Desplegando plantillas de OVM con deploycluster

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1 Introducción

Para cargar las plantillas de Oracle en un repositorio, podéis seguir el siguiente enlace:

https://arumel.com/es/ovm-como-importar-una-template-de-oracle-a-un-repositorio

Antes de empezar a desplegar, necesitamos tener creadas las máquinas virtuales sobre las que desplegaremos las plantillas proporcionadas por Oracle.

También podéis ver un ejemplo de creación de las máquinas virtuales aquí:

https://arumel.com/es/ovm-creando-maquinas-virtuales/

Un punto importante, es que ***deben estar paradas*** para que funcione el despliegue del SO y su configuración de ips (fase deploycluster).

En nuestro caso será un cluster con OEL 7.6 y RAC 18.4 con Enterprise Edition y con una pdb.

Es importante notar que para las redes públicas y privadas del RAC, ***las interfaces deben tener este orden (y estos nombres)***:

```
eth0 --> pública
eth1 --> privada
```

Una vez descargada la herramienta deploycluster de la web:

https://www.oracle.com/technetwork/server-storage/vm/database-templates-12c-11gr2-1972804.html

2 Deploycluster

En esta fase se arrancan las máquinas, se configuran las ips, los nombres de las máquinas, etc...

2.1 Netconfig.ini

```
[root@ovmmanager1 ~]# cat /u01/app/oracle/deploycluster3/utils/netconfigarumelPRO.ini
# Node specific information
NODE1=nodo01
NODE1IP=192.168.117.50
NODE1PRIV=nodo01-priv
NODE1PRIVIP=10.1.1.1
NODE1VIP=nodo01-vip
NODE1VIPIP=192.168.117.46
NODE2=nodo02
NODE2IP=192.168.117.51
NODE2PRIV=nodo02-priv
NODE2PRIVIP=10.1.1.2
NODE2VIP=nodo02-vip
NODE2VIPIP=192.168.117.47

# Common data
PUBADAP=eth0
PUBMASK=255.255.255.0
PUBGW=192.168.117.3
PRIVADAP=eth1
PRIVMASK=255.255.255.0
RACCLUSTERNAME=nodo
DOMAINNAME=inludes.int  # May be blank
DNSIP="192.168.115.21"  # Starting from 2013 Templates allows multi value
# Device used to transfer network information to second node
# in interview mode
NETCONFIG_DEV=/dev/xvdc
# RAC specific data
SCANNAME=nodo-scan
SCANIP=192.168.117.52

# 12c Flex parameters (uncomment to take effect)
#FLEX_CLUSTER=yes  # If 'yes' implies Flex ASM as well
FLEX_ASM=yes
```

```
#ASMADAP=eth2  # Must be different than private/public

#ASMMASK=255.255.0.0

#NODE1ASMIP=10.11.0.231

#NODE2ASMIP=10.11.0.232


# Single Instance (description in params.ini)

# CLONE_SINGLEINSTANCE=yes  # Setup Single Instance

# CLONE_SINGLEINSTANCE_HA=yes  # Setup Single Instance/HA (Oracle Restart)


# Paquetes yum a instalar

NETCONFIG_YUM_INSTALL="xorg-x11-xauth xorg-x11-utils bind-utils pciutils unzip wget psmisc perl-CGI traceroute java
lsof"

NETCONFIG_YUM_UPDATE=yes
```

