This document contains the following topics:

- Certification Information
- Unsupported Products
- Software Contents on Installation Media
- 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 My Oracle Support (formerly OracleMetaLink) at:

https://support.oracle.com

HP-UX 11.31 Certification

Starting with Oracle Database 10g Release 2 (10.2.0.2), in addition to the supported operating systems listing in the installation guide, HP-UX 11i V3 (11.31) is supported.
Refer to *Oracle Database Installation Guide for HP-UX PA-RISC (64-Bit)* for additional information on operating system listings.

Refer to "Preinstallation Requirements" on page 1-2 for the list of patches, and compilers supported on Oracle Database 10g Release 2.

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.
- Radius with the CHAP protocol
- Network Attached Storage (NAS) devices
  NAS devices are not supported on HP-UX 11.11.
- Oracle ODBC Driver
- Hyper-Messaging Protocol (HMP) is not supported for Oracle Clusterware and Oracle RAC 10g Release 2.

3 Software Contents on Installation Media
The following products and documentation are located on the first DVD:

- Oracle Database 10g Release 2 (10.2) software and documentation
- Oracle Database Companion Products 10g Release 2 (10.2) software and documentation
- Oracle Database 10g Release 2 (10.2) Documentation Library

The following products and documentation are located on the second DVD:

- Oracle Clusterware 10g Release 2 (10.2) software and documentation
- Oracle Database Client 10g Release 2 (10.2) software and documentation
- Oracle Gateway 10g Release 2 (10.2) software and documentation
- Oracle Database 10g Release 2 (10.2) Documentation Library

4 Preinstallation Requirements
In addition to the information in the installation guides, the following sections contain the system requirements for HP-UX 11.31:

- Operating System Filesets for HP-UX 11.31
- Compiler Requirements
- Oracle Messaging Gateways
- Java Development Kit
- *ncsize* Kernel Parameter
4.1 Operating System Filesets for HP-UX 11.31
The following patches are supported on Oracle Database 10g Release 2:

- PHKL_35900: 11.31 evacd performance, kvaddr leak panic
- PHKL_36248: 11.31 esctl cumulative patch
- PHKL_36249: 11.31 esdisk cumulative patch
- PHKL_35936: 11.31 call to read(2) or write(2) may incorrectly return -1

4.2 Compiler Requirements
The following compilers are supported on Oracle Database 10g Release 2:

- A.06.12 (HP C/aC++ Swlist Bundle - C.11.31.01) - February 2007 A.06.12 is the certified C++ Compiler.
- HP FORTRAN/90 - Feb 2007 is the certified compiler for Fortran 90.

4.3 Oracle Messaging Gateways
Oracle Messaging Gateway supports the integration of Oracle Streams Advanced Queuing (AQ) with the following software:

- WebSphere MQ (Server) 6.0
- Websphere MQ (Client) 6.0

4.4 Java Development Kit
The following JDKs are supported on Oracle Database 10g Release 2:

You can use HP JDK 5.0.07 with the Oracle Java Database Connectivity and Oracle Call Interface drivers. Ensure that you install the patch PHKL_35029 to use JDK 5.0.07.

4.5 ncssize Kernel Parameter
For Oracle Database 10g Release 2 (10.2), the recommended formula for calculating the ncssize kernel parameter is \((8 \times nproc + 3072)\).

5 Installation, Configuration, and Upgrade Issues
Review the following sections for information about issues that affect Oracle Database installation, configuration, and upgrade:

- Latest Upgrade Information
- Oracle Real Application Clusters (Oracle RAC) Support
- Adding a Node to a Shared Oracle Clusterware Configuration
- Installing Enterprise Security Manager
- Upgrading Cluster Ready Services (CRS) from Release 10.1.0.2
- extjob Executable Required Directory Permissions
- Modifying a Virtual IP Address Node Application
- Network Attached Storage for Oracle RAC Databases
• Installing Oracle Database Client into an Existing Oracle Home
• Database Installation Types
• Upgrading to Oracle Clusterware 10.2
• Oracle Storage Compatibility Program Obsolete

5.1 Latest Upgrade Information
For late-breaking updates and best practices about preupgrades, postupgrades, compatibility, and interoperability discussions refer to note 466181.1 on My Oracle Support (https://support.oracle.com) (formerly Oracle MetaLink) that links to "10g Upgrade Companion" page.

5.2 Oracle Real Application Clusters (Oracle RAC) Support
The list of supported installation options and supported storage types for Oracle Clusterware, Oracle Real Application Clusters, and vendor clusterware are described in this section. Oracle plans to support additional Oracle Clusterware and Oracle RAC configurations in the future. Please check for updates to this document for the latest list of supported installation scenarios on the OTN Web site at:

Note: NAS is supported on HP-UX 11.23 only.

