## Oracle9*i*

Database Release Notes

Release 2 (9.2.0.1.0) for Windows

May 2002

Part No. A95495-01

These *Release Notes* contain important last minute information not included in the Oracle9*i* Database documentation library. They may also contain information regarding products not on your component CD-ROM.

This document contains these topics:

- Oracle9i Preinstallation Requirements
- Installation Issues
- Upgrade Issues
- Product-Related Issues
- Documentation Accessibility

## 1 Oracle9*i* Preinstallation Requirements

Meet the requirements in this section before installing Oracle9i.

This section contains these topics:

- Obtaining Updated Documentation
- Obtaining Certified Configuration Information for Oracle Products
- Accessibility Software Recommendations
- Location of the README Files on the Component CD-ROM
- Windows 95 is not Supported



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#### 1.1 Obtaining Updated Documentation

The information in these *Release Notes* is current as of the release date for Oracle9*i*. For the most current information, refer to the online *Release Notes*, which are located at the following Web site:

http://docs.oracle.com

If you need assistance with navigating the Oracle Documentation site, refer to the following Web site:

http://docs.oracle.com/instructions.html

To download free release notes, installation documentation, white papers, or other collateral, visit the Oracle Technology Network (OTN). You must register online before using OTN; registration is free and can be done at:

http://otn.oracle.com/admin/account/membership.html

If you already have a username and password for OTN, then go directly to the documentation section of the OTN Web site at:

http://otn.oracle.com/docs/index.htm

To access the database documentation search engine directly, visit:

http://tahiti.oracle.com

## **1.2 Obtaining Certified Configuration Information for Oracle Products**

Refer also to the Certify Web pages on Oracle*MetaLink*, which provide certified configuration information for Oracle and non-Oracle products. To access Certify:

1. Register for or log in to Oracle*MetaLink* at the following Web site:

http://metalink.oracle.com

- 2. Select Product Lifecycle from the Oracle*MetaLink* navigation bar.
- 3. Select Certifications in the Product Lifecycle window navigation bar.

#### 1.3 Accessibility Software Recommendations

Our goal is to make Oracle products, services, and supporting documentation accessible to the disabled community. Oracle Server release 9.2 supports accessibility features. To make best use of these accessibility features, Oracle Corporation recommends the following software configuration:

- Windows NT 4.0 certified with Service Pack 6
- Sun Java Access Bridge 1.0.2 (included with the Oracle9*i* Server release 9.2 media)
- JAWS screen reader 3.70.87
- Microsoft Internet Explorer 5.5 or above

Additional accessibility information for Oracle products can be found at:

http://www.oracle.com/accessibility

For the latest configuration information, and for information on addressing accessibility and assistive technology issues, see the Oracle Accessibility FAQ at:

http://www.oracle.com/accessibility/faq.html

#### 1.4 Location of the README Files on the Component CD-ROM

Additional product README files are located:

- In the \doc\readmes directory of the first component CD-ROM. These README files are accessible before installation.
- In product subdirectories under the *ORACLE\_BASE\ORACLE\_HOME* directory. These README files are accessible after installation.
- In the ORACLE\_BASE\ORACLE\_HOME\relnotes directory. These README files are accessible after installation.

#### 1.5 Windows 95 is not Supported

Oracle9*i* is not supported on Windows 95. Ignore occurrences of support for Windows 95 in the Oracle9*i* Database documentation library.

## 2 Installation Issues

This section contains these topics:

- Known Installation Problem with Regsvr32 on Windows NT
- Mounting a CD-ROM on a Novell Drive
- Known Problem with ATI Display Drivers
- Installing Oracle9i on Dual Boot Systems
- Restriction with Response Files and Relative Paths
- Configuration Tools Launch Command Prompt Window
- Installing Oracle JVM with Custom Databases
- Installing Databases with Database Configuration Assistant
- Starting Multiple Oracle HTTP Server Listeners on the Same Windows NT Computer
- Dynamic SGA and Multiple Block Size is not Supported with Very Large Memory (VLM)
- Installing Oracle Workflow Builder
- Oracle Real Application Clusters PreInstallation Tasks
- SRVCTL Case Sensitive Requirements
- Oracle Real Application Clusters Custom Installation Requirement
- Oracle Real Application Clusters and Oracle Database Upgrade Assistant
- Oracle Real Application Clusters Instance Management Using Database Configuration Assistant
- Hard Disk Space Requirements