2.2 Params.ini

```
[root@ovmmanager1 ~]# cat /u01/app/oracle/deploycluster3/utils/paramsarumelPRO.ini
#
#/* Copyright 2013-2018,  Oracle. All rights reserved. */
#
#
# WRITTEN BY: Oracle.
#  v1.5: Oct-2018 Add OMF and pluggable tweaks
#  v1.4: Dec-2017 Disable ssh, firewall
#  v1.3: Nov-2017 18c adjustments
#  v1.2: Aug-2017 12.2 adjustments
#  v1.1: Jan-2015 12.1.0.2 adjustments, Multi ASM Diskgroup support
#  v1.0: Jul-2013 Creation
#
#
# Oracle DB/RAC 18c OneCommand for Oracle VM - Generic configuration file
# For Single Instance, Single Instance HA (Oracle Restart) and Oracle RAC
#
###########################################
#
# Generic Parameters
#
# NOTE: The first section holds more advanced parameters that
#       should be modified by advanced users or if instructed by Oracle.
#
# See further down this file for the basic user modifiable parameters.
#
###########################################
#
# Temp directory (for OUI), optional
# Default: /tmp
TMPDIR="/tmp"
#
# Progress logfile location
# Default: $TMPDIR/progress-racovm.out
LOGFILE="$TMPDIR/progress-racovm.out"
#
# Must begin with a "+", see "man 1 date" for valid date formats, optional.
# Default: "+%Y-%m-%d %T"
LOGFILE_DATE_FORMAT=""
```

```
#
# Should 'clone.pl' be used (default no) or direct 'attach home' (default yes)
# to activate the Grid & RAC homes.
# Attach is possible in the VM since all relinking was done already
# Certain changes may still trigger a clone/relink operation such as switching
# from role to non-role separation.
# Default: yes
CLONE_ATTACH_DBHOME=yes
CLONE_ATTACH_GIHOME=yes
#
# Should a re-link be done on the Grid & RAC homes. Default is no,
# since the software was relinked in VM already. Setting it to yes
# forces a relink on both homes, and overrides the clone/attach option
# above by forcing clone operation (clone.pl)
# Default: no
CLONE_RELINK=no
#
# Should a re-link be done on the Grid & RAC homes in case of a major
# OS change; Default is yes.  In case the homes are attached to a different
# major OS than they were linked against, a relink will be automatically
# performed.  For example, if the homes were linked on OL5 and then used
# with an OL6 OS, or vice versa, a relink will be performed. To disable
# this automated relinking during install (cloning step), set this
# value to no (not recommended)
# Default: yes
CLONE_RELINK_ON_MAJOR_OS_CHANGE=yes
#
# New in 12.2 and above it is possible to switch the Database Edition
# during deployment. Set CLONE_DATABASE_EDITION to 'STD' for Standard
# Edition 2 or 'EE' for Enterprise Edition (these are the only two valid
# values). Make sure the correct edition is used based on your license.
# Default: ""
CLONE_DATABASE_EDITION=STD
#
# The root of the oracle install must be an absolute path starting with a /
# Default: /u01/app
RACROOT="/u01/app"
#
# The location of the Oracle Inventory
# Default: $RACROOT/oraInventory
RACINVENTORYLOC="${RACROOT}/oraInventory"
#
# The location of the SOFTWARE base
```

```
# In role separated configuration GIBASE may be defined to set the location
# of the Grid home which defaults to $RACROOT/$GRIDOWNER.
# Default: $RACROOT/$RACOWNER
#RACBASE="${RACROOT}/oracle"
#
# The location of the Grid home, must be set in RAC or Single Instance HA deployments
# Default: $RACROOT/18c/grid
GIHOME="${RACROOT}/18.4.0/grid"
#
# The location of the DB RAC home, must be set in non-Clusterware only deployments
# Default: ${RACBASE}/product/18c/dbhome_1
DBHOME="${RACROOT}/oracle/product/18.4.0/dbhome_1"
#
# The disk string used to discover ASM disks, it should cover all disks
# on all nodes, even if their physical names differ. It can also hold
# ASMLib syntax, e.g. ORCL:VOL*, and have as many elements as needed
# separated by space, tab or comma.
# Do not remove the "set -/+o noglob" options below, they are required
# so that discovery string don't expand on assignment.
set -o noglob
RACASMDISKSTRING="/dev/xvd[c-w]1"
set +o noglob
#
# List of devices, actual partitions or ASMLib disks for the initial ASM diskgroup.
# For additional diskgroup support see ASM MULTI-DISKGROUP SUPPORT section below.
# If actual partition number is specified no repartitioning will be done, otherwise
# specify top level device name and the disk will automatically be partitioned with
# one partition using 'parted'. For example, if /dev/xvdh4 is listed
# below it will be used as is, if it does not exist an error will be raised.
# However, if /dev/xvdh is listed it will be automatically partitioned
# and /dev/xvdh1 will be used. ASMLib disks must be pre-created by the user manually.
# Minimum of 5 devices or partitions are recommended (see ASM_MIN_DISKS).
# Only used if CLONE_CLUSTER_STORAGE=ASM.
ALLDISKS="/dev/xvdc /dev/xvdd /dev/xvde /dev/xvdf /dev/xvdg"
#
# List of ASMLib disks to use for the initial ASM diskgroup.  Can be either
# "diskname" or "ORCL:diskname".  They must be manually configured in ASMLib by
# mapping them to correct block device (this part is not automated). Disk name
# given should be the ASMLib disk name, e.g. "DISK1" and not device name /dev/...
# If you include any disks here they should also be included
# in RACASMDISKSTRING setting above (discovery string).
# Since 2014 release it is possible to list ASMLib disks in ANY disk variable,
# such as ALLDISKS, RACASM_RECO_DISKS and RACASM_*_DISKS, hence ALLDISKS_ASMLIB
```

```
# is kept for backwards compatibility.
ALLDISKS_ASMLIB=""
#
# By default 5 disks for ASM are recommended to provide higher redundancy
# for OCR/Voting files. If for some reason you want to use less
# disks, then uncomment ASM_MIN_DISKS below and set to the new minimum.
# Make needed adjustments in ALLDISKS and/or ALLDISKS_ASMLIB above.
# Default: 5
#ASM_MIN_DISKS=5
#
#       ---------------------------
# ----  ASM MULTI-DISKGROUP SUPPORT ----
#       ---------------------------
#    Starting with 2014 releases, multi-diskgroup support is added during initial
#    deployment and subsequent rebuild attempts.
#
#       REMINDER: Please follow the Best Practices on usage of diskgroups as
#       published by Oracle. For example, in general, one should not create a
#       diskgroup for each database or tablespace.
#       Diskgroup name is case insensitive (NaMe == NAME, always converted to UPPERCASE)
#       An ASM diskgroup name must be between 1 and 30 characters in length.
#       It must start with an alphabetical character and include only alphabetical
#       characters, numbers or the '_', '#', or '$' characters. Usage of '#' & '$'
#       is discouraged due to possible interoperability issues.
#
#    Automation is provided using the following new variables:
#RACASMGROUPNAME_RECO=''   # The name of the Recovery diskgroup (single name)
#RACASM_RECO_REDUNDANCY="" # Redundancy of the Recovery diskgroup: EXTERNAL, NORMAL (default), HIGH
#RACASM_RECO_ATTRIBUTES="" # Attributes of the Recovery diskgroup
#RACASM_RECO_DISKS=""      # List of disks used to create the Recovery diskgroup
#
#RACASMGROUPNAME_EXTRA=''  # List of names of additional diskgroups to be created
#RACASM_1_REDUNDANCY=""    # Redundancy of the Nth diskgroup (default: NORMAL)
#RACASM_1_ATTRIBUTES=""    # Attributes of the Nth diskgroup
#RACASM_1_DISKS=""         # List of disks used to create the Nth diskgroup
#
#      Using single quotes (') for assignment of names to prevent shell expansion in
#      case a "$" exists in name
#
#      Diskgroup attribute syntax must use single quotes around attribute names and values,
#      separated by an equal sign, e.g. 'au_size'='2M', separate each such pair by comma
#      for additional attributes (entire string is enclosed in double quotes).
#
```

```
#      If CLONE_CLUSTER_STORAGE=ASM_ON_NAS, then the *_DISKS variables (e.g. RACASM_RECO_DISKS,
#      RACASM_1_DISKS can have a size specified in MB as follows: "file-path:sizeMB, file2-path:sizeMB"
#      For example:
#           RACASM_1_DISKS="/nfs/170/disk1.dbf:6024,/nfs/170/disk2.dbf:6024,/nfs/170/disk3.dbf:6024"
#      This will attempt to create 3 disks each 6024MB in size. If "size" token is not given, it is assumed
#      that the NFS files will be pre-created by the user.
#
#      Example of multi-diskgroup setup:
#RACASMGROUPNAME_EXTRA='TEST MYDEV'  will attempt to create 2 extra
#          diskgroups, provided that RACASM_1_* and RACASM_2_* are set correctly.
#
#RACASM_RECO_ATTRIBUTES="'compatible.asm'='12.1.0.0.0', 'compatible.rdbms'='12.1.0.0.0'"
#          Will set asm & rdbms compatibile attribute for the Recovery diskgroup to 12.1
#RACASM_1_ATTRIBUTES="'compatible.asm'='12.1.0.0.0', 'compatible.rdbms'='12.1.0.0.0'"
#          Will set asm & rdbms compatibile attribute for the Nth diskgroup to 12.1
#
#    The original 'RACASMGROUPNAME' variable (defined in 'basic section' further down) still
#    holds the primary diskgroup name, if left unset, ASM will not be configured at all.
#    The original 'ALLDISKS' variable still holds all the disks used for the primary diskgroup.
#
#    Disk names must be UNIQUE amongst ALLDISKS, RACASM_RECO_DISKS and RACASM_X_DISKS (X=number)
#
#
RACASMGROUPNAME_EXTRA='PROMGMTDB PRODATA PROFRA PROADMIN'  # List of names of additional diskgroups to be created

# 1 para PROMGMTDB, 2 para PRODATA, 3 para PROFRA, 4 para PROADMIN
RACASM_1_REDUNDANCY="EXTERNAL"    # Redundancy of the Nth diskgroup (default: NORMAL)
RACASM_1_ATTRIBUTES="'compatible.asm'='18.4', 'compatible.rdbms'='12.2', 'compatible.advm'='18.4'"    # Attributes of
the Nth diskgroup
RACASM_1_DISKS="/dev/xvdh /dev/xvdi /dev/xvdj /dev/xvdk"         # List of disks used to create the Nth diskgroup


RACASM_2_REDUNDANCY="EXTERNAL"    # Redundancy of the Nth diskgroup (default: NORMAL)
RACASM_2_ATTRIBUTES="'compatible.asm'='18.4', 'compatible.rdbms'='18.4', 'compatible.advm'='18.4'"    # Attributes of
the Nth diskgroup
RACASM_2_DISKS="/dev/xvdl /dev/xvdm /dev/xvdn /dev/xvdo"         # List of disks used to create the Nth diskgroup


RACASM_3_REDUNDANCY="EXTERNAL"    # Redundancy of the Nth diskgroup (default: NORMAL)
RACASM_3_ATTRIBUTES="'compatible.asm'='18.4', 'compatible.rdbms'='18.4', 'compatible.advm'='18.4'"    # Attributes of
the Nth diskgroup
RACASM_3_DISKS="/dev/xvdp /dev/xvdq /dev/xvdr /dev/xvds"         # List of disks used to create the Nth diskgroup


RACASM_4_REDUNDANCY="EXTERNAL"    # Redundancy of the Nth diskgroup (default: NORMAL)
RACASM_4_ATTRIBUTES="'compatible.asm'='18.4', 'compatible.rdbms'='18.4', 'compatible.advm'='18.4'"    # Attributes of
the Nth diskgroup
RACASM_4_DISKS="/dev/xvdt /dev/xvdu /dev/xvdv /dev/xvdw"         # List of disks used to create the Nth diskgroup
```

```
#
#
# Set to YES to create diskgroups in the background and continue other operations.
# Default: no
#CLONE_DISKGROUP_CREATE_BG=no
#
#    The following variables allow various components to use the created diskgroups.
#    The diskgroups listed below must also be listed above (to be created), except MGMTDB_DISKGROUP.
#    If however they will be created manually or already exist, you must set:
#    CLONE_SKIP_DISKGROUP_EXISTENCE_CHECK=yes to allow execution to continue.
ACFS_DISKGROUP="PRODATA PROFRA PROADMIN"         # Diskgroup for ACFS filesystem
#DBCA_DISKGROUP=""         # Diskgroup for Database
MGMTDB_DISKGROUP="PROMGMTDB"       # Diskgroup for Management DB (12c only)
#
#
# By default, whole disks specified in ALLDISKS will be partitioned with
# one partition. If you prefer not to partition and use whole disk, set
# PARTITION_WHOLE_DISKS to no. Keep in mind that if at a later time
# someone will repartition the disk, data may be lost. Probably better
# to leave it as "yes" and signal it's used by having a partition created.
# Default: yes
PARTITION_WHOLE_DISKS=yes
#
# By default, disk *names* are assumed to exist with same name on all nodes, i.e
# all nodes will have /dev/xvdc, /dev/xvdd, etc.  It doesn't mean that the *ordering*
# is also identical, i.e. xvdc can really be xvdd on the other node.
# If such persistent naming (not ordering) is not the case, i.e node1 has
# xvdc,xvdd but node2 calls them: xvdn,xvdm then PERSISTENT_DISKNAMES should be
# set to NO.  In the case where disks are named differently on each node, a
# stamping operation should take place (writing to second sector on disk)
# to verify if all nodes see all disks.
# Stamping only happens on the node the build is running from, and backup
# is taken to $TMPDIR/StampDisk-backup-diskname.dd. Remote nodes read the stamped
# data and if all disks are discovered on all nodes the disk configuration continues.
# Default: yes
PERSISTENT_DISKNAMES=yes
#
# This parameter decides whether disk stamping takes place or not to discover and verify
# that all nodes see all disks.  Stamping is the only way to know 100% that the disks
# are actually the same ones on all nodes before installation begins.
# The master node writes a unique uuid to each disk on the second sector of the disk,
# then remote nodes read and discover all disks.
```

```
# If you prefer not to stamp the disks, set DISCOVER_VERIFY_REMOTE_DISKS_BY_STAMPING to
# no. However, in that case, PERSISTENT_DISKNAMES must be set to "yes", otherwise, with
# both parameters set to "no" there is no way to calculate the remote disk names.
# The default for stamping is "yes" since in Virtual machine environments, scsi_id(8)
# doesn't return data for disks.
# Default: yes
DISCOVER_VERIFY_REMOTE_DISKS_BY_STAMPING=yes
#
# Permissions and ownership file for UDEV
UDEVFILE="/etc/udev/rules.d/99-oracle.rules"
#
# Disk permissions to be set on ASM disks use if want to override the below default
# Default: "660" (owner+group: read+write)
#  It may be possible in Non-role separation to use "640" (owner: read+write, group: read)
#  however, that is not recommended since if a new database OS user
#  is added at a later time in the future, it will not be able to write to the disks.
#DISKPERMISSIONS="660"
#
# ASM's minimum allocation unit (au_size) for objects/files/segments/extents of the first
# diskgroup, in some cases increasing to higher values may help performance (at the
# potential of a bit of space wasting). Legal values are 1,2,4,8,16,32 and 64 MB.
# Not recommended to go over 8MB. Currently if initial diskgroup holds OCR/Voting then it's
# maximum possible au_size is 16MB. Do not change unless you understand the topic.
# Default 12.2: 4MB, older releases 1MB
RACASM_AU_SIZE=4
#
# The same au_size can be set for the backup diskgroup (typically used to hold the GIMR data)
# Default 12.2: 4MB, older releases 1MB
RACASM_BACKUP_AU_SIZE=4
#
# Should we align the ASM disks to a 1MB boundary.
# Default: yes
ALIGN_PARTITIONS=yes
#
# Should partitioned disks use the GPT partition table
# which supported devices larger than 2TB.
# Default: no (means use msdos partition table)
PARTITION_TABLE_GPT=no
#
# These are internal functions that check if a disk/partition is held
# by any component. They are run in parallel on all nodes, but in sequence
# within a node. Do not modify these unless explicitly instructed to by Oracle.
# Default: HeldByRaid HeldByAsmlib HeldByPowerpath HeldByDeviceMapper HeldByUser HeldByFilesystem HeldBySwap
```

```
#HELDBY_FUNCTIONS=(HeldByRaid HeldByAsmlib HeldByPowerpath HeldByDeviceMapper HeldByUser HeldByFilesystem HeldBySwap)
#
#       ----------------------------
# ----  STORAGE: (Shared) Filesystem ----
#       ----------------------------
#
# NOTE: Not all operations/verification take place in a
#       FS configuration.
#  For example:
#   - The mount points are not automatically mounted
#   - Best effort verification is done that the correct
#     mount options are used.
#
# Release 12.2 and higher requires ASM setup, which can reside on physical devices
# or NAS (Network Attached Storage).
# Valid values for ASM type are "ASM" (on block devices) or "ASM_ON_NAS" (on NAS).
# When "ASM" is selected, then ALLDISKS and related variables should be set, when
# "ASM_ON_NAS" is selected, then CLONE_OCRVOTE_LOCATION & CLONE_GIMR_LOCATION should
# be set, and optionally CLONE_OCRVOTE_SIZE & CLONE_GIMR_SIZE to specify diskgroup sizes.
# Default: ASM
CLONE_CLUSTER_STORAGE="ASM"
#
# For ASM_ON_NAS following two options CLONE_GIMR_LOCATION & CLONE_OCRVOTE_LOCATION apply.
# CLONE_OCRVOTE_LOCATION specifies the NAS location for the OCR/Voting disks, this
# will also hold the initial diskgroup as specified in RACASMGROUPNAME
# Default: None
#CLONE_OCRVOTE_LOCATION=/nfs/160
#
# CLONE_GIMR_LOCATION specifies the NAS location for the GIMR storage
# If you desire a separate diskgroup for GIMR, specify the diskgroup name in MGMTDB_DISKGROUP
# Default: Value of CLONE_OCRVOTE_LOCATION
#CLONE_GIMR_LOCATION=/nfs/160
#
# The CLONE_GIMR_SEPARATE_DISKGROUP variable allows setting the GIMR in same or separate
# diskgroup with the OCR/Voting. By default both are in same diskgroup. Setting this to "yes"
# will create a dedicated GIMR diskgroup.
# Default: no
#CLONE_GIMR_SEPARATE_DISKGROUP=no
CLONE_GIMR_SEPARATE_DISKGROUP=yes
#
# The filesystem directory to hold Database files (control, logfile, etc.)
# For RAC it must be a shared location (NFS, OCFS or in 12c ACFS),
# otherwise it may be a local filesystem (e.g. ext4).
```

```
# For NFS make sure mount options are correct as per docs
# such as Note:359515.1
# Default: None (Single Instance: $RACBASE/oradata)
FS_DATAFILE_LOCATION="/acfs/prodata"
#
# Should the database be created in the FS location mentioned above.
# If value is unset or set to no, the database is created in ASM.
# Default: no (Single Instance: yes)
DATABASE_ON_FS=yes
#
# Should the above directory be cleared from Clusterware and Database
# files during a 'clean' or 'cleanlocal' operation.
# Default: no
CLONE_CLEAN_FS_LOCATIONS=yes
#
# Permissions of top level filesystem DB location, to skip this permission change
# set CLONE_SKIP_FS_LOCATION_PERMISSION_CHANGE=no
# Default: 770
#FSPERMISSIONS=770
#
# Should addnodes operation COPY the entire Oracle Homes to newly added
# nodes. By default no copy is done to speed up the process, however
# if existing cluster members have changed (patches applied) compared
# to the newly created nodes (using the template), then a copy
# of the Oracle Homes might be desired so that the newly added node will
# get all the latest modifications from the current members.
# If COPY is set to yes, please consider that the copy does not remove the
# home on the newly joining node, either manually remove those,
# or set CLONE_ADDNODES_REMOVES_ORACLE_HOME_BEFORE_COPY=yes to automatically
# remove all Oracle homes before an addnode+Copy operation. Not removing
# the target homes may lead to unexpected behavior due to pre-existing files.
# Default: no
CLONE_ADDNODES_COPY=no
#
# Should an add node operation fully clean the new node before adding
# it to the cluster. Setting to yes means that any lingering running
# Oracle processes on the new node are killed before the add node is
# started as well as all logs/traces are cleared from that node.
# Default: no
CLONE_CLEAN_ON_ADDNODES=no
#
# Should a remove node operation fully clean the removed node after removing
# it from the cluster. Setting to yes means that any lingering running
```

```
# Oracle processes on the removed node are killed after the remove node is
# completed as well as all logs/traces are cleared from that node.
# Default: no
CLONE_CLEAN_ON_REMNODES=no
#
# Should 'cleanlocal' request prompt for confirmation if processes are running
# Note that a global 'clean' will fail if this is set to 'yes' and processes are running
# this is a designed safegaurd to protect environment from accidental removal.
# Default: yes
CLONE_CLEAN_CONFIRM_WHEN_RUNNING=yes
#
# Should the recommended oracle-validated or oracle-rdbms-server-*-preinstall
# be checked for existance and dependencies during check step. If any missing
# rpms are found user will need to use up2date or other methods to resolve dependencies
# The RPM may be obtained from Unbreakable Linux Network or http://oss.oracle.com
# Default: yes
CLONE_ORACLE_PREREQ_RPM_REQD=yes
#
# Should the "verify" actions of the above RPM be run during buildcluster.
# These adjust kernel parameters. In the VM everything is pre-configured hence
# default is not to run.
# Default: no
CLONE_ORACLE_PREREQ_RPM_RUN=no
#
# By default after clusterware installation CVU (Cluster Verification Utility)
# is executed to make sure all is well. Setting to 'yes' will skip this step.
# Set CLONE_SKIP_CVU_POSTHAS for SIHA (Oracle Restart) environments
# Default: no
#CLONE_SKIP_CVU_POSTCRS=no
#
# Allows to skip minimum disk space checks on the
# Oracle Homes (recommended not to skip)
# Default: no
CLONE_SKIP_DISKSPACE_CHECKS=no
#
# Allows to skip minimum memory checks (recommended not to skip)
# Default: no
CLONE_SKIP_MEMORYCHECKS=no
#
# On systems with extreme memory limitations, e.g. VirtualBox, it may be needed
# to disable some Clusterware components to release some memory. Workload
# Management, Cluster Health Monitor & Cluster Verification Utility are
# disabled if this option is set to yes.
```

```
# This is only supported for production usage with Clusterware only installation.
# Default: no
CLONE_LOW_MEMORY_CONFIG=no
#
# By default on systems with less than 4GB of RAM the /dev/shm will
# automatically resize to fit the specified configuration (ASM, DB).
# This is done because the default of 50% of RAM may not be enough. To
# disable this functionality set CLONE_TMPFS_SHM_RESIZE_NEVER to YES
# Default: no
CLONE_TMPFS_SHM_RESIZE_NEVER=no
#
# To disable the modification of /etc/fstab with the calculated size of
# /dev/shm, set CLONE_TMPFS_SHM_RESIZE_MODIFY_FSTAB to NO. This may mean that
# some instances may not properly start following a system reboot.
# Default: yes
CLONE_TMPFS_SHM_RESIZE_MODIFY_FSTAB=yes
#
# Configures the Grid Infrastructure Managemet Repository (GIMR).
# Formerly known as Cluster Management DB or Cluster Health Monitor or CHM/OS.
# Starting with release 12.1.0.2 and higher must be configured by
# setting CLONE_GRID_MANAGEMENT_DB to yes, for a fully supported environment.
# GIMR's space requirement might be high, hence default is still set to NO.
# Default: no
#CLONE_GRID_MANAGEMENT_DB=no
CLONE_GRID_MANAGEMENT_DB=yes
#
# Configure Trace File Analyzer or not
# Default: "no"
CLONE_TRACEFILE_ANALYZER="yes"
#
# Setting CLONE_CLUSTERWARE_ONLY to yes allows Clusterware only installation
# any operation to create a database or reference the DB home are ignored.
# Default: no
#CLONE_CLUSTERWARE_ONLY=no
#CLONE_CLUSTERWARE_ONLY=yes
#
# New in 12.2 Cluster Class can be set to one of:
#      STANDALONE, DOMAIN, MEMBERDB, MEMBERAPP
# Only STANDALONE & DOMAIN are automated.
#CLONE_CLUSTER_CLASS=STANDALONE
#
# As described in the 11.2.0.2 README as well as Note:1212703.1 mutlicasting
# is required to run Oracle RAC starting with 11.2.0.2. If this check fails
```

```
# review the note, and remove any firewall rules from Dom0, or re-configure
# the switch servicing the private network to allow multicasting from all
# nodes to all nodes.
# Default: yes
CLONE_MULTICAST_CHECK=yes
#
# Should a multicast check failure cause the build to stop. It's possible to
# perform the multicast check, but not stop on failures.
# Default: yes
CLONE_MULTICAST_STOP_ON_FAILURE=yes
#
# List of multicast addresses to check. By default 11.2.0.2 supports
# only 230.0.1.0, however with fix for bug 9974223 or bundle 1 and higher
# the software also supports multicast address 244.0.0.251. If future
# software releases will support more addresses, modify this list as needed.
# Default: "230.0.1.0 224.0.0.251"
CLONE_MULTICAST_ADDRESSLIST="230.0.1.0 224.0.0.251"
#
# Maximum number of seconds allowed for time drift between nodes.
# If CLONE_CHECK_CLOCK_DRIFT_STOP_ON_FAILURE (default no) is set to YES, then
# a larger time drift will be regarded as a failure and buildcluster will stop.
# Default: 30 (seconds)
#CLONE_CHECK_CLOCK_DRIFT=""
#
# The text specified in the NETCONFIG_RESOLVCONF_OPTIONS variable is written to
# the "options" field in the /etc/resolv.conf file during initial network setup.
# This variable can be set here in params.ini, or in netconfig.ini having the same
# effect. It should be a space separated options as described in "man 5 resolv.conf"
# under the "options" heading. Some useful options are:
# "single-request-reopen attempts:x timeout:x"  x being a digit value.
# The 'single-request-reopen' option may be helpful in some environments if
# in-bound ssh slowness occur.
# Note that minimal validation takes place to verify the options are correct.
# Default: ""
#NETCONFIG_RESOLVCONF_OPTIONS=""
#
# CLUSTERWARE limit names listed in CLONE_CRS_LIMIT_NAMES, by default:
#  "CRS_LIMIT_CORE,CRS_LIMIT_MEMLOCK,CRS_LIMIT_OPENFILE,CRS_LIMIT_STACK,CRS_LIMIT_NPROC"
# Will look for CLONE_<limitname> and place in GIHOME/crs/install/s_crsconfig_<nodename>_env.txt
# No input validation takes place, use with caution!
# For example: CLONE_CRS_LIMIT_OPENFILE=65535 (will set the open file limit to 65535)
#
# ORACLE USERS limits (in /etc/security/limits.conf and related files) are set by preinstall
```

```
# or oracle-validated rpms. If rpms are not installed (not recommended), or the setting was
# removed or not set there, the following variables can be used as fallback (defaults), they
# do not take precedence over the rpms.  Set CLONE_<soft|hard>_<limitname> to desired value.
# Valid limitnames: nofile nproc stack core memlock
# For example: CLONE_soft_core=unlimited (will set the soft limit for core to 'unlimited')
#
# By default the Oracle/Grid user environment is setup (PATH, ORACLE_HOME, ORACLE_SID)
# unless it was already setup before.  Setting to "yes" will skip this setup altogether.
# Default: "no"
#CLONE_SKIP_USER_ENVIRONMENT_SETUP="no"
#
# By default Oracle Universal Installer takes a backup of the inventory during
# each operation. Setting this to NO prevents these backups, useful for testing
# or larger node counts.
# Default: "yes"
#CLONE_BACKUP_INVENTORY="yes"
#
# Starting with 12.1.0.2 it is possible to set a list of IPs so that node VIP can
# properly failover in the event of a network outage that may be "masked" by the
# underlying virtualization layer. It is also possible to set/modify post install:
#  $GIHOME/bin/srvctl modify network -pingtarget "..."
# Default: ""
#CLONE_PING_TARGETS=""
#
################################################
#
# The second section below holds Basic parameters
#
################################################
#
# Configures a Single Instance environment, including a database as
# specified in BUILD_SI_DATABASE. In this mode, no Clusterware or ASM will be
# configured, hence all related parameters (e.g. ALLDISKS) are not relevant.
# The database must reside on a filesystem.
# This parameter may be placed in netconfig.ini for simpler deployment.
# Default: no
#CLONE_SINGLEINSTANCE=no
#
# Configures a Single Instance/HA environment, aka Oracle Restart, including
# a database as specified in BUILD_SI_DATABASE. The database may reside in
# ASM (if RACASMGROUPNAME is defined), or on a filesystem.
# This parameter may be placed in netconfig.ini for simpler deployment.
# Default: no
```

```
#CLONE_SINGLEINSTANCE_HA=no
#
# OS USERS AND GROUPS FOR ORACLE SOFTWARE
#
# SYNTAX for user/group are either (VAR denotes the variable names below):
#   VAR=username:uid   OR:  VAR=username
#                           VARID=uid
#   VAR=groupname:gid  OR:  VAR=groupname
#                           VARID=gid
#
#   If uid/gid are omitted no checks are made nor users created if need be.
#   If uid/gid are supplied they should be numeric and not clash
#   with existing uid/gids defined on the system already.
#   NOTE: In RAC usernames and uid/gid must match on all cluster nodes,
#         the verification process enforces that only if uid/gid's
#         are given below.
#
# If incorrect configuration is detected, changes to users and groups are made to
# correct them. If this is set to "no" then errors are reported
# without an attempt to fix them.
# (Users/groups are never dropped, only added or modified.)
# Default: yes
CREATE_MODIFY_USERS_GROUPS=yes
#
# NON-ROLE SEPARATED:
#    No Grid user is defined and all roles are set to 'dba'
RACOWNER=oracle:54321
OINSTALLGROUP=oinstall:54321
GIOSASM=dba:54322
GIOSDBA=dba:54322
#GIOSOPER=dba:54322   # optional in 12c
DBOSDBA=dba:54322
#DBOSOPER=dba:54322  # optional in 12c
#
# ROLE SEPARATION: (uncomment lines below)
#    See Note:1092213.1
#    (Numeric changes made to uid/gid to reduce the footprint and possible clashes
#     with existing users/groups)
#
##GRIDOWNER=grid:54322
##RACOWNER=oracle:54321
##OINSTALLGROUP=oinstall:54321
##DBOSDBA=dba:54322
```

```
##DBOSOPER=oper:54323 # optional in 12c
## New in 12c are these 3 roles, if unset, they default to "DBOSDBA"
##DBOSBACKUPDBA=backupdba:54324
##DBOSDGDBA=dgdba:54325
##DBOSKMDBA=kmdba:54326
##DBOSRACDBA=racdba:54330    # New in 12.2
##GIOSDBA=asmdba:54327
##GIOSOPER=asmoper:54328 # optional in 12c
##GIOSASM=asmadmin:54329
#
# The name for the Grid home in the inventory
# Default: OraGrid18c
#GIHOMENAME="OraGI18Home1"
#
# The name for the DB/RAC home in the inventory
# Default: OraDB18Home1
#DBHOMENAME="OraDB18Home1"
#
# The name of the initial ASM diskgroup, default 'ocrvfdg'
# If CLONE_CLUSTER_STORAGE is set to 'ASM_ON_NAS' then this diskgroup will be
# created on the NFS location CLONE_OCRVOTE_LOCATION (see STORAGE/Filesystem section above)
# For additional diskgroup support see ASM MULTI-DISKGROUP SUPPORT section above.
# Default: ocrvfdg
RACASMGROUPNAME='PROVOTOCR'
#
# Attributes for the default/initial ASM diskgroup specified in RACASMGROUPNAME. There is no
# validation for this setting; same syntax as diskgroup attributes in above storage section.
# Default: release dependent
RACASMGROUP_ATTRIBUTES="'compatible.asm'='18.4.0.0.0', 'compatible.rdbms'='18.4.0.0.0'"
#
# The ASM Redundancy for the diskgroup above
# Valid values are EXTERNAL, NORMAL or HIGH
# Default: NORMAL (if unset)
RACASMREDUNDANCY="HIGH"
#
# Allows running the Clusterware with a different timezone than the system's timezone.
# If CLONE_CLUSTERWARE_TIMEZONE is not set, the Clusterware Timezone will
# be set to the system's timezone of the node running the build.  System timezone is
# defined in /etc/sysconfig/clock (ZONE variable), if not defined or file missing
# comparison of /etc/localtime file is made against the system's timezone database in
# /usr/share/zoneinfo, if no match or /etc/localtime is missing GMT is used. If you
# want to override the above logic, simply set CLONE_CLUSTERWARE_TIMEZONE to desired
# timezone. Note that a complete timezone is needed, e.g. "PST" or "EDT" is not enough
```

```
# needs to be full timezone spec, e.g. "PST8PDT" or "America/New_York".
# This variable is only honored in 11.2.0.2 or above
# Default: OS
CLONE_CLUSTERWARE_TIMEZONE="Europe/Madrid"
#
# Allows configuration with or without ASM Filter Driver (ASMFD) kernel drivers
# If unset, best-effort to detect if AFD is supported or not on running Kernel,
# during initial deployment
# Default: yes (auto)
CLONE_AFD_ENABLED=yes
#
# Create an ACFS volume?
# Default: no
ACFS_CREATE_FILESYSTEM=yes
#
# If ACFS volume is to be created, this is the mount point.
# It will automatically get created on all nodes.
# Default: /myacfs
ACFS_MOUNTPOINT="/acfs/prodata"
#
# Name of ACFS volume to optionally create.
# Default: MYACFS
ACFS_VOLNAME="VPRODATA"
#
# Size of ACFS volume in GigaBytes.
# Default: 3
ACFS_VOLSIZE_GB="450"
#
# NOTE: In the OVM3 enhanced RAC Templates when using deploycluster
# tool (outside of the VMs). The correct and secure way to transfer/set the
# passwords is to remove them from this file and use the -P (--params)
# flag to transfer this params.ini during deploy operation, in which
# case the passwords will be prompted, and sent to all VMs in a secure way.
# The password that will be set for the ASM and RAC databases
# as well as EM DB Console and the oracle OS user.
# If not defined here they will be prompted for (only once)
# at the start of the build. Required to be set here or environment
# for silent mode.
# Use single quote to prevent shell parsing of special characters.
RACPASSWORD='Balidea2018.'
GRIDPASSWORD='Balidea2018.'
#
# Password for 'root' user. If not defined here it will be prompted
```

```
# for (only once) at the start of the build.
# Assumed to be same on both nodes and required to be set here or
# environment for silent mode.
# Use single quote to prevent shell parsing of special characters.
ROOTUSERPASSWORD='Balidea2018.'
#
# Size of REDO logfiles in MB. Minimum 4MB.
# Default: None (use DBCA's default, changes per machine size/release)
#REDOLOG_FILESIZE_MB=""
#
# Allows for database and listener to be started automatically at next
# system boot. This option is only applicable in Single Instance mode.
# In Single Instance/HA or RAC mode, the Clusterware starts up all
# resources (listener, ASM, databases).
# Default: yes
CLONE_SI_DATABASE_AUTOSTART=yes
#
# Comma separated list of name value pairs for database initialization parameters
# Use with care, no validation takes place.
# For example: "db_create_online_log_dest_1='+EXTRA',db_create_online_log_dest_2='+DATA'"
#  Will create multiplexed Redo logs and Controlfiles into EXTRA & DATA diskgroups
#  assuming these diskgroups are created properly.
# Can be used to set NLS parameters and so forth.
# Default: none
DBCA_INITORA_PARAMETERS="db_create_online_log_dest_1='/acfs/prodata',db_create_online_log_dest_2='/acfs/prodata'"
#
# Create a Container Database allowing pluggable databases to be added
# using options below, or at a later time.
# Default: yes (was 'no' in prior releases)
DBCA_CONTAINER_DB=yes
#
# Pluggable Database name. In 'createdb' operation a number is appended at the end
# based on count (below). In 'deletepdb' exact name must be specified here or in
# an environment variable.
# Default: orclpdb
DBCA_PLUGGABLE_DB_NAME=prolugopdb
#
# Number of Pluggable Databases to create during a 'createdb' operation. A value
# of zero disables pluggable database creation.
# Default: 1
DBCA_PLUGGABLE_DB_COUNT=1
#
# Should a Policy Managed database be created taking into account the
```

```
# options below. If set to 'no' an Admin Managed database is created.
# Default: no
DBCA_DATABASE_POLICY=no
#
# Create Server Pools (Policy Managed database).
# If set to NO, the server pools must be manually created
# Default: yes
CLONE_CREATE_SERVERPOOLS=yes
#
# Recreate Server Pools; if already exist (Policy Managed database).
# Default: no
CLONE_RECREATE_SERVERPOOLS=no
#
# List of server pools to create (Policy Managed database).
# Syntax is poolname:category:min:max
# All except name can be omitted. Category can be Hub or Leaf.
# Default: mypool
CLONE_SERVERPOOLS="mypool"
#
# List of Server Pools to be used by the created database (Policy Managed database).
# The server pools listed in DBCA_SERVERPOOLS must appear in CLONE_SERVERPOOLS
# (and CLONE_CREATE_SERVERPOOLS set to yes), OR must be manually pre-created for
# the create database to succeed.
# Default: mypool
DBCA_SERVERPOOLS="mypool"
#
# Database character set (no input validation). Can be AL32UTF8, WE8MSWIN1252, etc.
# Default: AL32UTF8
DATABASE_CHARACTERSET="WE8MSWIN1252"
#
# Database national character set. Rarely needs to be changed, the default of
# AL16UTF16 is recommended. All other NLS related init.ora should go above in
# DBCA_INITORA_PARAMETERS.
# Default: AL16UTF16
DATABASE_NATIONAL_CHARACTERSET="AL16UTF16"
#
# Use this DBCA template name, file must exist under $DBHOME/assistants/dbca/templates
# Default: "General_Purpose.dbc"
DBCA_TEMPLATE_NAME="General_Purpose.dbc"
#
# Should the database include the sample schema
# Default: no
DBCA_SAMPLE_SCHEMA=no
```

```
#
# Registers newly created database to be periodically monitored by Cluster Verification
# Utility (CVU) on a continuous basis.
# Default: no
DBCA_RUN_CVU_PERIODICALLY=no
#
# Certain patches applied to the Oracle home require execution of some SQL post
# database creation for the fix to be applied completely. Note that when running
# in background these scripts may run a little longer after the Database
# finishes building.
# Default: yes
DBCA_POST_SQL_BG=yes
#
# An optional user custom SQL may be executed post database creation, default name of
# script is user_custom_postsql.sql, it is located under patches/postsql subdirectory.
# Default: user_custom_postsql.sql
DBCA_POST_SQL_CUSTOM=arumel.sql
#
# Total memory assigned to instance in MB.
# Default: version dependent
#DBCA_TOTALMEMORY=1024
#
# Decides if Oracle Managed Files are used or not. It is implicitly enabled
# when ASM is used. Setting to true allows using OMF when the database is
# stored on a filesystem.
#
# Default: Automatic (based on storage)
DBCA_USEOMF=true
#
# The Database Name
# Default: ORCL
DBNAME='prolugo'
#
# The Instance name, may be different than database name. Limited in length of
# 1 to 8 for a RAC DB & 1 to 12 for Single Instance DB of alphanumeric characters.
# Ignored for Policy Managed DB.
# Default: ORCL
SIDNAME='prolugo'
#
# Build Database? The BUILD_RAC_DATABASE will build a RAC database and
# BUILD_SI_DATABASE a single instance database (also in a RAC environment)
# Default: yes
BUILD_RAC_DATABASE=yes
```

```
#BUILD_SI_DATABASE=yes
#
# Configure EM DB Express
# Default: no
CONFIGURE_DBEXPRESS=yes
#
# DB Express port number. If left at the default, a free port will be assigned at
# runtime, otherwise the port should be unused on all network adapters.
# Default: 5500
DBEXPRESS_HTTPS_PORT=5500
#
# SCAN (Single Client Access Name) port number
# Default: 1521
SCANPORT=1521
#
# Local Listener port number
# Default: 1521
LISTENERPORT=1521
#
# By default, at end of deployment or clean operation, the ssh key-based authorization keys
# are removed, however, if these should be kept as-is, set CLONE_CLEAN_REMOVES_SSH=no
# Default: yes
#CLONE_CLEAN_REMOVES_SSH=yes
#
# By default, in RAC mode, during 'prepare' step, the firewall is disabled to allow free traffic
# as per note: 554781.1. To disable that behavior, set CLONE_DISABLE_FIREWALL=no below.
# Default: yes
#CLONE_DISABLE_FIREWALL=yes
#
# Allows color coding of log messages, errors (red), warning (yellow),
# info (green). By default no colors are used.
# Default: NO
CLONE_LOGWITH_COLORS=no
#
# END OF FILE
#
```

