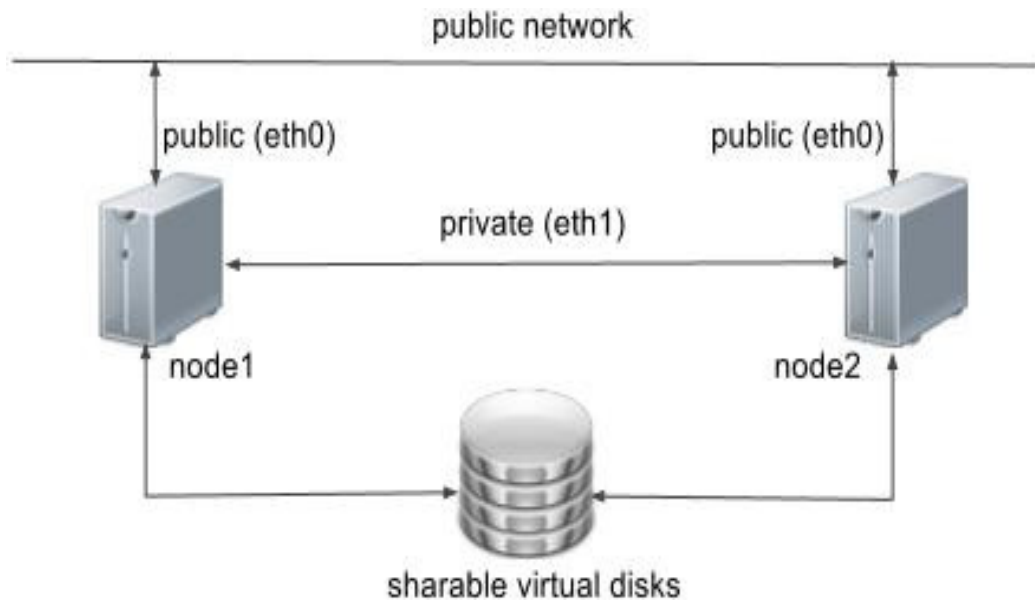


Oracle Database 11g Release 2 (11.2.0.3.0) RAC On Centos 6.3 Using VirtualBox

Created by Moin:-PTR TECHNOLOGY



Architecture of rac

All configuration should be done on both RAC1 node and RAC2 node (Grid installation and database creation should be done in one node):-

=====

- A) Add Nodes Entry
- B) Restart Network Services
- C) Add disks for asm in storage
- D) Configure Oracle Automatic Storage Management (ASM)
- E) Cluster Verification Utility
- F) Grid Installation
- G) Cluster Services Verification
- H) Database's Software Installation (Oracle 11gR2)
- I) Database Creation

Steps Are as follows:

=====

optional(Its required only at the time of yum fails to install any package)

=====

```
#cd /etc/yum.repos.d
```

```
# wget https://public-yum.oracle.com/public-yum-ol6.repo
```

=====

Generate key

```
# wget http://public-yum.oracle.com/RPM-GPG-KEY-oracle-ol6 -O /etc/pki/rpm-gpg/RPM-GPG-KEY-oracle
```

=====

Oracle Installation Prerequisites

=====

```
#yum install oracle-rdbms-server-11gR2-preinstall
```

```
#yum update
```

=====

Create the new groups and users

=====

```
#groupadd -g 1000 oinstall
#groupadd -g 1200 asmadmin
#groupadd -g 1201 asmdba
#groupadd -g 1202 asmoper
#groupadd -g 1200 dba
#useradd -u 1100 -g oinstall -G dba oracle
#passwd oracle
```

=====

If you are not using DNS, the "/etc/hosts" file must contain the following information

```
#vi /etc/hosts
```

```
127.0.0.1    localhost.localdomain localhost
# Public
192.168.0.111 ol6-112-rac1.localdomain ol6-112-rac1
192.168.0.112 ol6-112-rac2.localdomain ol6-112-rac2
# Private
192.168.1.111 ol6-112-rac1-priv.localdomain ol6-112-rac1-priv
192.168.1.112 ol6-112-rac2-priv.localdomain ol6-112-rac2-priv
# Virtual
192.168.0.113 ol6-112-rac1-vip.localdomain ol6-112-rac1-vip
192.168.0.114 ol6-112-rac2-vip.localdomain ol6-112-rac2-vip
# SCAN
192.168.0.115 ol6-112-scan.localdomain ol6-112-scan
192.168.0.116 ol6-112-scan.localdomain ol6-112-scan
192.168.0.117 ol6-112-scan.localdomain ol6-112-scan
```

```
#Service network restart
```

=====

```
Selinux should be disabled
```

====

```
#vi /etc/selinux/config (Selinux disable it )
```

=====

If you have the Linux firewall enabled, you will need to disable

=====

service iptables stop (For gui mode #system-config-firewall &)

chkconfig iptables off

=====

Create the directories in which the Oracle software will be installed

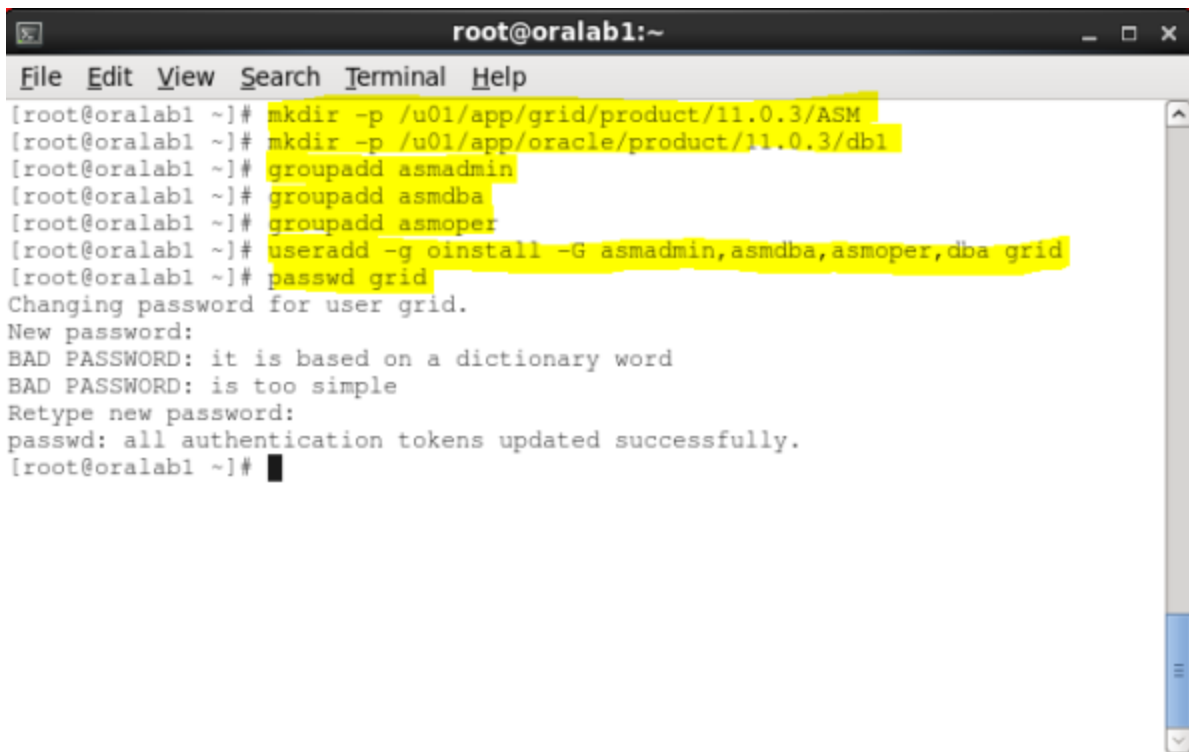
=====

#mkdir -p /u01/app/11.2.0.3/grid

#mkdir -p /u01/app/oracle/product/11.2.0.3/db_1

#chown -R oracle:oinstall /u01

#chmod -R 775 /u01/

A terminal window titled 'root@oralab1:~' with a menu bar (File, Edit, View, Search, Terminal, Help). The terminal shows the following commands and their outputs:

```
[root@oralab1 ~]# mkdir -p /u01/app/grid/product/11.0.3/ASM
[root@oralab1 ~]# mkdir -p /u01/app/oracle/product/11.0.3/db1
[root@oralab1 ~]# groupadd asmadmin
[root@oralab1 ~]# groupadd asmdba
[root@oralab1 ~]# groupadd asmoper
[root@oralab1 ~]# useradd -g oinstall -G asmadmin,asmdba,asmoper,dba grid
[root@oralab1 ~]# passwd grid
Changing password for user grid.
New password:
BAD PASSWORD: it is based on a dictionary word
BAD PASSWORD: is too simple
Retype new password:
passwd: all authentication tokens updated successfully.
[root@oralab1 ~]#
```

=====

Log in as the "oracle" user and add the following lines at the end of the "/home/oracle/.bash_profile" file

=====

```
ORACLE_HOSTNAME=ol6-112-rac1.localdomain; export
ORACLE_HOSTNAME
ORACLE_UNQNAME=RAC; export ORACLE_UNQNAME
ORACLE_BASE=/u01/app/oracle; export ORACLE_BASE
GRID_HOME=/u01/app/11.2.0.3/grid; export GRID_HOME
DB_HOME=$ORACLE_BASE/product/11.2.0.3/db_1; export
DB_HOME
ORACLE_HOME=$DB_HOME; export ORACLE_HOME
ORACLE_SID=RAC1; export ORACLE_SID
ORACLE_TERM=xterm; export ORACLE_TERM
BASE_PATH=/usr/sbin:$PATH; export BASE_PATH
PATH=$ORACLE_HOME/bin:$BASE_PATH; export PATH

LD_LIBRARY_PATH=$ORACLE_HOME/lib:/lib:/usr/lib; export
LD_LIBRARY_PATH
CLASSPATH=$ORACLE_HOME/JRE:$ORACLE_HOME/jlib:$ORAC
LE_HOME/rdbms/jlib; export CLASSPATH
```

```
alias grid_env='. /home/oracle/grid_env'
alias db_env='. /home/oracle/db_env'
```

=====
Create a file called `"/home/oracle/grid_env"` with the following
contents.

