

Oracle® Database

Release Notes

10g Release 2 (10.2) for Linux Itanium

B15673-07

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This document contains important information that was not included in the platform-specific or product-specific documentation for this release. This document supplements *Oracle Database Readme* and may be updated after it is released.

To check for updates to this document and to view other Oracle documentation, refer to the Documentation section on the Oracle Technology Network (OTN) Web site:

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

For additional information about this release, refer to the readme files located in the `$ORACLE_HOME/relnotes` directory.

This document contains the following topics:

- [Certification Information](#)
- [Unsupported Products](#)
- [Preinstallation Requirements](#)
- [Installation, Configuration, and Upgrade Issues](#)
- [Other Known Issues](#)
- [Documentation Corrections and Additions](#)
- [Documentation Accessibility](#)

1 Certification Information

The latest certification information for Oracle Database 10g release 2 (10.2) is available on *OracleMetalink* at:

<http://metalink.oracle.com>

Pro*Cobol Certification

Pro*Cobol with Micro Focus Server Express 4.0 SP2 is supported on Red Hat Linux 4.0. However, to work with Pro*Cobol, install the 5037378 patch.

2 Unsupported Products

The following products are not supported with Oracle Database 10g release 2 (10.2):

- Grid Control Support

Oracle Database 10g release 2 (10.2) can be managed as a target by Grid Control 10.1.0.4. However, Oracle Database 10g release 2 is not supported by Grid Control 10.1.0.4 as a repository.

3 Preinstallation Requirements

You must review the following sections before installing Oracle Database 10g release 2:

- [libaio Before Installing or Upgrading](#)
- [oracleasm-support to use ASMLib](#)
- [Oracle HTTP Server on Red Hat Enterprise Linux 4.0](#)

3.1 libaio Before Installing or Upgrading

Before upgrading to or installing Oracle Database 10g release 2, install the `libaio` package.

3.2 oracleasm-support to use ASMLib

Install `oracleasm-support` package version 2.0.0.1 or higher to use ASMLib on Red Hat Enterprise Linux 4.0 Advanced Server or SUSE Linux Enterprise Server 9.

3.3 Oracle HTTP Server on Red Hat Enterprise Linux 4.0

If you intend to use Oracle HTTP server, which is included in Companion CD of Oracle Database 10g Release 2 (10.2) Media pack, refer to the *MetaLink* note 317085.1 for more information on using Oracle HTTP server on Red Hat Enterprise Linux 4.0.

4 Installation, Configuration, and Upgrade Issues

Review the following sections for information about issues that affect Oracle Database installation, configuration, and upgrade:

- [Latest Upgrade Information](#)
- [Upgrading Oracle Real Application Clusters Release 9.2](#)
- [Adding a Node to a Shared Oracle Clusterware Configuration](#)
- [Installing Enterprise Security Manager](#)
- [Upgrading Oracle Clusterware 10.1.x to Oracle Clusterware 10.2](#)
- [extjob Executable Required Directory Permissions](#)
- [Modifying a Virtual IP Address Node Application](#)
- [Raw Devices on Red Hat Enterprise Linux 4.0](#)

4.1 Latest Upgrade Information

For late-breaking updates and best practices about preupgrades, postupgrades, compatibility, and interoperability discussions refer to note 466181.1 on

OracleMetaLink (<https://metalink.oracle.com/>) that links to "The Upgrade Companion" Web site.

4.2 Upgrading Oracle Real Application Clusters Release 9.2

If you are upgrading a 9.2 RAC environment to Oracle Database 10g release 2 on Red Hat Linux 3.0, then you must apply a patch to GLIBC before proceeding with the Oracle Clusterware installation. Follow the instructions documented in OracleMetaLink note 284535.1.

This issue is tracked with Oracle bug 3006854.

4.3 Adding a Node to a Shared Oracle Clusterware Configuration

Before running `root.sh` in the first node of a shared Oracle Clusterware home, add the following line in the `$ORA_CRS_HOME/opmn/conf/ons.config` file:

```
usesharedinstall=true
```

This issue is tracked with Oracle bug 4454562.

4.4 Installing Enterprise Security Manager

To install Oracle Security Manager, install Oracle Client and then select the Administrator installation type.

