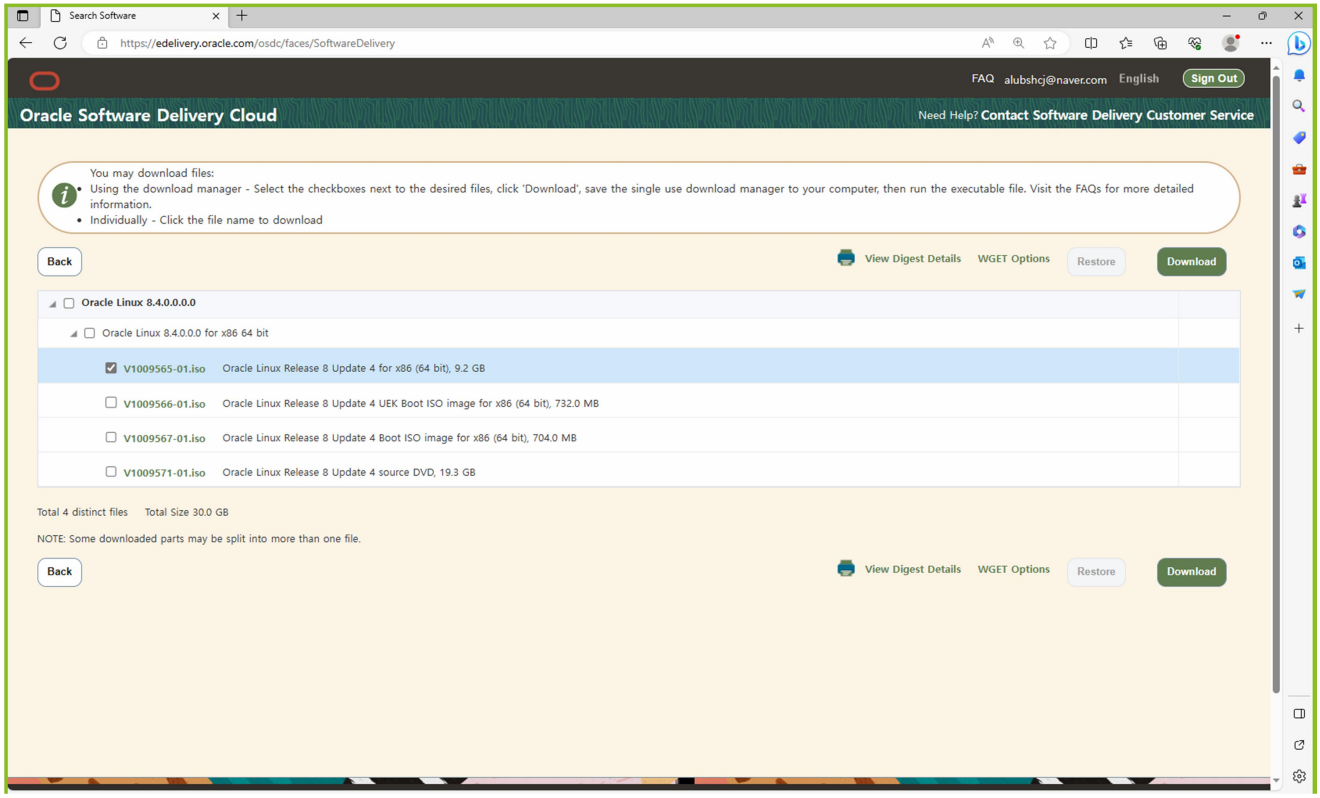
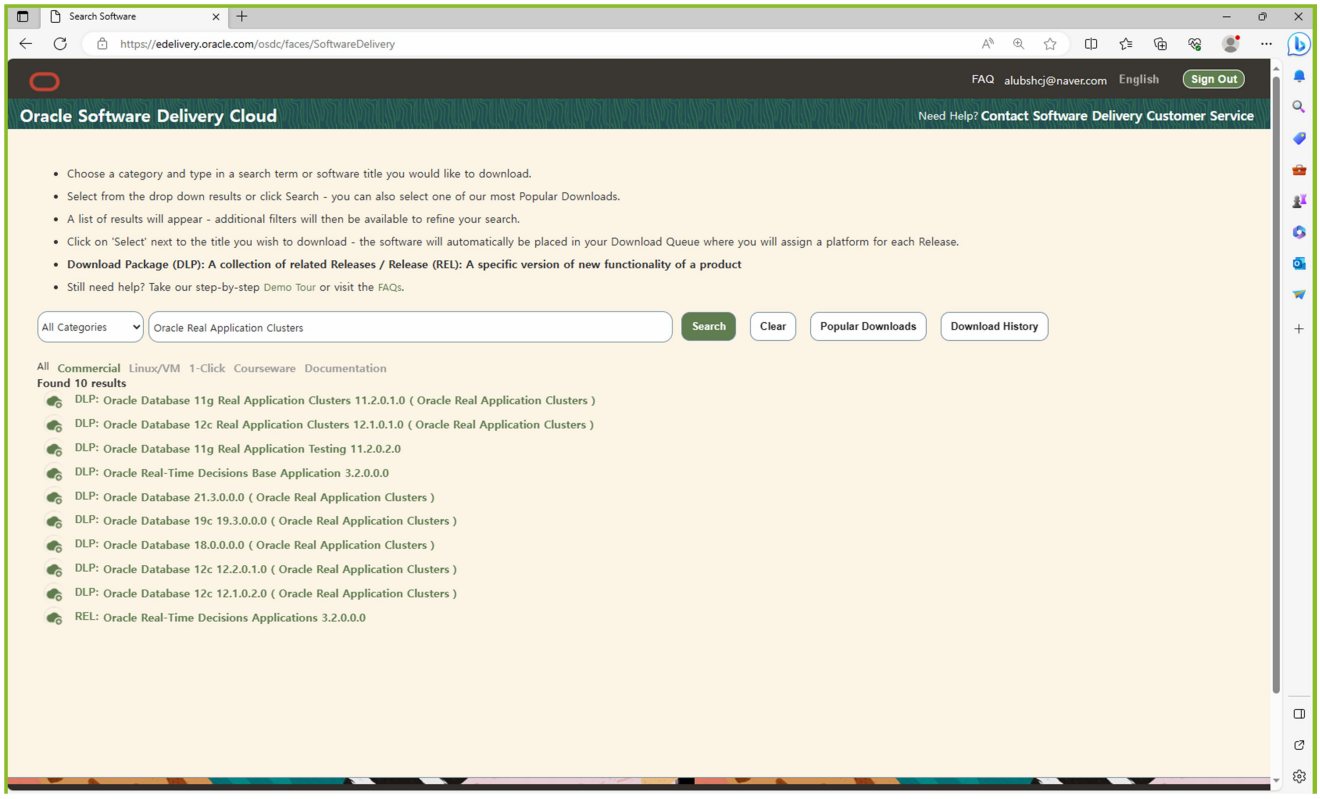
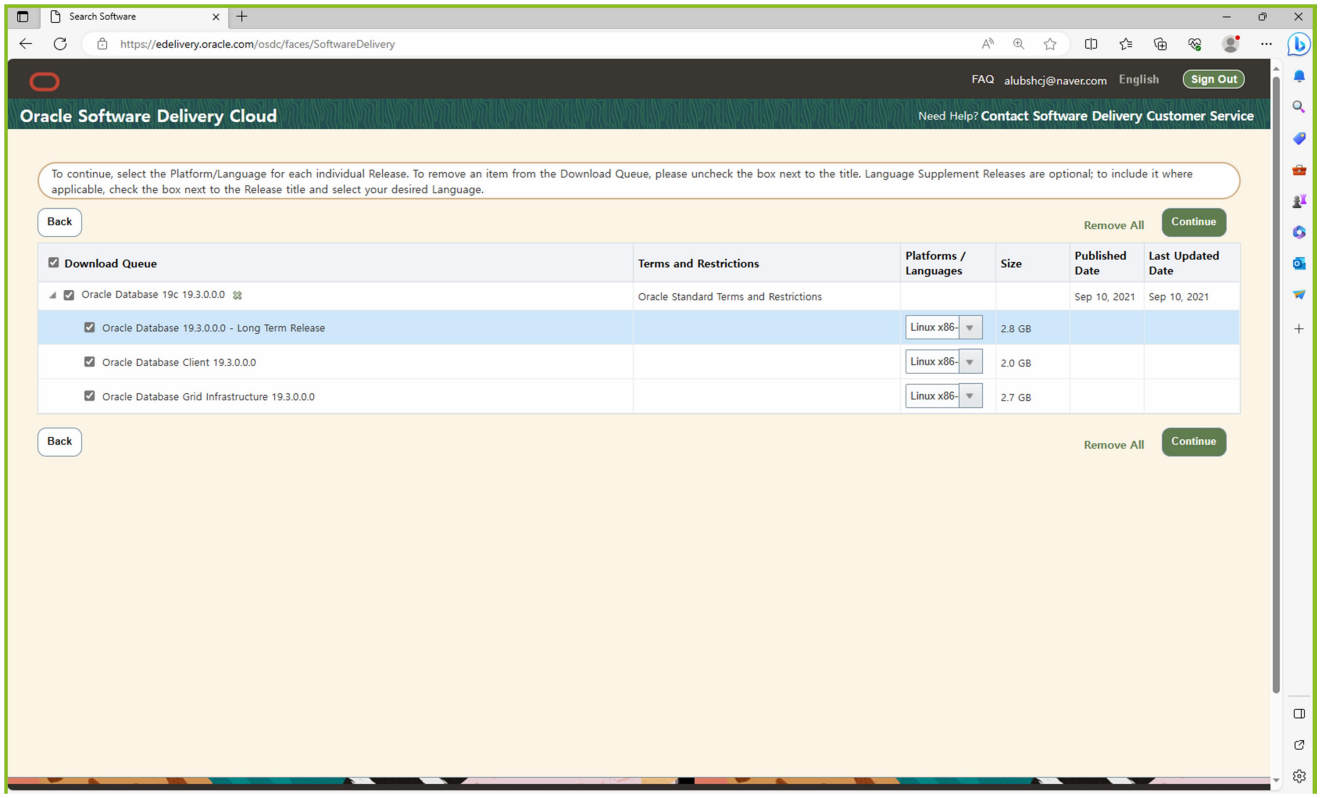
1. 설치파일 다운로드(https://edelivery.oracle.com)



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Oracle Standard Terms and Restrictions
Sep 10, 2021
Sep 10, 2021
Oracle Database 19.3.0.0.0 - Long Term Release
Linux x86-
2.8 GB
Oracle Database Client 19.3.0.0.0
Linux x86-
2.0 GB
Oracle Database Grid Infrastructure 19.3.0.0.0
Linux x86-
2.7 GB
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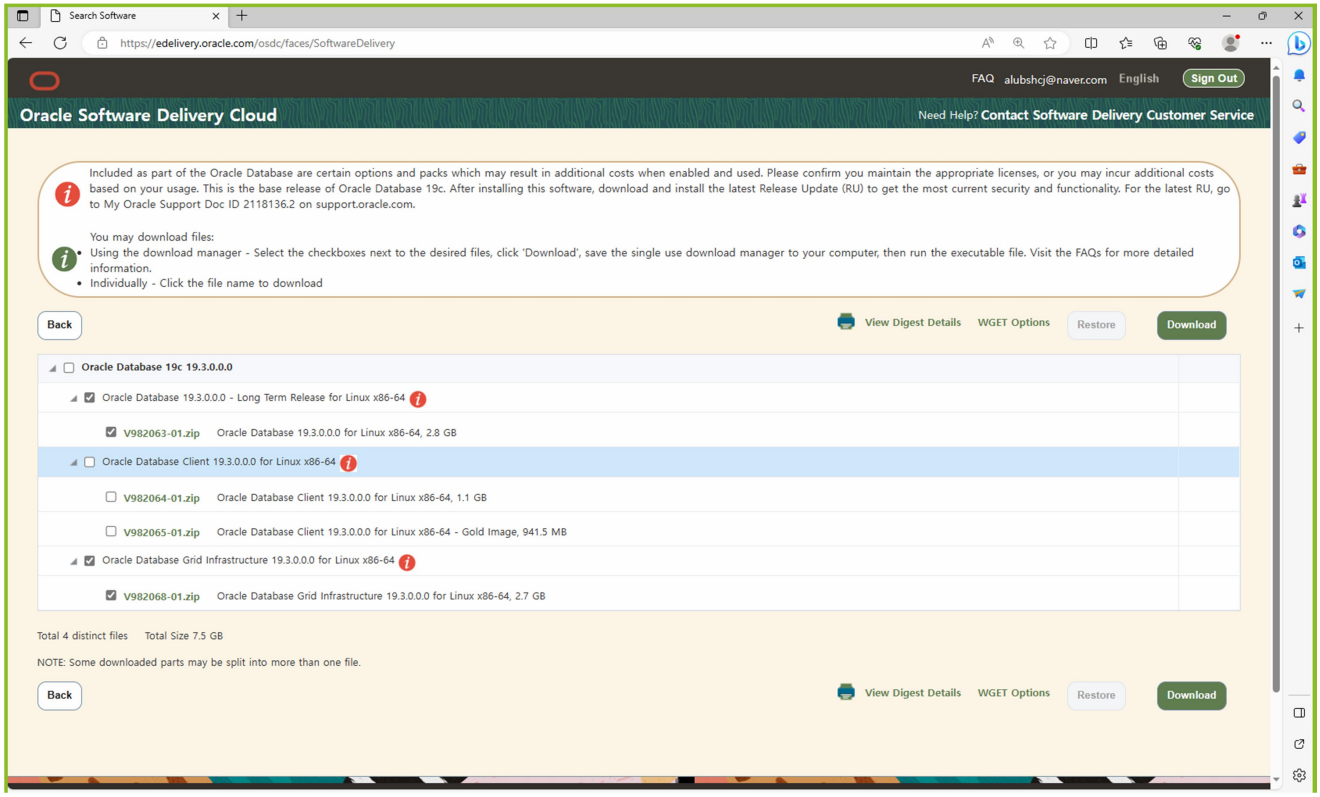
Search Software
https://edelivery.oracle.com/osdc/faces/SoftwareDelivery
FAQ alubshcj@naver.com English Sign Out
Oracle Software Delivery Cloud
Need Help? Contact Software Delivery Customer Service
Included as part of the Oracle Database are certain options and packs which may result in additional costs when enabled and used. Please confirm you maintain the appropriate licenses, or you may incur additional costs based on your usage. This is the base release of Oracle Database 19c. After installing this software, download and install the latest Release Update (RU) to get the most current security and functionality. For the latest RU, go to My Oracle Support Doc ID 2118136.2 on support.oracle.com.
You may download files:
Using the download manager - Select the checkboxes next to the desired files, click 'Download', save the single use download manager to your computer, then run the executable file. Visit the FAQs for more detailed information.
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Oracle Database 19c 19.3.0.0.0
Oracle Database 19.3.0.0.0 - Long Term Release for Linux x86-64
V982063-01.zip Oracle Database 19.3.0.0.0 for Linux x86-64, 2.8 GB
Oracle Database Client 19.3.0.0.0 for Linux x86-64
V982064-01.zip Oracle Database Client 19.3.0.0.0 for Linux x86-64, 1.1 GB
V982065-01.zip Oracle Database Client 19.3.0.0.0 for Linux x86-64 - Gold Image, 941.5 MB
Oracle Database Grid Infrastructure 19.3.0.0.0 for Linux x86-64
V982068-01.zip Oracle Database Grid Infrastructure 19.3.0.0.0 for Linux x86-64, 2.7 GB
Total 4 distinct files Total Size 7.5 GB
NOTE: Some downloaded parts may be split into more than one file.
Back
View Digest Details
WGET Options
Restore
Download