=====

```
ORACLE_SID=+ASM1; export ORACLE_SID
ORACLE_HOME=$GRID_HOME; export ORACLE_HOME
PATH=$ORACLE_HOME/bin:$BASE_PATH; export PATH

LD_LIBRARY_PATH=$ORACLE_HOME/lib:/lib:/usr/lib; export
LD_LIBRARY_PATH
CLASSPATH=$ORACLE_HOME/JRE:$ORACLE_HOME/jlib:$ORAC
LE_HOME/rdbms/jlib; export CLASSPATH
```



=====

Create a file called `"/home/oracle/db_env"` with the following contents.

=====

```
ORACLE_SID=RAC1; export ORACLE_SID
ORACLE_HOME=$DB_HOME; export ORACLE_HOME
PATH=$ORACLE_HOME/bin:$BASE_PATH; export PATH

LD_LIBRARY_PATH=$ORACLE_HOME/lib:/lib:/usr/lib; export
LD_LIBRARY_PATH
CLASSPATH=$ORACLE_HOME/JRE:$ORACLE_HOME/jlib:$ORACLE_HOME/rdbms/jlib; export CLASSPATH
```

=====

Once the `"/home/oracle/grid_env"` has been run, you will be able to switch between environments as follows

=====

```
$ grid_env
$ echo $ORACLE_HOME
/u01/app/11.2.0.3/grid
$ db_env
$ echo $ORACLE_HOME
/u01/app/oracle/product/11.2.0.3/db_1
```

=====

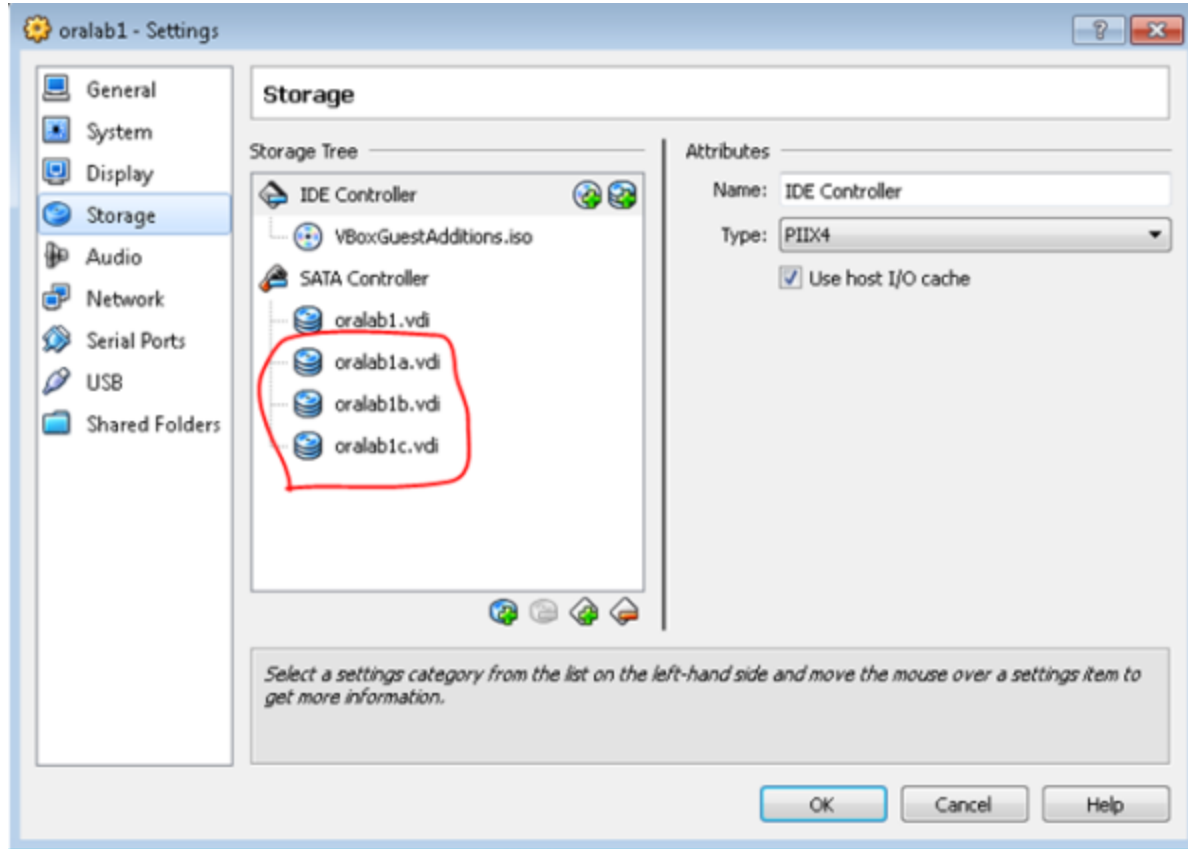
We've made a lot of changes, so it's worth doing a reboot of the VM at this point to make sure all the changes have taken effect.

=====

```
#shutdown -r now
```

=====

Add disks for asm in storage



=====

Configure Oracle Automatic Storage Management (ASM) for Redhat 6.3

=====

```
#rpm -qa | grep oracleasm(Check required packages)
```

```
#yum install kmod-oracleasm-2.0.6.rh1-2.el6.x86_64
```

```
# yum install oracleasm-lib-2.0.4-1.el6.x86_64
```

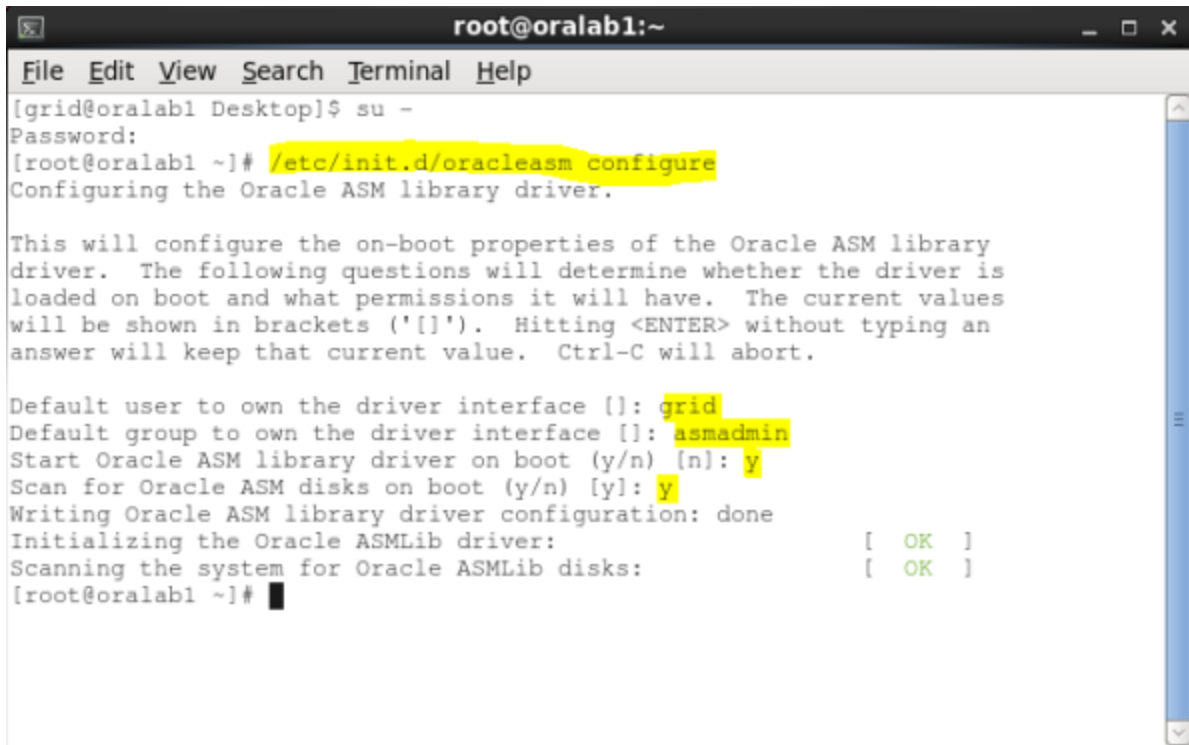
```
#yum install oracleasm-support-2.1.8-1.el6.x86_64
```

```
#/etc/init.d/oracleasm configure (If you get kernel error then follow this step if not continue )
```

```
#oracleasm update-driver
```

```
#yum install kernel-uek kernel-uek-devel kernel-uek-headers
kernel-uek-firmware+
#/etc/init.d/oracleasm restart
```

```
#modprobe oracleasm
```



```
root@oralab1:~
File Edit View Search Terminal Help
[grid@oralab1 Desktop]$ su -
Password:
[root@oralab1 ~]# /etc/init.d/oracleasm configure
Configuring the Oracle ASM library driver.

This will configure the on-boot properties of the Oracle ASM library
driver. The following questions will determine whether the driver is
loaded on boot and what permissions it will have. The current values
will be shown in brackets ('[]'). Hitting <ENTER> without typing an
answer will keep that current value. Ctrl-C will abort.

Default user to own the driver interface []: grid
Default group to own the driver interface []: asmadmin
Start Oracle ASM library driver on boot (y/n) [n]: y
Scan for Oracle ASM disks on boot (y/n) [y]: y
Writing Oracle ASM library driver configuration: done
Initializing the Oracle ASMLib driver:           [ OK ]
Scanning the system for Oracle ASMLib disks:    [ OK ]
[root@oralab1 ~]#
```




```
root@oralab1:~  
File Edit View Search Terminal Help  
[root@oralab1 ~]# ls /dev/sd*  
/dev/sda /dev/sda1 /dev/sda2 /dev/sdb /dev/sdc /dev/sdd  
[root@oralab1 ~]#
```

It's time to setup the disks. As you saw in the previous screenshot, i have three additional disks named (`/dev/sdb`, `/dev/sdc`, `/dev/sdd`) we need to partition each disks in order to make them available for ASM. We will use `fdisk` to partition them, here is the order you'll have to follow.