4.5 Upgrading Oracle Clusterware 10.1.x to Oracle Clusterware 10.2

When upgrading from 10.1.x to 10.2, if the host name directory under the `/etc/oracle/scls_scr` directory includes the domain name, then the following error message is displayed when you run the `rootupgrade.sh` script and the Oracle Clusterware stack does not start:

```
A file or directory in the path name does not exist.  
/etc/init.cssd[509]: /etc/oracle/scls_scr/host_name/root/cssrun: 0403-005  
Cannot create the specified file.
```

Workaround: Move the `/etc/oracle/scls_scr/hostname.domain_name` directory to `/etc/oracle/scls_scr/hostname` and rerun the `rootupgrade.sh` script.

This issue is tracked with Oracle bug 4472284.

4.6 extjob Executable Required Directory Permissions

To enable the `extjob` executable to locate required libraries, the `$ORACLE_HOME/lib` directory and all of its parent directories must have execute permissions for `group` and `other`.

4.7 Modifying a Virtual IP Address Node Application

When modifying the name, IP address, or netmask of an existing virtual IP address (VIP) resource, use the following command:

```
srvctl modify nodeapps
```

and include the existing interfaces for the VIP in the `-A` argument. For example:

```
srvctl modify nodeapps -n mynode1 -A 100.200.300.40/255.255.255.0/eth0
```

This issue is tracked with Oracle bug 4500688.

4.8 Raw Devices on Red Hat Enterprise Linux 4.0

When you restart a Red Hat Enterprise Linux 4.0 system, raw devices revert to their original owners and permissions by default. If you are using raw devices with this operating system for your Oracle files, for example, for ASM storage or Oracle Clusterware files, you need to override this default behavior. To do this, add an entry to the `/etc/rc.d/rc.local` file for each raw device containing the `chmod` and `chown` commands required to reset them to the required values.

As an example, here are sample entries in a `/etc/rc.d/rc.local` file that control the restart behavior of raw devices for two ASM disk files (`/dev/raw/raw6` and `/dev/raw/raw7`), two Oracle Cluster Registry files (`/dev/raw/raw1` and `/dev/raw/raw2`), and three Oracle Clusterware voting disks (`/dev/raw/raw3`, `/dev/raw/raw4`, and `/dev/raw/raw5`):

```
# ASM
chown oracle:dba /dev/raw/raw6
chown oracle:dba /dev/raw/raw7
chmod 660 /dev/raw/raw6
chmod 660 /dev/raw/raw7
# OCR
chown root:oinstall /dev/raw/raw1
chown root:oinstall /dev/raw/raw2
chmod 660 /dev/raw/raw1
chmod 660 /dev/raw/raw2
# Voting Disks
chown oracle:oinstall /dev/raw/raw3
chown oracle:oinstall /dev/raw/raw4
chown oracle:oinstall /dev/raw/raw5
chmod 644 /dev/raw/raw3
chmod 644 /dev/raw/raw4
chmod 644 /dev/raw/raw5
```

5 Other Known Issues

The following sections contain information about issues related to Oracle Database 10g and associated products:

- [Building Pro*C Applications if PostgreSQL is Installed](#)
- [Encoding Information Not Present in Translated Help Files](#)
- [Oracle Clusterware Files Issues](#)
- [Cluster Verification Utility](#)
- [VLM Window Size on Red Hat Enterprise Linux 4.0](#)
- [Oracle C++ Call Interface Compiler Support](#)
- [Oracle XML Developer's Kit Compiler Support](#)
- [Link Error During genorasdksh on Red Hat Enterprise Linux 4.0](#)
- [Removing Metrics for Wait Classes Removes Them Permanently](#)
- [cvuqdisk-1.0.1-1.rpm \(i386 rpm\) Does not Work as Expected](#)

- [JDK Restriction](#)
- [ONS Needs to be Started from Database Oracle Home Before Apache Standalone Installation](#)

5.1 Building Pro*C Applications if PostgreSQL is Installed

If the `postgresql-devel` package is installed on the system, then you must add the following directory to the beginning of the `sys_include` parameter in the `$ORACLE_HOME/precomp/admin/pcscfg.cfg` file before building Pro*C applications:

```
$ORACLE_HOME/precomp/public
```

If you do not make this change, then you may encounter errors similar to the following when linking the applications:

```
/tmp/ccbXd7v6.o(.text+0xc0): In function `drop_tables':
: undefined reference to `sqlca'
```

This issue is tracked with Oracle bug 3933309.

