wireless, or Business Intelligence and Forms

installation, the OC4J instance labeled 'home' will be disabled by default. This is expected behavior.

28.1.18 Administration Tasks Performed Via the Command Line Are Not Reflected in Application Server Control Pages

If administration or configuration changes (including the dmctl command line applyarchiveto command) occur outside of the Application Server Control, changes won't be reflected until the Application Server Control cache is cleared. To clear the cache, click the Refresh Data icon, which is located to the right of the time stamp, or close and reopen the browser to start a new session.

28.1.19 Problems When Using Internet Explorer 5.5 in SSL Mode

When using the Application Server Control in SSL mode, you may get intermittent problems when using Internet Explorer 5.5.

For example, you may receive a "500 Internal Server Error" message when you attempt to deploy a J2EE application. For another example, you may receive the following error immediately after you respond to a confirmation page, such as the page that prompts you to restart the Oracle HTTP Server:

```
Error: Processing already completed
```

To correct this problem, upgrade to a newer version of Internet Explorer or refer to the Microsoft Knowledge Base Article 265369, which explains how to increase the SSL time-out value.

28.1.20 No Support for Changing Schema Passwords for OracleAS ProcessConnect or Oracle Workflow Components

For Oracle Application Server 9.0.4, the Application Server Control does not support changing the OracleAS ProcessConnect or Oracle Workflow Metadata Repository schema passwords.

28.1.21 Home Instance Disabled By Default in Infrastructure Installations

If you perform an OracleAS Infrastructure installation, then the OC4J instance labeled 'home' will be disabled by default. However, if you perform an Oracle Application Server J2EE and Web Cache, Portal and Wireless, or Business Intelligence and Forms installation, the OC4J instance labeled 'home' will be enabled by default. This is expected behavior.

28.1.22 Using the Infrastructure Page for Standalone Versions of OracleAS Forms Services and OracleAS Reports Services

If you install Oracle Forms and Reports Standalone Server 10*g*, launch Application Server Control, and then display the Infrastructure property page, you will see the following error in the Metadata Repository section of the page:

```
Error retrieving information of default metadata repository. Unable to establish
secure connection to Oracle Internet Directory Server
```

In addition, the Configure button appears in the Identity Management section of the page. Both of these Infrastructure components are not applicable to the Forms and

Reports Standalone Server 10g installation. As a result, you may disregard the error message and should not click on the Configure button.

28.1.23 Errors and Limitations When Editing HTTP Server Advanced Properties in Netscape Navigator

If you use Netscape Navigator 4.79 to apply or revert any changes to files opened from HTTP Server Advanced Server Properties page, you may receive the following error:

```
A network error occured while Netscape was receiving data
(Network Error: Connection aborted)
```

In addition, you will not be able to use the Netscape search feature to search for content within the configuration file you are editing on the Advanced Properties page.

This error does not occur if you use a supported version of Microsoft Internet Explorer.

28.1.24 Workaround for Redeploying WAR Applications With Enterprise Manager

On the OC4J Applications Page in the Application Server Control, you can deploy EAR files (applications with a file type of .ear) and deploy WAR files (web applications with a file type of .war).

To deploy a WAR file using Enterprise Manager, click Deploy War file on the OC4J Applications Page. This starts the deployment process for the WAR file.

The first time you deploy a WAR file, Enterprise Manager launches a deployment tool that automatically wraps the WAR application into a J2EE application (.ear file) before deploying it. The .ear file that Enterprise Manager creates to deploy your WAR file contains an application.xml file that describes the application modules. The .ear file is given an application name that you supply when you step through the deployment tool. After the WAR application is deployed, the name of the new application (.ear file) appears in the Deployed Applications table.

After you have deployed a WAR file using Enterprise Manager, it cannot be redeployed by selecting the application (.ear file) on the OC4J Applications Page and clicking Redeploy.

Instead, to redeploy a WAR file using Enterprise Manager, you must undeploy the application first, then deploy it again by following these steps:

1. In the Deployed Applications table on the OC4J Applications Page, select the application (.ear file) in which the WAR file was wrapped and deployed.

2. Click **Undeploy**.

3. Click **Deploy War file**. In the deployment tool, specify the same application name as you specified the first time for the application (.ear file) in which the WAR file was wrapped and deployed.

After the WAR application is deployed, the name of the web application (.ear file) appears in the Deployed Applications table.