1. `fdisk /dev/sdb`
2. `n,p,1,1,w`
3. `fdisk /dev/sdc`
4. `n,p,1,1,w`
5. `fdisk /dev/sdd`
6. `n,p,1,1,w`

Here is how it looks like:

```
root@oralab1:~  
File Edit View Search Terminal Help  
/dev/sda /dev/sda1 /dev/sda2 /dev/sdb /dev/sdc /dev/sdd  
[root@oralab1 ~]#  
[root@oralab1 ~]# fdisk /dev/sdb  
Device contains neither a valid DOS partition table, nor Sun, SGI or OSF disklabel  
Building a new DOS disklabel with disk identifier 0x12e5c3db.  
Changes will remain in memory only, until you decide to write them.  
After that, of course, the previous content won't be recoverable.  
  
Warning: invalid flag 0x0000 of partition table 4 will be corrected by w(rite)  
  
WARNING: DOS-compatible mode is deprecated. It's strongly recommended to  
switch off the mode (command 'c') and change display units to  
sectors (command 'u').  
  
Command (m for help): n  
Command action  
e extended  
p primary partition (1-4)  
p  
Partition number (1-4): 1  
First cylinder (1-397, default 1): 1  
Last cylinder, +cylinders or +size(K,M,G) (1-397, default 397):  
Using default value 397  
  
Command (m for help): y  
The partition table has been altered!  
  
Calling ioctl() to re-read partition table.  
Syncing disks.  
[root@oralab1 ~]#
```

Let's check again our disks. You will notice that 3 more devices appear, those are the partition we created.

```
root@oralab1:~  
File Edit View Search Terminal Help  
[root@oralab1 ~]# ls /dev/sd*  
/dev/sda /dev/sda2 /dev/sdb1 /dev/sdc1 /dev/sdd1  
/dev/sda1 /dev/sdb /dev/sdc /dev/sdd  
[root@oralab1 ~]#
```

Next let's disable SELinux as follows 'vi /etc/selinux/config'


```
root@oralab1:~  
File Edit View Search Terminal Help  
[root@oralab1 ~]# oracleasm listdisks  
DISK1  
DISK2  
DISK3  
[root@oralab1 ~]# █
```

=====

Ssh connectivity between RAC1 and RAC2 Nodes(Follow same procedure on both sides):-

=====

For oracle user:-

Permission should set on both side (#chmod 755 /root #chmod 775 /home #chmod -R 700 /home/oracle)

#step1:ssh-keygen -t rsa

#step2:ssh-copy-id -i /home/oracle/.ssh/id_rsa.pub oracle@ptr-rac2

#step3:ssh oracle@ptr-rac2

=====

Install the Grid Infrastructure:-

=====

(To run display we need do below step

root@Rac1:#xhost +

#su oracle

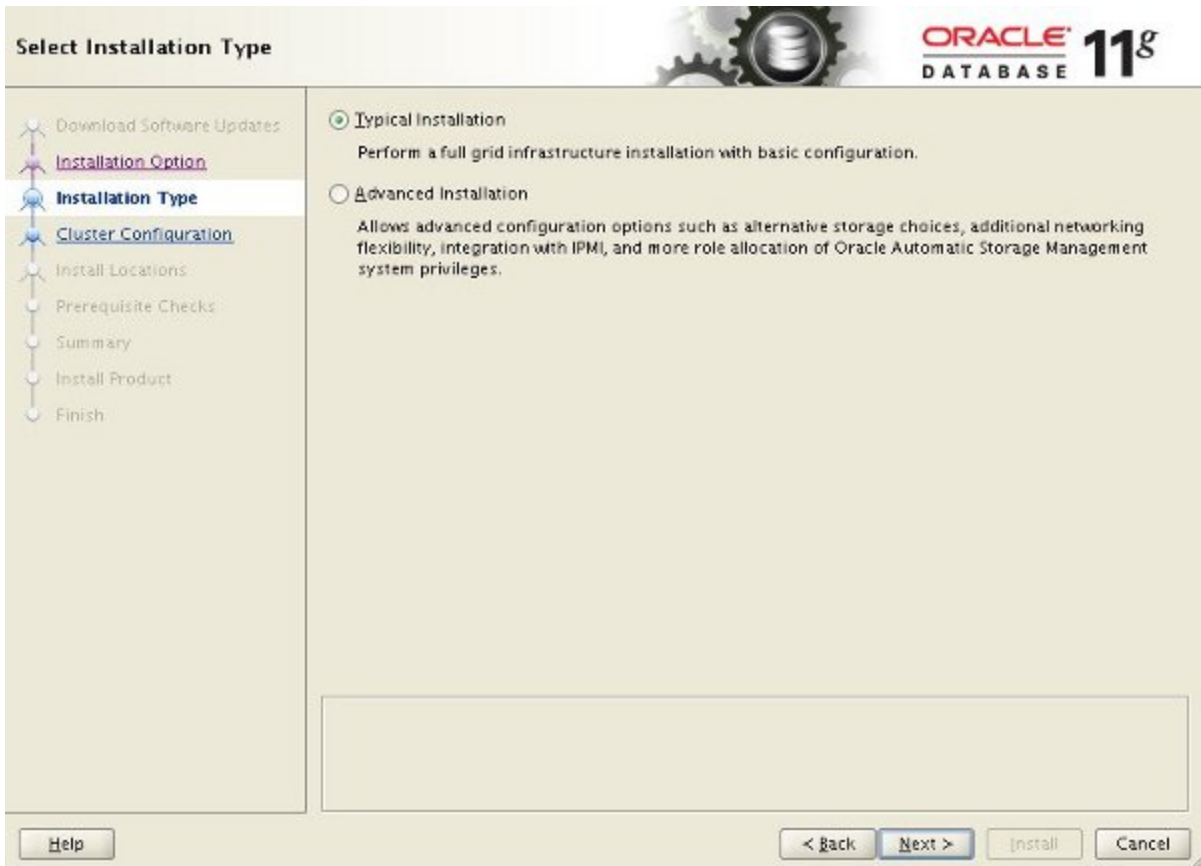
oracle@Rac1:#xhost localhost)

```
$ cd /home/linux64_grid
$ ./runInstaller.sh
```

Select the "Install and Configure Oracle Grid Infrastructure for a Cluster" option, then click the "Next" button.



Select the "Typical Installation" option, then click the "Next" button.



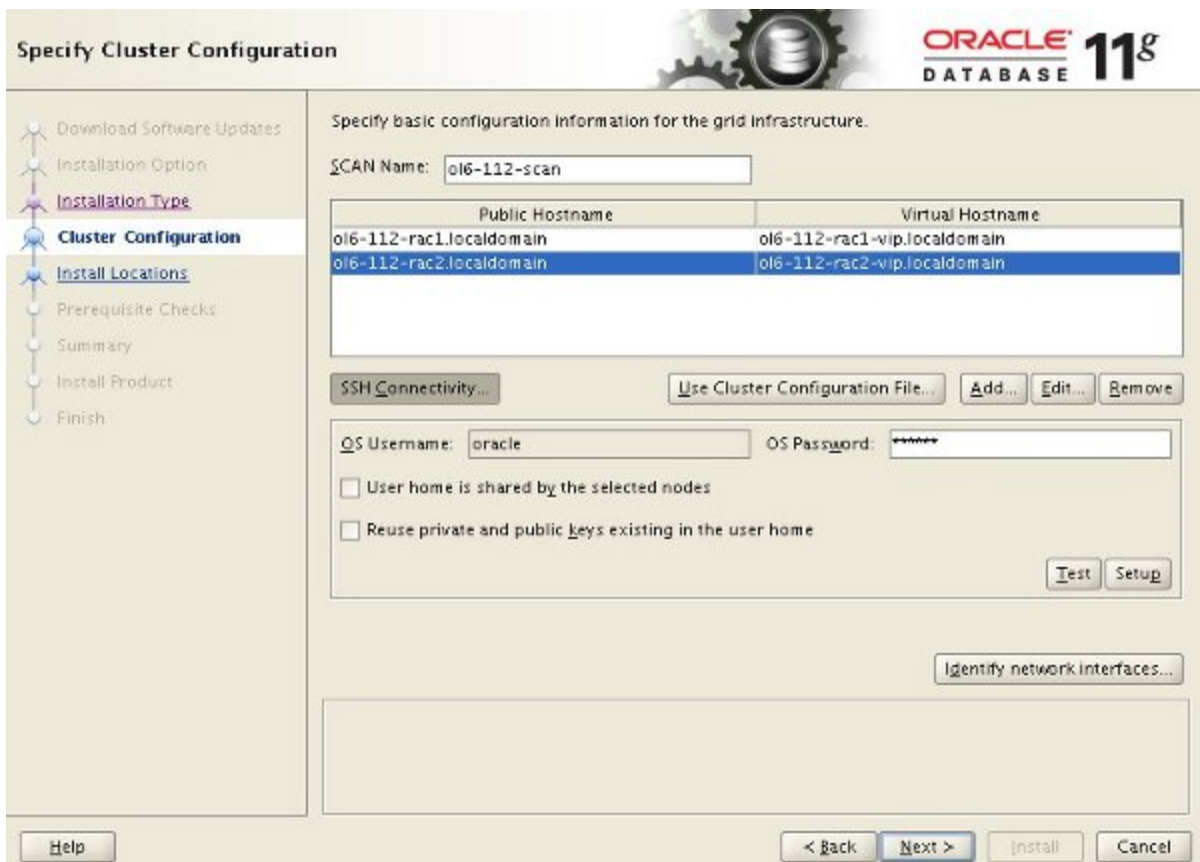
On the "Specify Cluster Configuration" screen, enter the correct SCAN Name and click the "Add" button.