5.2 Encoding Information Not Present in Translated Help Files

If the system uses a European language, you might see corrupted characters in Table of Contents of database tools, such as Database Configuration Assistant.

This issue is tracked with Oracle bug 3957096.

Workaround: If the system uses a European language, do not use the `.UTF-8` locale. For example, if the system uses German, set the `LANG` and `LC_ALL` environment variables to `de_DE` instead of `de_DE.UTF-8`.

5.3 Oracle Clusterware Files Issues

The following note applies if you are using Red Hat Enterprise Linux 4.0 and using raw devices to store the Oracle Cluster Registry (OCR) and the voting disk for Oracle Clusterware, or using raw devices for Automatic Storage Management (ASM) database files. For each raw device used for the purposes listed, you must add two entries in the `/etc/rc.d/rc.local` file after running the `root.sh` script following the installation of Oracle Clusterware.

For each OCR file, the entries should look as follows, where `oinstall` is the Oracle install group and `/dev/raw/rawn` is an individual device file:

```
chown root:oinstall /dev/raw/rawn
chmod 640 /dev/raw/rawnmar
```

For each voting disk file, the entries should look as follows, where `oracle` is the Oracle user, `oinstall` is the Oracle install group, and `/dev/raw/rawn` is an individual device file:

```
chown oracle:oinstall /dev/raw/rawn
chmod 644 /dev/raw/rawnmar
```

For each ASM file, the entries should look as follows, where `oracle` is the Oracle user, `oinstall` is the Oracle install group, and `/dev/raw/rawn` is an individual device file:

```
chown oracle:oinstall /dev/raw/rawn
chmod 660 /dev/raw/rawnmar
```

5.4 Cluster Verification Utility

This section lists the issues with Cluster Verification Utility on Red Hat Enterprise Linux 4.0 and SUSE Linux Enterprise Server 9:

- Cluster Verification Utility (CVU) does not support shared checks for raw disks used for Oracle Cluster File System version 2 on Red Hat Enterprise Linux 4.0 and SUSE Linux Enterprise Server 9.
- The preinstallation stage verification checks for Oracle Clusterware and Oracle Real Applications Clusters and reports missing packages. Ignore the following missing packages and continue with the installation:

```
compat-gcc-7.3-2.96.128
compat-gcc-c++-7.3-2.96.128
compat-libstdc++-7.3-2.96.128
compat-libstdc++-devel-7.3-2.96.128
```

5.5 VLM Window Size on Red Hat Enterprise Linux 4.0

To use `hugepages` or to accommodate the VLM window size on Red Hat Enterprise Linux 4.0, you must increase the default maximum size of the per-process locked memory. To increase the per-process max locked memory limit, add the following lines to the `/etc/security/limits.conf` file, where `oracle` is the user that administers the database:

```
oracle soft memlock 3145728
oracle hard memlock 3145728
```

5.6 Oracle C++ Call Interface Compiler Support

On Red Hat Enterprise Linux 4.0, Oracle C++ Call Interface (OCCI) does not yet support GCC 3.4.3. The current GNU C++ compiler version that OCCI supports with Red Hat Enterprise Linux 4.0 is GCC 3.2.3.

Workaround: Install Red Hat Enterprise Linux 4 with GCC 3.2.3.

Note: For updates on GCC support, refer to the OCCI home page on OTN:

<http://www.oracle.com/technology/tech/oci/occi/index.html>

5.7 Oracle XML Developer's Kit Compiler Support

On Red Hat Enterprise Linux 4.0, Oracle XML Developer's Kit (XDK) is not supported with GCC. XDK is supported with Intel C++ compiler (ICC).

5.8 Link Error During `genorasdksh` on Red Hat Enterprise Linux 4.0

Installing Oracle Database 10g release 2 (10.2.0.1) on Red Hat Enterprise Linux 4.0 Update 1 (2.6.9-11.ELsmp) produces a link error during creation of `liborasdkbase.so.10.2`. The following error message is thrown:

```
INFO: gcc:
```

```
INFO: /usr/lib/libstdc++.so.5: No such file or directory
INFO:
INFO: $OH/bin/genorasdksh: Failed to link liborasdkbase.so.10.2
```

This is because Oracle Database 10g release 2 (10.2) requires Red Hat Enterprise Linux 3.0 libraries (/usr/lib/libstdc++.so.5).