5.3 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:

usessharedinstall=true

This issue is tracked with Oracle bug 4454562.

5.4 Installing Enterprise Security Manager
To install Oracle Security Manager, install Oracle Database Client and then select the Administrator installation type.

5.5 Upgrading Cluster Ready Services (CRS) from Release 10.1.0.2
When upgrading Cluster Ready Services Release 10.1.0.2, activate the volume group before running the rootupgrade script. Use the following command to activate the volume group:

vgchange -a s vg1

where vg1 is the volume group that stores the OCR and voting disks.

5.6 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.
5.7 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.

5.8 Network Attached Storage for Oracle RAC Databases
NAS is supported on HP 11.23 as a shared storage for Oracle RAC. To use NAS as a shared storage for Oracle RAC, apply the PHNE_32055 patch.

5.9 Installing Oracle Database Client into an Existing Oracle Home
Oracle Database Client can be installed in the same Oracle Database home if both products are at the same release level. For example, you can install Oracle Database Client 10g Release 2 (10.2) into an existing Oracle Database 10g Release 2 (10.2) home. If you apply a patch set before installing the client, then you must apply the patch set again.

5.10 Database Installation Types
If you perform a Custom installation, then ensure that you install only the components covered by your license. You cannot install Standard Edition using Custom installation.

5.11 Upgrading to Oracle Clusterware 10.2
Due to an error in the preupdate.sh file, the `CRS_home/lib/libskgxn2.so` library located on the local node may be updated with the system kernel generic interface node membership (`skgxm`) that is used with Oracle Universal Installer.

**Workaround:**
To upgrade to Oracle Clusterware 10.2, perform the following steps:

1. Run `preupdate.sh` script from the Oracle Clusterware installation media on all the nodes.
2. Log in as `root` user to run the command `chmod -R root:root /CRS_home/lib` on the local node.
3. As `root`, run the command `chmod 755 /CRS_home/lib/lib*` on the local node, where `CRS_home` is the Oracle Clusterware home path.
   For example:
   ```
   chmod 755 /u02/ocluster/lib/lib*
   ```
4. Verify that the files under `/CRS_home/lib` are owned by `root`.
5. Proceed with the 10.2 upgrade.
5.12 Oracle Storage Compatibility Program Obsolete
Oracle Storage Compatibility Program (OSCP) is no longer valid. Disregard any content about OSCP in the Oracle Database Installation Guide for HP-UX PA-RISC (64-Bit).

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

- Cluster Verification Utility
- Importing a User Certificate Into Oracle Wallet Using Oracle Wallet Manager
- Patch for libc:siglongjmp()
- Removing Metrics for Wait Classes Removes Them Permanently
- Service Failure Over the Network
- MAX_IDLE_BLOCKER_TIME Does Not Work in Oracle RAC Environment
- Oracle Universal Installer Warnings
- Vendor Clusterware Restrictions for Node Names
- Patch for HP-UX Error in Alert Log

6.1 Cluster Verification Utility
Review the following topics before using Cluster Verification Utility.

Third Party Clusterware
If the deployment environment does not use ServiceGuard, ignore the ServiceGuard version, ServiceGuard extension version, and patch PHSS_32732 errors reported by Cluster Verification Utility (CVU).

On HP-UX 11.11:
- M/C service guard 11.16.00 :: ServiceGuard A.11.16.00
- Clusterware patches: PHSS_32732, ServiceGuard Extension for Oracle RAC Bundle A.11.16.00 :: SG-NMAPI, A.11.16.00

On HP-UX 11.23:
- M/C service guard 11.16.00
- Clusterware Patches: PHSS_32740, ServiceGuard Extension for Oracle RAC Bundle A.11.16.00

Check Kernel Parameter Settings
CVU does not check kernel parameter settings.
This issue is tracked with Oracle bug 4565046.

Raw Devices Shared Storage
Cluster Verification Utility validates the readiness of a cluster to install Oracle Clusterware and Oracle RAC, and create databases. It also helps verify the integrity of
individual cluster components. CVU does not discover raw disks, or perform shared checks for raw disks.

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**Note:** Cluster Verification Utility does not provide formatted output for the GoldApps patches. It lists the individual patches in a single line.

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### 6.2 Importing a User Certificate Into Oracle Wallet Using Oracle Wallet Manager

Oracle Wallet Manager fails to recognize the user certificate as valid if you capture the user certificate contents from the Oracle Certificate Authority site and save this as a flat file. This is because when saving as a flat file, all the lines of the user certificate are run together with no line breaks.