Enter the details of the second node in the cluster, then click the "OK" button.



Click the "SSH Connectivity..." button and enter the password for the "oracle" user. Click the "Setup" button to to configure SSH connectivity, and the "Test" button to test it once it is complete.



Click the "Identify network interfaces..." button and check the public and private networks are specified correctly. Once you are happy with them, click the "OK" button and the "Next" button on the previous screen.


Identify the planned use for each global interface shown in the box below as Public, Private, or Do Not Use. Private interfaces are used by Oracle Grid Infrastructure for internode traffic.

If there is more than one subnet associated with an interface, then change the interface's attributes to associate the interface name with the additional subnets.

Interface Name	Subnet	Interface Type
eth0	192.168.0.0	Public
eth1	192.168.1.0	Private

OK Cancel

Enter "/u01/app/11.2.0.3/grid" as the software location and "Automatic Storage Manager" as the cluster registry storage type. Enter the ASM password, select "dba" as the group and click the "Next" button.

Specify Install Locations 

Download Software Updates
Installation Option
Installation Type
Cluster Configuration
Install Locations
Prerequisite Checks
Summary
Install Product
Finish

Specify locations for Oracle base, where to install the software, where to place the Oracle Cluster Registry (OCR), and which operating system group should be given the administrative privileges (SYSASM) for Oracle Automatic Storage Management.

Oracle Base:

Software Location:

Cluster Registry Storage Type:

Cluster Registry Location:

SYSASM Password:

Confirm Password:

OSASM group:

Set the redundancy to "External", click the "Change Discovery Path" button and set the path to "/dev/asm*". Return the main screen and select all 4 disks and click the "Next" button.

Create ASM Disk Group



- Download Software Updates
- Installation Option
- Installation Type
- Cluster Configuration
- Install Locations
- Create ASM Disk Group**
- Prerequisite Checks
- Summary
- Install Product
- Finish

Select Disk Group Characteristics and select disks

Disk Group Name

Redundancy High Normal External

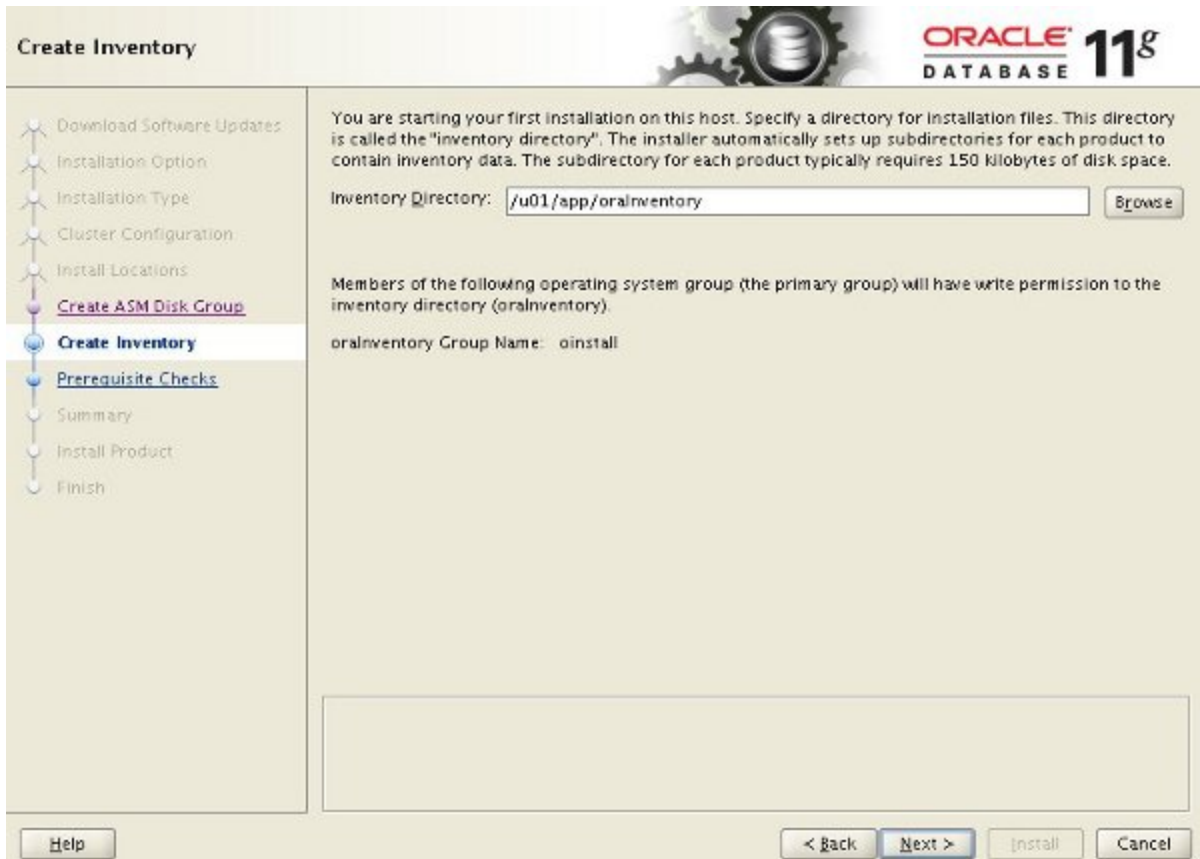
AU Size MB

Add Disks

Candidate Disks All Disks

<input checked="" type="checkbox"/>	Disk Path	Size (in MB)	Status
<input checked="" type="checkbox"/>	/dev/asm-disk1	5114	Candidate
<input checked="" type="checkbox"/>	/dev/asm-disk2	5114	Candidate
<input checked="" type="checkbox"/>	/dev/asm-disk3	5114	Candidate
<input checked="" type="checkbox"/>	/dev/asm-disk4	5114	Candidate

Accept the default inventory directory by clicking the "Next" button.



The image shows the Oracle 11g Database installation wizard's "Create Inventory" step. The left sidebar contains a navigation tree with the following items: "Download Software Updates", "Installation Option", "Installation Type", "Cluster Configuration", "Install Locations", "Create ASM Disk Group", "Create Inventory" (highlighted), "Prerequisite Checks", "Summary", "Install Product", and "Finish". The main content area has a title "Create Inventory" and a sub-header "ORACLE DATABASE 11g". Below this, a message states: "You are starting your first installation on this host. Specify a directory for installation files. This directory is called the 'inventory directory'. The installer automatically sets up subdirectories for each product to contain inventory data. The subdirectory for each product typically requires 150 kilobytes of disk space." A text input field labeled "Inventory Directory:" contains the path "/u01/app/orainventory" and a "Browse" button. Below this, a message says: "Members of the following operating system group (the primary group) will have write permission to the inventory directory (orainventory)." The "orainventory Group Name:" is set to "oinstall". At the bottom, there are buttons for "Help", "< Back", "Next >", "Install", and "Cancel".

Wait while the prerequisite checks complete. If you have any issues, either fix them or check the "Ignore All" checkbox and click the "Next" button.

Perform Prerequisite Checks



ORACLE
DATABASE 11g

- Download Software Updates
- Installation Option
- Installation Type
- Cluster Configuration
- Install Locations
- [Create ASM Disk Group](#)
- Prerequisite Checks**
- [Summary](#)
- Install Product
- Finish

Some of the minimum requirements for installation are not completed. Review and fix the issues listed in the following table, and recheck the system.