2.3 Ejecución dry

```
[oracle@ovmmanager1 scripts_ovmcli]$ cd /u01/app/oracle/deploycluster3/


[oracle@ovmmanager1 deploycluster3]$ ./deploycluster.py -u admin -p Balidea2018 -H localhost --vms nodo0? -N
utils/netconfigarumelPRO.ini -P utils/paramsarumelPRO.ini -B no -D

Oracle DB/RAC OneCommand (v3.0.5) for Oracle VM - deploy cluster - (c) 2011-2017 Oracle Corporation

 (com: 29100:v3.0.4, lib: 231275:v3.0.5, var: 1800:v3.0.5) - v2.7.5 - ovmmanager1 (x86_64)

Invoked as oracle at Thu Jan 17 16:59:58 2019  (size: 43900, mtime: Tue Feb 28 01:03:00 2017)

Using: ./deploycluster.py -u admin -p **** -H localhost --vms nodo0? -N utils/netconfigarumelPRO.ini -P
utils/paramsarumelPRO.ini -B no -D


INFO: Running in dryrun mode, not starting VMs or sending any messages to them...


INFO: Attempting to connect to Oracle VM Manager...


Oracle VM Manager Core WS-API Shell 3.4.2.1384 (20160914_1384)


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Connecting to https://localhost:7002/...


INFO: Oracle VM Client CONNECTED to Oracle VM Manager (3.4.5.1919) UUID (0004fb00000100000c66687bdd4ae306)


INFO: Inspecting /u01/app/oracle/deploycluster3/utils/netconfigarumelPRO.ini for number of nodes defined....

INFO: Detected 2 nodes in: /u01/app/oracle/deploycluster3/utils/netconfigarumelPRO.ini


INFO: Located a total of (2) VMs;

      2 VMs with a simple name of: ['nodo01', 'nodo02']


INFO: Detected a RAC deployment...


INFO: Starting all (2) VMs -- "dryrun" mode


INFO: VM with a simple name of "nodo01" is in a Stopped state, however, not starting it due to "dryrun" option passed
on command line.


INFO: VM with a simple name of "nodo02" is in a Stopped state, however, not starting it due to "dryrun" option passed
on command line.


INFO: Verifying that all (2) VMs are in Running state and pass prerequisite checks -- "dryrun" mode.....
```

```
INFO: Detected that all (2) VMs specified on command line have (21) common shared disks between them
(ASM_MIN_DISKS=5)


INFO: The (2) VMs passed basic sanity checks (dry-run mode), not sending cluster details as follows:
      netconfig.ini (Network setup): /u01/app/oracle/deploycluster3/utils/netconfigarumelPRO.ini
      params.ini (Overall build options): /u01/app/oracle/deploycluster3/utils/paramsarumelPRO.ini
      buildcluster: no


INFO: Exiting without sending above parameters due to "dryrun" option passed on command line.


INFO: deploycluster.py completed successfully at 17:00:24 in 25.4 seconds (0h:00m:25s)
Logfile at: /u01/app/oracle/deploycluster3/deploycluster2.log
```

2.4 Ejecución real

```
[oracle@ovmmanager1 deploycluster3]$ ./deploycluster.py -u admin -p Balidea2018 -H localhost --vms nodo0? -N
utils/netconfigarumelPRO.ini -P utils/paramsarumelPRO.ini -B no

Oracle DB/RAC OneCommand (v3.0.5) for Oracle VM - deploy cluster - (c) 2011-2017 Oracle Corporation

 (com: 29100:v3.0.4, lib: 231275:v3.0.5, var: 1800:v3.0.5) - v2.7.5 - ovmmanager1 (x86_64)

Invoked as oracle at Thu Jan 17 17:02:22 2019  (size: 43900, mtime: Tue Feb 28 01:03:00 2017)

Using: ./deploycluster.py -u admin -p **** -H localhost --vms nodo0? -N utils/netconfigarumelPRO.ini -P
utils/paramsarumelPRO.ini -B no


INFO: Attempting to connect to Oracle VM Manager...


Oracle VM Manager Core WS-API Shell 3.4.2.1384 (20160914_1384)


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Connecting to https://localhost:7002/...


INFO: Oracle VM Client CONNECTED to Oracle VM Manager (3.4.5.1919) UUID (0004fb00000100000c66687bdd4ae306)


INFO: Inspecting /u01/app/oracle/deploycluster3/utils/netconfigarumelPRO.ini for number of nodes defined....

INFO: Detected 2 nodes in: /u01/app/oracle/deploycluster3/utils/netconfigarumelPRO.ini


INFO: Located a total of (2) VMs;

      2 VMs with a simple name of: ['nodo01', 'nodo02']


INFO: Detected a RAC deployment...


INFO: Starting all (2) VMs...


INFO: VM with a simple name of "nodo01" is in a Stopped state, attempting to start
it................................OK.


INFO: VM with a simple name of "nodo02" is in a Stopped state, attempting to start
it................................OK.


INFO: Verifying that all (2) VMs are in Running state and pass prerequisite checks.....


INFO: Detected that all (2) VMs specified on command line have (21) common shared disks between them
(ASM_MIN_DISKS=5)
```

```
INFO: The (2) VMs passed basic sanity checks and in Running state, sending cluster details as follows:

      netconfig.ini (Network setup): /u01/app/oracle/deploycluster3/utils/netconfigarumelPRO.ini

      params.ini (Overall build options): /u01/app/oracle/deploycluster3/utils/paramsarumelPRO.ini

      buildcluster: no


INFO: Starting to send configuration details to all (2)
VM(s).....................................................

INFO: Sending to VM with a simple name of
"nodo01".....................................................................................................
.....................................................................................................
.....................................................

INFO: Sending to VM with a simple name of
"nodo02".....................................................................................................
.....................................................................................................
.....................................................


INFO: Configuration details sent to (2) VMs... Due to buildcluster=no buildcluster was not initiated.


INFO: deploycluster.py completed successfully at 17:03:50 in 88.1 seconds (0h:01m:28s)

Logfile at: /u01/app/oracle/deploycluster3/deploycluster4.log
```