28.1.25 Page Cannot Be Displayed Error When Linking to Web Cache Administration Pages

When you monitor Oracle Application Server Web Cache using the Application Server Control Console, you can link directly from the Web Cache pages in the Application Server Control Console to the Web Cache Manager administration pages.

However, sometimes, when using Microsoft Internet Explorer 6.0, you may get the following error when attempting to connect to the Web Cache Manager pages:

```
The page cannot be displayed
```

This error occurs after you have updated your system with one of the Microsoft Internet Explorer 6.0 security updates.

To workaround the problem:

1. When the error appears in your browser, immediately review the URL in the **Address** field of the Internet Explorer browser.

2. Remove the following text string in the URL:

```
administrator:badpassword@
```

3. Press Enter and, when prompted, enter the credentials for the Web Cache administrator account.

28.1.26 Deinstalling or Removing an Enterprise Manager Grid Control 10.1.0.2 Management Agent on a Computer with Oracle Application Server 10*g* (9.0.4)

If you installed the Enterprise Manager Grid Control 10.1.0.2 Management Agent on a computer which has one or more instances of Oracle Application Server 10*g* (Release 9.0.4), you must take certain actions to safely deinstall or remove the Management Agent.

If Oracle Application Server 10*g* was installed prior to the Management Agent, it will have been automatically discovered during the Management Agent installation and configuration phase. When you use the Grid Control Console, you should see the application server instance listed as a set of targets on the host where the Management Agent resides.

In addition, if you explicitly configured Central Management from the Application Server Control Console, or if you discovered the Oracle Application Server 10*g* instance by clicking the Add button on the Grid Control Console Application Servers subtab, you will need to follow these instructions if you want to remove the Management Agent:

1. Before removing the Management Agent, remove the Application Server 10g instance from Grid Control Console using the following steps:

   a. In the Grid Control Console, select **Targets**, then **Applications Servers**.

   b. Select the instance that you want to remove, and click **Remove**.

   c. Confirm your action, and wait for the operation to complete.

   > **Note:** You should wait for all the subtargets of the application server instance to be removed as well. You can check on the progress of this asynchronous operation by clicking **Deleted Targets** on the **Management Services** tab. Wait for all the targets pending deletion to be removed.

2. Once this operation is done for each Oracle Application Server 10*g* instance on the host, you can then remove the Management Agent.

If you have already removed the Management Agent (through deinstallation or otherwise), remove the `<AGENT_HOME>` entry from the `centralagents.lst` file

from the `<AS_HOME>/sysman/emd` directory. If the `<AGENT_HOME>` is the last entry, you can delete the `centralagents.lst` file. You must do this for each Oracle Application Server 10*g* instance. If you do not follow these steps, you may encounter errors when modifying your Oracle Application Server 10*g* configuration; for example, when creating or removing OC4J instances.

28.1.27 Enable Cookies for OracleAS Web Cache Management and Functionality Monitoring in Application Server Control

When you are using Application Server Control, you must have cookies enabled in your Web browser in order to manage and functionality monitoring of OracleAS Web Cache. For more information about enabling cookies, see the online help for your Web browser.

28.1.28 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 using the following command:

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

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. Start Application Server Control using the following command:

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

28.1.29 Problems with the Progress Page When Using a Macintosh Browser

Often, when you perform an operation with the Application Server Control, 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:** "Performance Notes for the Application Server Control" in the "Troubleshooting Application Server Control" appendix of the *Oracle Application Server 10g Administrator's Guide* for more information about using the EM_OC4J_OPTS environment variable

28.2 Documentation Errata

This section describes known errors in the documentation and online help. It includes the following topic:

- Section 28.2.1, "Incorrect Location of the setupinfo.txt File"
- Section 28.2.2, "Procedure Not Supported for Oracle Application Server 10g"

28.2.1 Incorrect Location of the setupinfo.txt File

The setupinfo.txt file contains information about the URLs and port numbers you can use to access the Application Server Control, as well as other information about the Oracle Application Server installation.

The online help topic "Displaying the Application Server Control" incorrectly identifies the location of this file after the application server installation. The correct location of the file is:

```
$ORACLE_HOME/Apache/Apache/setupinfo.txt
```

28.2.2 Procedure Not Supported for Oracle Application Server 10*g*

Section 4.1.2 of the *Oracle Application Server 10g Installation Guide*, states that you can consolidate multiple instances of Oracle Enterprise Manager on the same computer to reduce memory usage. This procedure is not supported for this release of Oracle Application Server 10*g*.