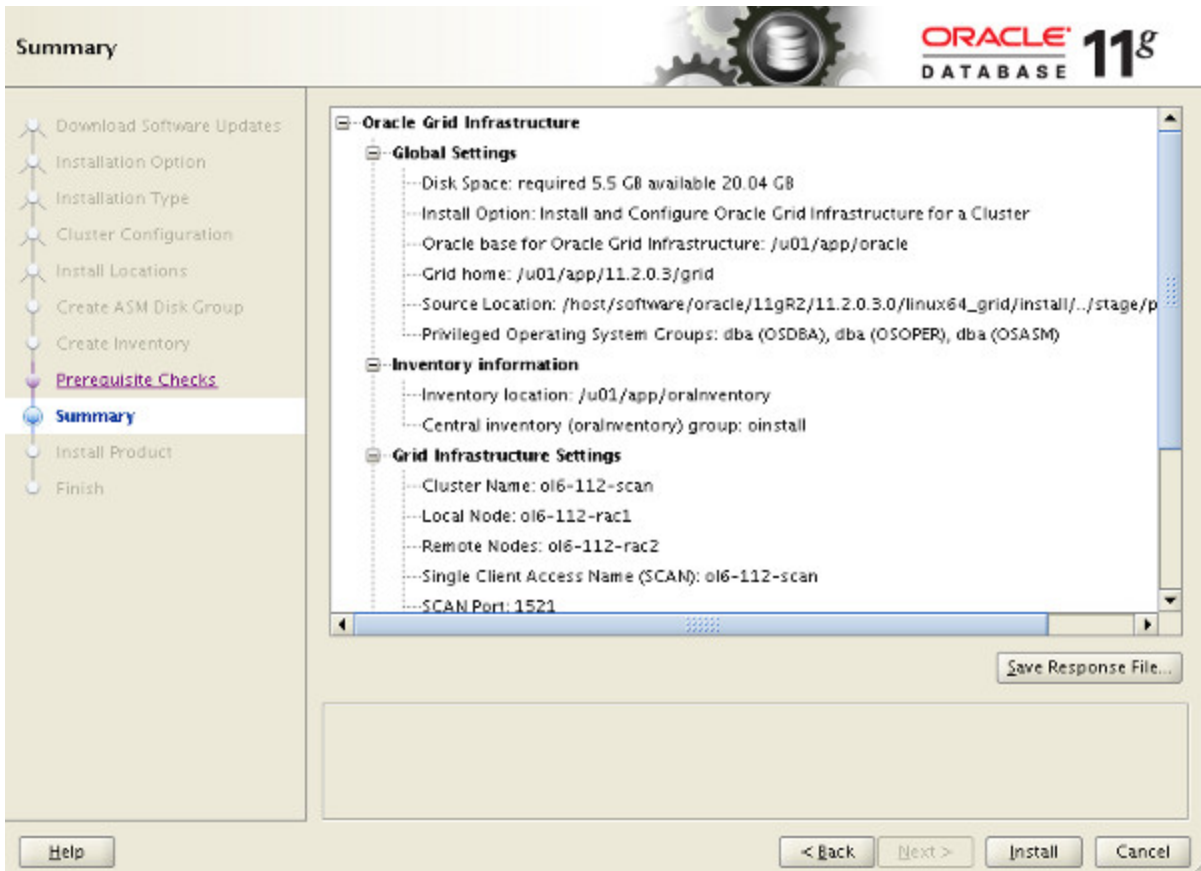
Ignore All

Checks	Status	Fixable
Checks		
Device Checks for ASM	Ignored	No

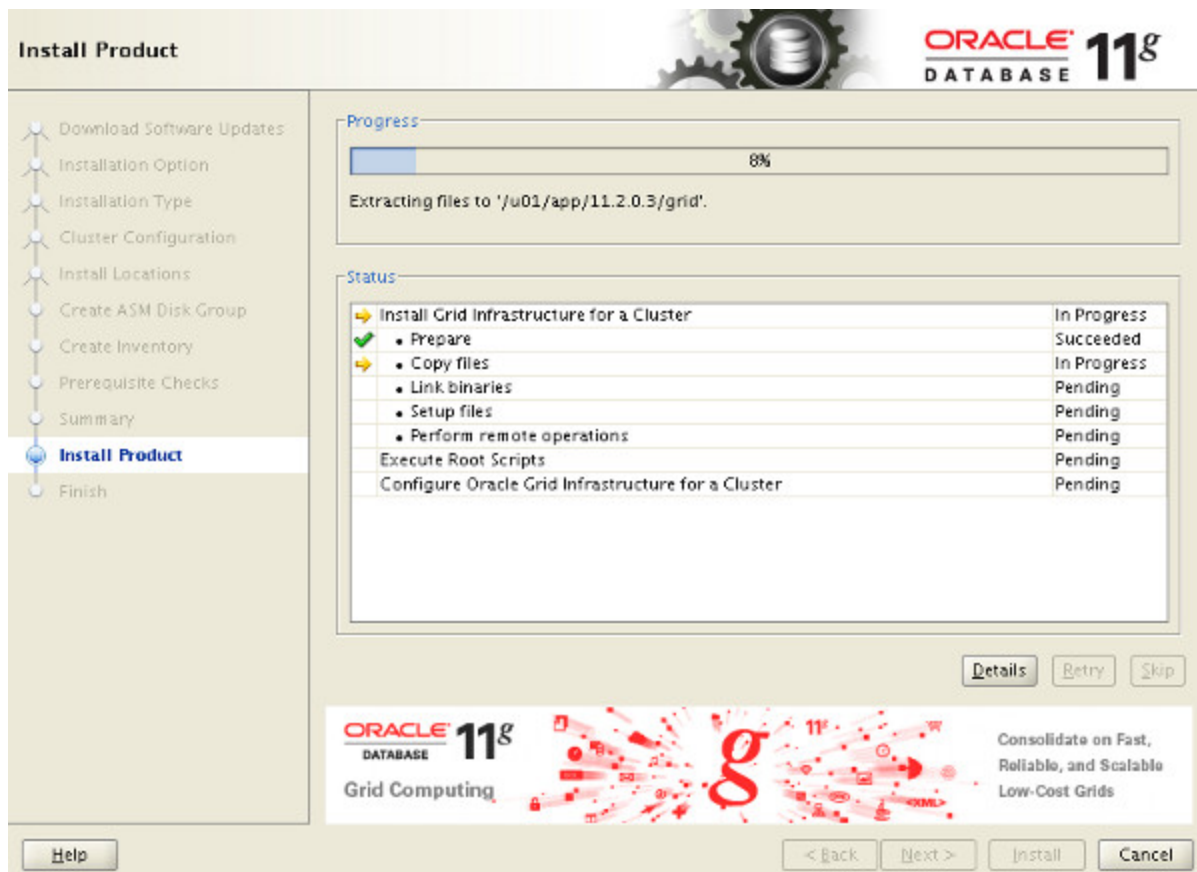
This is a pre-check to verify if the specified devices meet the requirements for configuration through the Oracle Universal Storage Manager Configuration Assistant. [\(more details\)](#)

Check Failed on Nodes: [ol6-112-rac2, ol6-112-rac1]

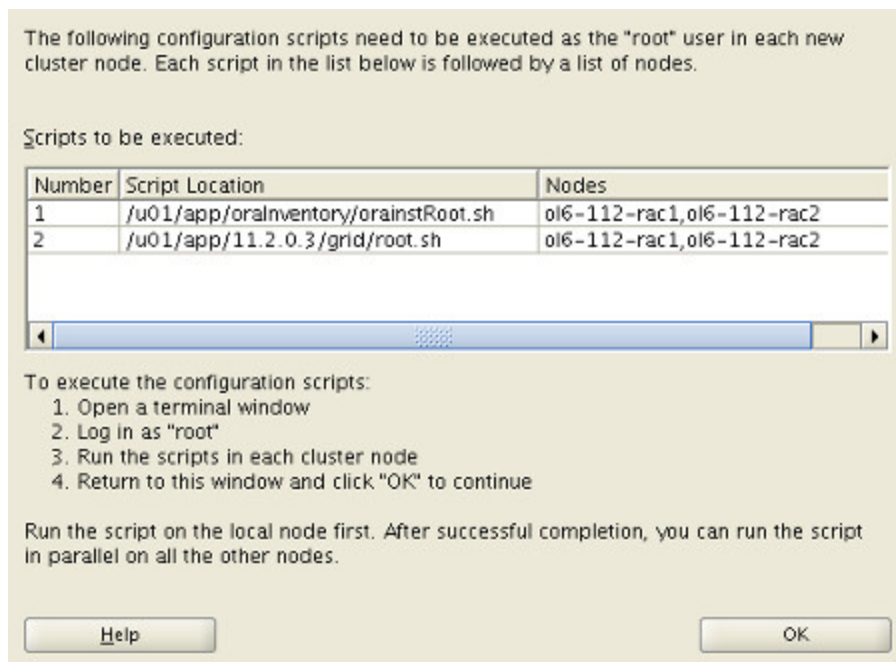
If you are happy with the summary information, click the "Install" button.



Wait while the setup takes place.
11111111111111



When prompted, run the configuration scripts on each node.



The output from the "orainstRoot.sh" file should look something like that listed below.


```
# cd /u01/app/oralInventory
```

```
# ./orainstRoot.sh
```

Changing permissions of /u01/app/oralInventory.

Adding read,write permissions for group.

Removing read,write,execute permissions for world.

Changing groupname of /u01/app/oralInventory to oinstall.

The execution of the script is complete.

```
#
```

The output of the root.sh will vary a little depending on the node it is run on. Example output can be seen here ([Node1](#), [Node2](#)).