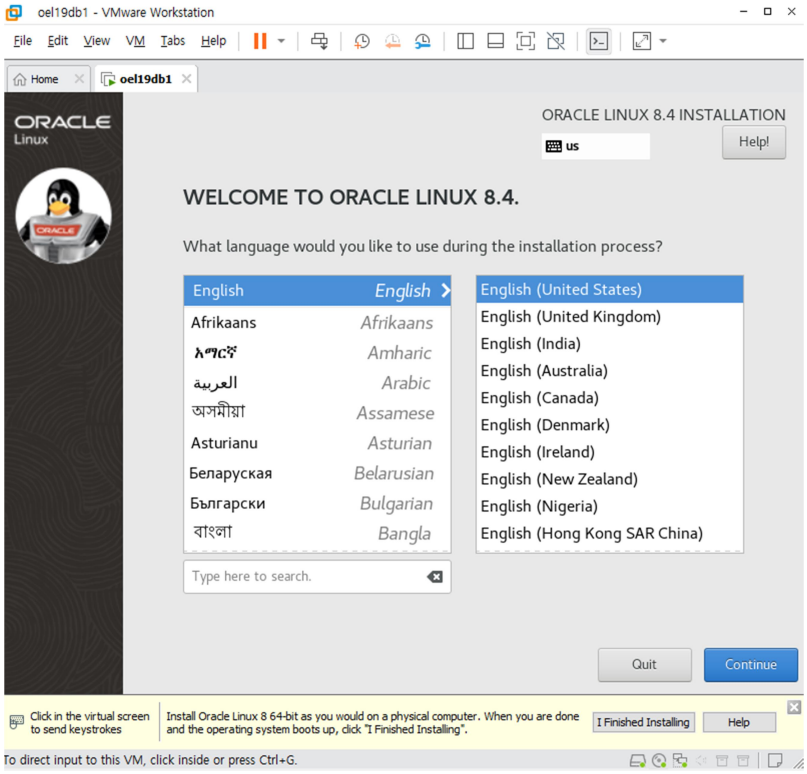
2. oel8 설치(첫 번째 노드 구성)

(사전 준비)

1. vmware 설치(vmware workstation pro 30일 평가판)
2. xmanager(30일 평가판) or xming(open source) 설치
3. putty 설치(open source)
4. winscp 설치(open source)

vmware로 서버 구성

서버명 : oel19db1



< 서버 설치 시 아래 구성 정보대로 설치 진행 >

** 파일시스템 구성

/boot 500M

Swap 8192M

/ 나머지

** software selection : Legacy UNIX Compatibility, Development Tools 추가

** kdump : disable

** security policy : disable

** network 설정 시 hostname 변경

** ip 설정

1번서버 public ip 172.16.179.100(뒷자리 100) : NAT 영역

< 설치 후 설정 >

1. **공유디스크 추가(ASM 영역 구성) : vmware 17버전부터 nvme 디스크 타입으로 구성(SATA, SCSI 인식 오류)**
   디스크 추가 후 configuration 파일에 아래 추가

```
disk.locking = "FALSE"
diskLib.dataCacheMaxSize = "0"
nvme1.sharedBus = "virtual"
nvme1:0.deviceType = "disk"
```

2. **네트워크 어댑터 추가(host-only)**
   1번서버 private ip 10.10.10.10 (뒷자리 10) : host-only 영역
   Netmask : 24
   Gateway : 설정안함

<1번 서버 구성 완료 후 추가 환경 설정 >

1. **/etc/hosts 설정, 아래 내용 추가 후 저장**

```
# vi /etc/hosts
127.0.0.1   localhost localhost.localdomain localhost4 localhost4.localdomain4
::1         localhost localhost.localdomain localhost6 localhost6.localdomain6

##Public
172.16.179.100 oel19db1
172.16.179.200 oel19db2

##Private
10.10.10.10 oel19db1-priv
10.10.10.20 oel19db2-priv

##Virtual
172.16.179.110 oel19db1-vip
172.16.179.210 oel19db2-vip

##SCAN
172.16.179.150 oel19db-scan
```

2. **Hostname 확인 및 변경**

```
# cat /etc/hostname
# oel19db1
```

**** hostname 잘못 설정 시 아래 명령어로 변경 후 reboot**

```
# hostnamectl set-hostname oel19db1
# reboot
```

< 오라클 설치 전 환경 설정 >

1. **preinstall 실행**

```
# yum install -y oracle-database-preinstall-19c
```

2. **오라클 계정 생성 확인 및 패스워드 변경(생성이 안됐을 경우 아래처럼 수행)(수행계정 : root)**

```
# groupadd dba
```

```
# usermod -g dba -G dba oracle
# passwd oracle                    <---------- 패스워드 변경 명령어
```

3. selinux disable 설정 (수행계정 : root)

```
# vi /etc/selinux/config
SELINUX=disabled
```

4. 불필요한 서비스 정지

```
systemctl stop firewalld
systemctl disable firewalld

systemctl stop bluetooth
systemctl disable bluetooth

systemctl stop chronyd
systemctl disable chronyd
mv /etc/chrony.conf /etc/chrony.conf.bak

systemctl stop ntpdate                  # error
systemctl disable ntpdate

systemctl stop avahi-daemon.socket
systemctl disable avahi-daemon.socket

systemctl stop avahi-daemon
systemctl disable avahi-daemon

systemctl stop libvirtd
systemctl disable libvirtd
```

추가 rpm 다운 및 설치

```
# wget https://download.oracle.com/otn_software/asmlib/oracleasmlib-2.0.17-1.el8.x86_64.rpm
# rpm -ivh oracleasmlib-2.0.17-1.el8.x86_64.rpm

# wget https://yum.oracle.com/repo/OracleLinux/OL8/addons/x86_64/getPackage/oracleasm-support-2.1.12-1.el8.x86_64.rpm
# rpm -ivh oracleasm-support-2.1.12-1.el8.x86_64.rpm
```

Temp 파일시스템 할당

```
# vi /etc/fstab
tmpfs                   /dev/shm                tmpfs   size=7g         0 0
```

/dev/shm 영역 remount

```
 # systemctl daemon-reload
 # mount -o remount /dev/shm
```

추가한 영역 확인

```
# df -h /dev/shm
Filesystem      Size  Used Avail Use% Mounted on
tmpfs           7.0G     0  7.0G   0% /dev/shm
```

추가한 디스크 확인(/dev/nvme1n1 30GB)

```
# fdisk -l
```

디스크 포맷(n --> p --> 1 --> Enter --> Enter --> w)

```
# fdisk /dev/nvme1n1
```

확인

```
# fdisk -l
```

Pv Lv 생성

```
# pvcreate /dev/nvme1n1p1
vgcreate 19c /dev/nvme1n1p1
lvcreate -L 2g -n OCR_VOTE1 19c
lvcreate -L 2g -n OCR_VOTE2 19c
lvcreate -L 2g -n OCR_VOTE3 19c
lvcreate -L 20G -n DATA 19c
```

< 결과 화면 >

```
root@oel8db1:~
[root@oel8db1 ~]# pvcreate /dev/nvme1n1p1
  Physical volume "/dev/nvme1n1p1" successfully created.
[root@oel8db1 ~]# vgcreate 19c /dev/nvme1n1p1
  Volume group "19c" successfully created
[root@oel8db1 ~]# lvcreate -L 2g -n OCR_VOTE1 19c
  Logical volume "OCR_VOTE1" created.
[root@oel8db1 ~]# lvcreate -L 2g -n OCR_VOTE2 19c
  Logical volume "OCR_VOTE2" created.
[root@oel8db1 ~]# lvcreate -L 2g -n OCR_VOTE3 19c
  Logical volume "OCR_VOTE3" created.
[root@oel8db1 ~]# lvcreate -L 20G -n DATA 19c
  Logical volume "DATA" created.
[root@oel8db1 ~]#
```

Oracle ASM 설정 및 시작(oracle, dba, y, y 순서대로 입력)

```
# oracleasm configure -i
```

< 결과 화면 >

```
[root@oel8db1 ~]# oracleasm configure -i
Configuring the Oracle ASM library driver.

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

Default user to own the driver interface []: oracle
Default group to own the driver interface []: dba
Start Oracle ASM library driver on boot (y/n) [n]: y
Scan for Oracle ASM disks on boot (y/n) [y]: y
Writing Oracle ASM library driver configuration: done
```

ASM 디스크 생성

```
# oracleasm init
```

<결과 화면 >

```
root@oel8db1:~
[root@oel8db1 ~]# oracleasm init
Creating /dev/oracleasm mount point: /dev/oracleasm
Loading module "oracleasm": oracleasm
Configuring "oracleasm" to use device physical block size
Mounting ASMlib driver filesystem: /dev/oracleasm
[root@oel8db1 ~]#
```

ASM 상태 확인

```
# oracleasm status
# oracleasm configure
```

< 결과 화면 >

```
[root@oel8db1 ~]# oracleasm status
Checking if ASM is loaded: yes
Checking if /dev/oracleasm is mounted: yes
[root@oel8db1 ~]# oracleasm configure
ORACLEASM_ENABLED=true
ORACLEASM_UID=oracle
ORACLEASM_GID=dba
ORACLEASM_SCANBOOT=true
ORACLEASM_SCANORDER=""
ORACLEASM_SCANEXCLUDE=""
ORACLEASM_SCAN_DIRECTORIES=""
ORACLEASM_USE_LOGICAL_BLOCK_SIZE="false"
[root@oel8db1 ~]#
```

공유 디스크 생성

```
# oracleasm createdisk OCR_VOTE1 /dev/19c/OCR_VOTE1
oracleasm createdisk OCR_VOTE2 /dev/19c/OCR_VOTE2
oracleasm createdisk OCR_VOTE3 /dev/19c/OCR_VOTE3
oracleasm createdisk DATA01 /dev/19c/DATA
```

< 결과 화면 >

```
[root@oel8db1 ~]# oracleasm createdisk OCR_VOTE1 /dev/19c/OCR_VOTE1
Writing disk header: done
Instantiating disk: done
[root@oel8db1 ~]# oracleasm createdisk OCR_VOTE2 /dev/19c/OCR_VOTE2
Writing disk header: done
Instantiating disk: done
[root@oel8db1 ~]# oracleasm createdisk OCR_VOTE3 /dev/19c/OCR_VOTE3
Writing disk header: done
Instantiating disk: done
[root@oel8db1 ~]# oracleasm createdisk DATA01 /dev/19c/DATA
Writing disk header: done
Instantiating disk: done
[root@oel8db1 ~]#
```

디스크 스캔

```
# oracleasm scandisks
```

<결과 화면>

```
[root@oel8db1 ~]# oracleasm scandisks
Reloading disk partitions: done
Cleaning any stale ASM disks...
Scanning system for ASM disks...
[root@oel8db1 ~]#
```

생성 리스트 확인(4개가 나와야 정상)

```
# oracleasm listdisks
```

<결과 화면>

```
[root@oel8db1 ~]# oracleasm listdisks
DATA01
OCR_VOTE1
OCR_VOTE2
OCR_VOTE3
[root@oel8db1 ~]#
```

디렉토리 생성 및 권한 부여

```
#
mkdir -p /oracle/media
mkdir -p /oracle/app/oracle/product/19c
mkdir -p /oracle/app/grid/19c
```

```
mkdir -p /oracle/oraInventory
mkdir -p /oraarch
chown -R oracle:dba /oracle
chmod -R 775 /oracle
chown -R oracle:dba /oraarch
chmod -R 775 /oraarch
chown -R oracle:dba /dev/oracleasm
chown -R oracle:dba /dev/19c
chmod 777 /oracle/media
```

oracle bash_profile 수정

```
# su - oracle
# vi .bash_profile

아래 추가
# env
export ORACLE_BASE=/oracle/app/oracle
export ORACLE_HOME=$ORACLE_BASE/product/19c
export ORACLE_SID=ORADB1
export GRID_HOME=/oracle/app/grid/19c
export GRID_SID=+ASM1
export PATH=$ORACLE_HOME/bin:$GRID_HOME/bin:$PATH
export LD_LIBRARY_PATH=$ORACLE_HOME/lib:/lib:/usr/lib
export CLASSPATH=$ORACLE_HOME/jlib:$ORACLE_HOME/rdbms/jlib

alias grid='export ORACLE_HOME=$GRID_HOME; export ORACLE_SID=$GRID_SID; export
PATH=$ORACLE_HOME/bin:$GRID_HOME/bin:$PATH; echo $ORACLE_SID; echo $ORACLE_HOME'
alias db='. ~oracle/.bash_profile;export PATH=$ORACLE_HOME/bin:$GRID_HOME/bin:$PATH; echo
$ORACLE_SID;echo $ORACLE_HOME'
alias oh='cd $ORACLE_HOME;pwd'
alias ss='sqlplus / as sysdba'
```

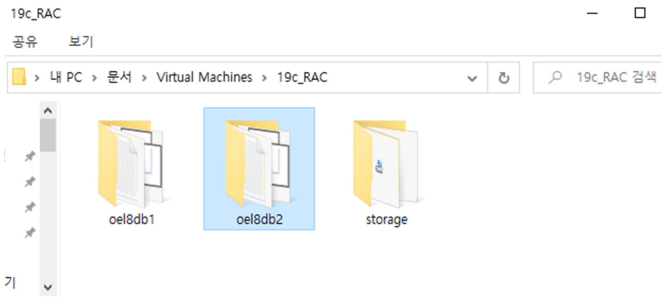
oracle bash_profile 적용

```
# . .bash_profile
```

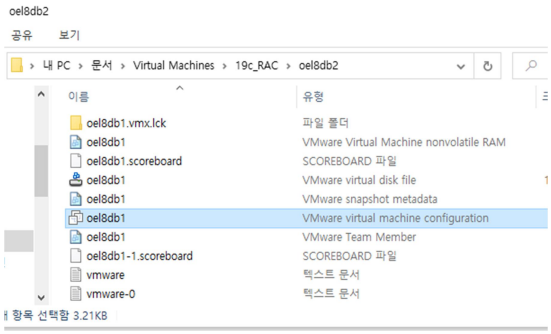
3. 2번 노드 구성

Step1) 서버 shutdown 후 서버 copy

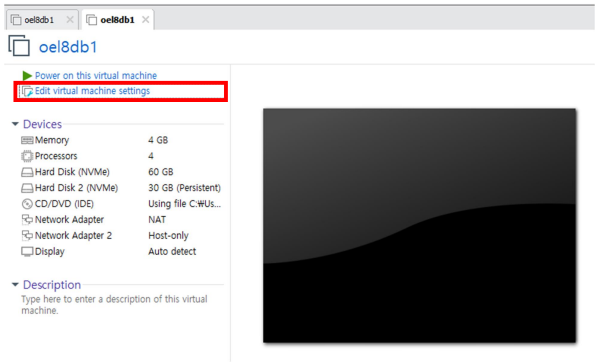
(vmware 설치 디렉토리로 이동 후 서버1 디렉토리 복사 후 이름 변경)