#### 2.1 Known Installation Problem with Regsvr32 on Windows NT

Installation may hang on Windows NT while registering one of the dynamic link libraries (DLLs). This hang occurs because of Microsoft's known regsvr32 problem with silent registration. This problem is with version 2.40.4514 of Microsoft's Oleaut32 DLL. The workaround is to terminate the regsvr32 process using Windows NT Task Manager. Terminating this process allows the installation to continue.

You can register the DLL later by executing the following command from the command prompt:

C:\> regsvr32 ORACLE\_BASE\ORACLE\_HOME\bin\OraOLEDB.dll

**See Also:** This Microsoft Knowledge Base article (PRB: Oleaut32 Hidden Window Blocks Apps Broadcasting Messages Q189427) at the Microsoft Product Support Services Web site. Microsoft Web site organization is subject to change. If you cannot find this URL, search for key words from the main Microsoft Web page, such as "Q189427" and "Oleaut32".

http://support.microsoft.com/default.aspx?sc id=kb;EN-US;q189427

#### 2.2 Mounting a CD-ROM on a Novell Drive

When mounting a CD-ROM on a Novell drive to a Windows NT client and running Oracle Universal Installer, the following error may appear:

The Java Runtime Environment was not found at location hence the Oracle Universal Installer cannot be run.

Because the Novell server does not support long filenames by default, the directory path for JRE\_LOCATION is not recognized (some of the directory names have more than eight characters). Therefore, this configuration is not supported. Try mounting the CD-ROM locally or on a Windows NT Server. When you still want to use the Novell server as a CD-ROM file server, you need to install the OS/2 Namespace Extension to activate long filename support for NetWare.

**Note:** Due to speed and reliability considerations, installing over a network is not recommended.

#### 2.3 Known Problem with ATI Display Drivers

On systems with a combination of Windows NT 4.0 Service Pack 5.0 and an ATI display driver, a memory dump occurs when the Oracle Universal Installer window is moved around the screen. Selecting a smaller display for the screen can reduce the frequency of this occurrence. This problem is a display driver conflict and no Windows NT patch is available at this time.

### 2.4 Installing Oracle9i on Dual Boot Systems

When installing Oracle9*i* on dual boot systems, the software uses the same physical space on both operating systems. Therefore, any tasks done on one operating system are also done on the other operating system, including deinstallation.

This situation can be avoided by performing the following steps:

- 1. Install Oracle9*i* into the first operating system.
- 2. Before installing in the second environment, provide a different location than the default when Oracle Universal Installer prompts you on where to create the Oracle Universal Installer inventory. The second environment inventory is independent of the first, and products can be installed or deinstalled separately on both operating systems.

### 2.5 Restriction with Response Files and Relative Paths

For installations using a response file, the path to the response file must be the full path on the computer. Oracle Universal Installer does not properly handle relative paths.

## 2.6 Configuration Tools Launch Command Prompt Window

Due to a Sun JRE bug, a command prompt window appears whenever a configuration tool is launched. Leave this window open until the configuration tool finishes. Closing the window kills the process and causes the configuration tool to fail.

## 2.7 Installing Oracle JVM with Custom Databases

When you use Database Configuration Assistant to create a custom database that includes Oracle JVM (OJVM), be aware that it can take over an hour to finish loading OJVM into the database, depending on your computer's hardware configuration.

### 2.8 Installing Databases with Database Configuration Assistant

If you use Database Configuration Assistant to create a database, be aware that you are required to change the SYS and SYSTEM passwords at the end of the configuration process. This is a new security procedure designed to protect access to your data.