Once the scripts have completed, return to the "Execute Configuration Scripts" screen on "rac1" and click the "OK" button.

```
=====
```

FOR OHASD ERROR

```
=====
```

Hello,

Problem is indeed because of upstart/init incompatibility. Here is the working way:

- 1) Proceed with the installation as usual until root.sh invocation.
- 2) Before root.sh edit \$GRID_HOME/crs/install/s_crsconfig_lib.pm, go to line 1173 (you should find a code like: if (\$srv eq "ohasd") { # Start OHASD).
- 3) Insert a following snippet before starting OHASD part I added the code snippet after this line:

```
system ("$INIT q");
```

```
< added code here>
```

```
# Start OHASD
```

```
$status = system ("$CRSCTL start has");  
} elsif ($srv eq "crsexcl") {
```

```
trace ("Starting Oracle clusterware exclusive");
```

```
=====
```

CODE snippet

```
=====
```

```
my $UPSTART_OHASD_SERVICE = "oracle-ohasd";  
my $INITCTL = "/sbin/initctl";
```

```
($status, @output) = system_cmd_capture ("$INITCTL start  
$UPSTART_OHASD_SERVICE");  
if (0 != $status)  
{  
error ("Failed to start $UPSTART_OHASD_SERVICE, error: $!");  
return $FAILED;  
}  
}
```

```
=====
```

4) Create a file /etc/init/oracle-ohasd.conf with the following content inside

```
# Oracle OHASD startup
```

```
start on runlevel [35]  
stop on runlevel [!35]  
respawn  
exec /etc/init.d/init.ohasd run >/dev/null 2>&1 </dev/null
```

5) Invoke root.sh

6) Finish the installation.

**If you previously ran root.sh (not successfully), simply roll it back:
\$GRID_HOME/crs/install/root.sh -deconfig -force -verbose
Make changes above and continue.**

The following configuration scripts need to be executed as the "root" user in each new cluster node. Each script in the list below is followed by a list of nodes.

Scripts to be executed:

Number	Script Location	Nodes
1	/u01/app/orainventory/orainstRoot.sh	ol6-112-rac1,ol6-112-rac2
2	/u01/app/11.2.0.3/grid/root.sh	ol6-112-rac1,ol6-112-rac2

To execute the configuration scripts:

1. Open a terminal window
2. Log in as "root"
3. Run the scripts in each cluster node
4. Return to this window and click "OK" to continue

Run the script on the local node first. After successful completion, you can run the script in parallel on all the other nodes.

Help

OK

Wait for the configuration assistants to complete.

Install Product

ORACLE DATABASE 11g

Progress: 95%

Starting 'Oracle Cluster Verification Utility'

Status:

✓	Install Grid Infrastructure for a Cluster	Succeeded
✓	• Prepare	Succeeded
✓	• Copy files	Succeeded
✓	• Link binaries	Succeeded
✓	• Setup files	Succeeded
✓	• Perform remote operations	Succeeded
✓	Execute Root Scripts	Succeeded
➔	Configure Oracle Grid Infrastructure for a Cluster	In Progress
✓	• Update Inventory	Succeeded
✓	• Oracle Net Configuration Assistant	Succeeded
✓	• Automatic Storage Management Configuration Assistant	Succeeded
➔	• Oracle Cluster Verification Utility	In Progress

Details | Retry | Skip

ORACLE DATABASE 11g Information Management

Integrating Spatial, XML, and SecureFiles

Help | < Back | Next > | Install | Cancel

We expect the verification phase to fail with an error relating to the SCAN, assuming you are not using DNS.

INFO: Checking Single Client Access Name (SCAN)...

INFO: Checking name resolution setup for "rac-scan.localdomain"...

INFO: ERROR:

INFO: PRVF-4664 : Found inconsistent name resolution entries for SCAN name "rac-scan.localdomain"

INFO: ERROR:

INFO: PRVF-4657 : Name resolution setup check for "rac-scan.localdomain" (IP address: 192.168.2.201) failed

INFO: ERROR:

INFO: PRVF-4664 : Found inconsistent name resolution entries for SCAN name "rac-scan.localdomain"

INFO: Verification of SCAN VIP and Listener setup failed

Provided this is the only error, it is safe to ignore this and continue by clicking the "Next" button.

Click the "Close" button to exit the installer.



The grid infrastructure installation is now complete.

Install the Database

Make sure the "ol6-112-rac1" and "ol6-112-rac2" virtual machines are started, then login to "ol6-112-rac1" as the oracle user and start the Oracle installer.

```
$ cd /host/software/oracle/11gR2/11.2.0.3.0/linux64_database
```

```
$ ./runInstaller
```

Uncheck the security updates checkbox and click the "Next" button and "Yes" on the subsequent warning dialog.

Configure Security Updates



ORACLE
DATABASE 11g

Configure Security Updates

Download Software Updates

Apply Software Updates

Installation Option

Grid Installation Options

Install Type

Typical Installation

Prerequisite Checks

Summary

Install Product

Finish

Provide your email address to be informed of security issues, install the product and initiate configuration manager. [View details.](#)

Email:

Easier for you if you use your My Oracle Support email address/username.

I wish to receive security updates via My Oracle Support.

My Oracle Support Password:

Help

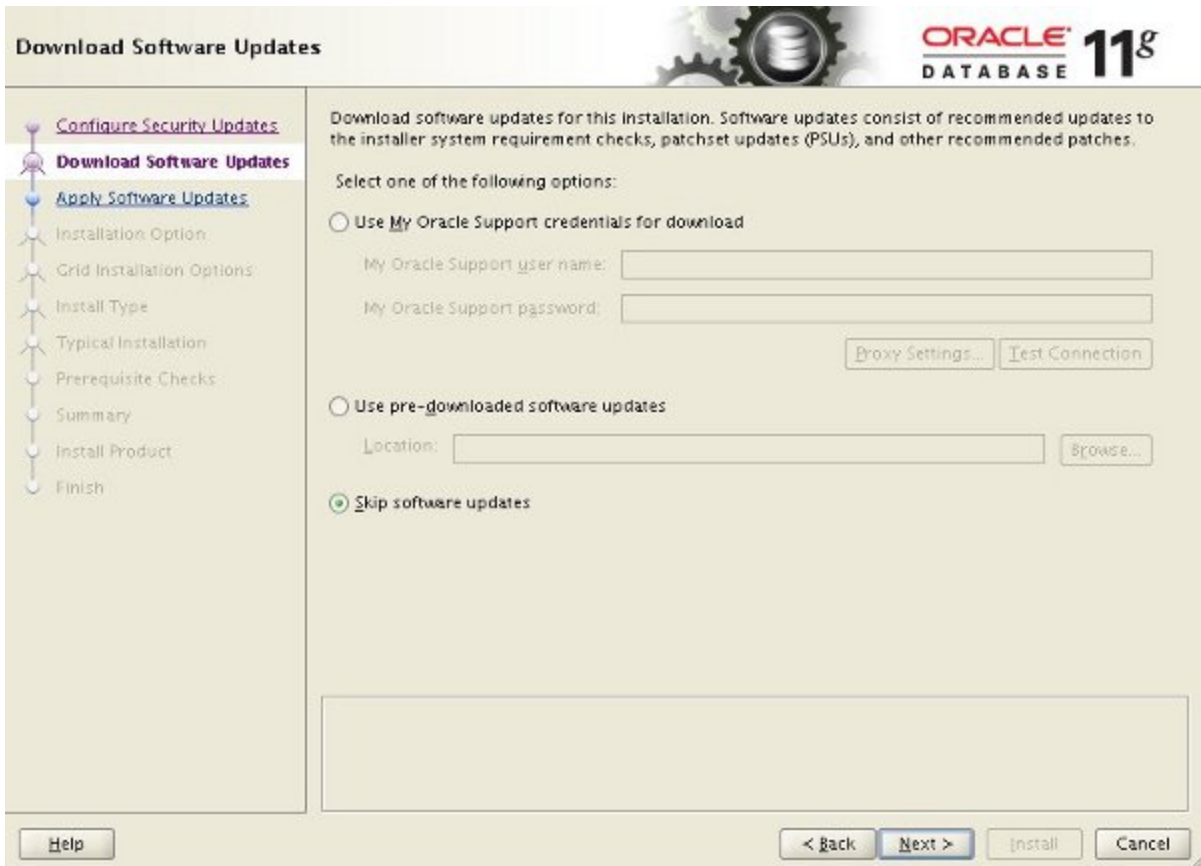
< Back

Next >

Install

Cancel

Check the "Skip software updates" checkbox and click the "Next" button.



Accept the "Create and configure a database" option by clicking the "Next" button.

Select Installation Option



ORACLE
DATABASE 11g

- Configure Security Updates
- [Download Software Updates](#)
- Installation Option**
- [Grid Installation Options](#)
- Install Type
- Typical Installation
- Prerequisite Checks
- Summary
- Install Product
- Finish

Select any of the following install options.

Note: If you want to upgrade an existing Oracle Database 11g Release 2 Instance select "Upgrade an existing database" option.

- Create and configure a database
- Install database software only
- Upgrade an existing database

Help

< Back

Next >

Install

Cancel

Accept the "Server Class" option by clicking the "Next" button.



Make sure both nodes are selected, then click the "Next" button.

Grid Installation Options



ORACLE
DATABASE 11g

- Configure Security Updates
- Download Software Updates
- Installation Option
- System Class
- Grid Installation Options**
- Install Type
- Typical Installation
- Prerequisite Checks
- Summary
- Install Product
- Finish

Select the type of database installation you want to perform.

- Single instance database installation
- Oracle Real Application Clusters database installation
- Oracle RAC One Node database installation

Select nodes (in addition to the local node) in the cluster where the installer should install Oracle RAC or Oracle RAC One.

Node Name	
<input checked="" type="checkbox"/>	1 ol6-112-rac1
<input checked="" type="checkbox"/>	2 ol6-112-rac2

SSH Connectivity...