**Workaround:** Edit the user certificate. Insert a new line after `-----BEGIN CERTIFICATE-----` and a new line before `-----END CERTIFICATE-----`.

### 6.3 Patch for libc:siglongjmp()

Oracle recomends that you use the PHCO_33711 patch for the JAGaf71110 defect. Contact HP support to get this patch.

### 6.4 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.

### 6.5 Service Failure Over the Network

To tolerate a complete public network failure, services must be specified in the `/etc/nsswitch.conf` file. If the services are not specified in this file, you will be dependent on the network timeouts. For example, VIP failover could happen after the network/system timeouts.

This issue is tracked with Oracle bug 5988744.

### 6.6 MAX_IDLE_BLOCKER_TIME Does Not Work in Oracle RAC Environment

Setting a value for `MAX_IDLE_BLOCKER_TIME` feature of Resource manager does not work as expected in Oracle RAC environment.

**Workaround:** Set a value for `MAX_IDLE_TIME` instead of setting a value for `MAX_IDLE_BLOCKER_TIME`.

This issue is tracked with Oracle bug 6114355.

### 6.7 Oracle Universal Installer Warnings

If you encounter the following Oracle Universal Installer warning when you are installing Oracle Database 10g Release 2, then you can ignore them:
If you have installed a compiler version later than the one listed in Oracle database prerequisite checks, then the Oracle Universal Installer displays a non compatibility warning message. This message can be ignored, if the newer versions of the compilers installed are displayed on the vendors site.

ANSI/C is one of the certified compiler for Pro*C/C++, Oracle Call Interface, Oracle C++ Call Interface and Oracle XML Developer's Kit. If you have installed other certified compilers, then you can ignore the warning message.

6.8 Vendor Clusterware Restrictions for Node Names
If you use a vendor clusterware with Oracle Clusterware and Oracle Real Application Clusters, then you must use the node names and host names registered with that vendor clusterware you have installed.

6.9 Patch for HP-UX Error in Alert Log
Oracle recommends that you install patch PHCO_34275 for HP-UX 11i V1 (11.11), and patch PHCO_35744 for HP-UX 11i v2 (11.23) to avoid the HP-UX related error in the alert log.

Contact HP support for more details.

7 Documentation Corrections and Additions
This section lists the following corrections to the installation guides for HP-UX PA-RISC (64-Bit):

- In Oracle Database Oracle Clusterware and Oracle Real Application Clusters Installation Guide, Chapter 1, section "Cloning Oracle Clusterware Homes," step 4 requires that the Oracle Clusterware tar file is uncompressed as a root user. Instead, uncompress the tar file as the oracle user.


A possible Oracle Clusterware 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 Oracle Clusterware home can be an option similar to one of the following:

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

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

During installation, Oracle Universal Installer 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.

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

- In Oracle Database documentation, Oracle inventory group is represented as oinstall. However, it is not mandatory to use the same name, you can enter a different name for the group.

- In *Oracle Database Administrator’s Reference for UNIX-Based Operating Systems*, Appendix B, “Large Memory Allocations and Oracle Database Tuning,” incorrectly states the default value for CURSOR_SPACE_FOR_TIME initialization parameter as true. The correct default value for CURSOR_SPACE_FOR_TIME initialization parameter is false.

- In *Oracle Database Administrator’s Reference for UNIX-Based Operating Systems*, Appendix H, “Database Limits,” states the incorrect value for control files as 20000 database blocks. The correct value is 25000 control file blocks with a block size of 4096 bytes.


- In *Oracle Database Installation Guide for HP-UX PA-RISC (64-Bit)*, Chapter 4, section, “Installing Oracle Database 10g Products from the Companion CD,” erroneously states that JPublisher and Oracle SQLJ are installed. The correct information is that JPublisher is not a part of Companion CD and Oracle SQLJ Demos are installed with the Companion CD instead of Oracle SQLJ.

- In *Oracle Database Companion CD Installation Guide for HP-UX PA-RISC (64-Bit)*, Chapter 1, section, “Products Available in the Oracle Database 10g Products Installation Type,” erroneously states that JPublisher and Oracle SQLJ are installed. The correct information is that JPublisher is not a part of Companion CD and Oracle SQLJ Demos are installed with the Companion CD instead of Oracle SQLJ.

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**Note:** The SQLJ Demos are installed if Oracle SQLJ was installed before running the Companion CD installation.

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### 8 Documentation Accessibility

For information about Oracle’s commitment to accessibility, visit the Oracle Accessibility Program website at http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc.

**Access to Oracle Support**

Oracle customers have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.