# 2.9 Starting Multiple Oracle HTTP Server Listeners on the Same Windows NT Computer

The mod\_plsql component in Oracle HTTP Server depends on the environment variable WV\_GATEWAY\_CFG. Since there can only be one value for this variable in the system, it is not possible to start multiple Oracle HTTP Server listeners using the Services dialog box of the Control Panel. This limitation can be overcome by starting one of the Oracle HTTP Server listener's from the Services dialog box of the Control Panel and the remaining ones using the command prompt after setting WV\_GATEWAY\_CFG appropriately.

For example, assume that you have two Oracle HTTP Server instances installed. Listener1 is installed under c:\oracle\home1 and Listener2 is installed under c:\oracle\home2. Start both listeners as follows.

- 1. Start Listener1 from the Control Panel.
  - a. Find out which Oracle HTTP Server listener is currently configured to run by using the Services dialog box from the Control Panel and looking at the current setting for WV\_GATEWAY\_CFG. For example, if WV\_GATEWAY\_CFG is set to c:\oracle\homel\Apache\ modplsql\cfg\wdbsvr.app, then Listener1 is the one that can be started from the Control Panel.
- 2. Identify subsequent listeners using shell scripts.
  - **a.** Create a shell script called <code>apache\_start.cmd</code> with the following commands:

```
set WV_GATEWAY CFG=c:\oracle\home2\Apache\modplsql\cfg\
wdbsvr.app
c:\oracle\home2\Apache\Apache -k start
```

**b.** Create a shell script called apache\_stop.cmd with the following commands:

```
set WV_GATEWAY_CFG=c:\oracle\home2\Apache\modplsql\cfg\
wdbsvr.app
c:\oracle\home2\Apache\Apache -k shutdown
```

- 3. Start Listener2 by running the script apache\_start.cmd from the command prompt.
- 4. Stop Listener2 by running the script apache\_stop.cmd from the command prompt.

# 2.10 Dynamic SGA and Multiple Block Size is not Supported with Very Large Memory (VLM)

The Note in Oracle9i Database Getting Started for Windows, chapter 4, section "Oracle9i Scalability on Windows", sub section "Support for Very Large Memory (VLM) Configurations" after step 4 "Initialization parameters DB\_ BLOCK\_BUFFERS and DB\_BLOCK\_SIZE must be set to values you have chosen for Oracle9i database", should be as follows: **Note:** The total number of bytes of database buffers (that is, DB\_BLOCK\_BUFFERS multiplied by DB\_BLOCK\_SIZE) is no longer limited to 3 GB.

Dynamic System Global Area (SGA) and multiple block size are not supported with VLM. When VLM is enabled, the following new buffer cache parameters are not supported.

- DB\_CACHE\_SIZE
- DB\_2K\_CACHE\_SIZE
- DB\_4K\_CACHE\_SIZE
- DB\_8K\_CACHE\_SIZE
- DB\_16K\_CACHE\_SIZE
- DB\_32K\_CACHE\_SIZE

To select the block size for the instance, use the initialization parameter DB\_BLOCK\_SIZE. The buffer cache size is set by the initialization parameter DB\_BLOCK\_BUFFERS.

#### 2.11 Installing Oracle Workflow Builder

(Oracle bug identification number 2255993). Oracle Workflow provides versions of the following Windows files as part of the installation for Oracle Workflow Builder:

- VB40032.DLL
- regsvr32.exe

When you install Oracle Workflow Builder, Oracle Universal Installer checks whether there are already existing versions of these files in the Windows system directory.

- If the files do not exist, Oracle Universal Installer copies the files provided by Oracle Workflow to the Windows system directory.
- If the files exist but are of a lower version, Oracle Universal Installer overwrites the existing files in the Windows system directory with the higher versions provided by Oracle Workflow.
- If the files exist and are of the same version or a higher version than the files provided by Oracle Workflow, Oracle Universal Installer does not copy the lower versions to the Windows system directory. Instead, Oracle Workflow Builder uses the existing files.

## 2.12 Oracle Real Application Clusters PreInstallation Tasks

If you plan to use Oracle supplied operating system dependent (OSD) clusterware, then you must install Oracle9*i* release 2 (9.2) OSD clusterware on all nodes of the cluster on which you plan to run an Oracle9*i* release 2 (9.2) cluster database instance. This is the case even if you had installed Oracle9*i* release 1 (9.0.1) OSD clusterware on these nodes. Use Oracle Cluster Setup Wizard to install this OSD clusterware.