3 Buildcluster

En esta fase se despliega el software de crs con rdbms sobre los nodos.

```
[root@nodo01 ~]# cd /u01/racovm/


[root@nodo01 racovm]# ./buildcluster.sh
Are you sure you want to install Oracle RAC Cluster?
Do not run if software is already installed and/or running..  [yes|no]? yes
Invoking on nodo01 as root...
   Oracle DB/RAC 18c/12c/11gR2 OneCommand (v2.1.10) for Oracle VM - (c) 2010-2018 Oracle Corporation
   Cksum: [782740242 640100 racovm.sh] at Thu Jan 10 17:08:52 EST 2019
   Kernel: 4.1.12-124.20.3.el7uek.x86_64 (x86_64) [12 processor(s)] 40236 MB | xen | HVM
   Kit Version: 18.4.0.0.181016 (RAC Mode, 2 nodes, Enterprise Edition)
   Step(s): buildcluster


INFO (node:nodo01): Skipping confirmation, flag (-s) supplied on command line
2019-01-10 17:08:52:[buildcluster:Start:nodo01] Building 18c RAC Cluster
2019-01-10 17:08:54:[setsshroot:Start:nodo01] SSH Setup for the root user...


INFO (node:nodo01): Running as root: /u01/racovm/ssh/setssh-Linux.sh -s -x -c NO -h nodelist    (setup on 2 node(s):
nodo01 nodo02)
.............setssh-Linux.sh Done.
2019-01-10 17:09:05:[setsshroot:Done :nodo01] SSH Setup for the root user completed successfully
2019-01-10 17:09:05:[setsshroot:Time :nodo01] Completed successfully in 11 seconds (0h:00m:11s)
2019-01-10 17:09:05:[copykit:Start:nodo01] Copy kit files to remote nodes
Kit files: buildsingle.sh buildcluster.sh netconfig.sh netconfig.ini common.sh cleanlocal.sh diskconfig.sh racovm.sh
ssh params.ini doall.sh  netconfig GetSystemTimeZone.class kitversion.txt mcast


INFO (node:nodo01): Copied kit to remote node nodo02 as root user
2019-01-10 17:09:09:[copykit:Done :nodo01] Copy kit files to (1) remote nodes
2019-01-10 17:09:09:[copykit:Time :nodo01] Completed successfully in 4 seconds (0h:00m:04s)
2019-01-10 17:09:09:[usrsgrps:Start:nodo01] Verifying Oracle users & groups on all nodes (create/modify mode)..
..
2019-01-10 17:09:12:[usrsgrpslocal:Start:nodo01] Verifying Oracle users & groups (create/modify mode)..


INFO (node:nodo01): The (oracle) user as specified in DBOWNER/RACOWNER is defined as follows:
uid=54321(oracle) gid=54321(oinstall)
groups=54321(oinstall),54322(dba),54323(oper),54324(backupdba),54325(dgdba),54326(kmdba),54330(racdba)


2019-01-10 17:09:13:[usrsgrpslocal:Done :nodo01] Verifying Oracle users & groups (create/modify mode)..
```

```
2019-01-10 17:09:13:[usrsgrpslocal:Time :nodo01] Completed successfully in 1 seconds (0h:00m:01s)
2019-01-10 17:09:13:[usrsgrpslocal:Start:nodo02] Verifying Oracle users & groups (create/modify mode)..

INFO (node:nodo02): The (oracle) user as specified in DBOWNER/RACOWNER is defined as follows:
uid=54321(oracle) gid=54321(oinstall)
groups=54321(oinstall),54322(dba),54323(oper),54324(backupdba),54325(dgdba),54326(kmdba),54330(racdba)

2019-01-10 17:09:13:[usrsgrpslocal:Done :nodo02] Verifying Oracle users & groups (create/modify mode)..
2019-01-10 17:09:13:[usrsgrpslocal:Time :nodo02] Completed successfully in 0 seconds (0h:00m:00s)
2019-01-10 17:09:14:[usrsgrps:Done :nodo01] Verifying Oracle users & groups on all nodes (create/modify mode)..
2019-01-10 17:09:14:[usrsgrps:Time :nodo01] Completed successfully in 5 seconds (0h:00m:05s)

INFO (node:nodo01): Parameters loaded from params.ini...
  Users & Groups:
   Role Separation: no  Running as: root
   OInstall    : oinstall       GID: 54321
   RAC Owner   : oracle         UID: 54321
    DB OSDBA   : dba            GID: 54322
    DB OSOPER  :                GID:
    DB OSBACKUP: dba            GID:
    DB OSDGDBA : dba            GID:
    DB OSKMDBA : dba            GID:
    DB OSRAC   : dba            GID:
   Grid Owner  : oracle         UID: 54321
    GI OSDBA   : dba            GID: 54322
    GI OSOPER  :                GID:
    GI OSASM   : dba            GID: 54322
  Software Locations:
   Operating Mode: RAC                  Database Edition:
   Flex Cluster: yes      Flex ASM: yes
   Central Inventory: /u01/app/oraInventory
   Grid Home: /u01/app/18.4.0/grid  (Detected: 18c, Enterprise Edition)
   Grid Name: OraGI18Home1
   RAC Home : /u01/app/oracle/product/18.4.0/dbhome_1  (Detected: 18c, Enterprise Edition)
   RAC Name : OraDB18Home1
   RAC Base : /u01/app/oracle
   DB/RAC OVM kit : /u01/racovm
   Attach RAC Home: yes   GI Home: yes  Relink Homes: no   On OS Change: yes
   Addnode Copy: no
  Database & Storage:
   Database : yes (rac)  DBName: prolugo  SIDName: prolugo  DG: PROVOTOCR   Listener Port: 1521
   Policy Managed: no
   Init.ora Params: db_create_online_log_dest_1='/acfs/prodata',db_create_online_log_dest_2='/acfs/prodata'
```

```
   Container DB: yes    Pluggable DB Name: prolugopdb   Count: 1
   DBExpress: yes        DBExpress port: 5500
   Grid Management DB: yes   GIMR diskgroup name: PROMGMTDB
   Separate GIMR diskgroup: yes
   Cluster Storage: ASM
   ASM Discovery String: /dev/xvd[c-w]1
   ASM diskgroup: PROVOTOCR        Redundancy: HIGH   Allocation Unit (au_size): 4
      Disks     : /dev/xvdc1 /dev/xvdd1 /dev/xvde1 /dev/xvdf1 /dev/xvdg1
   Extra DG #1  : PROMGMTDB        Redundancy: EXTERNAL
      Disks     : /dev/xvdh1 /dev/xvdi1 /dev/xvdj1 /dev/xvdk1
      Attributes: 'compatible.asm'='18.4', 'compatible.rdbms'='12.2', 'compatible.advm'='18.4'
   Extra DG #2  : PRODATA          Redundancy: EXTERNAL
      Disks     : /dev/xvdl1 /dev/xvdm1 /dev/xvdn1 /dev/xvdo1
      Attributes: 'compatible.asm'='18.4', 'compatible.rdbms'='18.4', 'compatible.advm'='18.4'
   Extra DG #3  : PROFRA           Redundancy: EXTERNAL
      Disks     : /dev/xvdp1 /dev/xvdq1 /dev/xvdr1 /dev/xvds1
      Attributes: 'compatible.asm'='18.4', 'compatible.rdbms'='18.4', 'compatible.advm'='18.4'
   Extra DG #4  : PROADMIN         Redundancy: EXTERNAL
      Disks     : /dev/xvdt1 /dev/xvdu1 /dev/xvdv1 /dev/xvdw1
      Attributes: 'compatible.asm'='18.4', 'compatible.rdbms'='18.4', 'compatible.advm'='18.4'
   FS Datafile location: /acfs/prodata   DB on FS: yes
   Persistent disknames: yes  Stamp: yes  Partition: yes  Align: yes  GPT: no Permissions: 660
   ACFS Filesystem: yes  Volume: VPRODATA  Size (GB): 450  Mount point: /acfs/prodata DG: PRODATA
   AFD enabled: yes

Network information loaded from netconfig.ini...
  Default Gateway: 192.168.117.3  Domain: inludes.int
  DNS: 192.168.115.21
  Public NIC : eth0  Mask: 255.255.255.0
  Private NIC: eth1  Mask: 255.255.255.0
  ASM NIC    : eth1  Mask: 255.255.255.0
  SCAN Name: nodo-scan  SCAN IP: 192.168.117.52  Scan Port: 1521
  Cluster Name: nodo
  Nodes & IP Addresses (2 of 2 nodes)
  Node  1: PubIP : 192.168.117.50  PubName : nodo01
     (Hub) VIPIP : 192.168.117.46  VIPName : nodo01-vip
           PrivIP: 10.1.1.1        PrivName: nodo01-priv
  Node  2: PubIP : 192.168.117.51  PubName : nodo02
     (Hub) VIPIP : 192.168.117.47  VIPName : nodo02-vip
           PrivIP: 10.1.1.2        PrivName: nodo02-priv
Running on nodo01 as root...
   Oracle DB/RAC 18c/12c/11gR2 OneCommand (v2.1.10) for Oracle VM - (c) 2010-2018 Oracle Corporation
   Cksum: [782740242 640100 racovm.sh] at Thu Jan 10 17:09:14 EST 2019
```

```
   Kernel: 4.1.12-124.20.3.el7uek.x86_64 (x86_64) [12 processor(s)] 40236 MB | xen | HVM

   Kit Version: 18.4.0.0.181016 (RAC Mode, 2 nodes, Enterprise Edition)

2019-01-10 17:09:14:[printparams:Time :nodo01] Completed successfully in 0 seconds (0h:00m:00s)

2019-01-10 17:09:14:[setsshora:Start:nodo01] SSH Setup for the Oracle user(s)...


INFO (node:nodo01): Running as oracle: /u01/racovm/ssh/setssh-Linux.sh -s -x -c NO -h nodelist    (setup on 2
node(s): nodo01 nodo02)

.............setssh-Linux.sh Done.

2019-01-10 17:09:26:[setsshora:Done :nodo01] SSH Setup for the oracle user completed successfully

2019-01-10 17:09:26:[setsshora:Time :nodo01] Completed successfully in 12 seconds (0h:00m:12s)

2019-01-10 17:09:26:[diskconfig:Start:nodo01] Storage Setup

2019-01-10 17:09:26:[diskconfig:Start:nodo01] Running in configuration mode (local & remote nodes)

.

2019-01-10 17:09:27:[diskconfig:Disks:nodo01] Verifying disks exist, are free and with no overlapping partitions
(localhost)...

2019-01-10 17:09:27:[diskconfig:DisksExist:nodo01] Verify all disks exist (localhost)...

/dev/xvdc./dev/xvdd./dev/xvde./dev/xvdf./dev/xvdg./dev/xvdh./dev/xvdi./dev/xvdj./dev/xvdk./dev/xvdl./dev/xvdm./dev/
xvdn./dev/xvdo./dev/xvdp./dev/xvdq./dev/xvdr./dev/xvds./dev/xvdt./dev/xvdu./dev/xvdv./dev/
xvdw.....................................................................OK

2019-01-10 17:09:35:[diskconfig:Disks:nodo01] Checking contents of disks (localhost)...

/dev/xvdc1/dev/xvdd1/dev/xvde1/dev/xvdf1/dev/xvdg1/dev/xvdh1/dev/xvdi1/dev/xvdj1/dev/xvdk1/dev/xvdl1/dev/xvdm1/dev/
xvdn1/dev/xvdo1/dev/xvdp1/dev/xvdq1/dev/xvdr1/dev/xvds1/dev/xvdt1/dev/xvdu1/dev/xvdv1/dev/xvdw1.

2019-01-10 17:09:36:[diskconfig:Remote:nodo01] Assuming persistent disk names on remote nodes with stamping
(existence check)...

/dev/xvdc./dev/xvdd./dev/xvde./dev/xvdf./dev/xvdg......../dev/xvdh./dev/xvdi./dev/xvdj./dev/xvdk......./dev/xvdl./
dev/xvdm./dev/xvdn./dev/xvdo......./dev/xvdp./dev/xvdq./dev/xvdr./dev/xvds......./dev/xvdt./dev/xvdu./dev/xvdv./dev/
xvdw.........OK

2019-01-10 17:11:05:[diskconfig:Remote:nodo01] Verify disks are free on remote nodes...

nodo02.....................................................OK

2019-01-10 17:12:41:[diskconfig:Disks:nodo01] Checking contents of disks (remote nodes)...

nodo02.........OK

2019-01-10 17:12:48:[diskconfig:Disks:nodo01] Setting disk permissions for next startup (all nodes)...

.....OK

2019-01-10 17:12:49:[diskconfig:ClearPartTables:nodo01] Clearing partition tables...

./dev/xvdc./dev/xvdd./dev/xvde./dev/xvdf./dev/xvdg./dev/xvdh./dev/xvdi./dev/xvdj./dev/xvdk./dev/xvdl./dev/xvdm./dev/
xvdn./dev/xvdo./dev/xvdp./dev/xvdq./dev/xvdr./dev/xvds./dev/xvdt./dev/xvdu./dev/xvdv./dev/
xvdw.........................................OK

2019-01-10 17:13:11:[diskconfig:CreatePartitions:nodo01] Creating 'msdos' partitions on disks (as needed)...

./dev/xvdc./dev/xvdd./dev/xvde./dev/xvdf./dev/xvdg./dev/xvdh./dev/xvdi./dev/xvdj./dev/xvdk./dev/xvdl./dev/xvdm./dev/
xvdn./dev/xvdo./dev/xvdp./dev/xvdq./dev/xvdr./dev/xvds./dev/xvdt./dev/xvdu./dev/xvdv./dev/
xvdw.........................................OK

2019-01-10 17:13:34:[diskconfig:CleanPartitions:nodo01] Cleaning new partitions...

./dev/xvdc1./dev/xvdd1./dev/xvde1./dev/xvdf1./dev/xvdg1./dev/xvdh1./dev/xvdi1./dev/xvdj1./dev/xvdk1./dev/xvdl1./dev/
xvdm1./dev/xvdn1./dev/xvdo1./dev/xvdp1./dev/xvdq1./dev/xvdr1./dev/xvds1./dev/xvdt1./dev/xvdu1./dev/xvdv1./dev/
xvdw1...OK

2019-01-10 17:13:34:[diskconfig:Done :nodo01] Done configuring and checking disks on all nodes


INFO (node:nodo01): Filesystem checks (diskconfig)...
```

```
INFO (node:nodo01): Filesystem location (/acfs/prodata) appears to be on an ACFS filesystem, skipping checks as that
filesystem will be created later

2019-01-10 17:13:34:[diskconfig:Done :nodo01] Storage Setup

2019-01-10 17:13:34:[diskconfig:Time :nodo01] Completed successfully in 248 seconds (0h:04m:08s)

2019-01-10 17:13:36:[clearremotelogs:Time :nodo01] Completed successfully in 2 seconds (0h:00m:02s)

2019-01-10 17:13:36:[check:Start:nodo01] Pre-install checks on all nodes

..


INFO (node:nodo01): Check found that all (2) nodes have the following (27908644 27923415 28090523 28090553 28090557
28256701 28502229 28547619 28655784 28655916 28655963 28656071) patches applied to the Grid Infrastructure Home
(/u01/app/18.4.0/grid), the following (27908644 27923415 28090523 28090553 28502229 28655784 28656071) patches
applied to the RAC Home (/u01/app/oracle/product/18.4.0/dbhome_1)

.2019-01-10 17:13:40:[checkfs:Start:nodo01] Checking filesystem mount options (all nodes)

..


INFO (node:nodo01): Checking database filesystem location on: nodo01 nodo02

2019-01-10 17:13:44:[checkfslocal:Time :nodo01] Completed successfully in 1 seconds (0h:00m:01s)

2019-01-10 17:13:45:[checkfslocal:Time :nodo02] Completed successfully in 0 seconds (0h:00m:00s)

2019-01-10 17:13:46:[checkfs:Done :nodo01] Checking filesystem mount options (all nodes)

..


INFO (node:nodo01): Checking ASM disks on: nodo01 nodo02

2019-01-10 17:13:49:[checkfslocal:Time :nodo01] Completed successfully in 0 seconds (0h:00m:00s)

2019-01-10 17:13:50:[checkfslocal:Time :nodo02] Completed successfully in 0 seconds (0h:00m:00s)

2019-01-10 17:13:51:[checkfs:Done :nodo01] Checking filesystem mount options (all nodes)

2019-01-10 17:13:53:[checklocal:Start:nodo01] Pre-install checks

2019-01-10 17:13:54:[checklocal:Start:nodo02] Pre-install checks

2019-01-10 17:13:54:[usrsgrpslocal:Start:nodo01] Verifying Oracle users & groups (check only mode)..


INFO (node:nodo01): The (oracle) user as specified in DBOWNER/RACOWNER is defined as follows:

uid=54321(oracle) gid=54321(oinstall)
groups=54321(oinstall),54322(dba),54323(oper),54324(backupdba),54325(dgdba),54326(kmdba),54330(racdba)


2019-01-10 17:13:54:[usrsgrpslocal:Done :nodo01] Verifying Oracle users & groups (check only mode)..


INFO (node:nodo01): Node forming new RAC cluster; Kernel: 4.1.12-124.20.3.el7uek.x86_64 (x86_64) [12 processor(s)]
40236 MB | xen | HVM


INFO (node:nodo01): Running disk checks on all nodes, persistent disk names (/u01/racovm/diskconfig.sh -n 2 -D 1 -s)

2019-01-10 17:13:55:[diskconfig:Start:nodo01] Running in dry-run mode (local & remote nodes, level 1), no stamping,
partitioning or OS configuration files will be modified...(assuming persistent disk names)

2019-01-10 17:13:55:[usrsgrpslocal:Start:nodo02] Verifying Oracle users & groups (check only mode)..


INFO (node:nodo02): The (oracle) user as specified in DBOWNER/RACOWNER is defined as follows:

uid=54321(oracle) gid=54321(oinstall)
groups=54321(oinstall),54322(dba),54323(oper),54324(backupdba),54325(dgdba),54326(kmdba),54330(racdba)
```

```
2019-01-10 17:13:55:[usrsgrpslocal:Done :nodo02] Verifying Oracle users & groups (check only mode)..


INFO (node:nodo02): Node forming new RAC cluster; Kernel: 4.1.12-124.20.3.el7uek.x86_64 (x86_64) [12 processor(s)]
40236 MB | xen | HVM


INFO (node:nodo02): Running network checks...

....

..2019-01-10 17:13:56:[diskconfig:Disks:nodo01] Verifying disks exist, are free and with no overlapping partitions
(localhost)...

2019-01-10 17:13:56:[diskconfig:DisksExist:nodo01] Verify all disks exist (localhost)...

/dev/xvdc./dev/xvdd./dev/xvde./dev/xvdf./dev/xvdg./dev/xvdh./dev/xvdi./dev/xvdj./dev/xvdk./dev/xvdl./dev/xvdm./dev/
xvdn./dev/xvdo./dev/xvdp./dev/xvdq./dev/xvdr./dev/xvds./dev/xvdt./dev/xvdu./dev/xvdv./dev/
xvdw.....................................................................OK

2019-01-10 17:14:06:[diskconfig:Disks:nodo01] Checking existence of automatically renamed disks (localhost)...

/dev/xvdc1./dev/xvdd1./dev/xvde1./dev/xvdf1./dev/xvdg1./dev/xvdh1./dev/xvdi1./dev/xvdj1./dev/xvdk1./dev/xvdl1./dev/
xvdm1./dev/xvdn1./dev/xvdo1./dev/xvdp1./dev/xvdq1./dev/xvdr1./dev/xvds1./dev/xvdt1./dev/xvdu1./dev/xvdv1./dev/xvdw1.

2019-01-10 17:14:07:[diskconfig:Disks:nodo01] Checking permissions of disks (localhost)...

/dev/xvdc1/dev/xvdd1/dev/xvde1/dev/xvdf1/dev/xvdg1/dev/xvdh1/dev/xvdi1/dev/xvdj1/dev/xvdk1/dev/xvdl1/dev/xvdm1/dev/
xvdn1/dev/xvdo1/dev/xvdp1/dev/xvdq1/dev/xvdr1/dev/xvds1/dev/xvdt1/dev/xvdu1/dev/xvdv1/dev/xvdw1

2019-01-10 17:14:07:[diskconfig:Disks:nodo01] Checking contents of disks (localhost)...

/dev/xvdc1/dev/xvdd1/dev/xvde1/dev/xvdf1/dev/xvdg1/dev/xvdh1/dev/xvdi1/dev/xvdj1/dev/xvdk1/dev/xvdl1/dev/xvdm1/dev/
xvdn1/dev/xvdo1/dev/xvdp1/dev/xvdq1/dev/xvdr1/dev/xvds1/dev/xvdt1/dev/xvdu1/dev/xvdv1/dev/xvdw1.

2019-01-10 17:14:07:[diskconfig:Remote:nodo01] Assuming persistent disk names on remote nodes with NO stamping
(existence check)...

nodo02........

INFO (node:nodo01): Waiting for all checklocal operations to complete on all nodes (At 17:14:22, elapsed: 0h:00m:30s,
2) nodes remaining, all background pid(s): 30291 30573)...

.....OK

2019-01-10 17:14:27:[diskconfig:Remote:nodo01] Verify disks are free on remote nodes...

nodo02.......

INFO (node:nodo02): Check completed successfully

2019-01-10 17:14:40:[checklocal:Done :nodo02] Pre-install checks

2019-01-10 17:14:40:[checklocal:Time :nodo02] Completed successfully in 46 seconds (0h:00m:46s)

.....................................................OK

2019-01-10 17:16:24:[diskconfig:Remote:nodo01] Checking existence of automatically renamed disks (remote nodes)...

nodo02.....

2019-01-10 17:16:44:[diskconfig:Remote:nodo01] Checking permissions of disks (remote nodes)...

nodo02......

2019-01-10 17:16:56:[diskconfig:Disks:nodo01] Checking contents of disks (remote nodes)...

nodo02.........OK

2019-01-10 17:17:10:[diskconfig:Done :nodo01] Dry-run (local & remote, level 1) completed successfully, most likely
normal run will too

..

INFO (node:nodo01): Running multicast check on 230.0.1.0 port 42319 for 2 nodes...


INFO (node:nodo01): All nodes can multicast to all other nodes on interface eth1 multicast address 230.0.1.0 port
42319...
```

```
INFO (node:nodo01): Running network checks...

.........

INFO (node:nodo01): Waiting for all checklocal operations to complete on all nodes (At 17:17:23, elapsed: 0h:03m:31s,
1) node remaining, all background pid(s): 30291)...

...........

INFO (node:nodo01): Check completed successfully

2019-01-10 17:17:58:[checklocal:Done :nodo01] Pre-install checks

2019-01-10 17:17:58:[checklocal:Time :nodo01] Completed successfully in 245 seconds (0h:04m:05s)


INFO (node:nodo01): All checklocal operations completed on all (2) node(s) at: 17:17:59

2019-01-10 17:17:59:[check:Done :nodo01] Pre-install checks on all nodes

2019-01-10 17:17:59:[check:Time :nodo01] Completed successfully in 263 seconds (0h:04m:23s)

2019-01-10 17:17:59:[creategrid:Start:nodo01] Creating 18c Grid Infrastructure

..

2019-01-10 17:18:02:[preparelocal:Start:nodo01] Preparing node for Oracle installation


INFO (node:nodo01): preparelocal: running YUM Install due to NETCONFIG_YUM_INSTALL='"xorg-x11-xauth" "xorg-x11-utils"
"bind-utils" "pciutils" "unzip" "wget" "netperf" "psmisc" "perl-CGI" "traceroute" "java" "lsof"' in netconfig.ini


INFO (node:nodo01): Running on: nodo01 as root: time /usr/bin/yum install -y "xorg-x11-xauth" "xorg-x11-utils" "bind-
utils" "pciutils" "unzip" "wget" "netperf" "psmisc" "perl-CGI" "traceroute" "java" "lsof"

2019-01-10 17:18:03:[preparelocal:Start:nodo02] Preparing node for Oracle installation


INFO (node:nodo02): preparelocal: running YUM Install due to NETCONFIG_YUM_INSTALL='"xorg-x11-xauth" "xorg-x11-utils"
"bind-utils" "pciutils" "unzip" "wget" "netperf" "psmisc" "perl-CGI" "traceroute" "java" "lsof"' in netconfig.ini


INFO (node:nodo02): Running on: nodo02 as root: time /usr/bin/yum install -y "xorg-x11-xauth" "xorg-x11-utils" "bind-
utils" "pciutils" "unzip" "wget" "netperf" "psmisc" "perl-CGI" "traceroute" "java" "lsof"

Loaded plugins: ulninfo

Loaded plugins: ulninfo

Package 1:xorg-x11-xauth-1.0.9-1.el7.x86_64 already installed and latest version

Package xorg-x11-utils-7.5-23.el7.x86_64 already installed and latest version

Package 32:bind-utils-9.9.4-72.el7.x86_64 already installed and latest version

Package pciutils-3.5.1-3.el7.x86_64 already installed and latest version

Package unzip-6.0-19.el7.x86_64 already installed and latest version

Package wget-1.14-18.el7.x86_64 already installed and latest version

No package netperf available.

Package 1:xorg-x11-xauth-1.0.9-1.el7.x86_64 already installed and latest version

Package xorg-x11-utils-7.5-23.el7.x86_64 already installed and latest version

Package 32:bind-utils-9.9.4-72.el7.x86_64 already installed and latest version

Package pciutils-3.5.1-3.el7.x86_64 already installed and latest version

Package unzip-6.0-19.el7.x86_64 already installed and latest version

Package wget-1.14-18.el7.x86_64 already installed and latest version

No package netperf available.

Package psmisc-22.20-15.el7.x86_64 already installed and latest version
```

```
Package perl-CGI-3.63-4.el7.noarch already installed and latest version
Package 3:traceroute-2.0.22-2.el7.x86_64 already installed and latest version
Package 1:java-1.8.0-openjdk-1.8.0.191.b12-1.el7_6.x86_64 already installed and latest version
Package lsof-4.87-6.el7.x86_64 already installed and latest version
Nothing to do

real        0m2.709s
user        0m1.011s
sys         0m0.426s

INFO (node:nodo01): preparelocal: Successfully completed running YUM Install...

INFO (node:nodo01): preparelocal: running YUM Update due to NETCONFIG_YUM_UPDATE=yes in netconfig.ini

INFO (node:nodo01): Running on: nodo01 as root: time /usr/bin/yum update -y
Loaded plugins: ulninfo
Package psmisc-22.20-15.el7.x86_64 already installed and latest version
Package perl-CGI-3.63-4.el7.noarch already installed and latest version
Package 3:traceroute-2.0.22-2.el7.x86_64 already installed and latest version
Package 1:java-1.8.0-openjdk-1.8.0.191.b12-1.el7_6.x86_64 already installed and latest version
Package lsof-4.87-6.el7.x86_64 already installed and latest version
Nothing to do

real        0m2.876s
user        0m0.976s
sys         0m0.463s

INFO (node:nodo02): preparelocal: Successfully completed running YUM Install...

INFO (node:nodo02): preparelocal: running YUM Update due to NETCONFIG_YUM_UPDATE=yes in netconfig.ini

INFO (node:nodo02): Running on: nodo02 as root: time /usr/bin/yum update -y
Loaded plugins: ulninfo
No packages marked for update

real        0m0.808s
user        0m0.720s
sys         0m0.087s

INFO (node:nodo01): preparelocal: Successfully completed running YUM Update...

INFO (node:nodo01): Resetting permissions on Oracle Homes... May take a while...
No packages marked for update
```

```
real        0m0.780s
user        0m0.681s
sys         0m0.098s


INFO (node:nodo02): preparelocal: Successfully completed running YUM Update...


INFO (node:nodo02): Resetting permissions on Oracle Homes... May take a while...


INFO (node:nodo01): Configured size of /dev/shm is (see output below):
Filesystem      Size  Used Avail Use% Mounted on
tmpfs            20G     0   20G   0% /dev/shm
2019-01-10 17:18:09:[preparelocal:Done :nodo01] Preparing node for Oracle installation
2019-01-10 17:18:09:[preparelocal:Time :nodo01] Completed successfully in 7 seconds (0h:00m:07s)


INFO (node:nodo02): Configured size of /dev/shm is (see output below):
Filesystem      Size  Used Avail Use% Mounted on
tmpfs            20G     0   20G   0% /dev/shm
2019-01-10 17:18:11:[preparelocal:Done :nodo02] Preparing node for Oracle installation
2019-01-10 17:18:11:[preparelocal:Time :nodo02] Completed successfully in 9 seconds (0h:00m:09s)
2019-01-10 17:18:12:[prepare:Time :nodo01] Completed successfully in 13 seconds (0h:00m:13s)
....


INFO (node:nodo01): Cloning & relinking Grid Infrastructure home due to path change. Path set in GIHOME is (/u01/app/
18.4.0/grid), path found in scripts inside that home (/u01/app/18c/grid)
2019-01-10 17:18:17:[giclonelocal:Start:nodo01] Cloning 18c Grid Infrastructure


INFO (node:nodo01): Running on: nodo01 as root: /bin/chown -HRf oracle:oinstall /u01/app/18.4.0/grid
/u01/app/oracle /u01/app/oraInventory 2>/dev/null


INFO (node:nodo02): Cloning & relinking Grid Infrastructure home due to path change. Path set in GIHOME is (/u01/app/
18.4.0/grid), path found in scripts inside that home (/u01/app/18c/grid)
2019-01-10 17:18:17:[giclonelocal:Start:nodo02] Cloning 18c Grid Infrastructure


INFO (node:nodo02): Running on: nodo02 as root: /bin/chown -HRf oracle:oinstall /u01/app/18.4.0/grid
/u01/app/oracle /u01/app/oraInventory 2>/dev/null


INFO (node:nodo01): Running on: nodo01 as oracle: /u01/app/18.4.0/grid/perl/bin/perl
/u01/app/18.4.0/grid/clone/bin/clone.pl -silent ORACLE_BASE='/u01/app/oracle' ORACLE_HOME='/u01/app/18.4.0/grid'
ORACLE_HOME_NAME='OraGI18Home1' INVENTORY_LOCATION='/u01/app/oraInventory' OSDBA_GROUP=dba OSOPER_GROUP=
OSASM_GROUP=dba OSBACKUPDBA_GROUP=dba OSDGDBA_GROUP=dba OSKMDBA_GROUP=dba OSRACDBA_GROUP=dba CRS=TRUE
'CLUSTER_NODES={nodo01,nodo02}' "LOCAL_NODE=nodo01"  '-ignoreSysPrereqs'
Starting Oracle Universal Installer...


Checking Temp space: must be greater than 500 MB.   Actual 6035 MB    Passed
Checking swap space: must be greater than 500 MB.   Actual 4095 MB    Passed
Preparing to launch Oracle Universal Installer from /tmp/OraInstall2019-01-10_05-18-18PM. Please wait ...
```

```
INFO (node:nodo02): Running on: nodo02 as oracle: /u01/app/18.4.0/grid/perl/bin/perl
/u01/app/18.4.0/grid/clone/bin/clone.pl -silent ORACLE_BASE='/u01/app/oracle' ORACLE_HOME='/u01/app/18.4.0/grid'
ORACLE_HOME_NAME='OraGI18Home1' INVENTORY_LOCATION='/u01/app/oraInventory' OSDBA_GROUP=dba OSOPER_GROUP=
OSASM_GROUP=dba OSBACKUPDBA_GROUP=dba OSDGDBA_GROUP=dba OSKMDBA_GROUP=dba OSRACDBA_GROUP=dba CRS=TRUE
'CLUSTER_NODES={nodo01,nodo02}' "LOCAL_NODE=nodo02"  '-ignoreSysPrereqs'

Starting Oracle Universal Installer...


Checking Temp space: must be greater than 500 MB.   Actual 6035 MB    Passed

Checking swap space: must be greater than 500 MB.   Actual 4095 MB    Passed

Preparing to launch Oracle Universal Installer from /tmp/OraInstall2019-01-10_05-18-18PM. Please wait ...[WARNING]
[INS-32029] The Installer has detected that the Oracle Base location is not empty.

   ACTION: Oracle recommends that the Oracle Base location is empty.

[WARNING] [INS-32029] The Installer has detected that the Oracle Base location is not empty.

   ACTION: Oracle recommends that the Oracle Base location is empty.

You can find the log of this install session at:

 /u01/app/oraInventory/logs/cloneActions2019-01-10_05-18-18PM.log

You can find the log of this install session at:

 /u01/app/oraInventory/logs/cloneActions2019-01-10_05-18-18PM.log

.....................................................   5% Done.

.................................................   10% Done.

.................................................   15% Done.

.................................................   20% Done.

.................................................   25% Done.

.....................................................   30% Done.

.....................................................   35% Done.

...................   5% Done.

.....................................................................................   10% Done.

.....................................................   40% Done.

..........   15% Done.

.....................................................................................   45% Done.

.....................................   20% Done.

.................................................   50% Done.

.....................................................................   25% Done.

..........   55% Done.

.....................................................................   60% Done.

.....................................................................   65% Done.

...................   30% Done.

.....................................................   70% Done.

.....................................................................   35% Done.

..........   75% Done.

.................................................   80% Done.

.................................................   85% Done.

.....................................................   40% Done.

.................................................   45% Done.

.................................................   50% Done.
```

```
.....................................................   55% Done.
.....................................................   60% Done.
.....................................................   65% Done.
.....................................................   70% Done.
.....................................................   75% Done.
.....................................................   80% Done.
.....................................................   85% Done.
..........
Copy files in progress.


Copy files in progress.


Copy files successful.


Link binaries in progress.
..........
Copy files successful.


Link binaries in progress.
..........
INFO (node:nodo01): Waiting for all giclonelocal operations to complete on all nodes (At 17:18:45, elapsed:
0h:00m:30s, 2) nodes remaining, all background pid(s): 9102 9108)...
..
Link binaries successful.


Setup files in progress.
..........
Setup files successful.


Setup Inventory in progress.


Setup Inventory successful.
..........
Finish Setup successful.
The cloning of OraGI18Home1 was successful.
Please check '/u01/app/oraInventory/logs/cloneActions2019-01-10_05-18-18PM.log' for more details.


Setup Oracle Base in progress.


Setup Oracle Base successful.
.....................................................   95% Done.


As a root user, execute the following script(s):
```