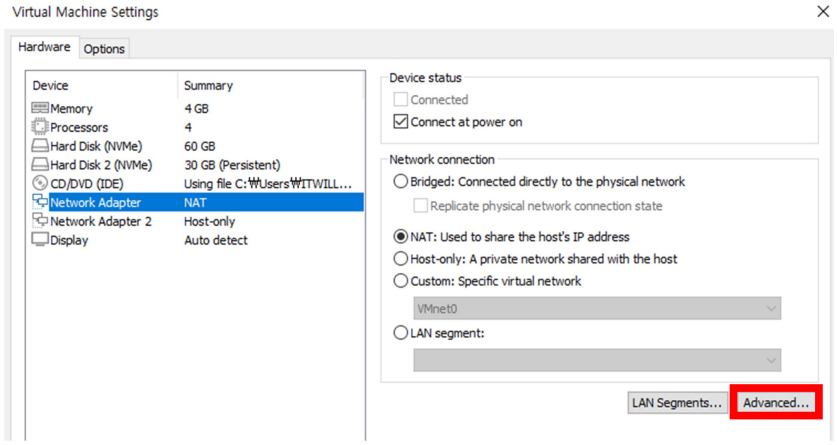
Step2) 2번 서버 디렉토리 클릭 후 configuration file 클릭



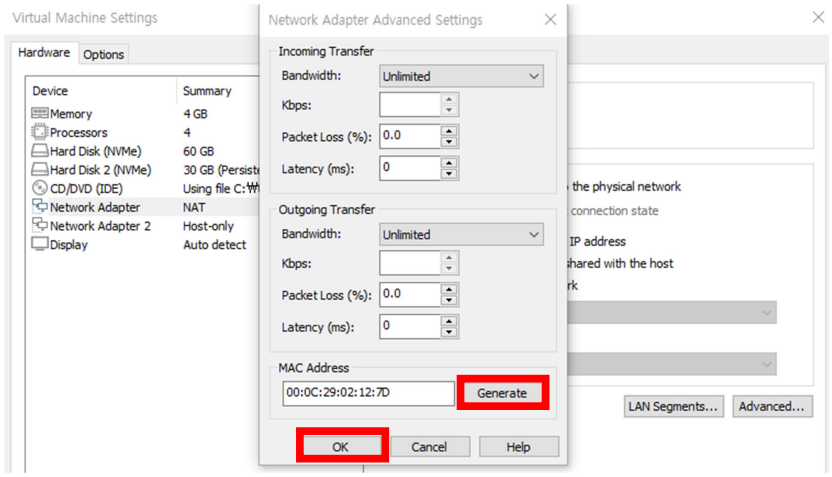
Step3) 서버2 환경 설정



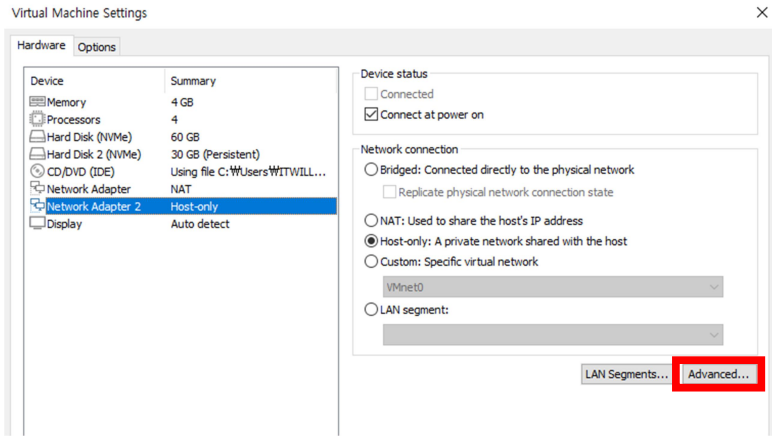
Step4) nework adapter 설정 변경(NAT)



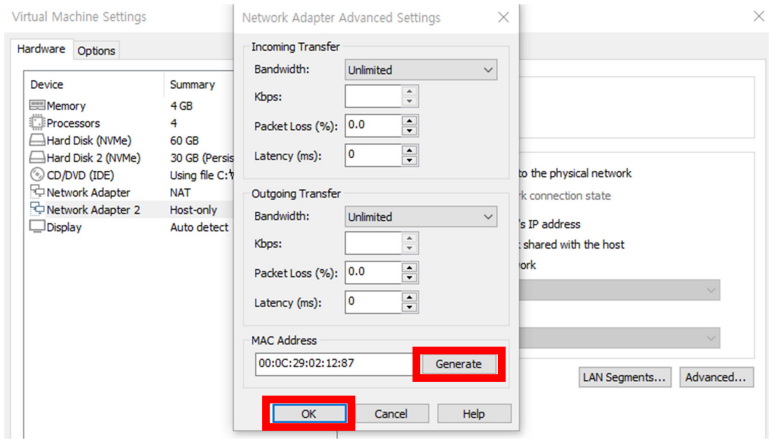
Step5) mac address Generate -> OK



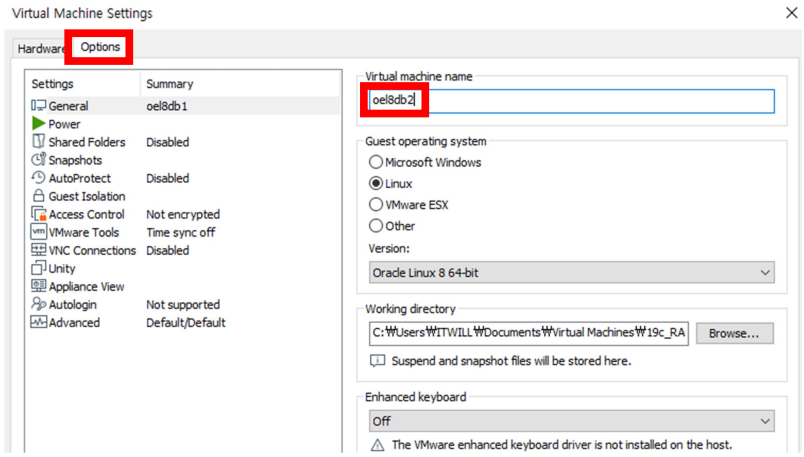
Step6) nework adapter 설정 변경(host-only)



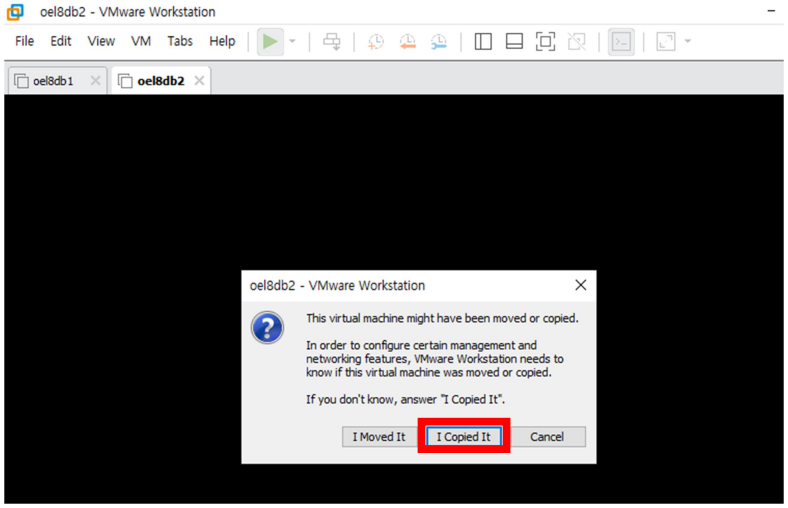
Step7) mac address Generate -> OK



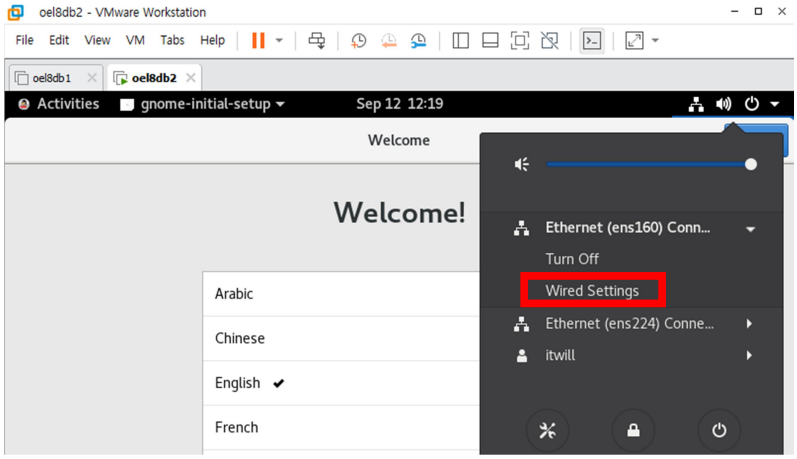
Step8) 서버명 변경

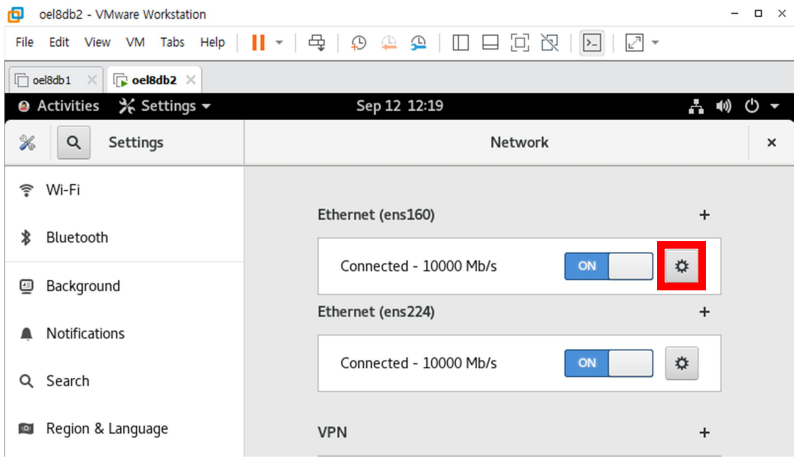


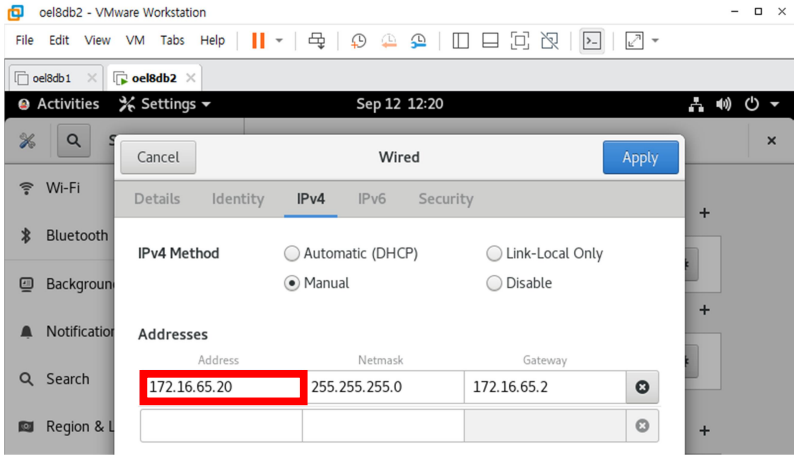
Step9) 서버 기동



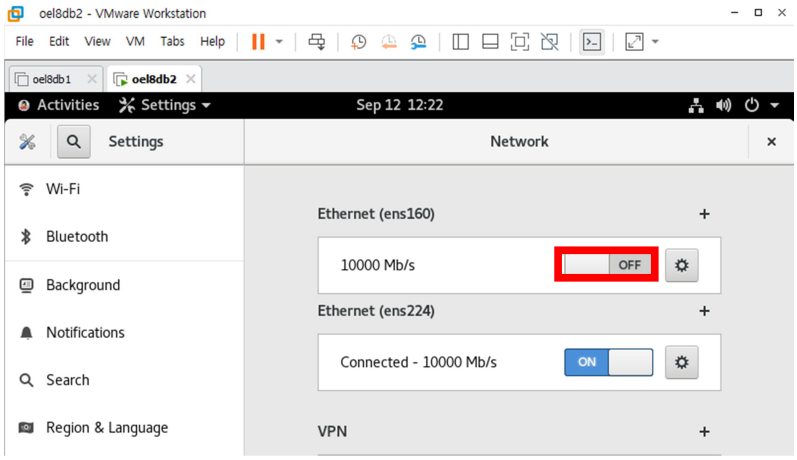
Step10) IP 변경(172.16.65.10 -> 172.16.65.20, 10.10.10.10 -> 10.10.10.20)



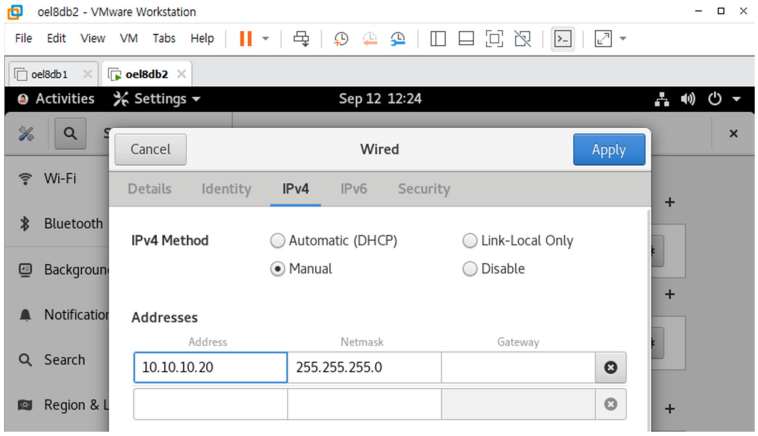




Restart(다시 on이 보이게 누름)



같은 방법으로 아래 환경설정 누르고 아이피 변경 후 restart



2번 서버 접속 후(putty) 네트워크 정보 확인

```
[itwill@oel8db1 ~]$ ifconfig
ens160: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 172.16.65.20  netmask 255.255.255.0  broadcast 172.16.65.255
        inet6 fe80::250:56ff:fe25:d68f  prefixlen 64  scopeid 0x20<link>
        ether 00:50:56:25:d6:8f  txqueuelen 1000  (Ethernet)
        RX packets 234  bytes 40800 (39.8 KiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 146  bytes 16767 (16.3 KiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

ens224: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 10.10.10.20  netmask 255.255.255.0  broadcast 10.10.10.255
        inet6 fe80::a179:2c71c:9848:71ec  prefixlen 64  scopeid 0x20<link>
        ether 00:50:56:24:d5:06  txqueuelen 1000  (Ethernet)
        RX packets 18  bytes 1728 (1.6 KiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 34  bytes 2462 (2.4 KiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0
```

