Oracle® Database

Release Notes

10*g* Release 2 (10.2) for Linux x86-64

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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, see 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
- Raw Devices on Red Hat Enterprise Linux 4.0
- Unsupported Products
- Support for 64-Bit JDBC
- Preinstallation Requirements
- ASMLib Package Requirements
- Network Attached Storage for RAC Databases
- Installation, Configuration, and Upgrade Issues
- Other Known Issues
- Documentation Accessibility

1 Certification Information

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

http://metalink.oracle.com

Products and Components Not Certified at the Time of This Publication

At the time of this publication, Oracle Cluster File System version 2 is not certified on Red Hat Enterprise Linux 4.0 and SUSE Linux Enterprise Server 9.

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2 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
```

3 Unsupported Products

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

- Grid Control Support

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

- Oracle Procedural Gateway for APPC

- Oracle Procedural Gateway for WebSphere MQ

- Oracle Clustered File System version 2

- Oracle ODBC driver

- Pro*COBOL

4 Support for 64-Bit JDBC

For Oracle Database 10g release 2 on Linux x86-64, 64-bit JDBC (using JDK 5) is supported.

5 Preinstallation Requirements

Review the following section before starting the installation.

- Upgrading to or Installing Oracle Database 10g Release 2
- Red Hat Enterprise Linux 4.0
- Oracle Lite
- Configuring Kernel Parameters

5.1 Upgrading to or Installing Oracle Database 10*g* Release 2

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

5.2 Red Hat Enterprise Linux 4.0

Before installing Oracle Database 10*g* release 2 on Red Hat Enterprise Linux 4.0 Update 1, install the following packge:

```
binutils-2.15.92.0.2-13.0.0.0.2.x86_64
```

This package can be downloaded from the following link:

http://oss.oracle.com/projects/compat-oracle/dist/files/RedH at/binutils-2.15.92.0.2-13.0.0.0.2.x86_64.rpm

This issue is tracked with Oracle bug 4619031

5.3 Oracle Lite

Before installing Oracle lite, ensure that the following package is installed:

```
libxml2-2.5.10-7.i386.rpm
```

5.4 Configuring Kernel Parameters

After updating the values of kernel parameters in the `/etc/sysctl.conf` file, ensure that you either reboot the computer or run the `sysctl -p` command to make the changes of the `/etc/sysctl.conf` file available in the active kernel memory.

On SUSE Linux Enterprise Server 9.0, ensure that you set the following kernel parameter:

```
disable_cap_mlock = 1
```

6 ASMLib Package Requirements

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

7 Network Attached Storage for RAC Databases

This section contains issues that apply to RAC databases on NAS devices.

The following note in section "Requirements for Using a File System for Oracle Clusterware" of *Oracle Database Oracle Clusterware and Oracle Real Application Clusters Installation Guide for Linux* is not true and should be ignored for all Database installations on Oracle Clusterware:

If you are using a shared file system on a NAS device to store a shared Oracle home directory for Oracle Clusterware for RAC, then you must use the same NAS device for Oracle Clusterware file storage.

8 Installation, Configuration, and Upgrade Issues

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

- Upgrading Oracle Real Application Clusters Release 9.2
- Correction to "Configuring Kernel Parameters" in RAC Install
- Installing Enterprise Security Manager
- Upgrading to Oracle Clusterware 10.2
- extjob Executable Required Directory Permissions
- Modifying a Virtual IP Address Node Application

8.1 Upgrading Oracle Real Application Clusters Release 9.2

If you upgrade a 9.2 RAC environment to Oracle Database 10*g* release 2 or install Oracle Database 10*g* release 2 on a computer running 9.2 RAC, then install the mendatory patch for Oracle bug 4656840 on all the nodes before installing 10*g* release 2 Cluster Ready Services (CRS). Ensure that you run the rootpre.sh script when prompted by Oracle Installer.

8.2 Correction to "Configuring Kernel Parameters" in RAC Install

In the RAC installation book, in the table in the section "Configuring Kernel Parameters," the following parameters have incorrect names:

```
net.core.rmem_default
net.core.rmem_max
net.core.wmem_default
net.core.wmem_max
```

The correct parameter names are as follows:

```
rmem_default
rmem_max
wmem_default
wmem_max
```

This issue is tracked with Oracle bug 4586020.

8.3 Installing Enterprise Security Manager

To install Enterprise Security Manager (ESM), install Oracle Client and then select the Administrator installation type.

8.4 Upgrading 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 directory `/etc/oracle/scls_scr/hostname.domain_name` to `/etc/oracle/scls_scr/hostname` and rerun the `rootupgrade.sh` script.

This issue is tracked with Oracle bug 4472284.

8.5 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`.

8.6 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.

9 Other Known Issues

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

- Building Pro*C Applications if PostgreSQL is Installed
- European Language Locale
- Oracle Clusterware Files Issues
- Cluster Verification Utility Issues
- Removing Metrics for Wait Classes Removes Them Permanently
- Patch for CRS Configuration with Voting Disk on Network Attached Storage

9.1 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.

9.2 European Language Locale

If the system uses a European language, then you must 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.

This issue is tracked with Oracle bug 3957096.

9.3 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/raw*n* is an individual device file:

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

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/raw*n* is an individual device file:

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

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/raw*n* is an individual device file:

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

9.4 Cluster Verification Utility Issues

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.

- Cluster Verification Utility (CVU) does not detect SMP-Kernel rpms for the hosts and displays the "Kernel check failed" message. In verbose mode, the status for kernel is dislpayed as "missing".

This issue is tracked with Oracle bug 4685951.

- 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
```

9.5 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.

9.6 Patch for CRS Configuration with Voting Disk on Network Attached Storage

To resolve the CRS configuration issue when voting disk is on Network Attached Storage, you need to apply the patch tracked through Oracle bug 4697432.

10 Documentation Accessibility

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