For accessibility requirements, Oracle Cluster Setup Wizard requires JAWS 4.0.2 as the minimum configuration.

#### 2.13 SRVCTL Case Sensitive Requirements

(Oracle bug identification number 2279588).

Problem: When you try to retrieve the configuration information for a cluster database from the SRVM configuration repository using SRVCTL, it expects that database name argument be the same case as that in the SRVM configuration repository.

Use this workaround:

- 1. When creating a cluster database using Database Configuration Assistant, enter the global database name in lowercase in the Database Name page.
- 2. When manually creating configuration information for a cluster database using SRVCTL, provide the database name and instance names arguments in lowercase.

# 2.14 Oracle Real Application Clusters Custom Installation Requirement

If you plan to create an Oracle Enterprise Manager repository in an existing database, and plan to use the DRSYS tablespace for the repository, ensure that the DRSYS tablespace raw partition data file has an additional 50 MB of free space. This is in addition to the 250 MB size documented for this raw partition.

# 2.15 Oracle Real Application Clusters and Oracle Database Upgrade Assistant

If you use Oracle Database Upgrade Assistant to upgrade an earlier Oracle database version (the source database) to Oracle9*i* release 2 (9.2) (the target database), then the target database will always use the server parameter file SPFILE by default to store init.ora file parameters.

If the source database also uses SPFILE (either a cluster file system file or a shared raw partition), then the target database also uses the same SPFILE.

If the source database does not use an SPFILE, then the target database uses a default server parameter file, spfile.ora, which is located in the <code>%ORACLE\_HOME%\database directory</code>.

If your platform does not support a cluster file system, you must move the SPFILE to a shared raw partition, using the following procedure:

**1.** Create an SPFILE with the following commands:

```
C:\ sqlplus "/ as sysdba"
SQL> create pfile='?\database\initdbname.ora' from spfile='?\
database\spfile.ora';
SQL> create spfile='\\.\dbname_spfile' from pfile='?\database\
initdbname.ora';
SOL> exit;
```

where *dbname* is the name of your database.

2. Create an <code>%ORACLE\_HOME%\database\initsid.ora</code> file, where sid is the system identifier of the instance on the node. The <code>initsid.ora</code> file must contain the following line:

SPFILE='\\.\dbname\_spfile'

**3.** Copy the initsid.ora file to the remote nodes on which the cluster database has instances, where *sid* in the original file name corresponds to the system identifier of the local node instance and *sid* in the target file name corresponds to system identifier of the instance on the remote node.

For example,

```
C:\ database> copy initoradb1.ora \\node2\c$\oracle\ora9i\database\ initoradb2.ora
```

4. Restart the cluster database with the following command syntax:

```
C:\ srvctl stop database -d dbname
C:\ srvctl start database -d dbname
```

#### 2.16 Oracle Real Application Clusters Instance Management Using Database Configuration Assistant

After you have created a cluster database using Database Configuration Assistant, SYSDBA privileges are automatically revoked for all users. You must grant SYSDBA privileges explicitly to the database user account that you plan to use for adding or deleting an instance to or from the cluster database. For example, to grant SYSDBA privileges to the administrative user SYS, issue the following commands:

```
C:\ sqlplus "/ as sysdba"
SQL> grant sysdba to sys;
SQL> exit;
```

#### 2.17 Hard Disk Space Requirements

The space requirements listed on the Available Products window of Oracle Universal Installer apply to installations that include a database. If you select the Software Only configuration type, then 2 GB is required.

## 3 Upgrade Issues

#### 3.1 Restriction Upgrading a Release 7.3.4 Database

(Oracle bug identification number 1817913). Because CONNECT INTERNAL is no longer supported in Oracle9*i*, operating system authentication must be used for SYSDBA authorization to upgrade an Oracle7 release 7.3.4 database.