Step11) hostname 변경 후 restart

```
# hostnamectl set-hostname oel19db2
# reboot                    <- 실행 직후 putty 세션 종료(vmware 재기동중임)
```

< 결과 화면>

```
[itwill@oel8db1 ~]$ su - root
Password:
[root@oel8db1 ~]# hostnamectl set-hostname oel8db2
[root@oel8db1 ~]# reboot
```

Step12) 1번 서버 start -> 각 서버 접속 후(root계정) 서버 간 통신 확인

```
1번 노드(2번노드의 ip로 ping 시도)
# ping oel19db2                          # ctrl + c로 ping test stop
# ping oel19db2-priv


2번 노드(1번노드의 ip로 ping 시도)
# ping oel19db1
# ping oel19db1-priv
```

STEP13) 2번 노드 bash_profile 수정(2번 서버 접속, oracle 계정 수행)

=> ORACLE_SID=ORADB2, GRID_SID=+ASM2로 변경

```
# vi .bash_profile
```

```
oracle@oel8db2:~
# .bash_profile

# Get the aliases and functions
if [ -f ~/.bashrc ]; then
        . ~/.bashrc
fi

# User specific environment and startup programs

# env
export ORACLE_BASE=/oracle/app/oracle
export ORACLE_HOME=$ORACLE_BASE/product/19c
export ORACLE_SID=ORADB2
export GRID_HOME=/oracle/app/grid/19c
export GRID_SID=+ASM2
export PATH=$ORACLE_HOME/bin:$GRID_HOME/bin:$PATH
export LD_LIBRARY_PATH=$ORACLE_HOME/lib:/lib:/usr/lib
export CLASSPATH=$ORACLE_HOME/jlib:$ORACLE_HOME/rdbms/jlib
export DISPLAY=192.168.17.31:0.0
```

STEP14) bash_profile 적용

```
# . .bash_profile
```

4. GRID 설치 전 준비사항

STEP1) node1에 설치파일 업로드(winscp 사용, oracle 계정으로 /oracle/media 디렉토리로)

STEP2) GRID 설치파일 압축해제(node1 에서 작업, oracle user로 접속)

```
# cd $GRID_HOME
# unzip /oracle/media/V982068-01.zip
```

STEP3) cvuqdisk-1.0.10-1.rpm 설치(root 계정에서 작업)

```
# rpm -ivh /oracle/app/grid/19c/cv/rpm/cvuqdisk-1.0.10-1.rpm
```

< 결과 화면 >

```
root@oel8db1:~
[oracle@oel8db1 19c]$ su - root
Password:
[root@oel8db1 ~]# ls /oracle/app/grid/19c/cv/rpm/cvuqdisk-1.0.10-1.rpm
/oracle/app/grid/19c/cv/rpm/cvuqdisk-1.0.10-1.rpm
[root@oel8db1 ~]# rpm -ivh /oracle/app/grid/19c/cv/rpm/cvuqdisk-1.0.10-1.rpm
Verifying...                          ################################# [100%]
Preparing...                          ################################# [100%]
Using default group oinstall to install package
Updating / installing...
   1:cvuqdisk-1.0.10-1                ################################# [100%]
[root@oel8db1 ~]#
```

STEP4) 2번 노드 싱크 (1번 노드에서 작업) : yes -> root 패스워드 입력

```
# rsync --progress /oracle/app/grid/19c/cv/rpm/cvuqdisk-1.0.10-1.rpm oel19db2:/root/
```

<결과 화면 >

```
[root@oel8db1 ~]# rsync --progress /oracle/app/grid/19c/cv/rpm/cvuqdisk-1.0.10-1.rpm oel8db2:/r
oot/
The authenticity of host 'oel8db2 (172.16.65.20)' can't be established.
ECDSA key fingerprint is SHA256:nFtViPTFYM7hrZBHIHaKEHaOsn14hQnRhIgO[illegible]+4.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added 'oel8db2,172.16.65.20' (ECDSA) to the list of known hosts.
root@oel8db2's password:
cvuqdisk-1.0.10-1.rpm
         11,412 100%    0.00kB/s    0:00:00 (xfr#1, to-chk=0/1)
[root@oel8db1 ~]#
```

STEP5) 2번 노드 설치(root계정 수행)

```
# rpm -ivh /root/cvuqdisk-1.0.10-1.rpm
```

STEP6) 스크립트 실행(node1, oracle 계정 수행) : yes -> oracle 패스워드 입력 -> oracle 패스워드 입력 -> oracle 패스워드 입력 -> oracle 패스워드 입력

```
# cd $GRID_HOME/oui/prov/resources/scripts
# ./sshUserSetup.sh -user oracle -hosts "oel19db1 oel19db2" -noPromptPassphrase -advanced
```

< 실행 결과 >

```
 [oracle@oel19db1 scripts]$ ./sshUserSetup.sh -user oracle -hosts "oel19db1 oel19db2" -noPromptPass      phrase -
advanced
The output of this script is also logged into /tmp/sshUserSetup_2023-09-12-14-04-10.log
Hosts are oel19db1 oel19db2
......
NOTE 2:
AS PER SSH REQUIREMENTS, THIS SCRIPT WILL SECURE THE USER HOME DIRECTORY
AND THE .ssh DIRECTORY BY REVOKING GROUP AND WORLD WRITE PRIVILEGES TO THESE
directories.

Do you want to continue and let the script make the above mentioned changes (yes/no)?
yes
.......
The script would create ~oracle/.ssh/config file on remote host oel19db1. If a config file exist      s already at
~oracle/.ssh/config, it would be backed up to ~oracle/.ssh/config.backup.
The user may be prompted for a password here since the script would be running SSH on host oel8      db1.
Warning: Permanently added 'oel19db1,172.16.65.10' (ECDSA) to the list of known hosts.
oracle@oel19db1's password:                    <- oracle user 패스워드 입력
Done with creating .ssh directory and setting permissions on remote host oel19db1.
Creating .ssh directory and setting permissions on remote host oel19db2
THE SCRIPT WOULD ALSO BE REVOKING WRITE PERMISSIONS FOR group AND others ON THE HOME DIRECTORY
FOR oracle. THIS IS AN SSH REQUIREMENT.
The script would create ~oracle/.ssh/config file on remote host oel19db2. If a config file exist      s already at
~oracle/.ssh/config, it would be backed up to ~oracle/.ssh/config.backup.
The user may be prompted for a password here since the script would be running SSH on host oel8      db2.
Warning: Permanently added 'oel19db2,172.16.65.20' (ECDSA) to the list of known hosts.
oracle@oel19db2's password:                    <- oracle user 패스워드 입력
........
```

STEP7) 설치 전 사전 점검(생략 가능)

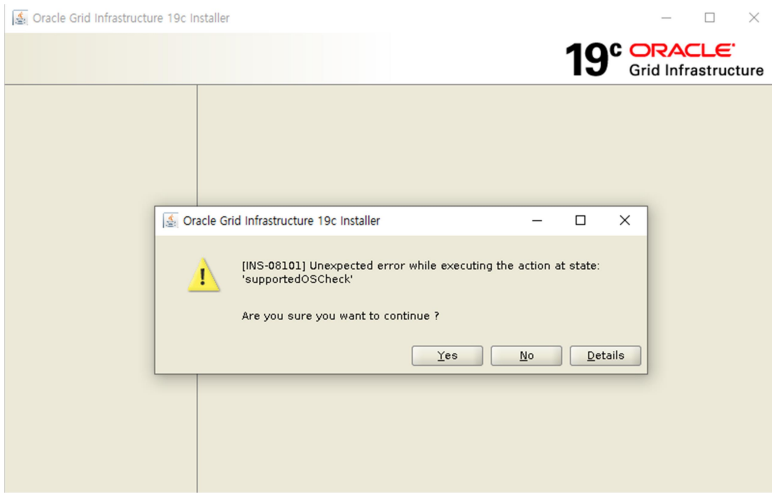
```
# cd $GRID_HOME
# ./runcluvfy.sh stage -pre crsinst -n oel19db1,oel19db2
```

STEP8) GRID 설치(1번노드, oracle user)

**** xmanager나 xming으로 display 연결 후 아래 실행**

```
$ cd $GRID_HOME
$ ./gridSetup.sh
```

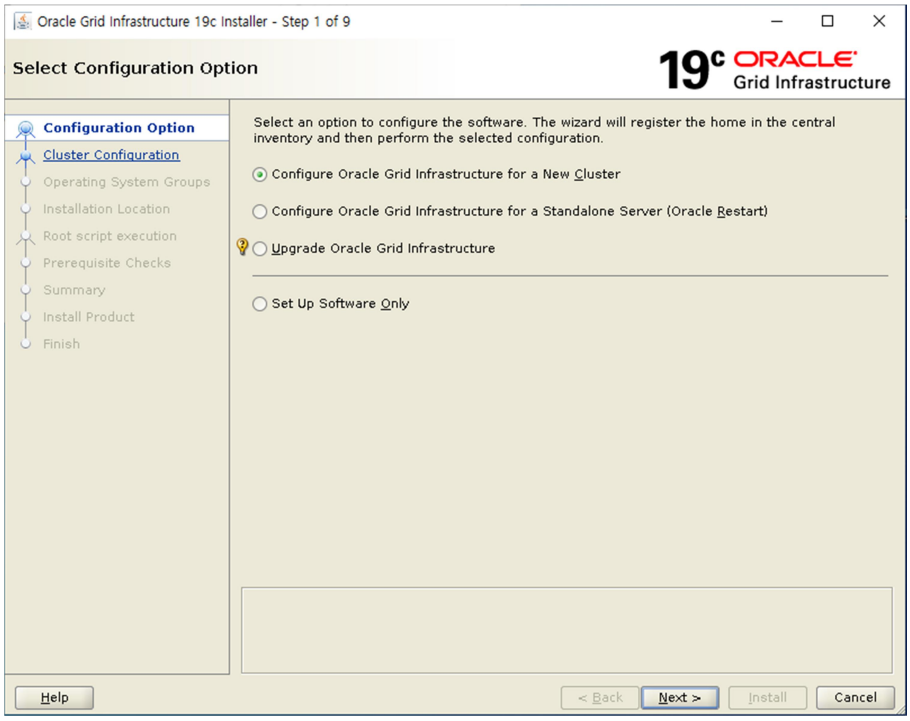
**** oel8 서버와의 호환성 문제 해결**

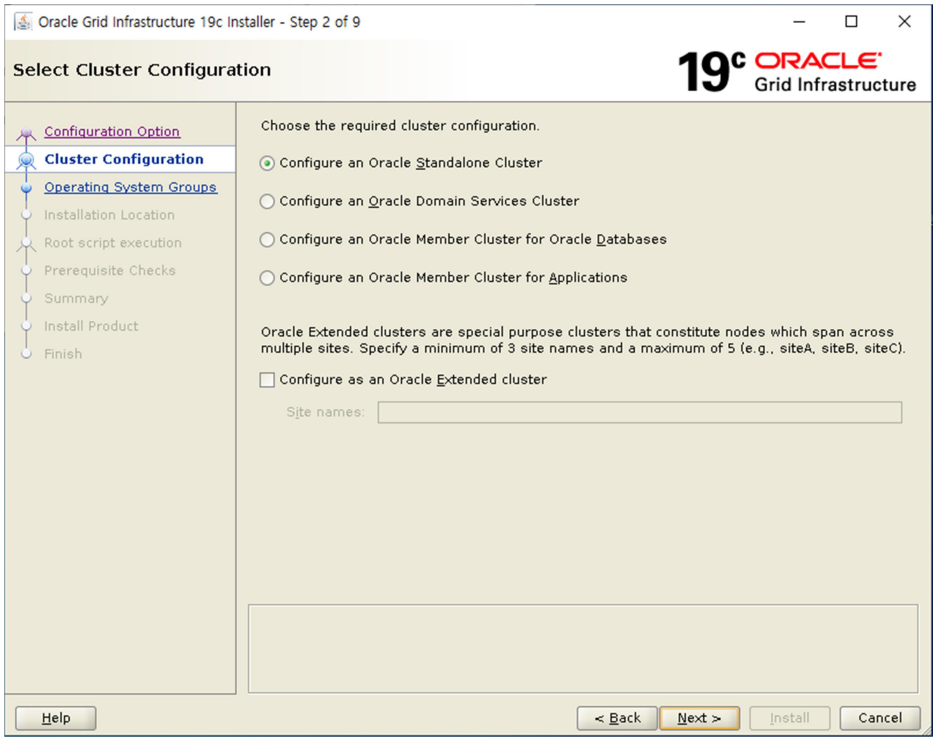


해결) CV_ASSUME_DISTID 값을 설정 후 다시 설치 시도

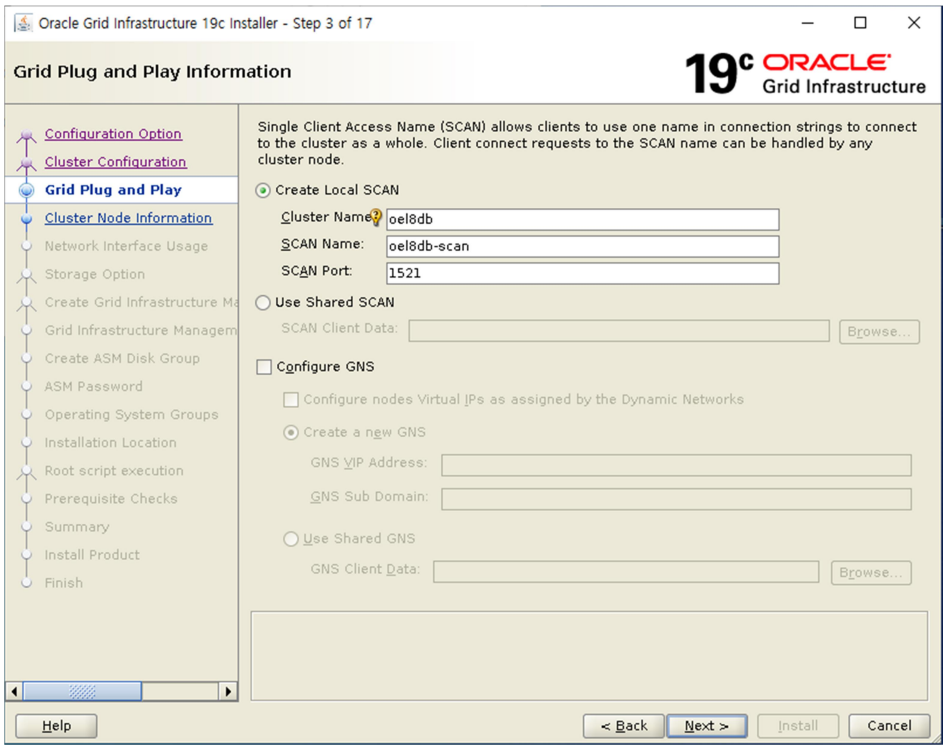
```
$ export CV_ASSUME_DISTID=RHEL7.6
$ ./gridSetup.sh
```

