

=====
Oracle Cluster Verification Utility
Linux x86-64 README File
=====

1. Availability of CVU
2. CVU installation from OTN
3. References
4. Enhancements
5. Known issues

=====
1. Availability of CVU
=====

The Cluster Verification Utility (CVU) is a utility distributed with Oracle Clusterware to assist in the verification of the components required to install and run Oracle Clusterware and Oracle Real Application Clusters. CVU was first released with Oracle Clusterware 10g Release 2. The CVU is available in following three forms:

- 1) Installed in Oracle Clusterware home
- 2) Available in Oracle Clusterware DVD as packaged version
- 3) Available on Oracle Technology Network (OTN)
(http://www.oracle.com/technology/products/database/clustering/cvu/cvu_download_homepage.html)

CVU is backward compatible to all the previous Oracle Clusterware releases up to Oracle Database 10g Release 1. This version of CVU available at OTN supports all 10g and 11g versions for Oracle Clusterware and RAC products.

For each verification command that supports the optional `-r` option to specify the supported Oracle release, the default release is assumed to be 11gR1 if `-r` option is not specified. To perform verifications for any previous release, `'-r 10gR1'` or `'-r 10gR2'` must be specified. If the verifications are to be performed for a specific release earlier than 11g Release 1 then use of `-r` option can be avoided by setting the intended release value (10gR1 or 10gR2) for `CV_ORACLE_RELEASE` property in CVU's configuration file (located under `<CVU installation rootdir>/cv/admin` directory).

=====
2. CVU installation from OTN
=====

Here is how one can install CVU from a zip file (`cvupack%.zip`) downloaded from OTN:

1. Create a CVhome (say `/home/username/mycvhome`) directory. It should have at least 35M of free disk space.
2. Unzip `cvupack%.zip` into `<CVhome>` directory.
3. Set (optionally) the environmental variable `CV_DESTLOC`. This should point to a writable area on `*all*` nodes. When invoked, the tool will attempt to copy the necessary bits as required to this location. Make sure the location exists on all nodes and it has write permission for CVU user. It is recommended that you should set this variable. If this variable has not been set, CVU will use `"/tmp"` as the default.
4. Run `cluvfy` from `<CVhome>/bin` directory. To verify, typically run `/home/username/mycvhome/bin/cluvfy`. This should show the usage.

=====
3. References
=====

For detailed information on using CVU, refer to:

Oracle Clusterware Installation Guide 11g Release 1
Oracle Real Application Clusters Installation Guide 11g Release 1
Oracle Clusterware Administration and Deployment Guide 11g Release 1

For queries on CVU, refer to:

CVU FAQ on OTN site
(http://www.oracle.com/technology/products/database/clustering/cvu/faq/cvu_faq_otn_11gr1.html)

=====
4. Enhancements
=====

1. The execution of cluvfy doesn't need the specific JDK to be installed on the system. The CVU software bundle (cvupack%.zip) carries with it the JDK that is compatible with cluvfy.
2. The execution of cluvfy doesn't need the environment variables CV_HOME and CV_JDKHOME to be set.
3. The shared storage discovery and verification of OCFS2 is supported.
4. The user equivalence is not required to be setup to the local node itself for performing a local node verification (identified as a cluvfy command without the use of -n option).
5. CVU issues a warning to the user if it is discovered that the user correctly belongs to the primary group but is currently logged into a group different from the primary group.
6. The node connectivity check provides the details of default gateway also.

=====
5. Known issues
=====

1. Current release of cluvfy has the following limitations on Linux regarding shared storage accessibility check.
 - a. Currently NAS storage (r/w, no attribute caching), OCFS (version 1.0.14 or higher), OCFS2 and SCSI disks (if cvuqdisk package is installed) are supported. Note that, discovery of SCSI disks for RedHat Linux 2.1 is not supported.
 - b. For sharedness check on NAS, cluvfy requires the user to have write permission on the specified path. If the cluvfy user does not have write permission, cluvfy reports the path as not shared.
2. CVU does not recognize the disk bindings (e.g. /dev/raw/raw1) as valid storage paths or identifiers. Please use the underlying disk (e.g. /dev/sdm etc) for the storage path or storage identifier. On Windows, use "\\Device\\Harddisk<n>" notation such as "\\Device\\Harddisk1" for the storage path or identifier.
3. Bug 4393736: CLUVFY SHOULD ENSURE A PARTITION EXISTS. DESCRIPTION: On Linux, a partition like /dev/sda9 may not exist, but the file /dev/sda9 exists anyways. cluvfy comp ssa -n all -s /dev/sda9 reports this partition as shared if the disk it belongs to (/dev/sda) is shared.
4. Bug 6495320: On RHEL and OEL distributions, CVU complains for missing 32-bit glibc package although i686 based glibc package exist on the system.

While checking for 32-bit glibc package existence, CVU checks only for i386 based glibc package.