1. /u01/app/oraInventory/orainstRoot.sh
2. /u01/app/18.4.0/grid/root.sh

```
Execute /u01/app/oraInventory/orainstRoot.sh on the following nodes:
[nodo01]
Execute /u01/app/18.4.0/grid/root.sh on the following nodes:
[nodo01]



.....................................................   100% Done.

INFO (node:nodo01): Running on: nodo01 as root: /u01/app/oraInventory/orainstRoot.sh
Changing permissions of /u01/app/oraInventory.
Adding read,write permissions for group.
Removing read,write,execute permissions for world.

Changing groupname of /u01/app/oraInventory to oinstall.
The execution of the script is complete.
2019-01-10 17:19:53:[girootlocal:Start:nodo01] Running root.sh on Grid Infrastructure home

INFO (node:nodo01): Running on: nodo01 as root: /u01/app/18.4.0/grid/root.sh -silent
Check /u01/app/18.4.0/grid/install/root_nodo01_2019-01-10_17-19-53-799315373.log for the output of root script
2019-01-10 17:19:53:[girootlocal:Done :nodo01] Running root.sh on Grid Infrastructure home
2019-01-10 17:19:53:[girootlocal:Time :nodo01] Completed successfully in 0 seconds (0h:00m:00s)

INFO (node:nodo01): Resetting permissions on Oracle Home (/u01/app/18.4.0/grid)...

Link binaries successful.

Setup files in progress.
..........
Setup files successful.

Setup Inventory in progress.

Setup Inventory successful.
..........
Finish Setup successful.
The cloning of OraGI18Home1 was successful.
Please check '/u01/app/oraInventory/logs/cloneActions2019-01-10_05-18-18PM.log' for more details.

Setup Oracle Base in progress.
```

```
Setup Oracle Base successful.
.............................................   95% Done.

As a root user, execute the following script(s):
  1. /u01/app/oraInventory/orainstRoot.sh
  2. /u01/app/18.4.0/grid/root.sh

Execute /u01/app/oraInventory/orainstRoot.sh on the following nodes:
[nodo02]
Execute /u01/app/18.4.0/grid/root.sh on the following nodes:
[nodo02]



.............................................   100% Done.

INFO (node:nodo02): Running on: nodo02 as root: /u01/app/oraInventory/orainstRoot.sh
Changing permissions of /u01/app/oraInventory.
Adding read,write permissions for group.
Removing read,write,execute permissions for world.

Changing groupname of /u01/app/oraInventory to oinstall.
The execution of the script is complete.
2019-01-10 17:19:59:[girootlocal:Start:nodo02] Running root.sh on Grid Infrastructure home

INFO (node:nodo02): Running on: nodo02 as root: /u01/app/18.4.0/grid/root.sh -silent
Check /u01/app/18.4.0/grid/install/root_nodo02_2019-01-10_17-19-59-185412840.log for the output of root script
2019-01-10 17:19:59:[girootlocal:Done :nodo02] Running root.sh on Grid Infrastructure home
2019-01-10 17:19:59:[girootlocal:Time :nodo02] Completed successfully in 0 seconds (0h:00m:00s)

INFO (node:nodo02): Resetting permissions on Oracle Home (/u01/app/18.4.0/grid)...
....
INFO (node:nodo01): Waiting for all giclonelocal operations to complete on all nodes (At 17:21:46, elapsed:
0h:03m:31s, 2) nodes remaining, all background pid(s): 9102 9108)...
2019-01-10 17:22:07:[giclonelocal:Done :nodo01] Cloning 18c Grid Infrastructure
2019-01-10 17:22:07:[giclonelocal:Time :nodo01] Completed successfully in 230 seconds (0h:03m:50s)
.2019-01-10 17:22:21:[giclonelocal:Done :nodo02] Cloning 18c Grid Infrastructure
2019-01-10 17:22:21:[giclonelocal:Time :nodo02] Completed successfully in 244 seconds (0h:04m:04s)

INFO (node:nodo01): All giclonelocal operations completed on all (2) node(s) at: 17:22:22
2019-01-10 17:22:22:[giclone:Time :nodo01] Completed successfully in 250 seconds (0h:04m:10s)
....
2019-01-10 17:22:27:[girootcrslocal:Start:nodo01] Running rootcrs.pl
```

```
INFO (node:nodo01): rootcrs.pl log location is:
/u01/app/oracle/crsdata/nodo01/crsconfig/rootcrs_nodo01_<timestamp>.log


INFO (node:nodo01): Running on: nodo01 as root: /u01/app/18.4.0/grid/perl/bin/perl -I/u01/app/18.4.0/grid/perl/lib -
I/u01/app/18.4.0/grid/crs/install /u01/app/18.4.0/grid/crs/install/rootcrs.pl -auto

Using configuration parameter file: /u01/app/18.4.0/grid/crs/install/crsconfig_params

The log of current session can be found at:

  /u01/app/oracle/crsdata/nodo01/crsconfig/rootcrs_nodo01_2019-01-10_11-22-28PM.log

2019/01/10 23:22:49 CLSRSC-594: Executing installation step 1 of 20: 'SetupTFA'.

2019/01/10 23:22:50 CLSRSC-4001: Installing Oracle Trace File Analyzer (TFA) Collector.

2019/01/10 23:23:19 CLSRSC-4002: Successfully installed Oracle Trace File Analyzer (TFA) Collector.

2019/01/10 23:23:19 CLSRSC-594: Executing installation step 2 of 20: 'ValidateEnv'.

2019/01/10 23:23:19 CLSRSC-594: Executing installation step 3 of 20: 'CheckFirstNode'.

2019/01/10 23:23:22 CLSRSC-594: Executing installation step 4 of 20: 'GenSiteGUIDs'.

2019/01/10 23:23:29 CLSRSC-594: Executing installation step 5 of 20: 'SaveParamFile'.

2019/01/10 23:23:49 CLSRSC-594: Executing installation step 6 of 20: 'SetupOSD'.

2019/01/10 23:23:49 CLSRSC-594: Executing installation step 7 of 20: 'CheckCRSConfig'.

2019/01/10 23:23:49 CLSRSC-594: Executing installation step 8 of 20: 'SetupLocalGPNP'.

2019/01/10 23:24:30 CLSRSC-594: Executing installation step 9 of 20: 'CreateRootCert'.

2019/01/10 23:24:42 CLSRSC-594: Executing installation step 10 of 20: 'ConfigOLR'.

2019/01/10 23:25:09 CLSRSC-594: Executing installation step 11 of 20: 'ConfigCHMOS'.

2019/01/10 23:25:09 CLSRSC-594: Executing installation step 12 of 20: 'CreateOHASD'.

2019/01/10 23:25:28 CLSRSC-594: Executing installation step 13 of 20: 'ConfigOHASD'.

2019/01/10 23:25:28 CLSRSC-330: Adding Clusterware entries to file 'oracle-ohasd.service'

2019/01/10 23:30:34 CLSRSC-594: Executing installation step 14 of 20: 'InstallAFD'.

2019/01/10 23:34:03 CLSRSC-594: Executing installation step 15 of 20: 'InstallACFS'.

CRS-2791: Starting shutdown of Oracle High Availability Services-managed resources on 'nodo01'

CRS-2793: Shutdown of Oracle High Availability Services-managed resources on 'nodo01' has completed

CRS-4133: Oracle High Availability Services has been stopped.

CRS-4123: Oracle High Availability Services has been started.

2019/01/10 23:37:55 CLSRSC-594: Executing installation step 16 of 20: 'InstallKA'.

2019/01/10 23:38:13 CLSRSC-594: Executing installation step 17 of 20: 'InitConfig'.

CRS-2791: Starting shutdown of Oracle High Availability Services-managed resources on 'nodo01'

CRS-2793: Shutdown of Oracle High Availability Services-managed resources on 'nodo01' has completed

CRS-4133: Oracle High Availability Services has been stopped.

CRS-4123: Oracle High Availability Services has been started.

CRS-2672: Attempting to start 'ora.driver.afd' on 'nodo01'

CRS-2672: Attempting to start 'ora.evmd' on 'nodo01'

CRS-2672: Attempting to start 'ora.mdnsd' on 'nodo01'

CRS-2676: Start of 'ora.driver.afd' on 'nodo01' succeeded

CRS-2672: Attempting to start 'ora.cssdmonitor' on 'nodo01'

CRS-2676: Start of 'ora.cssdmonitor' on 'nodo01' succeeded

CRS-2676: Start of 'ora.mdnsd' on 'nodo01' succeeded

CRS-2676: Start of 'ora.evmd' on 'nodo01' succeeded
```

```
CRS-2672: Attempting to start 'ora.gpnpd' on 'nodo01'
CRS-2676: Start of 'ora.gpnpd' on 'nodo01' succeeded
CRS-2672: Attempting to start 'ora.gipcd' on 'nodo01'
CRS-2676: Start of 'ora.gipcd' on 'nodo01' succeeded
CRS-2672: Attempting to start 'ora.cssd' on 'nodo01'
CRS-2672: Attempting to start 'ora.diskmon' on 'nodo01'
CRS-2676: Start of 'ora.diskmon' on 'nodo01' succeeded
CRS-2676: Start of 'ora.cssd' on 'nodo01' succeeded


[INFO] [DBT-30161] Disk label(s) created successfully. Check /u01/app/oracle/cfgtoollogs/asmca/asmca-
190110PM113954.log for details.
[INFO] [DBT-30001] Disk groups created successfully. Check /u01/app/oracle/cfgtoollogs/asmca/asmca-190110PM113954.log
for details.



2019/01/10 23:47:02 CLSRSC-482: Running command: '/u01/app/18.4.0/grid/bin/ocrconfig -upgrade oracle oinstall'
CRS-2672: Attempting to start 'ora.crf' on 'nodo01'
CRS-2672: Attempting to start 'ora.storage' on 'nodo01'
CRS-2676: Start of 'ora.storage' on 'nodo01' succeeded
CRS-2676: Start of 'ora.crf' on 'nodo01' succeeded
CRS-2672: Attempting to start 'ora.crsd' on 'nodo01'
CRS-2676: Start of 'ora.crsd' on 'nodo01' succeeded
CRS-4256: Updating the profile
Successful addition of voting disk 95fc39e43feb4f22bfc880ad3680529c.
Successful addition of voting disk 4939d3709d014f8abf14c25637110d42.
Successful addition of voting disk bf0be4939b054f8cbf5428bb6dc9d0aa.
Successful addition of voting disk c29539db559a4fcfbf66fac7448e8f1f.
Successful addition of voting disk 16cadaeef34f4fe9bfc911e6994d0e0d.
Successfully replaced voting disk group with +PROVOTOCR.
CRS-4256: Updating the profile
CRS-4266: Voting file(s) successfully replaced
##  STATE    File Universal Id               File Name Disk group
--  -----    -----------------               --------- ---------
 1. ONLINE   95fc39e43feb4f22bfc880ad3680529c (AFD:PROVOTOCR1) [PROVOTOCR]
 2. ONLINE   4939d3709d014f8abf14c25637110d42 (AFD:PROVOTOCR2) [PROVOTOCR]
 3. ONLINE   bf0be4939b054f8cbf5428bb6dc9d0aa (AFD:PROVOTOCR3) [PROVOTOCR]
 4. ONLINE   c29539db559a4fcfbf66fac7448e8f1f (AFD:PROVOTOCR4) [PROVOTOCR]
 5. ONLINE   16cadaeef34f4fe9bfc911e6994d0e0d (AFD:PROVOTOCR5) [PROVOTOCR]
Located 5 voting disk(s).
CRS-2791: Starting shutdown of Oracle High Availability Services-managed resources on 'nodo01'
CRS-2673: Attempting to stop 'ora.crsd' on 'nodo01'
CRS-2677: Stop of 'ora.crsd' on 'nodo01' succeeded
CRS-2673: Attempting to stop 'ora.storage' on 'nodo01'
CRS-2673: Attempting to stop 'ora.crf' on 'nodo01'
```

```
CRS-2673: Attempting to stop 'ora.drivers.acfs' on 'nodo01'
CRS-2673: Attempting to stop 'ora.mdnsd' on 'nodo01'
CRS-2677: Stop of 'ora.crf' on 'nodo01' succeeded
CRS-2677: Stop of 'ora.storage' on 'nodo01' succeeded
CRS-2673: Attempting to stop 'ora.asm' on 'nodo01'
CRS-2677: Stop of 'ora.drivers.acfs' on 'nodo01' succeeded
CRS-2677: Stop of 'ora.mdnsd' on 'nodo01' succeeded
CRS-2677: Stop of 'ora.asm' on 'nodo01' succeeded
CRS-2673: Attempting to stop 'ora.cluster_interconnect.haip' on 'nodo01'
CRS-2677: Stop of 'ora.cluster_interconnect.haip' on 'nodo01' succeeded
CRS-2673: Attempting to stop 'ora.ctssd' on 'nodo01'
CRS-2673: Attempting to stop 'ora.evmd' on 'nodo01'
CRS-2677: Stop of 'ora.evmd' on 'nodo01' succeeded
CRS-2677: Stop of 'ora.ctssd' on 'nodo01' succeeded
CRS-2673: Attempting to stop 'ora.cssd' on 'nodo01'
CRS-2677: Stop of 'ora.cssd' on 'nodo01' succeeded
CRS-2673: Attempting to stop 'ora.driver.afd' on 'nodo01'
CRS-2673: Attempting to stop 'ora.gipcd' on 'nodo01'
CRS-2673: Attempting to stop 'ora.gpnpd' on 'nodo01'
CRS-2677: Stop of 'ora.driver.afd' on 'nodo01' succeeded
CRS-2677: Stop of 'ora.gpnpd' on 'nodo01' succeeded
CRS-2677: Stop of 'ora.gipcd' on 'nodo01' succeeded
CRS-2793: Shutdown of Oracle High Availability Services-managed resources on 'nodo01' has completed
CRS-4133: Oracle High Availability Services has been stopped.
2019/01/10 23:57:58 CLSRSC-594: Executing installation step 18 of 20: 'StartCluster'.
CRS-4123: Starting Oracle High Availability Services-managed resources
CRS-2672: Attempting to start 'ora.evmd' on 'nodo01'
CRS-2672: Attempting to start 'ora.mdnsd' on 'nodo01'
CRS-2676: Start of 'ora.evmd' on 'nodo01' succeeded
CRS-2676: Start of 'ora.mdnsd' on 'nodo01' succeeded
CRS-2672: Attempting to start 'ora.gpnpd' on 'nodo01'
CRS-2676: Start of 'ora.gpnpd' on 'nodo01' succeeded
CRS-2672: Attempting to start 'ora.gipcd' on 'nodo01'
CRS-2676: Start of 'ora.gipcd' on 'nodo01' succeeded
CRS-2672: Attempting to start 'ora.cssdmonitor' on 'nodo01'
CRS-2676: Start of 'ora.cssdmonitor' on 'nodo01' succeeded
CRS-2672: Attempting to start 'ora.crf' on 'nodo01'
CRS-2672: Attempting to start 'ora.cssd' on 'nodo01'
CRS-2672: Attempting to start 'ora.diskmon' on 'nodo01'
CRS-2676: Start of 'ora.diskmon' on 'nodo01' succeeded
CRS-2676: Start of 'ora.crf' on 'nodo01' succeeded
CRS-2676: Start of 'ora.cssd' on 'nodo01' succeeded
CRS-2672: Attempting to start 'ora.cluster_interconnect.haip' on 'nodo01'
```

```
CRS-2672: Attempting to start 'ora.ctssd' on 'nodo01'

CRS-2676: Start of 'ora.ctssd' on 'nodo01' succeeded

CRS-2676: Start of 'ora.cluster_interconnect.haip' on 'nodo01' succeeded

CRS-2672: Attempting to start 'ora.asm' on 'nodo01'

CRS-2676: Start of 'ora.asm' on 'nodo01' succeeded

CRS-2672: Attempting to start 'ora.storage' on 'nodo01'

CRS-2676: Start of 'ora.storage' on 'nodo01' succeeded

CRS-2672: Attempting to start 'ora.crsd' on 'nodo01'

CRS-2676: Start of 'ora.crsd' on 'nodo01' succeeded

CRS-6023: Starting Oracle Cluster Ready Services-managed resources

CRS-6017: Processing resource auto-start for servers: nodo01

CRS-6016: Resource auto-start has completed for server nodo01

CRS-6024: Completed start of Oracle Cluster Ready Services-managed resources

CRS-4123: Oracle High Availability Services has been started.

2019/01/11 00:03:16 CLSRSC-343: Successfully started Oracle Clusterware stack

2019/01/11 00:03:16 CLSRSC-594: Executing installation step 19 of 20: 'ConfigNode'.

CRS-2672: Attempting to start 'ora.ASMNET1LSNR_ASM.lsnr' on 'nodo01'

CRS-2676: Start of 'ora.ASMNET1LSNR_ASM.lsnr' on 'nodo01' succeeded

CRS-2672: Attempting to start 'ora.asm' on 'nodo01'

CRS-2676: Start of 'ora.asm' on 'nodo01' succeeded

CRS-2672: Attempting to start 'ora.PROVOTOCR.dg' on 'nodo01'

CRS-2676: Start of 'ora.PROVOTOCR.dg' on 'nodo01' succeeded

2019/01/11 00:05:24 CLSRSC-594: Executing installation step 20 of 20: 'PostConfig'.

2019/01/11 00:11:27 CLSRSC-325: Configure Oracle Grid Infrastructure for a Cluster ... succeeded

2019-01-10 18:11:28:[girootcrslocal:Done :nodo01] Running rootcrs.pl

2019-01-10 18:11:28:[girootcrslocal:Time :nodo01] Completed successfully in 2941 seconds (0h:49m:01s)

2019-01-10 18:11:50:[girootcrslocal:Start:nodo02] Running rootcrs.pl


INFO (node:nodo02): rootcrs.pl log location is:
/u01/app/oracle/crsdata/nodo02/crsconfig/rootcrs_nodo02_<timestamp>.log


INFO (node:nodo02): Running on: nodo02 as root: /u01/app/18.4.0/grid/perl/bin/perl -I/u01/app/18.4.0/grid/perl/lib -
I/u01/app/18.4.0/grid/crs/install /u01/app/18.4.0/grid/crs/install/rootcrs.pl -auto

Using configuration parameter file: /u01/app/18.4.0/grid/crs/install/crsconfig_params

The log of current session can be found at:

  /u01/app/oracle/crsdata/nodo02/crsconfig/rootcrs_nodo02_2019-01-11_00-11-50AM.log

2019/01/11 00:11:59 CLSRSC-594: Executing installation step 1 of 20: 'SetupTFA'.

2019/01/11 00:11:59 CLSRSC-4001: Installing Oracle Trace File Analyzer (TFA) Collector.


INFO (node:nodo01): Waiting for all girootcrslocal operations to complete on all nodes (At 18:12:18, elapsed:
0h:00m:30s, 1) node remaining, all background pid(s): 9531)...

2019/01/11 00:12:29 CLSRSC-4002: Successfully installed Oracle Trace File Analyzer (TFA) Collector.

2019/01/11 00:12:29 CLSRSC-594: Executing installation step 2 of 20: 'ValidateEnv'.

2019/01/11 00:12:30 CLSRSC-594: Executing installation step 3 of 20: 'CheckFirstNode'.
```

```
2019/01/11 00:12:31 CLSRSC-594: Executing installation step 4 of 20: 'GenSiteGUIDs'.

2019/01/11 00:12:31 CLSRSC-594: Executing installation step 5 of 20: 'SaveParamFile'.

2019/01/11 00:12:35 CLSRSC-594: Executing installation step 6 of 20: 'SetupOSD'.

2019/01/11 00:12:35 CLSRSC-594: Executing installation step 7 of 20: 'CheckCRSConfig'.

2019/01/11 00:12:36 CLSRSC-594: Executing installation step 8 of 20: 'SetupLocalGPNP'.

2019/01/11 00:12:38 CLSRSC-594: Executing installation step 9 of 20: 'CreateRootCert'.

2019/01/11 00:12:38 CLSRSC-594: Executing installation step 10 of 20: 'ConfigOLR'.

2019/01/11 00:12:41 CLSRSC-594: Executing installation step 11 of 20: 'ConfigCHMOS'.

2019/01/11 00:12:41 CLSRSC-594: Executing installation step 12 of 20: 'CreateOHASD'.

2019/01/11 00:12:43 CLSRSC-594: Executing installation step 13 of 20: 'ConfigOHASD'.

2019/01/11 00:12:43 CLSRSC-330: Adding Clusterware entries to file 'oracle-ohasd.service'

......

INFO (node:nodo01): Waiting for all girootcrslocal operations to complete on all nodes (At 18:15:19, elapsed:
0h:03m:31s, 1) node remaining, all background pid(s): 9531)...

....2019/01/11 00:17:35 CLSRSC-594: Executing installation step 14 of 20: 'InstallAFD'.

..

INFO (node:nodo01): Waiting for all girootcrslocal operations to complete on all nodes (At 18:18:20, elapsed:
0h:06m:32s, 1) node remaining, all background pid(s): 9531)...

....2019/01/11 00:20:45 CLSRSC-594: Executing installation step 15 of 20: 'InstallACFS'.

CRS-2791: Starting shutdown of Oracle High Availability Services-managed resources on 'nodo02'

CRS-2793: Shutdown of Oracle High Availability Services-managed resources on 'nodo02' has completed

CRS-4133: Oracle High Availability Services has been stopped.

.CRS-4123: Oracle High Availability Services has been started.

.

INFO (node:nodo01): Waiting for all girootcrslocal operations to complete on all nodes (At 18:21:21, elapsed:
0h:09m:33s, 1) node remaining, all background pid(s): 9531)...

.....2019/01/11 00:24:19 CLSRSC-594: Executing installation step 16 of 20: 'InstallKA'.

2019/01/11 00:24:21 CLSRSC-594: Executing installation step 17 of 20: 'InitConfig'.

CRS-2791: Starting shutdown of Oracle High Availability Services-managed resources on 'nodo02'

CRS-2793: Shutdown of Oracle High Availability Services-managed resources on 'nodo02' has completed

CRS-4133: Oracle High Availability Services has been stopped.

.

INFO (node:nodo01): Waiting for all girootcrslocal operations to complete on all nodes (At 18:24:22, elapsed:
0h:12m:34s, 1) node remaining, all background pid(s): 9531)...

CRS-4123: Oracle High Availability Services has been started.

CRS-2791: Starting shutdown of Oracle High Availability Services-managed resources on 'nodo02'

CRS-2673: Attempting to stop 'ora.drivers.acfs' on 'nodo02'

CRS-2677: Stop of 'ora.drivers.acfs' on 'nodo02' succeeded

CRS-2793: Shutdown of Oracle High Availability Services-managed resources on 'nodo02' has completed

CRS-4133: Oracle High Availability Services has been stopped.

2019/01/11 00:24:32 CLSRSC-594: Executing installation step 18 of 20: 'StartCluster'.

......

INFO (node:nodo01): Waiting for all girootcrslocal operations to complete on all nodes (At 18:27:24, elapsed:
0h:15m:36s, 1) node remaining, all background pid(s): 9531)...

...CRS-4123: Starting Oracle High Availability Services-managed resources
```

```
CRS-2672: Attempting to start 'ora.mdnsd' on 'nodo02'
CRS-2672: Attempting to start 'ora.evmd' on 'nodo02'
CRS-2676: Start of 'ora.mdnsd' on 'nodo02' succeeded
CRS-2676: Start of 'ora.evmd' on 'nodo02' succeeded
CRS-2672: Attempting to start 'ora.gpnpd' on 'nodo02'
CRS-2676: Start of 'ora.gpnpd' on 'nodo02' succeeded
CRS-2672: Attempting to start 'ora.gipcd' on 'nodo02'
CRS-2676: Start of 'ora.gipcd' on 'nodo02' succeeded
CRS-2672: Attempting to start 'ora.cssdmonitor' on 'nodo02'
CRS-2676: Start of 'ora.cssdmonitor' on 'nodo02' succeeded
CRS-2672: Attempting to start 'ora.crf' on 'nodo02'
CRS-2672: Attempting to start 'ora.cssd' on 'nodo02'
CRS-2672: Attempting to start 'ora.diskmon' on 'nodo02'
CRS-2676: Start of 'ora.diskmon' on 'nodo02' succeeded
CRS-2676: Start of 'ora.crf' on 'nodo02' succeeded
CRS-2676: Start of 'ora.cssd' on 'nodo02' succeeded
CRS-2672: Attempting to start 'ora.cluster_interconnect.haip' on 'nodo02'
CRS-2672: Attempting to start 'ora.ctssd' on 'nodo02'
CRS-2676: Start of 'ora.ctssd' on 'nodo02' succeeded
CRS-2672: Attempting to start 'ora.crsd' on 'nodo02'
CRS-2676: Start of 'ora.crsd' on 'nodo02' succeeded
CRS-2676: Start of 'ora.cluster_interconnect.haip' on 'nodo02' succeeded
CRS-2672: Attempting to start 'ora.asm' on 'nodo02'
CRS-2676: Start of 'ora.asm' on 'nodo02' succeeded
CRS-6017: Processing resource auto-start for servers: nodo02
CRS-2673: Attempting to stop 'ora.LISTENER_SCAN1.lsnr' on 'nodo01'
CRS-2672: Attempting to start 'ora.ons' on 'nodo02'
CRS-2672: Attempting to start 'ora.ASMNET1LSNR_ASM.lsnr' on 'nodo02'
CRS-2677: Stop of 'ora.LISTENER_SCAN1.lsnr' on 'nodo01' succeeded
CRS-2673: Attempting to stop 'ora.scan1.vip' on 'nodo01'
CRS-2677: Stop of 'ora.scan1.vip' on 'nodo01' succeeded
CRS-2672: Attempting to start 'ora.scan1.vip' on 'nodo02'
CRS-2676: Start of 'ora.ASMNET1LSNR_ASM.lsnr' on 'nodo02' succeeded
CRS-2672: Attempting to start 'ora.asm' on 'nodo02'
CRS-2676: Start of 'ora.scan1.vip' on 'nodo02' succeeded
CRS-2672: Attempting to start 'ora.LISTENER_SCAN1.lsnr' on 'nodo02'
CRS-2676: Start of 'ora.LISTENER_SCAN1.lsnr' on 'nodo02' succeeded
CRS-2676: Start of 'ora.ons' on 'nodo02' succeeded
CRS-2676: Start of 'ora.asm' on 'nodo02' succeeded
CRS-2672: Attempting to start 'ora.proxy_advm' on 'nodo01'
CRS-2672: Attempting to start 'ora.proxy_advm' on 'nodo02'
CRS-2676: Start of 'ora.proxy_advm' on 'nodo01' succeeded
CRS-2676: Start of 'ora.proxy_advm' on 'nodo02' succeeded
```

```
CRS-6016: Resource auto-start has completed for server nodo02

CRS-6024: Completed start of Oracle Cluster Ready Services-managed resources

CRS-4123: Oracle High Availability Services has been started.

2019/01/11 00:28:57 CLSRSC-343: Successfully started Oracle Clusterware stack

2019/01/11 00:28:57 CLSRSC-594: Executing installation step 19 of 20: 'ConfigNode'.

2019/01/11 00:29:13 CLSRSC-594: Executing installation step 20 of 20: 'PostConfig'.

...

INFO (node:nodo01): Waiting for all girootcrslocal operations to complete on all nodes (At 18:30:25, elapsed:
0h:18m:37s, 1) node remaining, all background pid(s): 9531)...

..2019/01/11 00:31:43 CLSRSC-325: Configure Oracle Grid Infrastructure for a Cluster ... succeeded

2019-01-10 18:31:45:[girootcrslocal:Done :nodo02] Running rootcrs.pl

2019-01-10 18:31:45:[girootcrslocal:Time :nodo02] Completed successfully in 1195 seconds (0h:19m:55s)


INFO (node:nodo01): All girootcrslocal operations completed on all (2) node(s) at: 18:31:46

2019-01-10 18:31:46:[girootcrs:Time :nodo01] Completed successfully in 4164 seconds (1h:09m:24s)

2019-01-10 18:31:46:[giassist:Start:nodo01] Running RAC Home assistants (netca, asmca)


INFO (node:nodo01): Creating the node Listener using NETCA... (18:31:48)


INFO (node:nodo01): Running on: nodo01 as oracle: export ORACLE_BASE=/u01/app/oracle; export
ORACLE_HOME=/u01/app/18.4.0/grid; /u01/app/18.4.0/grid/bin/netca /orahome /u01/app/18.4.0/grid /instype typical
/inscomp client,oraclenet,javavm,server,ano /insprtcl tcp /cfg local /authadp NO_VALUE /responseFile /u01/app/18.4.0/
grid/network/install/netca_typ.rsp /silent /orahnam OraGI18Home1


Parsing command line arguments:

    Parameter "orahome" = /u01/app/18.4.0/grid

    Parameter "instype" = typical

    Parameter "inscomp" = client,oraclenet,javavm,server,ano

    Parameter "insprtcl" = tcp

    Parameter "cfg" = local

    Parameter "authadp" = NO_VALUE

    Parameter "responsefile" = /u01/app/18.4.0/grid/network/install/netca_typ.rsp

    Parameter "silent" = true

    Parameter "orahnam" = OraGI18Home1

Done parsing command line arguments.

Oracle Net Services Configuration:

Profile configuration complete.

Profile configuration complete.

Listener "LISTENER" already exists.

Oracle Net Services configuration successful. The exit code is 0


INFO (node:nodo01): Running on: nodo01 as oracle: export ORACLE_BASE=/u01/app/oracle; export
ORACLE_HOME=/u01/app/18.4.0/grid; /u01/app/18.4.0/grid/bin/asmca -silent -postConfigureASM

*************
```

```
Post configuration completed successfully



INFO (node:nodo01): Setting initial diskgroup name PROVOTOCR's attributes as defined in RACASMGROUP_ATTRIBUTES
('compatible.asm'='18.4.0.0.0', 'compatible.rdbms'='18.4.0.0.0')...


INFO (node:nodo01): Running SQL on: nodo01 as oracle user using SID: +ASM1 at: 18:43:52: alter diskgroup PROVOTOCR
set attribute 'compatible.asm'='18.4.0.0.0';


Diskgroup altered.


INFO (node:nodo01): Running SQL on: nodo01 as oracle user using SID: +ASM1 at: 18:43:59: alter diskgroup PROVOTOCR
set attribute  'compatible.rdbms'='18.4.0.0.0';


Diskgroup altered.

2019-01-10 18:44:02:[creatediskgroups:Start:nodo01] Creating additional diskgroups


INFO (node:nodo01): Creating Extra diskgroup (PROMGMTDB) at: 18:48:12...


INFO (node:nodo01): Running SQL on: nodo01 as oracle user using SID: +ASM1: create diskgroup "PROMGMTDB" EXTERNAL
redundancy disk 'AFD:PROMGMTDB1','AFD:PROMGMTDB2','AFD:PROMGMTDB3','AFD:PROMGMTDB4' attribute
'compatible.asm'='18.4', 'compatible.rdbms'='12.2', 'compatible.advm'='18.4';


Diskgroup created.


Elapsed: 00:00:10.97


INFO (node:nodo01): Creating Extra diskgroup (PRODATA) at: 18:52:34...


INFO (node:nodo01): Running SQL on: nodo01 as oracle user using SID: +ASM1: create diskgroup "PRODATA" EXTERNAL
redundancy disk 'AFD:PRODATA1','AFD:PRODATA2','AFD:PRODATA3','AFD:PRODATA4' attribute 'compatible.asm'='18.4',
'compatible.rdbms'='18.4', 'compatible.advm'='18.4';


Diskgroup created.


Elapsed: 00:00:10.18


INFO (node:nodo01): Creating Extra diskgroup (PROFRA) at: 18:56:55...


INFO (node:nodo01): Running SQL on: nodo01 as oracle user using SID: +ASM1: create diskgroup "PROFRA" EXTERNAL
redundancy disk 'AFD:PROFRA1','AFD:PROFRA2','AFD:PROFRA3','AFD:PROFRA4' attribute 'compatible.asm'='18.4',
'compatible.rdbms'='18.4', 'compatible.advm'='18.4';


Diskgroup created.


Elapsed: 00:00:10.36
```

```
INFO (node:nodo01): Creating Extra diskgroup (PROADMIN) at: 19:01:17...


INFO (node:nodo01): Running SQL on: nodo01 as oracle user using SID: +ASM1: create diskgroup "PROADMIN" EXTERNAL
redundancy disk 'AFD:PROADMIN1','AFD:PROADMIN2','AFD:PROADMIN3','AFD:PROADMIN4' attribute 'compatible.asm'='18.4',
'compatible.rdbms'='18.4', 'compatible.advm'='18.4';


Diskgroup created.


Elapsed: 00:00:09.37


INFO (node:nodo01): Successfully created the following ASM diskgroups (PROMGMTDB PRODATA PROFRA PROADMIN), setting
them for automount on startup and attempting to mount on all nodes...


INFO (node:nodo01): Running SQL on: nodo01 as oracle user using SID: +ASM1 at: 19:01:29: alter system set
asm_diskgroups='PROADMIN', 'PRODATA', 'PROFRA', 'PROMGMTDB';


System altered.


INFO (node:nodo01): Successfully set the ASM diskgroups (PROADMIN PRODATA PROFRA PROMGMTDB) to automount on startup


INFO (node:nodo01): Attempting to mount diskgroups on nodes running ASM: nodo01 nodo02


INFO (node:nodo01): Running SQL on: nodo02 as oracle user using SID: +ASM2 at: 19:01:32: alter diskgroup "PROMGMTDB"
mount;


Diskgroup altered.


INFO (node:nodo01): Running SQL on: nodo02 as oracle user using SID: +ASM2 at: 19:01:33: alter diskgroup "PRODATA"
mount;


Diskgroup altered.


INFO (node:nodo01): Running SQL on: nodo02 as oracle user using SID: +ASM2 at: 19:01:35: alter diskgroup "PROFRA"
mount;


Diskgroup altered.


INFO (node:nodo01): Running SQL on: nodo02 as oracle user using SID: +ASM2 at: 19:01:36: alter diskgroup "PROADMIN"
mount;


Diskgroup altered.


INFO (node:nodo01): Successfully mounted the created (PROMGMTDB PRODATA PROFRA PROADMIN) ASM diskgroups on all nodes
running an ASM instance (nodo01 nodo02)

2019-01-10 19:01:37:[creatediskgroups:Done :nodo01] Creating additional diskgroups

2019-01-10 19:01:37:[creatediskgroups:Time :nodo01] Completed successfully in 1056 seconds (0h:17m:36s)
```

```
INFO (node:nodo01): Creating Management Database due to CLONE_GRID_MANAGEMENT_DB=yes at: 19:01:39...


INFO (node:nodo01): Running on: nodo01 as oracle: export ORACLE_BASE='/u01/app/oracle'; export ORACLE_HOME='/u01/app/
18.4.0/grid'; /u01/app/18.4.0/grid/bin/dbca -silent -createDatabase -createAsContainerDatabase true -templateName
MGMTSeed_Database.dbc -sid -MGMTDB -gdbName _mgmtdb -pdbName nodo -numberOfPDBs 1 -storageType ASM -diskGroupName
'PROMGMTDB' -oui_internal -datafileJarLocation '/u01/app/18.4.0/grid/assistants/dbca/templates' -characterset
AL32UTF8 -autoGeneratePasswords -skipUserTemplateCheck

Prepare for db operation

7% complete

Registering database with Oracle Grid Infrastructure

11% complete

Copying database files

33% complete

Creating and starting Oracle instance

35% complete

38% complete

42% complete

45% complete

48% complete

Completing Database Creation

51% complete

53% complete

56% complete

Creating Pluggable Databases

60% complete

78% complete

Executing Post Configuration Actions

100% complete

Database creation complete. For details check the logfiles at:

 /u01/app/oracle/cfgtoollogs/dbca/_mgmtdb.

Database Information:

Global Database Name:_mgmtdb

System Identifier(SID):-MGMTDB

Look at the log file "/u01/app/oracle/cfgtoollogs/dbca/_mgmtdb/_mgmtdb.log" for further details.


INFO (node:nodo01): Configure the Mangement Database... at: 19:34:49


INFO (node:nodo01): Running on: nodo01 as oracle: export ORACLE_BASE='/u01/app/oracle'; export ORACLE_HOME='/u01/app/
18.4.0/grid'; /u01/app/18.4.0/grid/bin/mgmtca -local


INFO (node:nodo01): Waiting for all local operations to complete (At 19:35:20, elapsed: 0h:00m:30s, 1) remaining, all
background pid(s): 5184)...

...

INFO (node:nodo01): Completed running on local node at: 19:36:56, elapsed: 0h:02m:06s

2019-01-10 19:36:56:[giassist:Done :nodo01] Running RAC Home assistants (netca, asmca)

2019-01-10 19:36:56:[giassist:Time :nodo01] Completed successfully in 3910 seconds (1h:05m:10s)
```

```
2019-01-10 19:36:56:[createacfsfs:Start:nodo01] Creating ACFS filesystem: /acfs/prodata

..

INFO (node:nodo01): Verifying ACFS is active & creating remote mount point: /acfs/prodata on active Hub cluster
members: nodo01 nodo02


INFO (node:nodo01): Obtaining volume (VPRODATA) details at: 19:39:21...


INFO (node:nodo01): Running on: nodo01 as oracle: export ORACLE_BASE=/u01/app/oracle; export
ORACLE_HOME=/u01/app/18.4.0/grid; export ORACLE_SID=+ASM1; /u01/app/18.4.0/grid/bin/asmca -silent -createVolume -
volumeName 'VPRODATA' -volumeDiskGroup 'PRODATA' -volumeSizeGB 450


[INFO] [DBT-30079] Volume VPRODATA created successfully.




INFO (node:nodo01): Obtaining volume (VPRODATA) details at: 19:56:20...


INFO (node:nodo01): Running on: nodo01 as oracle: export ORACLE_BASE=/u01/app/oracle; export
ORACLE_HOME=/u01/app/18.4.0/grid; export ORACLE_SID=+ASM1; /u01/app/18.4.0/grid/bin/asmca -silent -createACFS -
acfsVolumeDevice /dev/asm/vprodata-422 -acfsMountPoint '/acfs/prodata' -acfsUserName oracle -acfsGroupName oinstall


[INFO] [DBT-30092] ASM Cluster File System created on /dev/asm/vprodata-422 successfully.

[INFO] Run the generated ACFS registration script /u01/app/oracle/cfgtoollogs/asmca/scripts/acfs_script.sh as
privileged user to register the ACFS with Grid Infrastructure and to mount the ACFS. The ACFS registration script
needs to be run only on this node: nodo01.


INFO (node:nodo01): Running on: nodo01 as root: /u01/app/18.4.0/grid/bin/srvctl add filesystem -d /dev/asm/vprodata-
422 -g 'PRODATA' -v 'VPRODATA' -m '/acfs/prodata' -u oracle -autostart ALWAYS


INFO (node:nodo01): Running on: nodo01 as oracle: export ORACLE_BASE=/u01/app/oracle; export
ORACLE_HOME=/u01/app/oracle/product/18.4.0/dbhome_1; /u01/app/oracle/product/18.4.0/dbhome_1/bin/srvctl start
filesystem -d /dev/asm/vprodata-422

/u01/app/oracle/product/18.4.0/dbhome_1/bin/srvctl: line 255:
/u01/app/oracle/product/18c/dbhome_1/srvm/admin/getcrshome: No such file or directory


INFO (node:nodo01): Running on: nodo01 as oracle: /bin/chmod 775 /acfs/prodata >/dev/null 2>&1; export
ORACLE_BASE=/u01/app/oracle; export ORACLE_HOME=/u01/app/oracle/product/18.4.0/dbhome_1;
/u01/app/oracle/product/18.4.0/dbhome_1/bin/srvctl status filesystem -d /dev/asm/vprodata-422

/u01/app/oracle/product/18.4.0/dbhome_1/bin/srvctl: line 255:
/u01/app/oracle/product/18c/dbhome_1/srvm/admin/getcrshome: No such file or directory

ACFS file system /acfs/prodata is mounted on nodes nodo01,nodo02

Filesystem            Type 1K-blocks    Used Available Use% Mounted on

/dev/asm/vprodata-422 acfs 471859200 1432452 470426748   1% /acfs/prodata

2019-01-10 20:15:51:[createacfsfs:Done :nodo01] Creating ACFS filesystem: /acfs/prodata

2019-01-10 20:15:51:[createacfsfs:Time :nodo01] Completed successfully in 2335 seconds (0h:38m:55s)

2019-01-10 20:15:51:[creategrid:Done :nodo01] Creating 18c Grid Infrastructure

2019-01-10 20:15:51:[creategrid:Time :nodo01] Completed successfully in 10672 seconds (2h:57m:52s)

2019-01-10 20:15:51:[cvupostcrs:Start:nodo01] Cluster Verification Utility (CVU), stage: Post crsinst
```

```
INFO (node:nodo01): Running on: nodo01 as oracle: export ORACLE_BASE=/u01/app/oracle; export
ORACLE_HOME=/u01/app/18.4.0/grid; /u01/app/18.4.0/grid/bin/cluvfy stage -post crsinst -n nodo01,nodo02


Verifying Node Connectivity ...
  Verifying Hosts File ...PASSED
  Verifying Check that maximum (MTU) size packet goes through subnet ...PASSED
  Verifying subnet mask consistency for subnet "192.168.117.0" ...PASSED
  Verifying subnet mask consistency for subnet "10.1.1.0" ...PASSED
Verifying Node Connectivity ...PASSED
Verifying Multicast or broadcast check ...PASSED
Verifying ASM filter driver configuration consistency ...PASSED
Verifying Time zone consistency ...PASSED
Verifying Cluster Manager Integrity ...PASSED
Verifying User Mask ...PASSED
Verifying Cluster Integrity ...PASSED
Verifying OCR Integrity ...PASSED
Verifying CRS Integrity ...
  Verifying Clusterware Version Consistency ...PASSED
Verifying CRS Integrity ...PASSED
Verifying Node Application Existence ...PASSED
Verifying Single Client Access Name (SCAN) ...
  Verifying DNS/NIS name service 'nodo-scan.inludes.int' ...
    Verifying Name Service Switch Configuration File Integrity ...PASSED
  Verifying DNS/NIS name service 'nodo-scan.inludes.int' ...PASSED
Verifying Single Client Access Name (SCAN) ...PASSED
Verifying OLR Integrity ...PASSED
Verifying Voting Disk ...PASSED
Verifying ASM Integrity ...
  Verifying Node Connectivity ...
    Verifying Hosts File ...PASSED
    Verifying Check that maximum (MTU) size packet goes through subnet ...PASSED
    Verifying subnet mask consistency for subnet "192.168.117.0" ...PASSED
    Verifying subnet mask consistency for subnet "10.1.1.0" ...PASSED
  Verifying Node Connectivity ...PASSED
Verifying ASM Integrity ...PASSED
Verifying ASM disk group free space ...PASSED
Verifying User Not In Group "root": oracle ...PASSED
Verifying Clock Synchronization ...
CTSS is in Observer state. Switching over to clock synchronization checks using NTP


  Verifying Network Time Protocol (NTP) ...
    Verifying '/etc/ntp.conf' ...PASSED
    Verifying '/etc/chrony.conf' ...PASSED
```

```
    Verifying '/var/run/chronyd.pid' ...PASSED

    Verifying Daemon 'chronyd' ...PASSED

    Verifying NTP daemon or service using UDP port 123 ...PASSED

    Verifying chrony daemon is synchronized with at least one external time source ...PASSED

  Verifying Network Time Protocol (NTP) ...PASSED

Verifying Clock Synchronization ...PASSED

Verifying VIP Subnet configuration check ...PASSED

Verifying Network configuration consistency checks ...PASSED

Verifying File system mount options for path GI_HOME ...PASSED

Verifying Access control attributes for /var/tmp/.oracle ...PASSED

Verifying Access control attributes for %OCRCONFIGDIR%/maps ...PASSED


Post-check for cluster services setup was successful.


CVU operation performed:      stage -post crsinst

Date:                         Jan 10, 2019 8:15:54 PM

CVU home:                     /u01/app/18.4.0/grid/

User:                         oracle

2019-01-10 20:20:01:[cvupostcrs:Done :nodo01] Cluster Verification Utility (CVU), stage: Post crsinst

2019-01-10 20:20:01:[cvupostcrs:Time :nodo01] Completed successfully in 250 seconds (0h:04m:10s)

2019-01-10 20:20:01:[racclone:Start:nodo01] Cloning 18c RAC Home on all nodes

..


INFO (node:nodo01): Cloning & relinking RAC home due to path change. Path set in DBHOME is
(/u01/app/oracle/product/18.4.0/dbhome_1), path found in scripts inside that home
(/u01/app/oracle/product/18c/dbhome_1)

2019-01-10 20:20:04:[racclonelocal:Start:nodo01] Cloning 18c RAC Home


INFO (node:nodo01): Running on: nodo01 as root: /bin/chown -HRf oracle:oinstall
/u01/app/oracle/product/18.4.0/dbhome_1 2>/dev/null


INFO (node:nodo02): Cloning & relinking RAC home due to path change. Path set in DBHOME is
(/u01/app/oracle/product/18.4.0/dbhome_1), path found in scripts inside that home
(/u01/app/oracle/product/18c/dbhome_1)

2019-01-10 20:20:04:[racclonelocal:Start:nodo02] Cloning 18c RAC Home


INFO (node:nodo02): Running on: nodo02 as root: /bin/chown -HRf oracle:oinstall