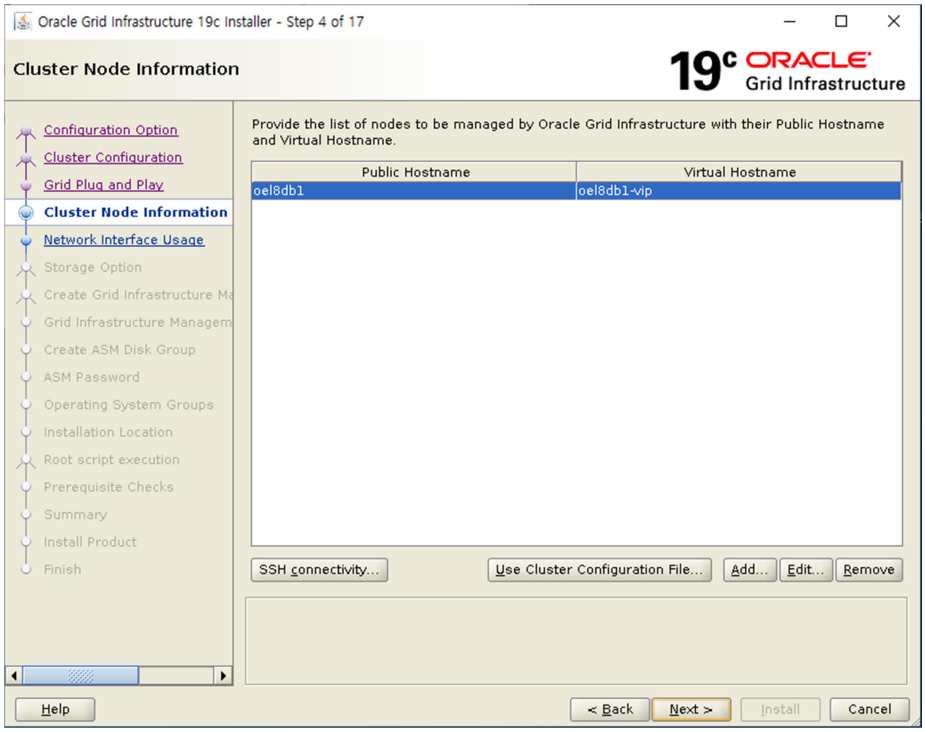
5. GRID 설치



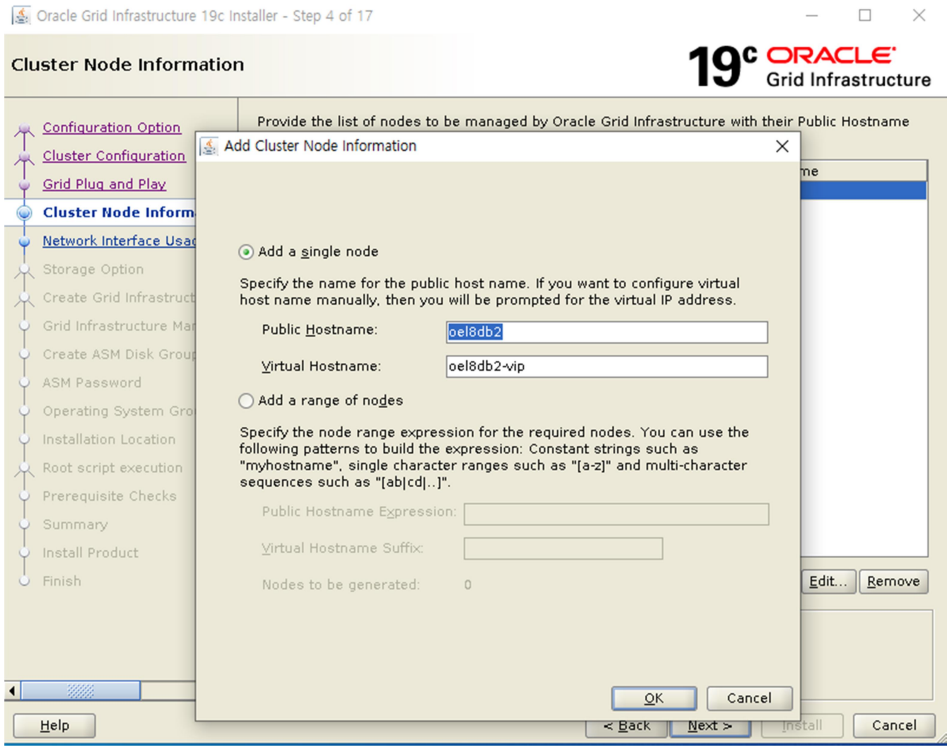


SCAN NAME 확인) 변경 없음

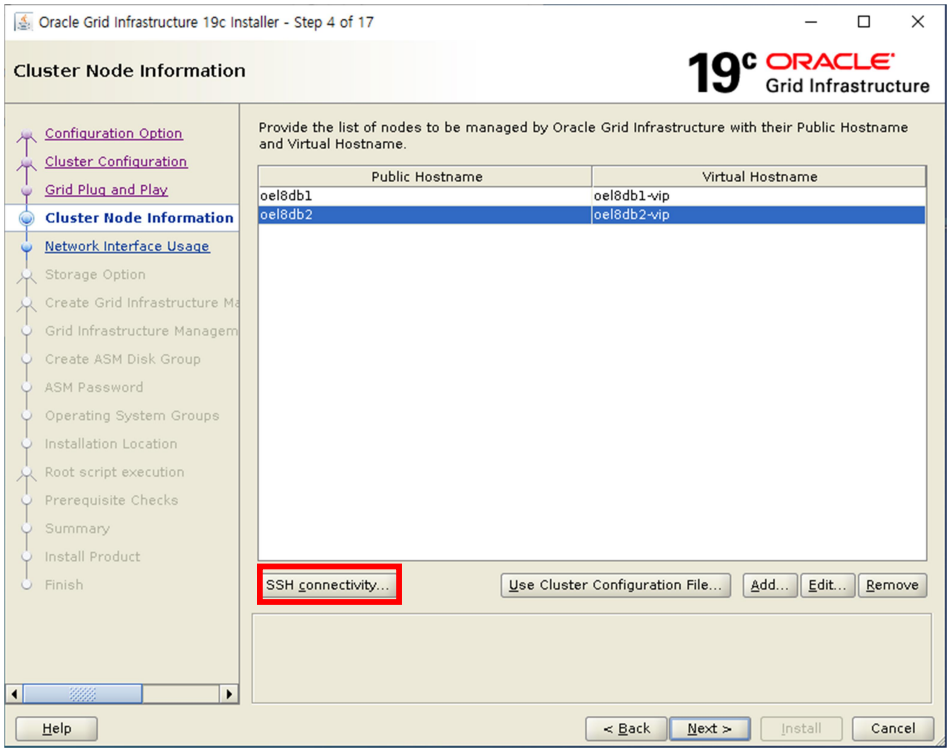




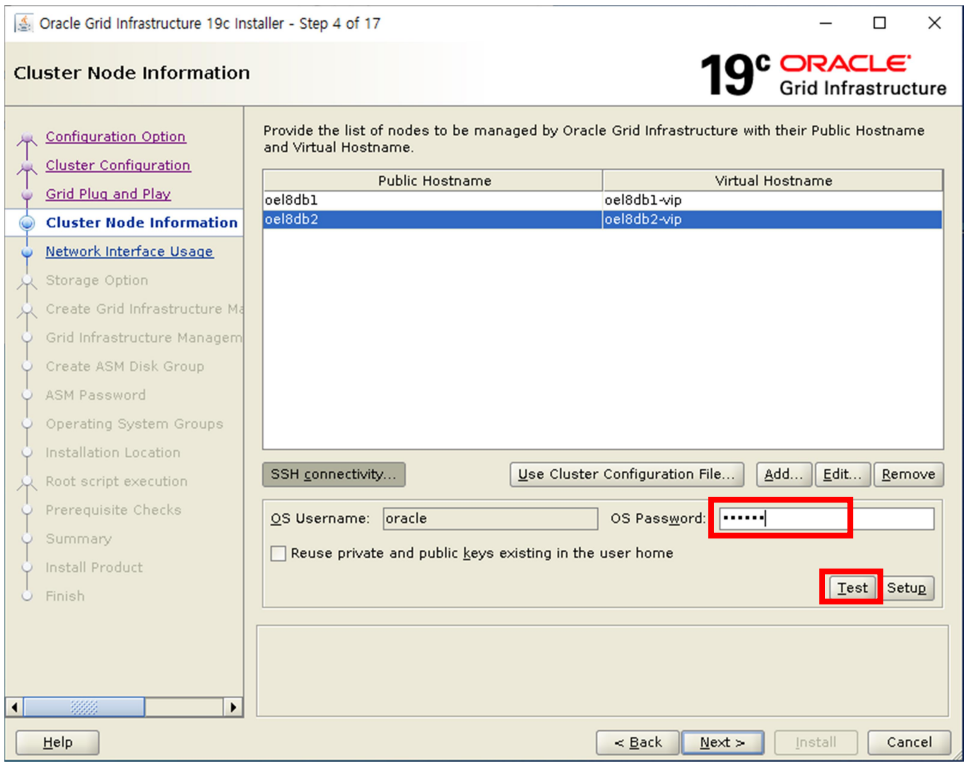
2번 노드 정보 추가



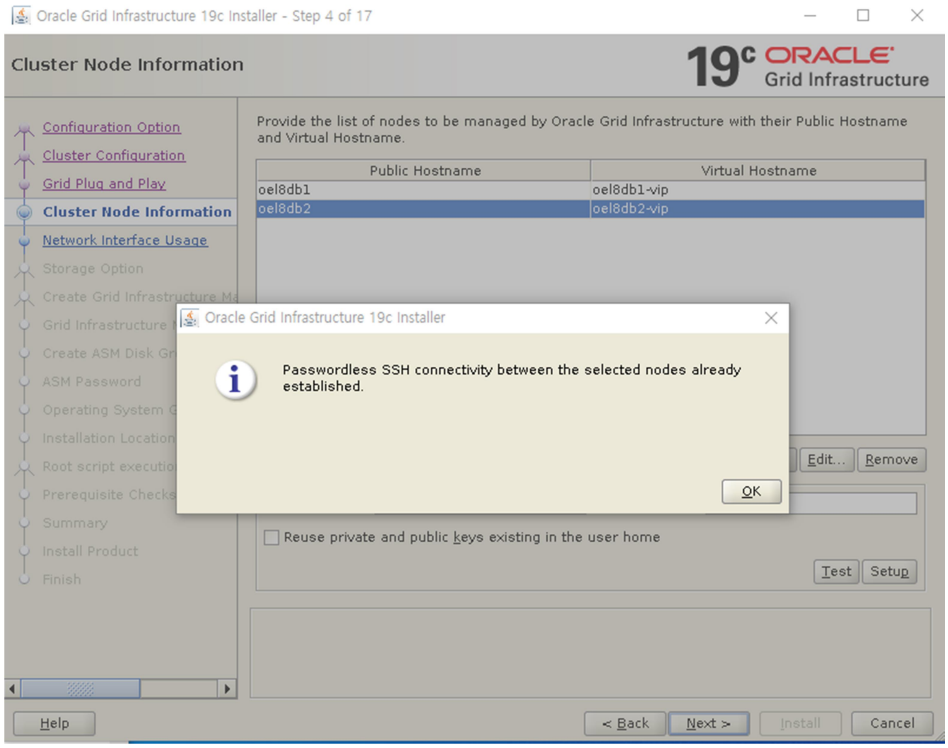
Ssh connectivity test



Passwd 입력 후 테스트



OK 후 NEXT

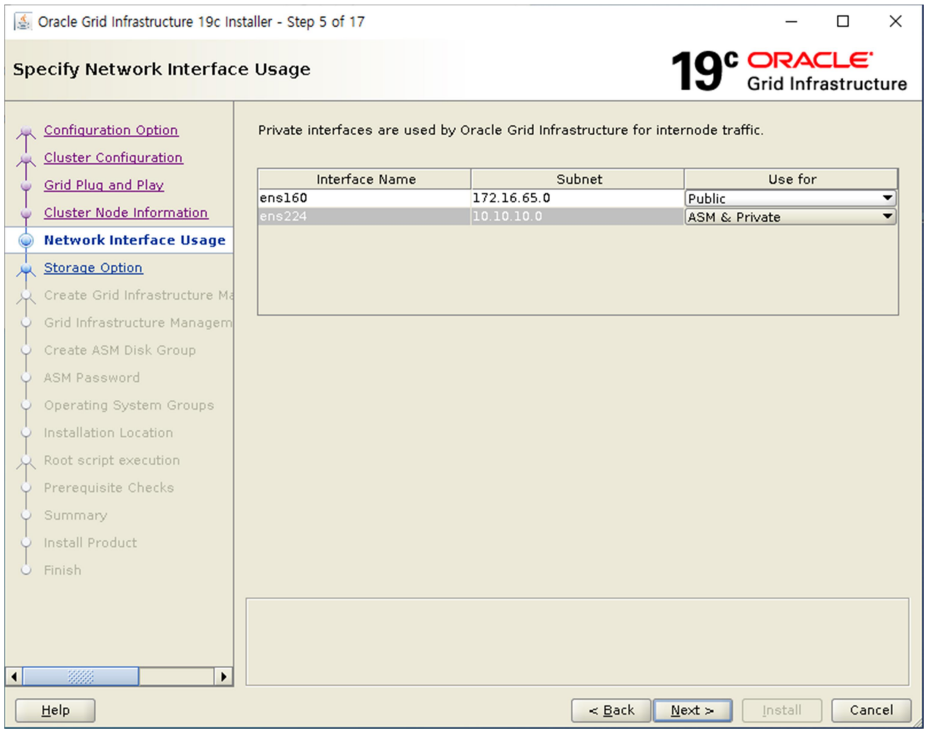


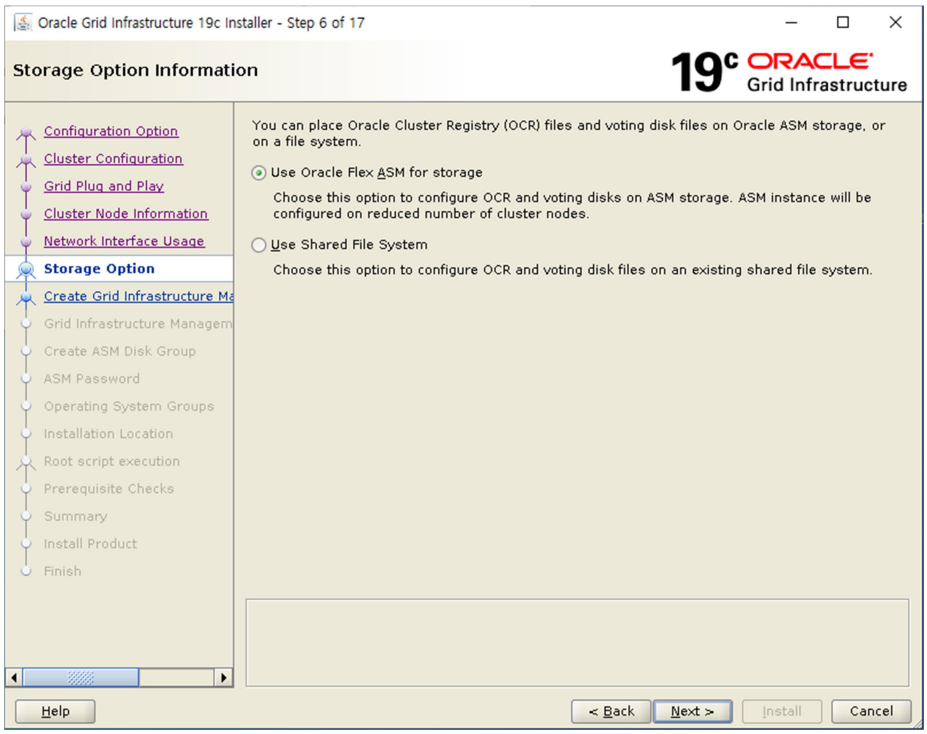
에러) [INS-06006] Passwordless SSH connectivity not set up between the following node(s):