## 4 Product-Related Issues

This section contains these topics:

- Pro\*C/C++
- Pro\*COBOL
- Java Developer's Kit Versions
- Oracle Performance Monitor for Windows NT
- Oracle Services for Microsoft Transaction Server Support for .NET
- Oracle Real Application Clusters and Shared Servers
- Oracle Universal Installer Restriction on 16-bit Colors
- JRE Focus Bug with Oracle Universal Installer
- Oracle Internet Directory
- Character Sets
- Object Type Translator (OTT)
- Oracle9i Network, Directory, and Security Issues

#### 4.1 Pro\*C/C++

Oracle Corporation supports NATIVE PL/SQL compilation using the Microsoft Visual Studio 6.0 C compiler, the LD link-editor, and the GMAKE make utility.

### 4.2 Pro\*COBOL

When a procob application is run, which is not linked using the /litlink option, the following error may occur at runtime:

```
Load error: file 'ORASQL8'
```

The solution is to copy orasql9.dll to orasql8.dll in the same directory where orasql9.dll exists.

### 4.3 Java Developer's Kit Versions

Different Java Developer's Kit versions are used on Windows 2000 and Windows XP. Review individual product readmes for detailed information.

## 4.4 Oracle Performance Monitor for Windows NT

Before using Oracle Performance Monitor for Windows NT to view Oracle-specific counters, you must specify the SYSTEM password using operfcfg.exe located in the ORACLE\_HOME\bin directory.

To set the SYSTEM password, enter the following command:

```
C:\> operfcfg.exe -U SYSTEM -P password [-D database_name]
```

Alternatively, if you have Oracle Administration Assistant for Windows NT, then select Properties from the popup menu. After entering the password for SYSTEM, click the Apply button, and then OK button.

> **See Also:** Oracle9i Database Getting Started for Windows and Oracle9i Database Administrator's Guide for Windows for additional information about Oracle Performance Monitor for Windows NT

## 4.5 Oracle Services for Microsoft Transaction Server Support for .NET

Oracle Services for Microsoft Transaction Server supports .NET transactional applications with OLE DB .NET through the Oracle Provider for OLE DB and ODBC .NET through the Oracle ODBC driver.

### 4.6 Oracle Real Application Clusters and Shared Servers

(Oracle bug identification number 605297). If the value of the parameter MAX\_SHARED\_SERVERS is smaller than the value of TRANSACTIONS, then Real Application Clusters may hang.

If you are using shared server configurations on Real Application Clusters, then set TRANSACTION to a value smaller than MAX\_SHARED\_SERVERS to avoid this bug.

### 4.7 Oracle Universal Installer Restriction on 16-bit Colors

(Oracle bug identification numbers 2244347 and 2244356). For Java versions later than Java 1.1.*n*, whenever a monitor component has 16 colors, Oracle Universal installer 2.2.0.1.0 fails to come up. This is because monitors with 16 colors are not supported by Sun in JDK versions later than Java 1.1.*n* 

### 4.8 JRE Focus Bug with Oracle Universal Installer

Due to a Sun JRE bug, keyboard navigation may not work when two consecutive modal dialogs are displayed by Oracle Universal Installer. This happens in the following two locations:

- 1. The Product Launch Dialog which is displayed after the user clicks on the Exit button from the End of Installation wizard page.
- **2.** The popup alert dialog that displays when the user enters an incorrect directory location for the target Oracle home in the File Locations wizard page.

To interact with these dialogs, the user must either use the mouse instead of the keyboard or switch to another application, then switch back to Oracle Universal Installer.

#### 4.9 Oracle Internet Directory

This section contains these topics:

- Starting Oracle Internet Directory Server
- Upgrade from a Previous Release of Oracle Internet Directory
- Upgrade from Oracle9i Enterprise Edition Release (1) 9.0.1 or 8.1.7
- Oracle Internet Directory Release 2 (9.2) Global Database Name and Oracle SID
- Reset Oracle Internet Directory Service Owner Before Starting Directory
   Integration Server
- Starting the Oracle Internet Directory LDAP Server in SSL Mode 2

• Installing Oracle Internet Directory on Top of an Existing Oracle Enterprise Edition Home

#### 4.9.1 Starting Oracle Internet Directory Server

By default Oracle Internet Directory server is started on port 389. If this port is unavailable, Oracle Internet Directory server starts on a different port that is logged in file the *ORACLE\_HOME/ldap/install/oidca.out*.