Select All

Deselect All

Help

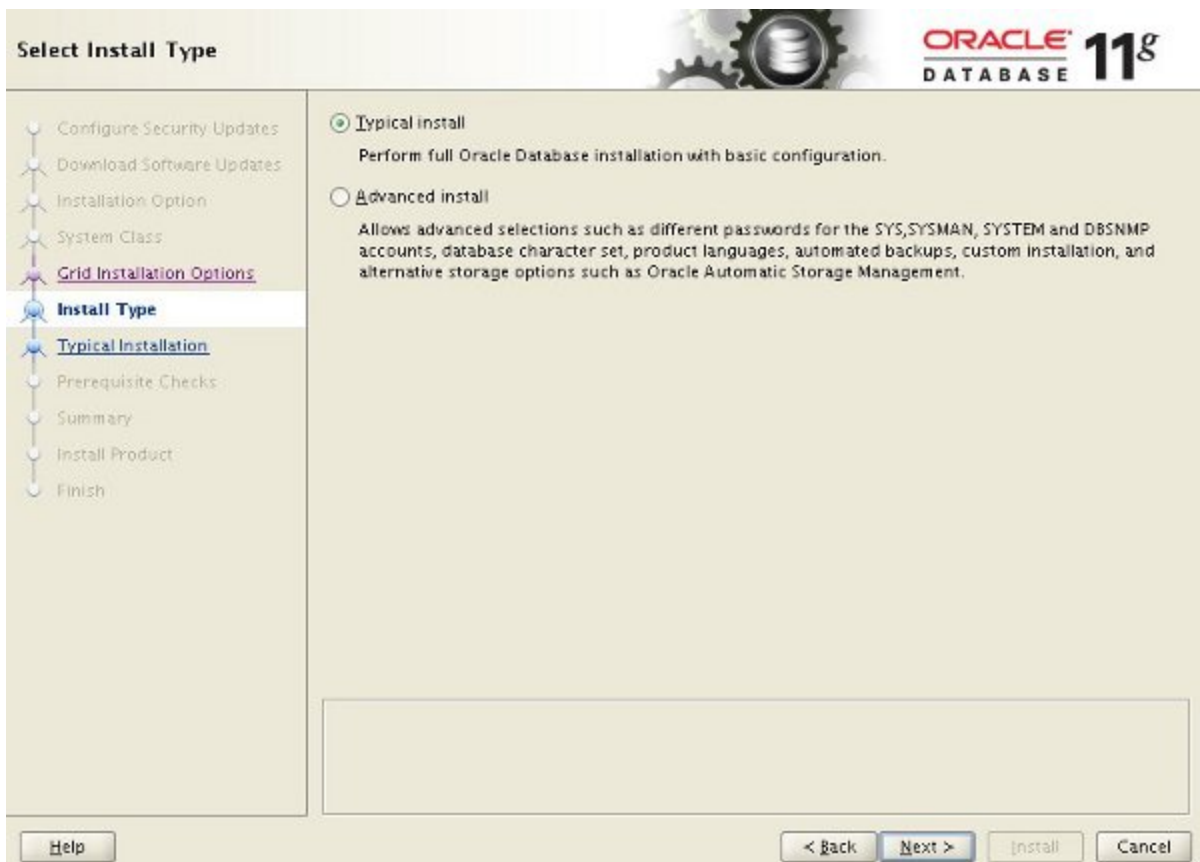
< Back

Next >


Install

Cancel

Accept the "Typical install" option by clicking the "Next" button.



Enter "/u01/app/oracle/product/11.2.0.3/db_1" for the software location. The storage type should be set to "Automatic Storage Manager". Enter the appropriate passwords and database name, in this case "RAC.localdomain".

Typical Install Configuration 

Perform full Database installation with basic configuration.

Oracle base:

Software location:

Storage Type:

Database file location:

ASMSNMP Password:

Database edition:

OSDBA Group:

Global database name:

Administrative password:

Confirm Password:

Service Name:

Wait for the prerequisite check to complete. If there are any problems either fix them, or check the "Ignore All" checkbox and click the "Next" button.

Perform Prerequisite Checks



ORACLE[®] 11g
DATABASE

- Configure Security Updates
- Download Software Updates
- Installation Option
- System Class
- Grid Installation Options
- Install Type
- Typical Installation
- Prerequisite Checks**
- Summary
- Install Product
- Finish

Verifying that the target environment meets minimum installation and configuration requirements for products you have selected. This can take time. Please wait.

56%

Checking OS Kernel Parameter: file-max ...