노드1,2) root 계정 아래 수행 후 재 테스트

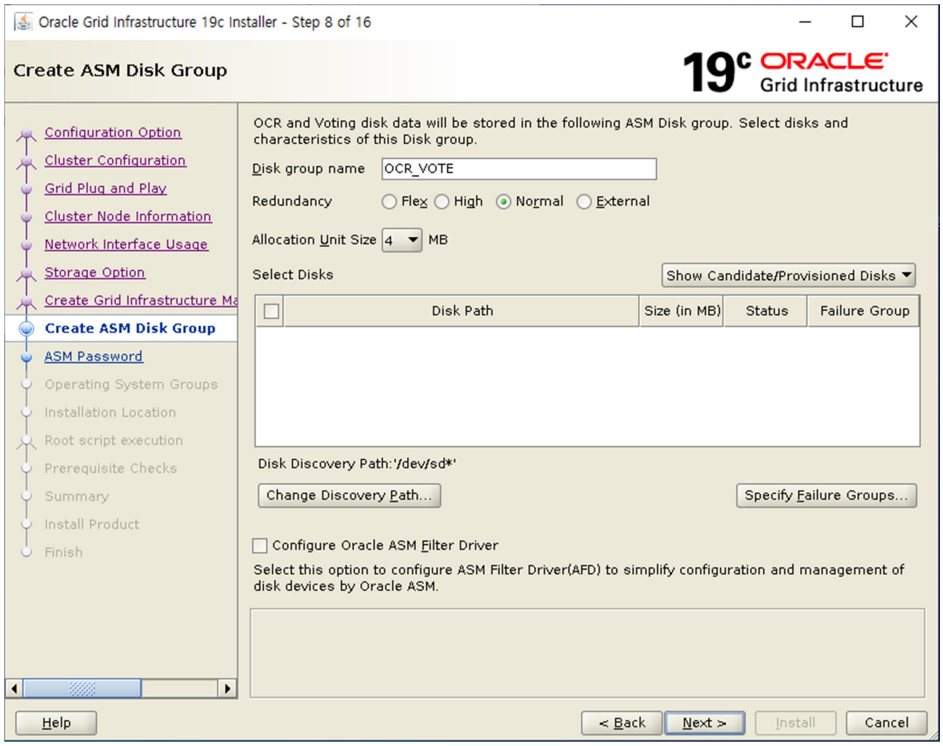
```
# mv /usr/bin/scp /usr/bin/scp.orig
# vi /usr/bin/scp
      ⇨    /usr/bin/scp.orig -T $* 입력 후 저장
# chmod 555 /usr/bin/scp

모든 설치 완료 후 다시 원복
# mv /usr/bin/scp.orig /usr/bin/scp
```

Network 설정(ASM & Pribate으로 변경)

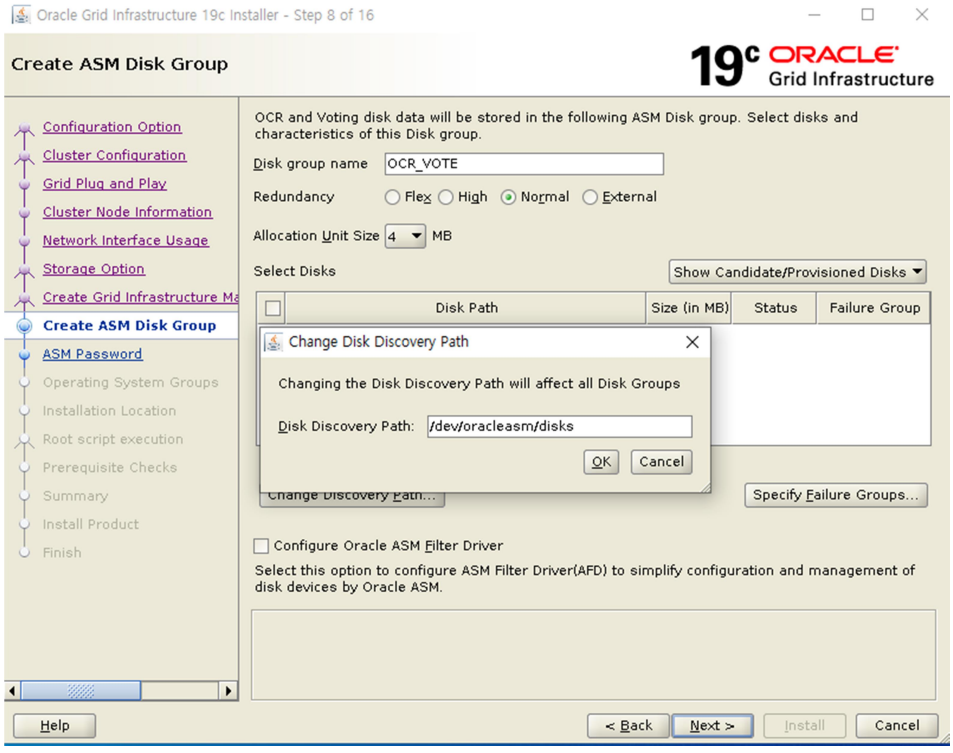




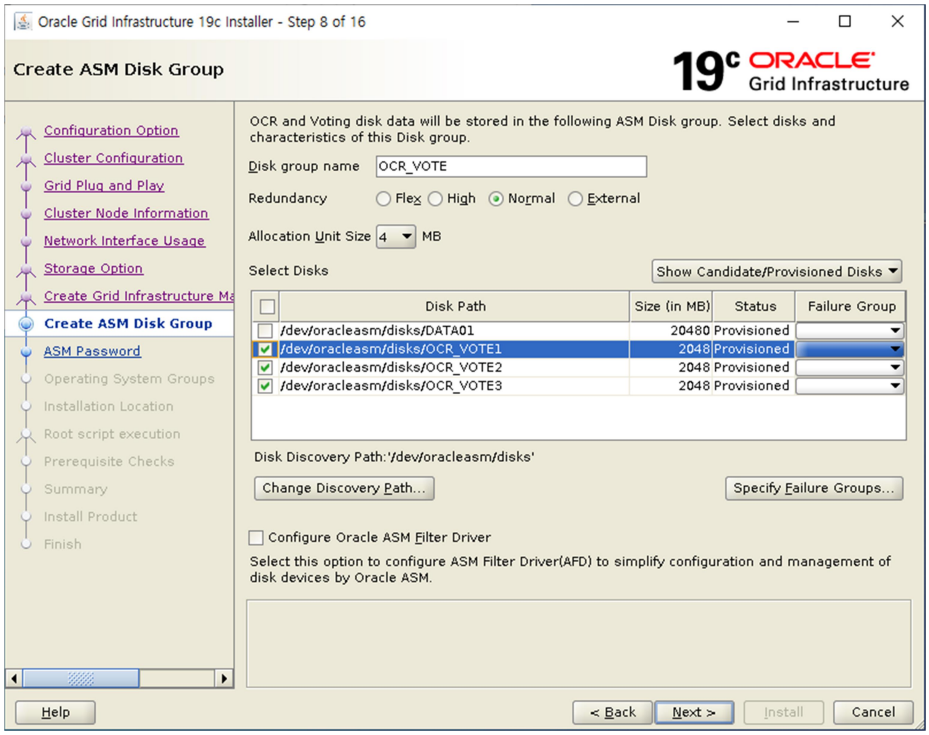
VOTING DIST 설정(OCR_VOTE 입력 후 NORMAL 설정 시도)



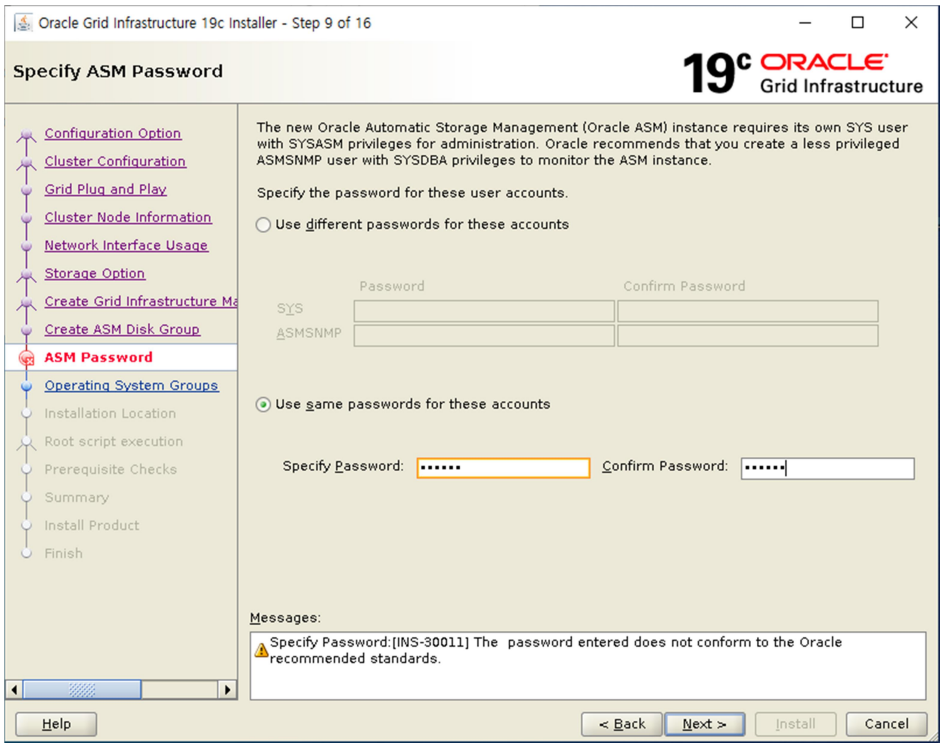
아래 Select Disk에 보이지 않으면 change discovery path 클릭 후
/dev/oracleasm/disks 입력