#### 4.9.2 Upgrade from a Previous Release of Oracle Internet Directory

Oracle Internet Directory upgrade is supported from Oracle Internet Directory release 2.1.1.*x* and 3.0.1.*x*. If the Oracle home where you intend to perform the upgrade of Oracle Internet Directory also contains a complete Enterprise Edition installation, then you must perform the Oracle Internet Directory upgrade before the Enterprise Edition upgrade.

#### 4.9.3 Upgrade from Oracle9*i* Enterprise Edition Release (1) 9.0.1 or 8.1.7

If the Oracle home where you intend to perform the upgrade of Oracle Internet Directory also contains a complete Enterprise Edition installation, then you must perform the Oracle Internet Directory upgrade before the Enterprise Edition upgrade.

## 4.9.4 Oracle Internet Directory Release 2 (9.2) Global Database Name and Oracle SID

When performing Oracle Internet Directory installation through the Custom installation type, do not change the global database name or the Oracle system identifier (SID) when prompted by Database Configuration Assistant.

Installing Oracle Internet Directory release 9.2 using the Custom installation type launches Database Configuration Assistant during the installation sequence. Because you have already entered this information, do not change either the Global Database Name or the Oracle SID from within Database Configuration Assistant.

> **See Also:** Oracle Internet Directory README located in the \doc\ readmes directory of the first component CD-ROM for more information on Oracle Internet Directory utilities, and necessary pre-upgrade and post-upgrade tasks

## 4.9.5 Reset Oracle Internet Directory Service Owner Before Starting Directory Integration Server

To run the Directory Integration Server on Windows NT:

- 1. Configure a user with logon Service privileges.
  - **a.** Choose Start > Settings > Control Panel.
  - **b.** Choose Services.
  - c. Double-click OracleDirectoryService\_%SID%.

The Services dialog box appears.

- **d.** In the Logon as section, select this account. Specify the loginid and password
- e. Choose OK.
- f. Stop the service.
- g. Start the service again.
- 2. Register the Directory Integration Server, by running odisrvreg.
- 3. Start the Directory Integration Server using oidctl.

#### 4.9.6 Starting the Oracle Internet Directory LDAP Server in SSL Mode 2

- 1. Configure a user with logon Service privileges.
  - **a.** Choose Start > Settings > Control Panel.
  - **b.** Click Services.
  - c. Double-click OracleDirectoryService\_%SID%.

The Services dialog box appears.

- **d.** In the Logon as section, select this account. Specify the loginid and password
- e. Choose OK.
- **f.** Stop the service.
- **g.** Start the service again.
- 2. Start the LDAP server in SSL mode using oidctl.

## 4.9.7 Installing Oracle Internet Directory on Top of an Existing Oracle Enterprise Edition Home

When installing Oracle Internet Directory in an Oracle home where the Oracle Enterprise Edition for Oracle9i release 2 (9.2) is already installed, the option to create a new database for Oracle Internet Directory does not work. You must create a database prior to the Oracle Internet Directory installation. After the database has been created, use this database for your Oracle Internet Directory installation by choosing the option to use an existing database and specifying the appropriate database SID.

#### 4.10 Character Sets

#### 4.10.1 Accessing Object Types and Collections through JDBC

The Oracle JDBC class files, classes12.zip and classes111.zip, provide character set support for the thin and Oracle Call Interface (OCI) drivers. The files contain all the necessary classes to provide complete character set support for all Oracle character sets for CHAR and NCHAR datatypes not retrieved or inserted as part of an Oracle object or collection type. See "Oracle Character Datatypes Support" of *Oracle9i JDBC Developer's Guide and Reference* for a description of CHAR and NCHAR datatypes.

However, in the case of the CHAR and VARCHAR data portion of Oracle objects and collections, the thin and OCI drivers require nls\_ charset12.zip for JDK 1.2.x and 1.3.x or nls\_charset11.zip for JDK 1.1.x for most Oracle character sets (except US7ASCII, WE8DEC, WE8ISO8859P1, and UTF8). These two nls\_charset\*.zip files are included in the Oracle JDBC driver installation. To obtain this support, you must add the appropriate nls\_charset\*.zip file to your CLASSPATH or the logical equivalent, depending on the application.