/u01/app/oracle/product/18.4.0/dbhome_1 2>/dev/null


INFO (node:nodo01): Running on: nodo01 as oracle: /u01/app/oracle/product/18.4.0/dbhome_1/perl/bin/perl
/u01/app/oracle/product/18.4.0/dbhome_1/clone/bin/clone.pl -silent ORACLE_BASE='/u01/app/oracle'
ORACLE_HOME='/u01/app/oracle/product/18.4.0/dbhome_1' ORACLE_HOME_NAME='OraDB18Home1'
INVENTORY_LOCATION='/u01/app/oraInventory' OSDBA_GROUP=dba OSOPER_GROUP= OSKMDBA_GROUP=dba OSDGDBA_GROUP=dba
OSBACKUPDBA_GROUP=dba OSRACDBA_GROUP=dba  'CLUSTER_NODES={nodo01,nodo02}' "LOCAL_NODE=nodo01"  '-ignoreSysPrereqs'

Starting Oracle Universal Installer...


Checking Temp space: must be greater than 500 MB.   Actual 5806 MB    Passed

Checking swap space: must be greater than 500 MB.   Actual 4095 MB    Passed
```

```
Preparing to launch Oracle Universal Installer from /tmp/OraInstall2019-01-10_08-20-05PM. Please wait ...

INFO (node:nodo02): Running on: nodo02 as oracle: /u01/app/oracle/product/18.4.0/dbhome_1/perl/bin/perl
/u01/app/oracle/product/18.4.0/dbhome_1/clone/bin/clone.pl -silent ORACLE_BASE='/u01/app/oracle'
ORACLE_HOME='/u01/app/oracle/product/18.4.0/dbhome_1' ORACLE_HOME_NAME='OraDB18Home1'
INVENTORY_LOCATION='/u01/app/oraInventory' OSDBA_GROUP=dba OSOPER_GROUP= OSKMDBA_GROUP=dba OSDGDBA_GROUP=dba
OSBACKUPDBA_GROUP=dba OSRACDBA_GROUP=dba  'CLUSTER_NODES={nodo01,nodo02}' "LOCAL_NODE=nodo02"  '-ignoreSysPrereqs'

Starting Oracle Universal Installer...


Checking Temp space: must be greater than 500 MB.   Actual 5817 MB    Passed

Checking swap space: must be greater than 500 MB.   Actual 4095 MB    Passed

Preparing to launch Oracle Universal Installer from /tmp/OraInstall2019-01-10_08-20-05PM. Please wait ...You can find
the log of this install session at:

 /u01/app/oraInventory/logs/cloneActions2019-01-10_08-20-05PM.log

You can find the log of this install session at:

 /u01/app/oraInventory/logs/cloneActions2019-01-10_08-20-05PM.log

.............................................................   5% Done.

.............................................   10% Done.

.............................................   15% Done.

.............................................   20% Done.

.............................................   25% Done.

.............................................   30% Done.

.............................................   35% Done.

.............................................   40% Done.

.............................................   45% Done.

.............................................   50% Done.

.............................................   55% Done.

.............................................   60% Done.

.............................................   65% Done.

.............................................   70% Done.

.............................................   75% Done.

.............................................   80% Done.

.............................................   85% Done.

.............................................   5% Done.

.............................................   10% Done.

.............................................   15% Done.

.............................................   20% Done.

.............................................   25% Done.

.............................................   30% Done.

.............................................   35% Done.

.............................................   40% Done.

.............................................   45% Done.

.............................................   50% Done.

.............................................   55% Done.

.............................................   60% Done.

.............................................   65% Done.
```

```
.....................................................   70% Done.
.....................................................   75% Done.
.....................................................   80% Done.
.....................................................   85% Done.
..........
Copy files in progress.

Copy files in progress.

Copy files successful.

Link binaries in progress.
..........
Copy files successful.

Link binaries in progress.
..........
INFO (node:nodo01): Waiting for all racclonelocal operations to complete on all nodes (At 20:20:32, elapsed:
0h:00m:30s, 2) nodes remaining, all background pid(s): 2712 2718)...
..
Link binaries successful.

Setup files in progress.
..........
Setup files successful.

Setup Inventory in progress.

Setup Inventory successful.
..........
Finish Setup successful.
The cloning of OraDB18Home1 was successful.
Please check '/u01/app/oraInventory/logs/cloneActions2019-01-10_08-20-05PM.log' for more details.

Setup Oracle Base in progress.

Setup Oracle Base successful.
.....................................................   95% Done.

As a root user, execute the following script(s):
  1. /u01/app/oracle/product/18.4.0/dbhome_1/root.sh

Execute /u01/app/oracle/product/18.4.0/dbhome_1/root.sh on the following nodes:
```

```
[nodo02]



.....................................................   100% Done.

2019-01-10 20:21:52:[racrootlocal:Start:nodo02] Running root.sh on RAC Home

Check /u01/app/oracle/product/18.4.0/dbhome_1/install/root_nodo02_2019-01-10_20-21-52-308268286.log for the output of
root script

2019-01-10 20:21:52:[racrootlocal:Done :nodo02] Running root.sh on RAC Home

2019-01-10 20:21:52:[racrootlocal:Time :nodo02] Completed successfully in 0 seconds (0h:00m:00s)


INFO (node:nodo02): Resetting permissions on Oracle Home (/u01/app/oracle/product/18.4.0/dbhome_1)...

2019-01-10 20:21:52:[racclonelocal:Done :nodo02] Cloning 18c RAC Home

2019-01-10 20:21:52:[racclonelocal:Time :nodo02] Completed successfully in 108 seconds (0h:01m:48s)

.

Link binaries successful.


Setup files in progress.

.........

Setup files successful.


Setup Inventory in progress.


Setup Inventory successful.

.........

Finish Setup successful.

The cloning of OraDB18Home1 was successful.

Please check '/u01/app/oraInventory/logs/cloneActions2019-01-10_08-20-05PM.log' for more details.


Setup Oracle Base in progress.


Setup Oracle Base successful.

.....................................................   95% Done.


As a root user, execute the following script(s):

  1. /u01/app/oracle/product/18.4.0/dbhome_1/root.sh


Execute /u01/app/oracle/product/18.4.0/dbhome_1/root.sh on the following nodes:

[nodo01]



.....................................................   100% Done.

2019-01-10 20:22:12:[racrootlocal:Start:nodo01] Running root.sh on RAC Home

Check /u01/app/oracle/product/18.4.0/dbhome_1/install/root_nodo01_2019-01-10_20-22-12-328457452.log for the output of
root script
```

```
2019-01-10 20:22:12:[racrootlocal:Done :nodo01] Running root.sh on RAC Home

2019-01-10 20:22:12:[racrootlocal:Time :nodo01] Completed successfully in 0 seconds (0h:00m:00s)


INFO (node:nodo01): Resetting permissions on Oracle Home (/u01/app/oracle/product/18.4.0/dbhome_1)...

2019-01-10 20:22:12:[racclonelocal:Done :nodo01] Cloning 18c RAC Home

2019-01-10 20:22:12:[racclonelocal:Time :nodo01] Completed successfully in 128 seconds (0h:02m:08s)


INFO (node:nodo01): All racclonelocal operations completed on all (2) node(s) at: 20:22:14

2019-01-10 20:22:14:[racclone:Done :nodo01] Cloning 18c RAC Home on all nodes

2019-01-10 20:22:14:[racclone:Time :nodo01] Completed successfully in 133 seconds (0h:02m:13s)

2019-01-10 20:22:14:[createdb:Start:nodo01] Creating 18c RAC Database (prolugo) & Instances

....2019-01-10 20:22:20:[adjustmemlocal:Start:nodo01] Adjusting memory settings


INFO (node:nodo01): Not attempting to adjust size of /dev/shm since the available space (19010MB) exceeds the
calculated needed space


INFO (node:nodo01): Configured size of /dev/shm is (see output below):

Filesystem      Size  Used Avail Use% Mounted on

tmpfs            20G  1.1G   19G   6% /dev/shm

2019-01-10 20:22:20:[adjustmemlocal:Done :nodo01] Adjusting memory settings

2019-01-10 20:22:20:[adjustmemlocal:Time :nodo01] Completed successfully in 0 seconds (0h:00m:00s)

2019-01-10 20:22:21:[adjustmemlocal:Start:nodo02] Adjusting memory settings


INFO (node:nodo02): Not attempting to adjust size of /dev/shm since the available space (19010MB) exceeds the
calculated needed space


INFO (node:nodo02): Configured size of /dev/shm is (see output below):

Filesystem      Size  Used Avail Use% Mounted on

tmpfs            20G  1.1G   19G   6% /dev/shm

2019-01-10 20:22:21:[adjustmemlocal:Done :nodo02] Adjusting memory settings

2019-01-10 20:22:21:[adjustmemlocal:Time :nodo02] Completed successfully in 0 seconds (0h:00m:00s)


INFO (node:nodo01): Creating Admin Managed database (prolugo) on (2) cluster Hub members: nodo01,nodo02


INFO (node:nodo01): Running on: nodo01 as oracle: export ORACLE_HOME=/u01/app/oracle/product/18.4.0/dbhome_1; export
ORACLE_BASE=/u01/app/oracle; /u01/app/oracle/product/18.4.0/dbhome_1/bin/dbca -silent -createDatabase -adminManaged -
emConfiguration DBEXPRESS -nodelist 'nodo01,nodo02' -templateName 'General_Purpose.dbc' -storageType FS -
datafileDestination '/acfs/prodata' -datafileJarLocation
'/u01/app/oracle/product/18.4.0/dbhome_1/assistants/dbca/templates' -characterset 'WE8MSWIN1252' -
nationalCharacterSet 'AL16UTF16' -sampleSchema false -oratabLocation /etc/oratab  -runCVUChecks false -
continueOnNonFatalErrors true -createAsContainerDatabase true -numberOfPDBs 1 -pdbName prolugopdb -gdbName 'prolugo'
-useOMF true  -sid 'prolugo' -initParams db_create_online_log_dest_1='/acfs/prodata',db_create_online_log_dest_2='/
acfs/prodata' -ignorePrereqs

Prepare for db operation

7% complete

Copying database files

27% complete

Creating and starting Oracle instance
```

```
28% complete

31% complete

35% complete

37% complete

40% complete

Creating cluster database views

41% complete

53% complete

Completing Database Creation

57% complete

59% complete

60% complete

Creating Pluggable Databases

64% complete

80% complete

Executing Post Configuration Actions

100% complete

Database creation complete. For details check the logfiles at:

 /u01/app/oracle/cfgtoollogs/dbca/prolugo.

Database Information:

Global Database Name:prolugo

System Identifier(SID) Prefix:prolugo

Look at the log file "/u01/app/oracle/cfgtoollogs/dbca/prolugo/prolugo.log" for further details.


INFO (node:nodo01): Adding Service (prolugopdb) stored in DBCA_PLUGGABLE_DB_NAME used to access the Pluggable
Database to: /u01/app/oracle/product/18.4.0/dbhome_1/network/admin/tnsnames.ora


INFO (node:nodo01): Running on: nodo01 as oracle: export ORACLE_HOME=/u01/app/oracle/product/18.4.0/dbhome_1;
/u01/app/oracle/product/18.4.0/dbhome_1/bin/srvctl status database -d prolugo

Instance prolugo1 is running on node nodo01

Instance prolugo2 is running on node nodo02

.

INFO (node:nodo01): DBCA post creation scripts are running in background (due to DBCA_POST_SQL_BG=yes) as pid:
2517... (continuing execution)

See log at: /u01/racovm/buildcluster1_createdbpostsql_2019Jan10_22_50_36.log


INFO (node:nodo01): Setup oracle's environment


INFO (node:nodo02): Setup oracle's environment

2019-01-10 22:50:43:[createdb:Done :nodo01] Creating 18c RAC Database (prolugo) & Instances

2019-01-10 22:50:43:[createdb:Time :nodo01] Completed successfully in 8909 seconds (2h:28m:29s)


INFO (node:nodo02): Disabling SSH key-based authentication access for root user (from remote nodes)

2019-01-10 22:50:47:[rmsshrootlocal:Time :nodo02] Completed successfully in 1 seconds (0h:00m:01s)
```

```
INFO (node:nodo01): Disabling SSH key-based authentication access for root user (from remote nodes)
2019-01-10 22:50:49:[rmsshrootlocal:Time :nodo01] Completed successfully in 0 seconds (0h:00m:00s)
2019-01-10 22:50:49:[rmsshroot:Time :nodo01] Completed successfully in 6 seconds (0h:00m:06s)

INFO (node:nodo01): Current cluster state (22:50:49)...

INFO (node:nodo01): Running on: nodo01 as root: /u01/app/18.4.0/grid/bin/olsnodes -n -s -t
nodo01      1         Active    Hub       Unpinned
nodo02      2         Active    Hub       Unpinned
Oracle Clusterware active version on the cluster is [18.0.0.0.0]
Oracle Clusterware version on node [nodo01] is [18.0.0.0.0]
CRS Administrator List: oracle root
Cluster is running in "flex" mode
CRS-41008: Cluster class is 'Standalone Cluster'
ASM Flex mode enabled: ASM instance count: 3
ASM is running on nodo01,nodo02

INFO (node:nodo01): Running on: nodo01 as oracle: export ORACLE_HOME=/u01/app/oracle/product/18.4.0/dbhome_1;
/u01/app/oracle/product/18.4.0/dbhome_1/bin/srvctl status database -d prolugo
Instance prolugo1 is running on node nodo01
Instance prolugo2 is running on node nodo02

INFO (node:nodo01): Running on: nodo01 as root: /u01/app/18.4.0/grid/bin/crsctl status resource -t
--------------------------------------------------------------------------------
Name           Target  State        Server                   State details
--------------------------------------------------------------------------------
Local Resources
--------------------------------------------------------------------------------
ora.ASMNET1LSNR_ASM.lsnr
               ONLINE  ONLINE       nodo01           STABLE
               ONLINE  ONLINE       nodo02           STABLE
ora.LISTENER.lsnr
               ONLINE  ONLINE       nodo01           STABLE
               ONLINE  ONLINE       nodo02           STABLE
ora.PROADMIN.dg
               ONLINE  ONLINE       nodo01           STABLE
               ONLINE  ONLINE       nodo02           STABLE
ora.PRODATA.VPRODATA.advm
               ONLINE  ONLINE       nodo01           STABLE
               ONLINE  ONLINE       nodo02           STABLE
ora.PRODATA.dg
               ONLINE  ONLINE       nodo01           STABLE
```

```
               ONLINE  ONLINE       nodo02           STABLE
ora.PROFRA.dg
               ONLINE  ONLINE       nodo01           STABLE
               ONLINE  ONLINE       nodo02           STABLE
ora.PROMGMTDB.dg
               ONLINE  ONLINE       nodo01           STABLE
               ONLINE  ONLINE       nodo02           STABLE
ora.PROVOTOCR.GHCHKPT.advm
               OFFLINE OFFLINE      nodo01           STABLE
               OFFLINE OFFLINE      nodo02           STABLE
ora.PROVOTOCR.dg
               ONLINE  ONLINE       nodo01           STABLE
               ONLINE  ONLINE       nodo02           STABLE
ora.chad
               ONLINE  ONLINE       nodo01           STABLE
               ONLINE  ONLINE       nodo02           STABLE
ora.helper
               OFFLINE OFFLINE      nodo01           STABLE
               OFFLINE OFFLINE      nodo02           IDLE,STABLE
ora.net1.network
               ONLINE  ONLINE       nodo01           STABLE
               ONLINE  ONLINE       nodo02           STABLE
ora.ons
               ONLINE  ONLINE       nodo01           STABLE
               ONLINE  ONLINE       nodo02           STABLE
ora.prodata.vprodata.acfs
               ONLINE  ONLINE       nodo01           mounted on /acfs/pro
                                                             data,STABLE
               ONLINE  ONLINE       nodo02           mounted on /acfs/pro
                                                             data,STABLE
ora.provotocr.ghchkpt.acfs
               OFFLINE OFFLINE      nodo01           volume /opt/oracle/r
                                                             hp_images/chkbase is
                                                             unmounted,STABLE
               OFFLINE OFFLINE      nodo02           STABLE
ora.proxy_advm
               ONLINE  ONLINE       nodo01           STABLE
               ONLINE  ONLINE       nodo02           STABLE
--------------------------------------------------------------------------------
Cluster Resources
--------------------------------------------------------------------------------
ora.LISTENER_SCAN1.lsnr
      1        ONLINE  ONLINE       nodo02           STABLE
```

```
ora.LISTENER_SCAN2.lsnr
      1        ONLINE  ONLINE       nodo01           STABLE
ora.LISTENER_SCAN3.lsnr
      1        ONLINE  ONLINE       nodo01           STABLE
ora.MGMTLSNR
      1        ONLINE  ONLINE       nodo01           169.254.9.60 10.1.1.
                                                             1,STABLE
ora.asm
      1        ONLINE  ONLINE       nodo01           Started,STABLE
      2        ONLINE  ONLINE       nodo02           Started,STABLE
      3        OFFLINE OFFLINE                               STABLE
ora.cvu
      1        ONLINE  ONLINE       nodo01           STABLE
ora.nodo01.vip
      1        ONLINE  ONLINE       nodo01           STABLE
ora.nodo02.vip
      1        ONLINE  ONLINE       nodo02           STABLE
ora.mgmtdb
      1        ONLINE  ONLINE       nodo01           Open,STABLE
ora.prolugo.db
      1        ONLINE  ONLINE       nodo01           Open,HOME=/u01/app/o
                                                             racle/product/18.4.0
                                                             /dbhome_1,STABLE
      2        ONLINE  ONLINE       nodo02           Open,HOME=/u01/app/o
                                                             racle/product/18.4.0
                                                             /dbhome_1,STABLE
ora.qosmserver
      1        ONLINE  ONLINE       nodo01           STABLE
ora.rhpserver
      1        OFFLINE OFFLINE                               STABLE
ora.scan1.vip
      1        ONLINE  ONLINE       nodo02           STABLE
ora.scan2.vip
      1        ONLINE  ONLINE       nodo01           STABLE
ora.scan3.vip
      1        ONLINE  ONLINE       nodo01           STABLE
--------------------------------------------------------------------------------

INFO (node:nodo01): For an explanation on resources in OFFLINE state, see Note:1068835.1
2019-01-10 22:50:56:[clusterstate:Time :nodo01] Completed successfully in 7 seconds (0h:00m:07s)
2019-01-10 22:50:56:[buildcluster:Done :nodo01] Building 18c RAC Cluster
2019-01-10 22:50:56:[buildcluster:Time :nodo01] Completed successfully in 20524 seconds (5h:42m:04s)
```

```
INFO (node:nodo01): This entire build was logged in logfile: /u01/racovm/buildcluster1.log
```