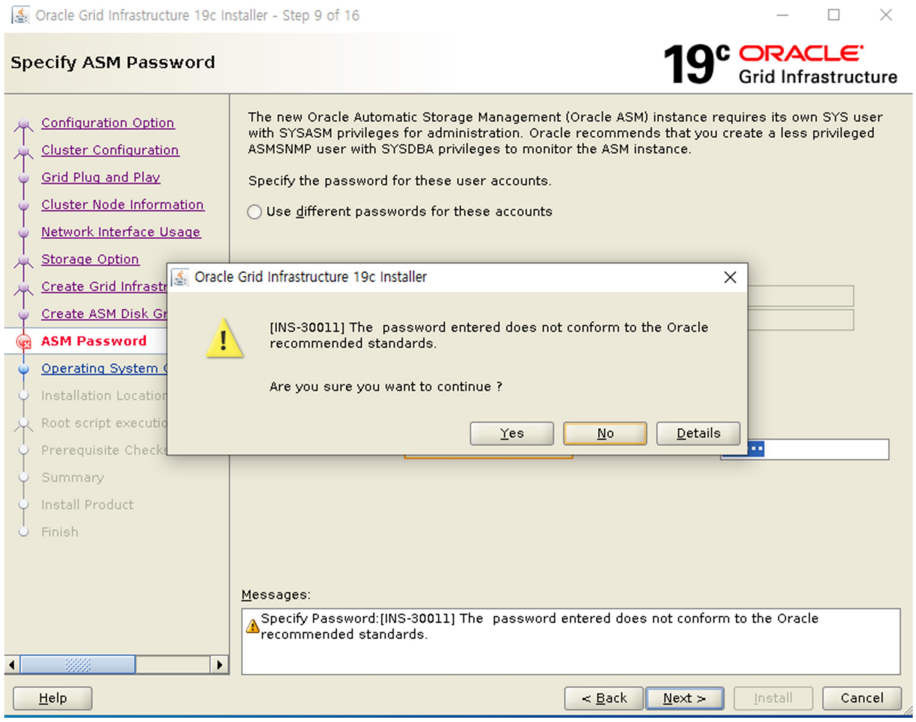
정상 출력 확인 및 보팅 디스크 선택

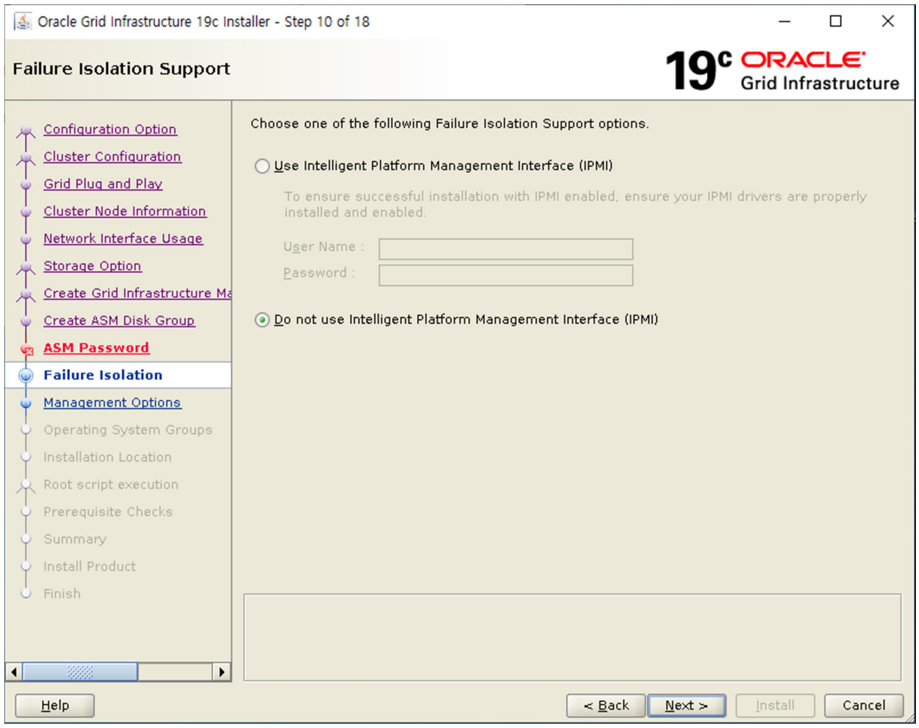


ASM passwd 입력

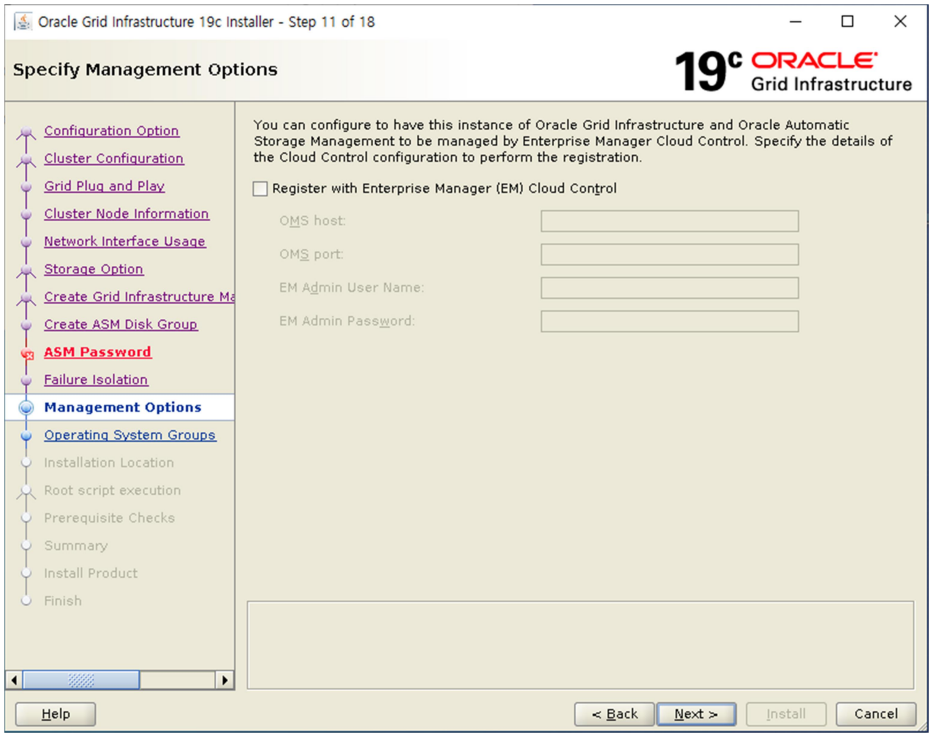


패스워드 충족 조건 불일치 -> 무시하고 넘어감

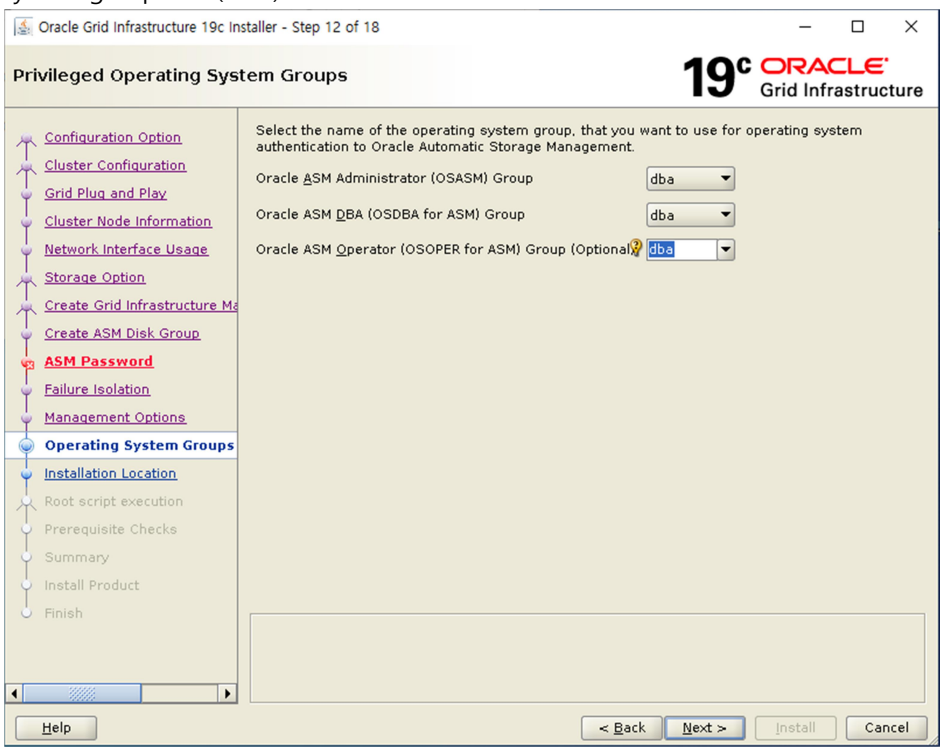


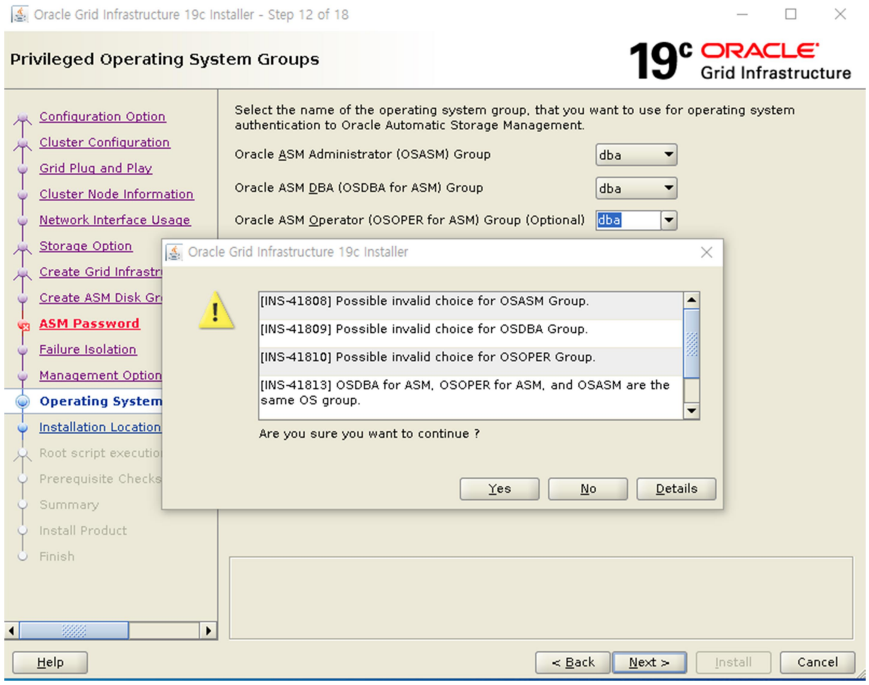


EM 체크하지 않고 넘어감

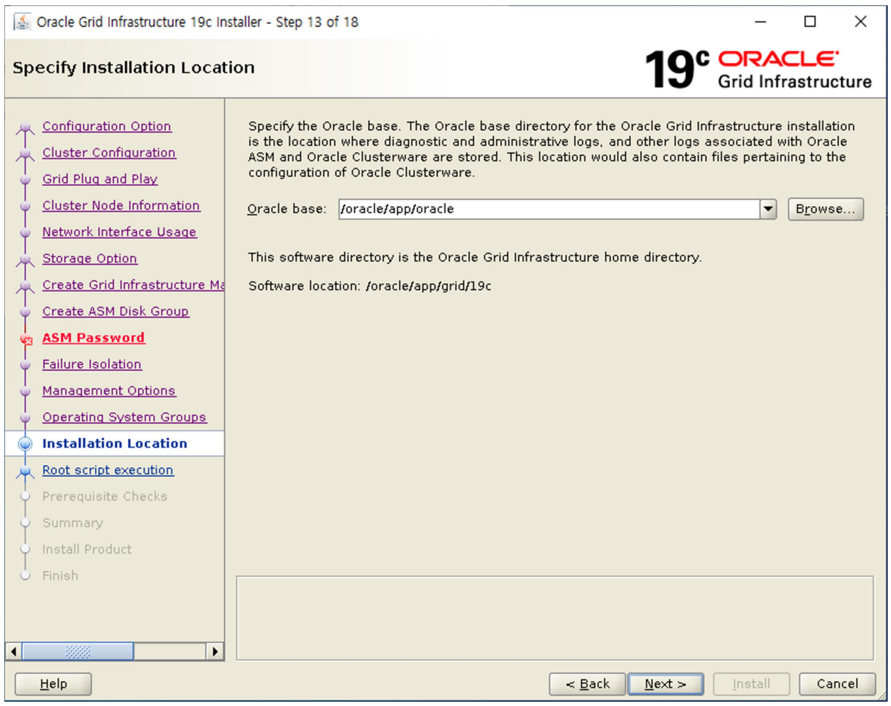


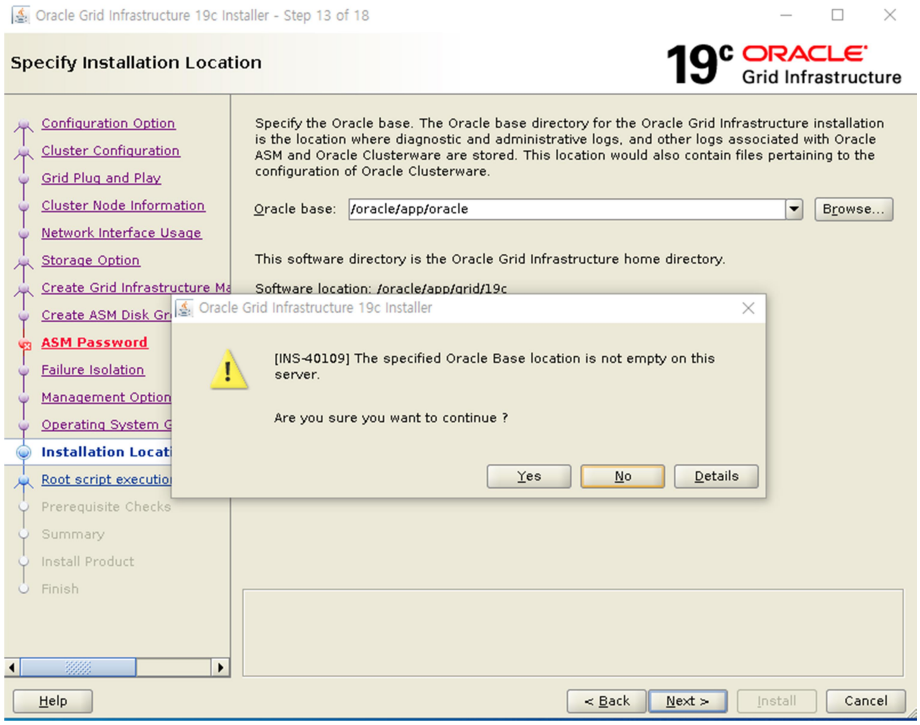
System group 설정(DBA)



