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Oracle Cluster Verification Utility
Linux x86-64bit README File
(OTN Distribution Kit - Sept, 2008)
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1. Availability of CVU
2. CVU installation from OTN
3. Running CVU from the OTN installation
4. Enhancements
5. Shared Storage Checks
6. Known issues
7. References

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1. Availability of CVU
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Welcome to the downloadable OTN distribution version of Cluster Verification Utility (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. CVU is available in the following three forms:

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

For each verification command that supports the `-r` option, the supported Oracle release version can be specified as a value to this option in order to run the verifications for that Oracle version. The default release is assumed to be 11gR1 if the `-r` option is not specified. To perform verifications for a previous release, `'-r 10gR1'` or `'-r 10gR2'` must be specified depending on the release for which the verifications tests need to be run. The use of `-r` option on the command line can be avoided by setting the intended release value (10gR1 or 10gR2) for `CV_ORACLE_RELEASE` property in CVU's configuration file (location: `<CVU installation root dir>/cv/admin/cvu_config`).

CVU has limited backward compatibility to Oracle Clusterware releases prior to Oracle Database 10g Release 1. This distribution of CVU kit is only supported on the operating system versions supported by Oracle Real Application Clusters 11g Release 1 (refer to Section 2.7 "Checking the Software Requirements" of Oracle Clusterware Installation Guide 11g Release 1 (11.1) **for Linux** Part Number B28263-05

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2. CVU installation from OTN
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Follow these steps to install CVU from a zip file (`cvupack.zip`) downloaded from OTN:

1. Create a CVhome (say `/home/username/mycvhome`) directory. This filesystem should have at least 100MB of free disk space and should have write permissions for the CVU user.
2. Unzip `cvupack.zip` into the `<CVhome>` directory.
\$ `cd /home/username/mycvhome`
\$ `unzip <download-dir>/cvupack.zip`

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3. Running CVU from OTN installation
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1. In order to run the verification on the various nodes in the cluster, CVU needs a writable area with the same path on each node in the cluster. CVU will copy necessary files to the remote nodes at this location for runtime use. By default, "/tmp" area will be used. If required to override this default, set the environment variable CV_DESTLOC to a suitable location that is available and writable by CVU user on all nodes in the cluster. It is strongly recommend that this environment variable CV_DESTLOC be set.
2. Run cluvfy from <CVhome>/bin directory. To verify, typically run

\$ /home/username/mycvhome/bin/cluvfy

Invoking this command without any arguments or with incorrect arguments should display comprehensive usage information.

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4. Enhancements
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1. An error is reported if it is discovered that a user exists but the user IDs differ across the nodes.
2. The policy for declaring a discovered network interface as "private" has been refined further. In a situation where an IP address for a gateway points back to the local node, the interface is declared as "private".
3. A warning is issued if different MTU values are found across the network interfaces.
4. The problem with VIPs owing to the absence of gateway has been identified. A warning is issued if no gateway is found.
5. The verification of hard and soft resource limits for maximum open file descriptors has been supported. These checks are performed as part of the validation of system requirements for Oracle Clusterware and database installations.
6. A check for software distribution has been supported. This functionality is available though the new component named "software". This component check (comp software) validates the existence of files and the consistency of their attributes (group/permissions) in the Oracle Clusterware and RAC databases software distributions across the cluster nodes.
7. cluvfy command is not allowed to be run by a user with root ID.
8. The reference set of pre requisites has been updated to reflect the latest system requirements related to Oracle Clusterware and database installations.

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5. Shared Storage Checks
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1. The following storage types are supported:
 - a. NAS storage (with appropriate mount options, see <http://webiv.oraclecorp.com/cgi-bin/webiv/do.pl/Get?WwwID=note:359515.1>)
 - b. OCFS(version 1.0.14 or higher)
 - c. OCFS2
 - d. SCSI disks (if 'cvuqdisk' package is installed)
2. For sharedness check on NAS, clufy requires the user to have write permission on the specified path. If the clufy user does not have write permission, clufy reports the path as not shared.

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6. Known Limitations
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- 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.
- 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. clufy comp ssa -n all -s /dev/sda9 reports this partition as shared if the disk it belongs to (/dev/sda) is shared.

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7. References
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For detailed information on using CVU, refer to:

- Oracle Clusterware Installation Guide 11g Release 1 **for Linux** Part Number B28263-05
- Oracle Real Application Clusters Installation Guide 11g Release 1 for Linux and UNIX (Part Number B28264-04)
- Oracle Clusterware Administration and Deployment Guide 11g Release 1 (11.1) (Part Number B28255-04)

For queries on CVU, refer to:

CVU FAQ on OTN site
(http://www.oracle.com/technology/products/database/clustering/cvu/faq/cvufaq_11g.html)