Help

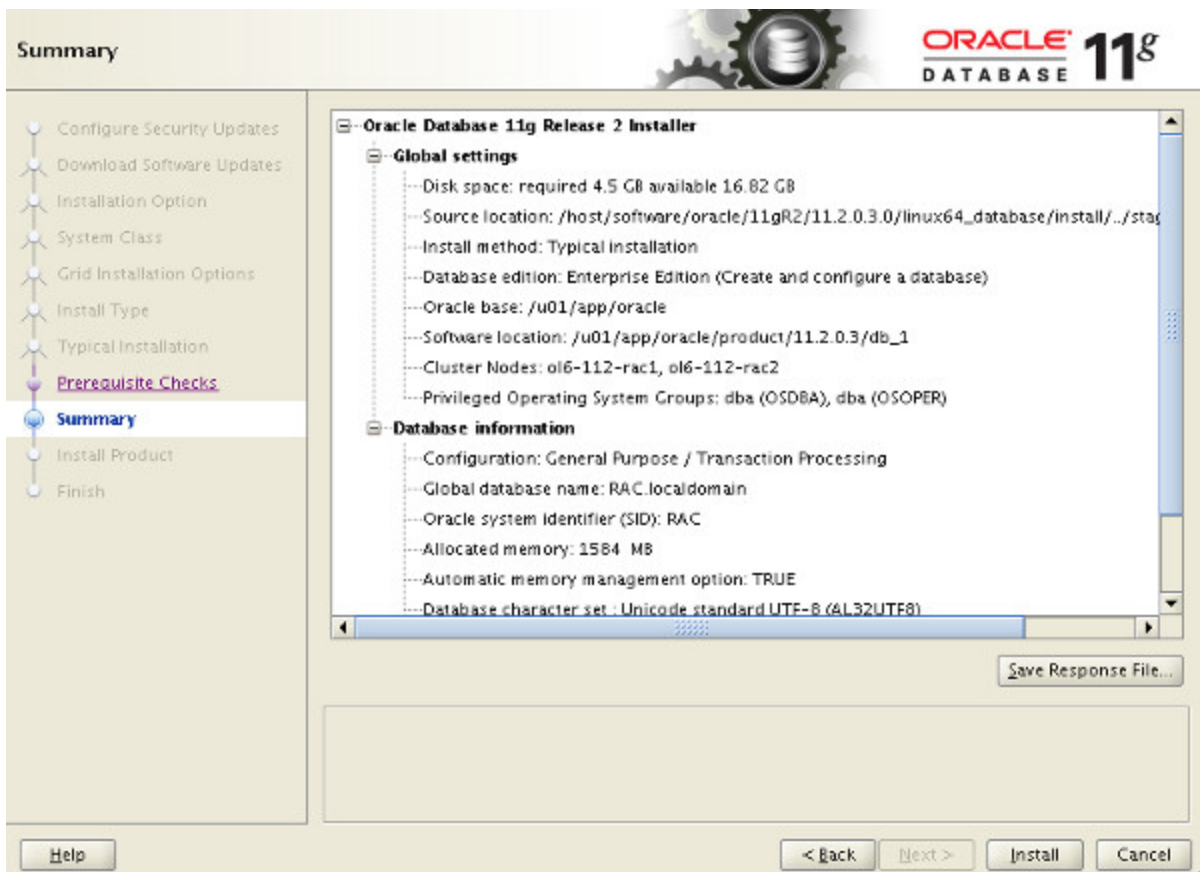
< Back

Next >

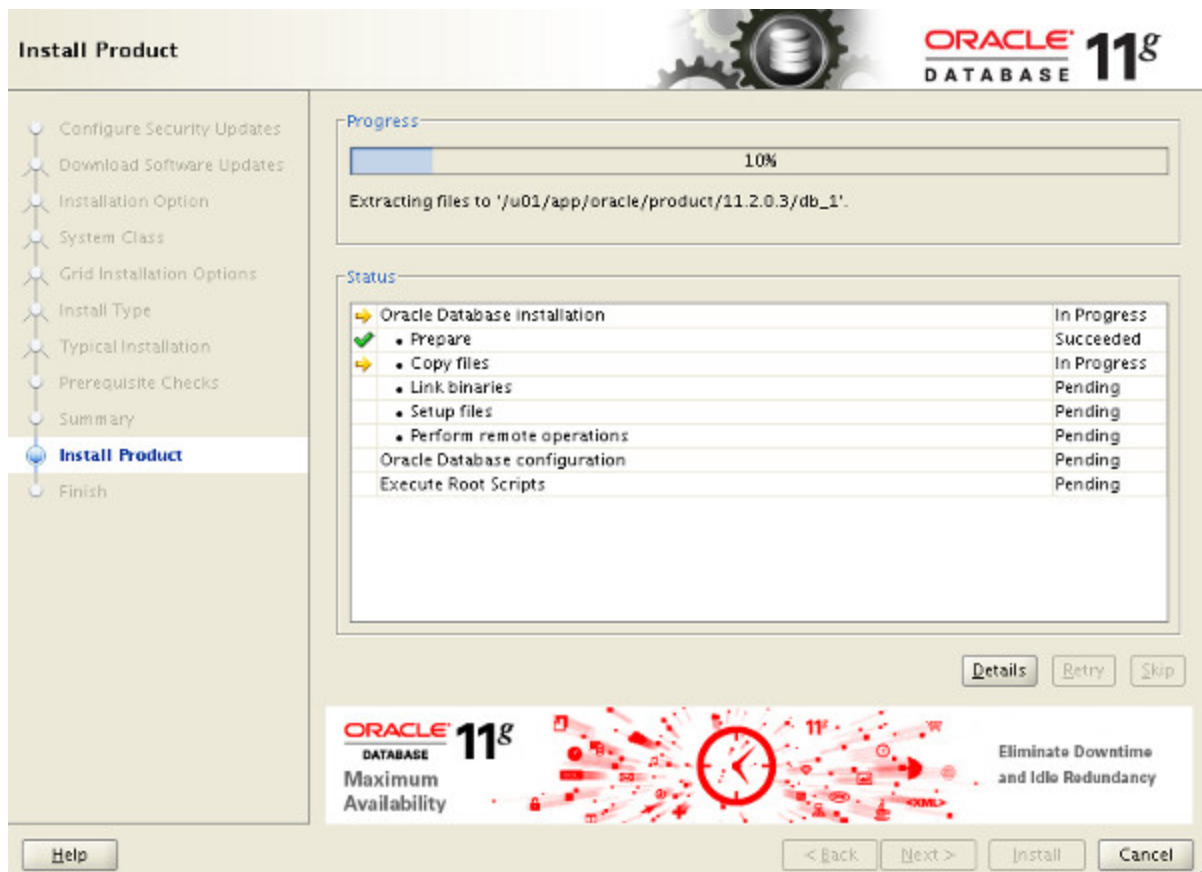
Install

Cancel

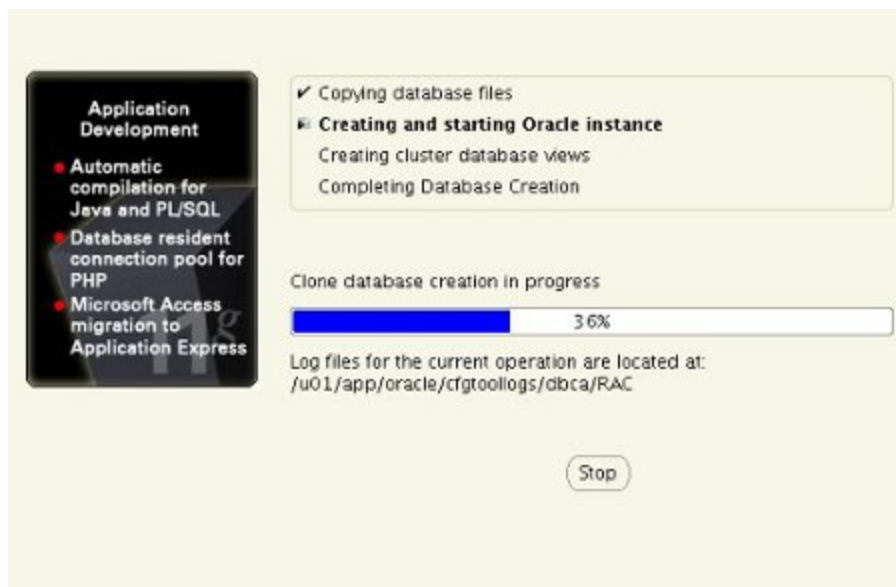
If you are happy with the summary information, click the "Install" button.



Wait while the installation takes place.



Once the software installation is complete the Database Configuration Assistant (DBCA) will start automatically.



Once the Database Configuration Assistant (DBCA) has finished, click the "OK" button.

Database creation complete. For details check the logfiles at:
/u01/app/oracle/cfgtoollogs/dbca/RAC.

Database Information:

Global Database Name: RAC.localdomain
System Identifier(SID) Prefix: RAC
Server Parameter File name: +DATA/RAC/spfileRAC.ora

The Database Control URL is https://ol6-112-rac1.
localdomain:1158/em

Management Repository has been placed in secure mode wherein Enterprise Manager data will be encrypted. The encryption key has been placed in the file:
/u01/app/oracle/product/11.2.0.3/db_1/ol6-112-rac1_RAC/sysman/config/emkey.ora. Ensure this file is backed up as the encrypted data will become unusable if this file is lost.

Note: All database accounts except SYS, SYSTEM and DBSNMP are locked. Select the Password Management button to view a complete list of locked accounts or to manage the database accounts (except DBSNMP). From the Password Management window, unlock only the accounts you will use. Oracle Corporation strongly recommends changing the default passwords immediately after unlocking the account.

Password Management...

OK

When prompted, run the configuration scripts on each node. When the scripts have been run on each node, click the "OK" button.

The following configuration scripts need to be executed as the "root" user in each new cluster node. Each script in the list below is followed by a list of nodes.

Scripts to be executed:

Number	Script Location	Nodes
1	/u01/app/oracle/product/11.2.0.3/db_1/root.sh	ol6-112-rac1,ol6-112-r

To execute the configuration scripts:

1. Open a terminal window
2. Log in as "root"
3. Run the scripts in each cluster node
4. Return to this window and click "OK" to continue

Help

OK

Click the "Close" button to exit the installer.



=====**The RAC database creation is now complete.**=====

The RAC database creation is now complete.

=====

The srvctl utility shows the current configuration and status of the RAC database.

=====

```
$ srvctl config database -d RAC  
Database unique name: RAC  
Database name: RAC  
Oracle home: /u01/app/oracle/product/11.2.0.3/db_1  
Oracle user: oracle  
Spfile: +DATA/RAC/spfileRAC.ora  
Domain: localdomain  
Start options: open  
Stop options: immediate
```

Database role: PRIMARY
Management policy: AUTOMATIC
Server pools: RAC
Database instances: RAC2,RAC1
Disk Groups: DATA
Mount point paths:
Services:
Type: RAC
Database is administrator managed
\$

\$ srvctl status database -d RAC
Instance RAC1 is running on node ol6-112-rac1
Instance RAC2 is running on node ol6-112-rac2
\$

The **V\$ACTIVE_INSTANCES** view can also display the current status of the instances.

```
sqlplus / as sysdba
```

```
SQL*Plus: Release 11.2.0.3.0 Production on Tue Sep 27 22:20:14  
2011
```

```
Copyright (c) 1982, 2011, Oracle. All rights reserved.
```

```
Connected to:
```

```
Oracle Database 11g Enterprise Edition Release 11.2.0.3.0 - 64bit  
Production
```

```
With the Partitioning, Real Application Clusters, Automatic Storage  
Management, OLAP,  
Data Mining and Real Application Testing options
```

```
SQL> SELECT inst_name FROM v$active_instances;
```

```
INST_NAME
```

```
-----  
ol6-112-rac1.localdomain:RAC1  
ol6-112-rac2.localdomain:RAC2
```

```
SQL>
```

On the node where CRS is not getting started:

- **crsctl stop crs -f**
- **check no CRS processes are running (pgrep -l d.bin)**
- **crsctl start crs**

To check status, start with

- **crsctl stat res -t -init**
- **crsctl stat res -t**

If you have configured Enterprise Manager, it can be used to view the configuration and current status of the database using a URL like "<https://ol6-112-rac1.localdomain:1158/em>".

Cluster Database: RAC.localdomain

Home Performance Availability Server Schema Data Movement Software and Support Topology

Latest Data Collected From Target Jan 12, 2013 10:47:47 PM GMT Refresh View Data Automatically (60 sec)

General

Shutdown Black Out

Status Up

Instances 2 (2)

Availability (%) 100 (Last 24 hours)

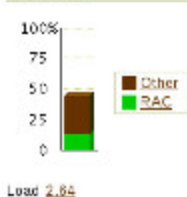
Database Name RAC

Version 11.2.0.3.0

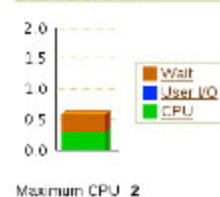
Cluster o6-112-span

[View All Properties](#)

Host CPU



Active Sessions



Diagnostic Summary

Interconnect Alerts 0

ADDM Findings No ADDM run available

Active Incidents 0

Key SQL Profiles Unavailable

Space Summary

Database Size (GB) Unavailable

Problem Tablespaces 0

Segment Advisor 0

Recommendations 0

Policy Violations 0

High Availability

Console Details

Last Backup n/a

Flashback Database Logging Disabled

Alerts

Category All Critical 0 Warnings 1

Severity	Target Name	Target Type	Category Name	Impact	Message	Alert Triggered
Warning	RAC.localdomain_RAC1 Database Instance	User Audit	Audited User		User SYS logged on from o6-112-rac1.localdomain.	Jan 12, 2013 10:43:27 PM

Related Alerts

Critical 1 Warnings 0

Policy Violations

All 0 Critical Rules Violated 2 Critical Security Patches 0 Compliance Score (%) 90

Security

Last Security Evaluation Jan 12, 2013 10:43:06 PM GMT Compliance Score (%) 88 Enterprise Security At a Glance

Job Activity

Create Job OS Command Go

Job executions scheduled to start no more than 7 days ago

Status	Submitted to the Cluster Database	Submitted to any member
Scheduled	0	0
Running	0	0
Suspended	0	0
Problem	0	0

Critical Patch Advisories for Oracle Homes

Patch Advisories 0

Affected Oracle Homes 0

Oracle MetaLink Credentials Not Configured

Warning: Patch Advisory information may be stale. Oracle MetaLink credentials are not configured.