4 OPatch lsinventory

4.1 GRID

```
[oracle@nodo02 ~]$ opatch lsinventory
Oracle Interim Patch Installer version 12.2.0.1.14
Copyright (c) 2019, Oracle Corporation.  All rights reserved.


Oracle Home       : /u01/app/18.4.0/grid
Central Inventory : /u01/app/oraInventory
   from           : /u01/app/18.4.0/grid/oraInst.loc
OPatch version    : 12.2.0.1.14
OUI version       : 12.2.0.4.0
Log file location : /u01/app/18.4.0/grid/cfgtoollogs/opatch/opatch2019-01-21_18-37-00PM_1.log

Lsinventory Output file location : /u01/app/18.4.0/grid/cfgtoollogs/opatch/lsinv/lsinventory2019-01-21_18-37-00PM.txt

--------------------------------------------------------------------------------
Local Machine Information::
Hostname: nodo02.inludes.int
ARU platform id: 226
ARU platform description:: Linux x86-64

Installed Top-level Products (1):

Oracle Grid Infrastructure 18c                                       18.0.0.0.0
There are 1 products installed in this Oracle Home.


Interim patches (7) :

Patch  28502229     : applied on Sun Oct 21 12:28:42 CEST 2018
Unique Patch ID:  22435400
Patch description:  "OJVM RELEASE UPDATE: 18.4.0.0.181016 (28502229)"
   Created on 3 Oct 2018, 05:36:12 hrs PST8PDT
   Bugs fixed:
     27304131, 27539876, 27952586, 27642235, 27636900, 27461740, 28278547
     28278640, 27936676, 28502098
```

Patch 28656071   : applied on Sun Oct 21 12:28:09 CEST 2018

Unique Patch ID: 22447965

Patch description: "OCW RELEASE UPDATE 18.4.0.0.0 (28656071)"

Created on 17 Sep 2018, 04:45:00 hrs PST8PDT

Bugs fixed:

12816839, 18701017, 22734786, 23698980, 23840305, 25709124, 25724089

26299684, 26313403, 26433972, 26527054, 26586174, 26587652, 26647619

26716493, 26827699, 26860285, 26882126, 26882316, 26943660, 26996813

27012915, 27018734, 27020218, 27032726, 27034318, 27040560, 27079545

27080748, 27086406, 27092991, 27098733, 27106915, 27114112, 27121566

27133637, 27144533, 27153755, 27162982, 27166715, 27174938, 27174948

27177551, 27177852, 27182006, 27182064, 27184253, 27202669, 27204476

27212273, 27212837, 27213140, 27220610, 27222423, 27222938, 27238077

27238258, 27249544, 27252023, 27257509, 27263677, 27265816, 27267992

27271876, 27274143, 27285557, 27299455, 27300007, 27302415, 27309182

27314512, 27315159, 27320985, 27334353, 27338838, 27346984, 27358232

27362190, 27370933, 27377219, 27378959, 27379846, 27379956, 27393421

27398223, 27399499, 27399762, 27399985, 27400210, 27401618, 27403244

27404261, 27404599, 27426277, 27427831, 27428790, 27430219, 27430254

27433163, 27452897, 27458829, 27465480, 27475272, 27481406, 27481765

27492916, 27496806, 27503318, 27503413, 27508936, 27508984, 27513114

27516078, 27519708, 27526362, 27528204, 27530270, 27532009, 27534289

27535098, 27554304, 27555886, 27560562, 27560735, 27561716, 27566153

27573154, 27573408, 27574335, 27577122, 27579969, 27581484, 27591035

27593587, 27595801, 27600706, 27609795, 27609819, 27624923, 27625010

27625050, 27627992, 27654039, 27657467, 27657920, 27666818, 27668379

27682288, 27691717, 27702244, 27703242, 27704335, 27708711, 27714373

27725967, 27727843, 27731346, 27734470, 27735534, 27739957, 27740854

27747407, 27748321, 27757979, 27766679, 27768034, 27778433, 27782464

27783059, 27786669, 27786699, 27801774, 27808734, 27811439, 27833486

27839732, 27849995, 27850736, 27862636, 27864737, 27865439, 27871981

27873967, 27880388, 27883625, 27889841, 27890657, 27896388, 27897639

27906509, 27923324, 27931506, 27935826, 27936173, 27941514, 27953102

27957892, 27965004, 27972271, 27973640, 27978668, 27984314, 27990479

27991743, 27993298, 28023410, 28025398, 28032758, 28039471, 28039953

28044154, 28045209, 28050201, 28084656, 28090740, 28099592, 28107405

28109698, 28132317, 28142478, 28146584, 28174926, 28182503, 28183055

28191222, 28204423, 28204437, 28205874, 28224602, 28239335, 28240153

28266751, 28295055, 28359337, 28362584, 28376542, 28455423, 28462215

Patch 28655963   : applied on Sun Oct 21 12:27:38 CEST 2018

Unique Patch ID: 22452349

Patch description: "DBWLM RELEASE UPDATE 18.4.0.0.0 (28655963)"

Created on 20 Sep 2018, 21:24:30 hrs PST8PDT

Bugs fixed:

27701279

Patch 28655916   : applied on Sun Oct 21 12:27:24 CEST 2018

Unique Patch ID: 22447359

Patch description: "ACFS RELEASE UPDATE 18.4.0.0.0 (28655916)"

Created on 17 Sep 2018, 03:56:37 hrs PST8PDT

Bugs fixed:

25354206, 26987877, 26990202, 27016503, 27065091, 27077948, 27101273
27124867, 27131377, 27163313, 27164122, 27192754, 27204133, 27212208
27223171, 27230645, 27243810, 27284286, 27298996, 27307934, 27318988
27321575, 27331069, 27331374, 27333978, 27339165, 27339654, 27341181
27392256, 27463879, 27472898, 27503208, 27534651, 27538461, 27573409
27593263, 27614272, 27655018, 27670484, 27738679, 27788520, 27868727
27877050, 27911160, 27919283, 27955239, 27962890, 27982730, 28027810
28031109, 28069955, 28111958, 28136863, 28137677, 28142134, 28171094
28242640, 28376306

Patch 28655784   : applied on Sun Oct 21 12:26:29 CEST 2018

Unique Patch ID: 22509982

Patch description: "Database Release Update : 18.4.0.0.181016 (28655784)"

Created on 8 Oct 2018, 21:27:28 hrs PST8PDT

Bugs fixed:

28571483, 9062315, 13554903, 14221306, 20436508, 21547051, 21744603
21766220, 21806121, 23003564, 23061453, 23310101, 24489904, 24689376
24737581, 24925863, 24971597, 25035594, 25035599, 25287072, 25303284
25309116, 25348956, 25487146, 25634405, 25644811, 25686739, 25726981
25743479, 25824236, 25882883, 25890002, 25911069, 25929650, 25943740
25958554, 26226953, 26297826, 26336101, 26399691, 26422277, 26423085
26427905, 26450454, 26476244, 26521043, 26536320, 26598422, 26615291
26646549, 26654411, 26694735, 26731697, 26785169, 26792891, 26818960
26822620, 26843558, 26843664, 26846077, 26883456, 26894737, 26895149
26898279, 26928317, 26933599, 26956033, 26960097, 26961415, 26966120
26966916, 26986173, 26992964, 27005278, 27006664, 27026401, 27028251
27030974, 27035653, 27036408, 27037839, 27038986, 27041253, 27044575
27047831, 27053044, 27058530, 27060167, 27060859, 27061736, 27066451
27066519, 27073066, 27075854, 27080874, 27086821, 27090765, 27093423
27101527, 27101652, 27110878, 27112686, 27119621, 27122162, 27125872
27126666, 27128580, 27135647, 27143756, 27143882, 27147979, 27150500
27151826, 27152892, 27153641, 27155549, 27156355, 27160360, 27163928
27165231, 27166354, 27169796, 27169888, 27170305, 27181521, 27181537

27189611, 27190851, 27193810, 27199245, 27208953, 27210038, 27210263
27210872, 27214085, 27215007, 27216224, 27220937, 27221900, 27222121
27222626, 27224987, 27226913, 27228786, 27231051, 27232983, 27233563
27236052, 27236110, 27240246, 27240570, 27241221, 27241247, 27242616
27244337, 27244785, 27249215, 27250547, 27251690, 27254851, 27255377
27256000, 27256488, 27256534, 27256584, 27258578, 27259307, 27259386
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Patch 28547619   : applied on Sun Oct 21 12:24:20 CEST 2018
Unique Patch ID: 22406652
Patch description: "TOMCAT RELEASE UPDATE 18.0.0.0.0 (28547619)"
   Created on 29 Aug 2018, 11:32:05 hrs PST8PDT
   Bugs fixed:
     27869283, 28402313

Patch 27908644   : applied on Wed Jul 18 20:12:38 CEST 2018
Unique Patch ID: 22153180
Patch description: "UPDATE 18.3 DATABASE CLIENT JDK IN ORACLE HOME TO JDK8U171"
   Created on 4 May 2018, 01:21:02 hrs PST8PDT
   Bugs fixed:
     27908644

```
--------------------------------------------------------------------------------

OPatch succeeded.
```

4.2 RDBMS

```
[oracle@nodo02 ~]$ opatch lsinventory
Oracle Interim Patch Installer version 12.2.0.1.14
Copyright (c) 2019, Oracle Corporation.  All rights reserved.


Oracle Home       : /u01/app/oracle/product/18.4.0/dbhome_1
Central Inventory : /u01/app/oraInventory
   from           : /u01/app/oracle/product/18.4.0/dbhome_1/oraInst.loc
OPatch version    : 12.2.0.1.14
OUI version       : 12.2.0.4.0
Log file location : /u01/app/oracle/product/18.4.0/dbhome_1/cfgtoollogs/opatch/opatch2019-01-21_18-38-36PM_1.log

Lsinventory Output file location : /u01/app/oracle/product/18.4.0/dbhome_1/cfgtoollogs/opatch/lsinv/lsinventory2019-
01-21_18-38-36PM.txt

--------------------------------------------------------------------------------
Local Machine Information::
Hostname: nodo02.inludes.int
ARU platform id: 226
ARU platform description:: Linux x86-64

Installed Top-level Products (1):

Oracle Database 18c                                          18.0.0.0.0
There are 1 products installed in this Oracle Home.


Interim patches (4) :

Patch  28502229     : applied on Sun Oct 21 11:50:41 CEST 2018
Unique Patch ID:  22435400
Patch description:  "OJVM RELEASE UPDATE: 18.4.0.0.181016 (28502229)"
   Created on 3 Oct 2018, 05:36:12 hrs PST8PDT
   Bugs fixed:
     27304131, 27539876, 27952586, 27642235, 27636900, 27461740, 28278547
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28278640, 27936676, 28502098

Patch 28656071 : applied on Sun Oct 21 11:48:58 CEST 2018

Unique Patch ID: 22447965

Patch description: "OCW RELEASE UPDATE 18.4.0.0.0 (28656071)"

Created on 17 Sep 2018, 04:45:00 hrs PST8PDT

Bugs fixed:

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Patch 28655784 : applied on Sun Oct 21 11:48:16 CEST 2018

Unique Patch ID: 22509982

Patch description: "Database Release Update : 18.4.0.0.181016 (28655784)"

Created on 8 Oct 2018, 21:27:28 hrs PST8PDT

Bugs fixed:

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Patch  27908644     : applied on Wed Jul 18 19:44:11 CEST 2018
Unique Patch ID:  22153180
Patch description:  "UPDATE 18.3 DATABASE CLIENT JDK IN ORACLE HOME TO JDK8U171"
   Created on 4 May 2018, 01:21:02 hrs PST8PDT
   Bugs fixed:
     27908644



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OPatch succeeded.
```