Workaround: Install the compatible libraries as follows:

```
rpm -q1 compat-libstdc++-33-3.2.3-47.3
```

This issue is tracked with Oracle bug 4605635.

5.9 Removing Metrics for Wait Classes Removes Them Permanently

Do not remove the key values for the wait class metrics. Doing so removes them permanently and currently there is no easy way to recover them.

This issue is tracked with Oracle bug 4602952.

5.10 cvuqdisk-1.0.1-1.rpm (i386 rpm) Does not Work as Expected

cvuqdisk-1.0.1-1.rpm (i386 rpm) does not work as expected in Linux Itanium. You need to install cvuqdisk-1.0.1-1.ia64.rpm for cluster verification utility to verify the sharedness check of raw disks for 10.2 Linux Itanium.

5.11 JDK Restriction

When you use Oracle Universal Installer or Database Configuration Assistant in Japanese environment, you must set the LANG environment variable to C.

This issue is tracked with Oracle bug 4764895.

5.12 ONS Needs to be Started from Database Oracle Home Before Apache Standalone Installation

If you plan to install Oracle HTML DB with Oracle HTTP Server from companion CD on the system where Oracle Database 10g has already been installed, you need to start ONS before you start the companion CD installation. This is required to prevent the companion CD installation from allocating the ports already allocated to ONS Server in the Database installation.

This issue is tracked with Oracle bug 4701821.

6 Documentation Corrections and Additions

This section lists the following corrections to installation guides for Linux Itanium.

- In the "Software Requirements" section of quick installation guides and Chapter 2 of installation guides, the following should be the list of the supported operating systems:
 - Red Hat Enterprise Linux AS/ES 3.0 (Update 4 or later)
 - Red Hat Linux 4.0 (Update 1 or later)

- SUSE Linux Enterprise Server 9.0 with SP2 or later

SUSE Linux Enterprise Server 8.0 is not supported with this release.

- In the "Software Requirements" section of quick installation guides and Chapter 2 of installation guides, the following should be the list of packages for Red Hat Enterprise Linux 4.0:

```
binutils-2.15.92.0.2-10.EL4
compat-db-4.1.25-9
control-center-2.8.0-12
gcc-3.2.3-47
gcc-c++-3.2.3-47
glibc-2.3.4-2
glibc-common-2.3.4-2
gnome-libs-1.4.1.2.90-44.1
libstdc++-3.4.3-9.EL4
libstdc++-devel-3.4.3-9.EL4
libaio-0.3.96-3
make-3.80-5
pdksh-5.2.14-30
sysstat-5.0.5-1
```

- In *Oracle Database Oracle Clusterware and Oracle Real Application Clusters Installation Guide*, Chapter 2, "Preinstallation," in the section "Oracle Clusterware Home Directory," it incorrectly lists the path `/u01/app/oracle/product/crs` as a possible Oracle Clusterware home (or CRS home) path. This is incorrect. A default Oracle base path is `/u01/app/oracle`, and the Oracle Clusterware home must never be a subdirectory of the Oracle base directory.

A possible CRS home directory is in a path outside of the Oracle base directory. For example, if the Oracle base directory is `u01/app/oracle`, then the CRS home can be an option similar to one of the following:

```
u01/crs/
/u01/crs/oracle/product/10/crs
/crs/home
```

This issue is tracked with Oracle bug 5843155.

- The following text of the section 2.6.1, "IP Address Requirements," in Chapter 2, "Pre-Installation Tasks," of *Oracle Database Oracle Clusterware and Oracle Real Application Clusters Installation Guide* states that the virtual IP address (VIP) should respond to a ping command:

During installation, OUI uses the ping command to ensure that the VIP is reachable.

The preceding statement is incorrect. Before installation, the VIP address should be configured in DHCP or `/etc/hosts`, or both, but it must not be assigned to a server that can respond to a ping command.

This issue is tracked with Oracle bug 6017001.

- Appendix H, "Database Limits" of *Oracle Database Administrator's Reference for UNIX-Based Operating Systems* states the incorrect maximum value (63) for the MAXINSTANCES variable. The correct maximum limit for the variable is 1055.

- Oracle Clusterware for 10.2.0.4 on Linux Red Hat and SUSE now uses the Oracle Clusterware Process Monitor Daemon (`oproc`) to monitor the system state of the cluster nodes.

Refer to the Red Hat Enterprise Linux or SUSE Linux Enterprise Server distribution documentation for further information about `oproc`.

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