**Note:** For most languages (including English and other Western European languages), the default character set on Windows is not US7ASCII, WE8DEC, WE8ISO8859P1, or UTF8. Therefore, nls\_charset\*.zip file is necessary on Windows for most languages.

**See Also:** Oracle9i JDBC Developer's Guide and Reference for more information on this topic

### 4.11 Object Type Translator (OTT)

(Oracle bug identification number 1892470). If you are trying to start Object Type Translator (OTT) from the command prompt and do not receive any output, make sure that the CLASSPATH includes the following:

```
Java_installation\jdk1.3.1\lib\dt.jar;
Java_installation\jdk1.3.1\lib\tools.jar;%CLASSPATH%;
```

The following requirements are also necessary to start OTT from the command prompt:

• A JDK 1.3.1-compatible Java compiler (assumed to be javac) and the Java interpreter (assumed java) must be correctly installed.

- PATH must point to Java\_installation\jdk1.3.1\bin before \ bin.
- The location of the ocijdbc9.lib must be pointed to by the LIB environment variable. The location of ocijdbc9.lib is %ORACLE\_HOME%\lib.

#### 4.12 Oracle9i Network, Directory, and Security Issues

This section contains these topics:

- Windows Native Authentication
- Active Directory
- Oracle Administration Assistant for Windows NT
- Modifying Configuration of External Procedures for Higher Security

#### 4.12.1 Windows Native Authentication

Current user database links are not supported with Windows Native Authentication.

#### 4.12.2 Active Directory

#### 4.12.2.1 Set Read Permissions on the OracleDBSecurity Object

On Windows NT and Windows 2000, the Oracle database service runs in the security context of the LocalSystem or a specific local or domain user. When using Active Directory, if the database service runs in the security context of LocalSystem, manually add the computer name in which the database service is running to the access control entries on the OracleDBSecurity container object. Set read permissions on the OracleDBSecurity container object.

For example, if the database service <code>OracleServiceORCL</code> is running in the security context of LocalSystem in the computer <code>MYPC1</code>, then add <code>MYPC1</code> to the access control entries on the OracleDBSecurity container object with READ permissions on the OracleDBSecurity object.

#### 4.12.2.2 Upgrading Oracle Schema and Oracle Context in Active Directory

(Oracle bug identification number 1993113) Oracle Net Configuration Assistant fails while upgrading the Oracle8*i* release of Oracle Schema and Oracle Context in Active Directory. The Oracle Schema and Oracle Context in Active Directory can be upgraded manually for Active Directory as follows:

1. Copy and paste the following lines into a file. Be sure to include a blank line after each of the three code segments that end with orclProductVersion: 90000 or orclVersion: 90000.

dn: cn=BASE,cn=OracleSchemaVersion,cn=configuration,AD\_Domain\_DN
changetype: add
objectclass: orclSchemaVersion
cn: BASE
orclProductVersion: 90000

dn: cn=NET,cn=OracleSchemaVersion,cn=configuration,AD\_Domain\_DN
changetype: modify
replace: orclProductVersion
orclProductVersion: 90000

dn: cn=RDBMS,cn=OracleSchemaVersion,cn=configuration,AD\_Domain\_DN
changetype: modify
replace: orclProductVersion
orclProductVersion: 90000

dn: cn=OracleContext,AD\_Domain\_DN
changetype: modify
replace: orclVersion
orclVersion: 90000

2. Replace AD\_Domain\_DN in four locations with the Distinguished Name (DN) of the Active Directory domain for your Active Directory server. For example:

dc=acme,dc=com

**3.** Execute the following command from the command prompt:

C:\> ldapmodify -Z -h AD\_Host\_Name -f filename

where:

AD\_Host\_Name is the host name of the Windows 2000 Domain Controller where your Active Directory is located and filename is the name of the file you created in steps 1 and 2.

**Note:** The –*z* option must be uppercase.

4. Rerun Oracle Net Configuration Assistant.

#### 4.12.3 Oracle Administration Assistant for Windows NT

(Oracle bug identification number 993548). When operating system native authentication is not enabled for the database, users are unable to view the database thread information using Oracle Administration Assistant for Windows NT. If this is the case, and users want to view the database thread information using Oracle Administration Assistant for Windows NT, they must run a utility called ocfgutil.exe with the arguments *username* and *password*. This utility stores the username and password in the registry location \\HKEY\_LOCAL\_MACHINE\SYSTEM\ CurrentControlSet\Services\OracleOraConfig, which is read by the Oracle Remote Configuration Agent to log in to the database.

## 4.12.4 Modifying Configuration of External Procedures for Higher Security

This section supplements generic information provided in *Oracle9i Net Services Administrators's Guide* to configure a listener on Windows operating systems to exclusively handle external procedures.

> **See Also:** Chapter 15, "Enabling Advanced Features for Oracle Net Services," in *Oracle9i Net Services Administrators's Guide* for more information on configuring Oracle Net Services for external procedures

For a higher level of security, you are instructed in *Oracle9i Net Services Administrators's Guide* to start the listener for external procedures from a user account with lower privileges than the oracle user. For Windows operating systems, this requires that you change the user account from LocalSystem to a local, unprivileged user for the OracleHOME\_ NAMETNSListenerextproc\_listener\_name service.

**Note:** The following instructions assume that steps 1 through 5 in the section "Modifying Configuration of External Procedures for Higher Security" in Chapter 15 in *Oracle9i Net Services Administrators's Guide* have been performed.

To change the listener account:

1. Create a new user account and grant it Log on as a Service privilege.

**Note:** Ensure that this user account does not have general access to files owned by Oracle. Specifically, this user should not have permission to read or write to database files or to the Oracle server address space. In addition, this user should have read access to the <code>listener.ora</code> file, but must not have write access to it.

- To create a user account and grant this privilege on Windows 2000 and Windows XP, run the Local Security Settings applet from Start > Programs > Administrative Tools > Local Security Policy.
- To create a user account and grant this privilege on Windows NT, run User Manager from Start > Programs > Administrative Tools > User Manager.
- **2.** Open the Services Applet.

- On Windows NT, choose Start > Settings > Control Panel > Services.
- On Windows 2000, choose Start > Settings > Control Panel > Administrative Tools > Services.
- On Windows XP, choose Start > Control Panel > Administrative Tools > Services.
- 3. Stop the OracleHOME\_NAMETNSListenerextproc\_listener\_ name service by selecting Stop.

**Note:** If the OracleHOME\_NAMETNSListenerextproc\_ listener\_name service does not exist, issue the following command from the command prompt:

lsnrctl start extproc\_listener\_name

This creates the OracleHOME\_ NAMETNSListenerextproc\_listener\_name service. When you return to the list of services, stop this service before proceeding to the next step of this procedure.

- **4.** Select the OracleHOME\_NAMETNSListenerextproc\_listener\_ name service and then display the properties of the service.
  - On Windows 2000 and Windows XP, right-click and select Properties.
  - On Windows NT, choose the Startup button.
- 5. Select This Account and enter the username and password.
- **6.** Start the listener by selecting Start. You must start the listener in this way because you cannot use the Listener Control utility to start the listener running as an unprivileged local user.

**Note:** You can also use NET START OracleHOME\_ NAMETNSListenerextproc\_listener\_name to start the listener from the command prompt. Running the listener with lower privileges prevents you from using Listener Control utility SET commands to alter the configuration of this listener in the listener.ora file. You can perform other administrative tasks on this listener with the Listener Control utility, including stopping the listener. Oracle Corporation recommends that you complete listener.ora file configuration prior to running the listener.

## **5** Documentation Accessibility

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#### 5.0.5 Accessibility of Code Examples in Documentation

JAWS, a Windows screen reader, may not always correctly read the code examples in this document. The conventions for writing code require that closing braces should appear on an otherwise empty line; however, JAWS may not always read a line of text that consists solely of a bracket or brace.

#### 5.0.6 Accessibility of Links to External Web Sites in Documentation

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