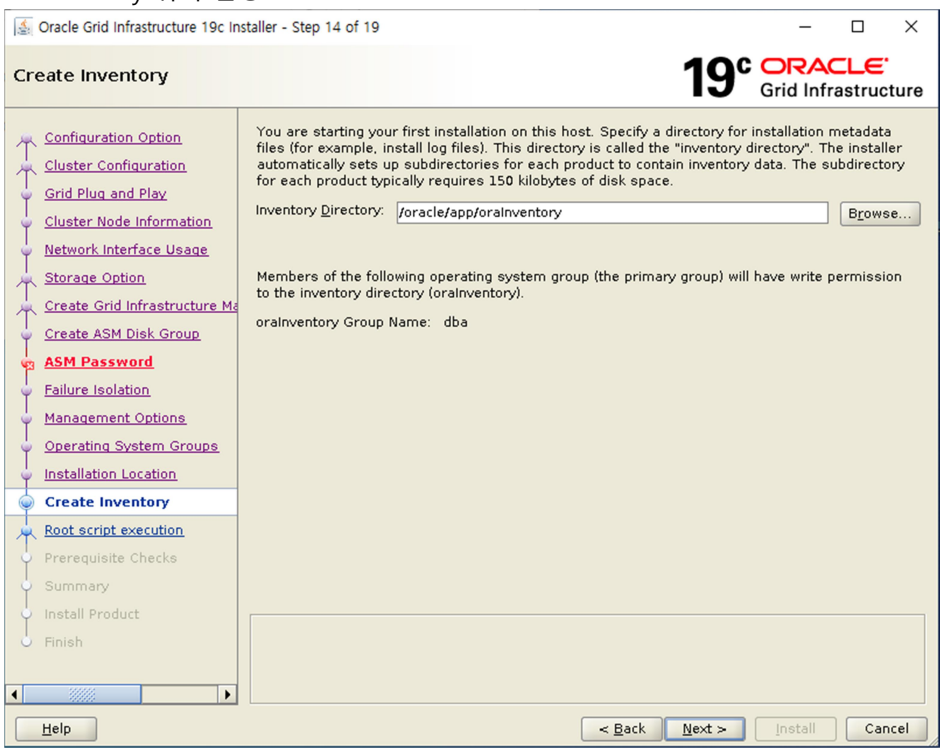


Install location 설정

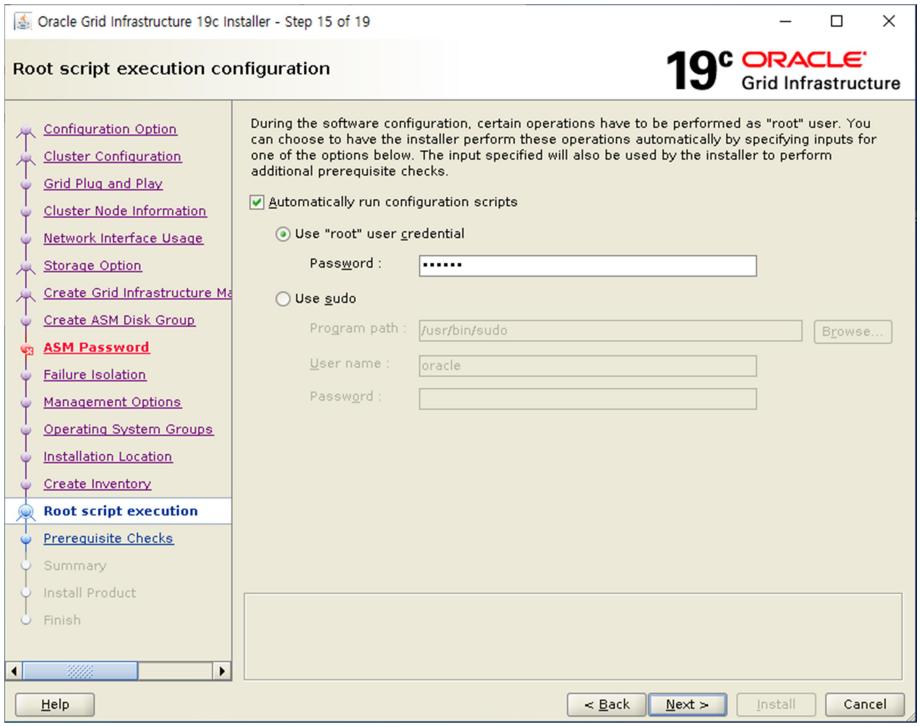




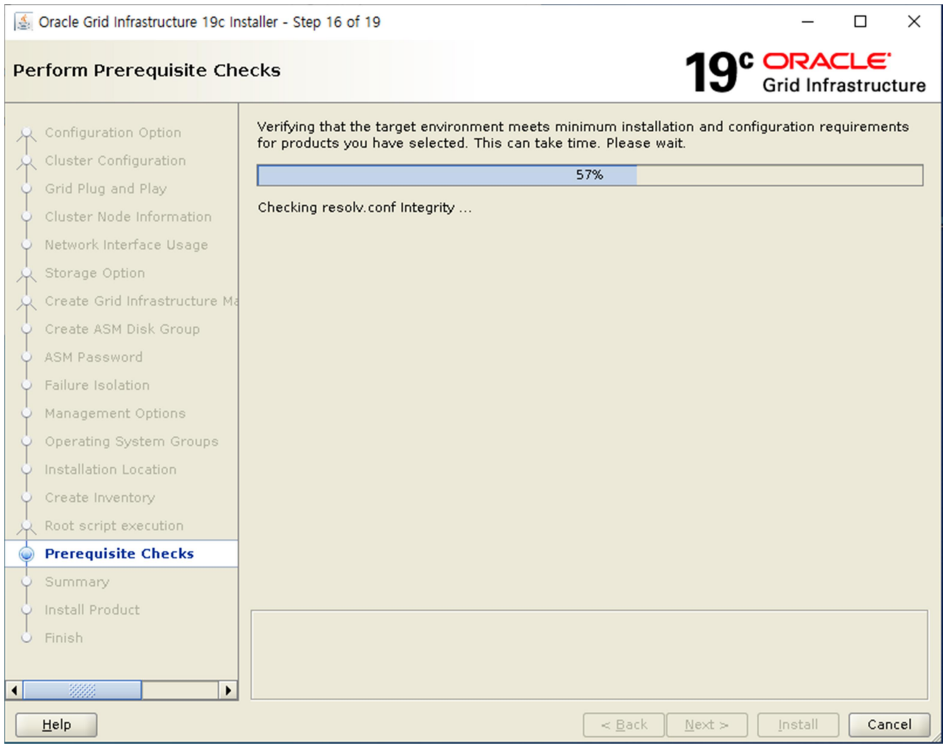
oraInventory 위치 설정



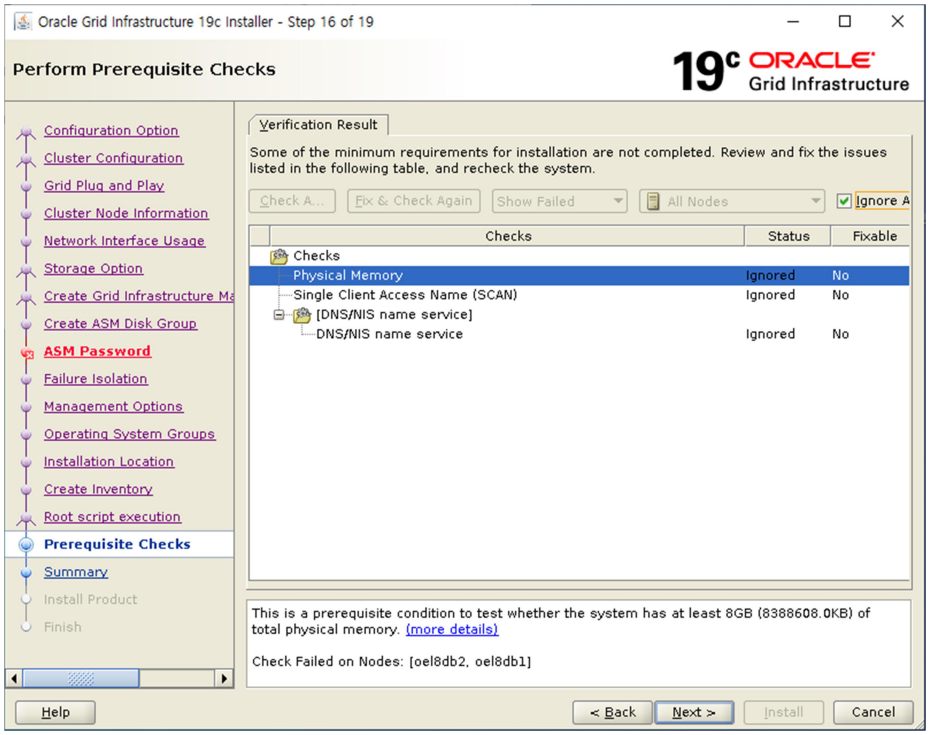
Run script 자동 수행 여부(root 계정 패스워드 입력)



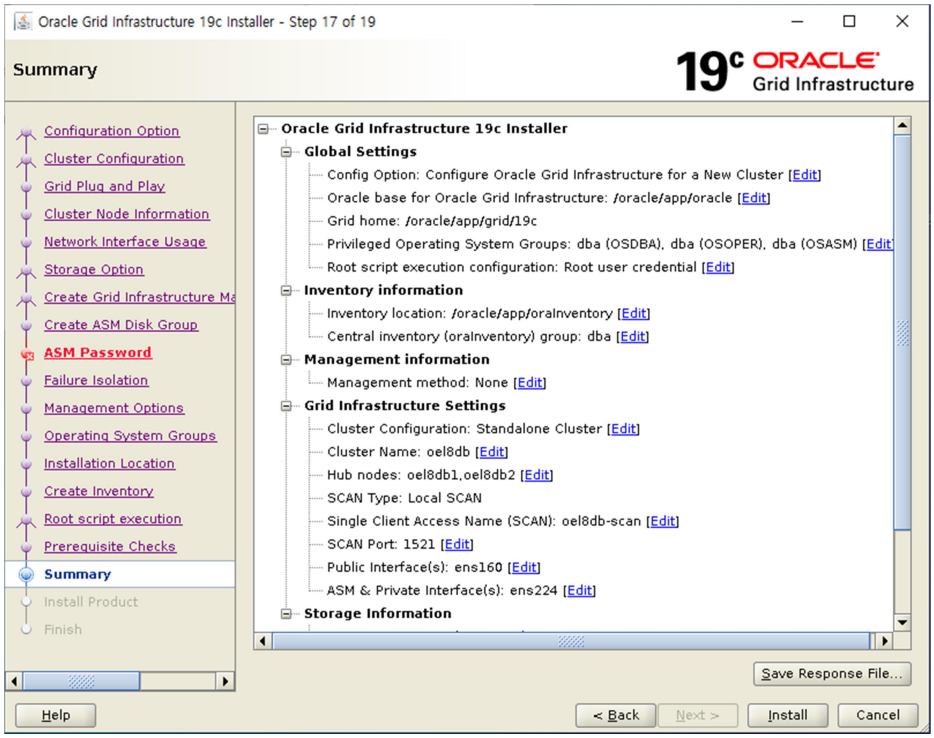
사전 요구사항 체크중



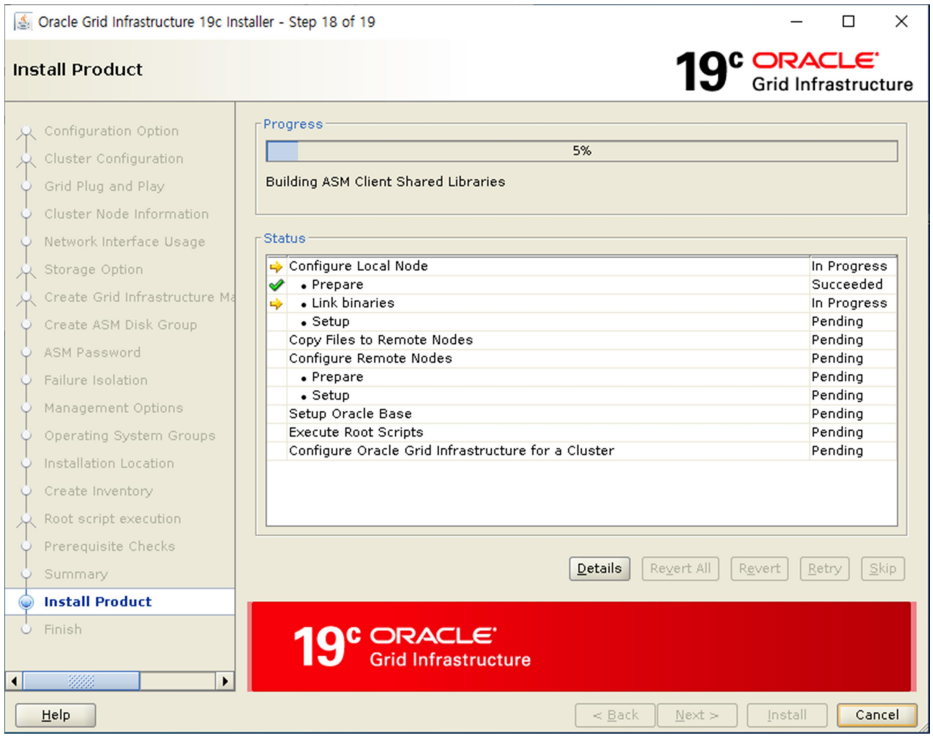
Scan ip가 도메인 등록되어 있지 않아 발생하는 워닝(모두 무시)


Oracle Grid Infrastructure 19c Installer - Step 16 of 19
Perform Prerequisite Checks
19c ORACLE Grid Infrastructure
Configuration Option
Cluster Configuration
Grid Plug and Play
Cluster Node Information
Network Interface Usage
Storage Option
Create Grid Infrastructure Ma
Create ASM Disk Group
ASM Password
Failure Isolation
Management Options
Operating System Groups
Installation Location
Create Inventory
Root script execution
Prerequisite Checks
Summary
Install Product
Finish
Verification Result
Some of the minimum requirements for installation are not completed. Review and fix the issues listed in the following table, and recheck the system.
Check A...
Fix & Check Again
Show Failed
All Nodes
Ignore A
Checks
Status
Fixable
Checks
Physical Memory
Ignored
No
Single Client Access Name (SCAN)
Ignored
No
[DNS/NIS name service]
DNS/NIS name service
Ignored
No
This is a prerequisite condition to test whether the system has at least 8GB (8388608.0KB) of total physical memory. (more details)
Check Failed on Nodes: [oel8db2, oel8db1]
Help
< Back
Next >
Install
Cancel

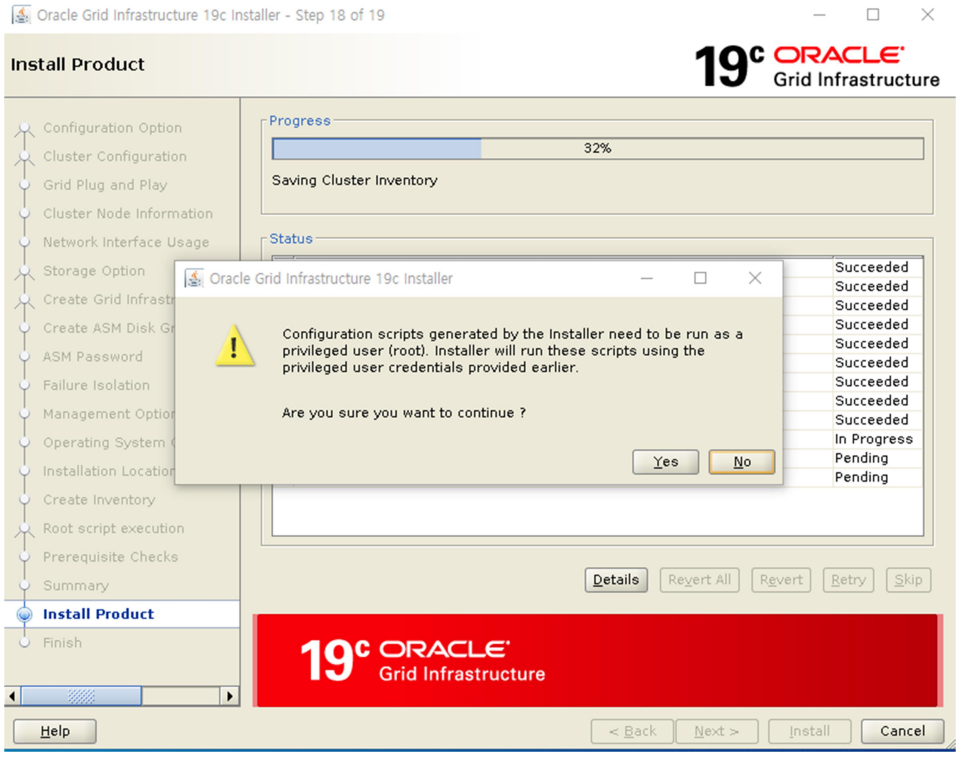
설치 진행


Oracle Grid Infrastructure 19c Installer - Step 17 of 19
Summary
19c ORACLE Grid Infrastructure
Configuration Option
Cluster Configuration
Grid Plug and Play
Cluster Node Information
Network Interface Usage
Storage Option
Create Grid Infrastructure Ma
Create ASM Disk Group
ASM Password
Failure Isolation
Management Options
Operating System Groups
Installation Location
Create Inventory
Root script execution
Prerequisite Checks
Summary
Install Product
Finish
Oracle Grid Infrastructure 19c Installer
Global Settings
Config Option: Configure Oracle Grid Infrastructure for a New Cluster [Edit]
Oracle base for Oracle Grid Infrastructure: /oracle/app/oracle [Edit]
Grid home: /oracle/app/grid/19c
Privileged Operating System Groups: dba (OSDBA), dba (OSOPER), dba (OSASM) [Edit]
Root script execution configuration: Root user credential [Edit]
Inventory information
Inventory location: /oracle/app/oraInventory [Edit]
Central inventory (oraInventory) group: dba [Edit]
Management information
Management method: None [Edit]
Grid Infrastructure Settings
Cluster Configuration: Standalone Cluster [Edit]
Cluster Name: oel8db [Edit]
Hub nodes: oel8db1,oel8db2 [Edit]
SCAN Type: Local SCAN
Single Client Access Name (SCAN): oel8db-scan [Edit]
SCAN Port: 1521 [Edit]
Public Interface(s): ens160 [Edit]
ASM & Private Interface(s): ens224 [Edit]
Storage Information
Save Response File...
Help
< Back
Next >
Install
Cancel

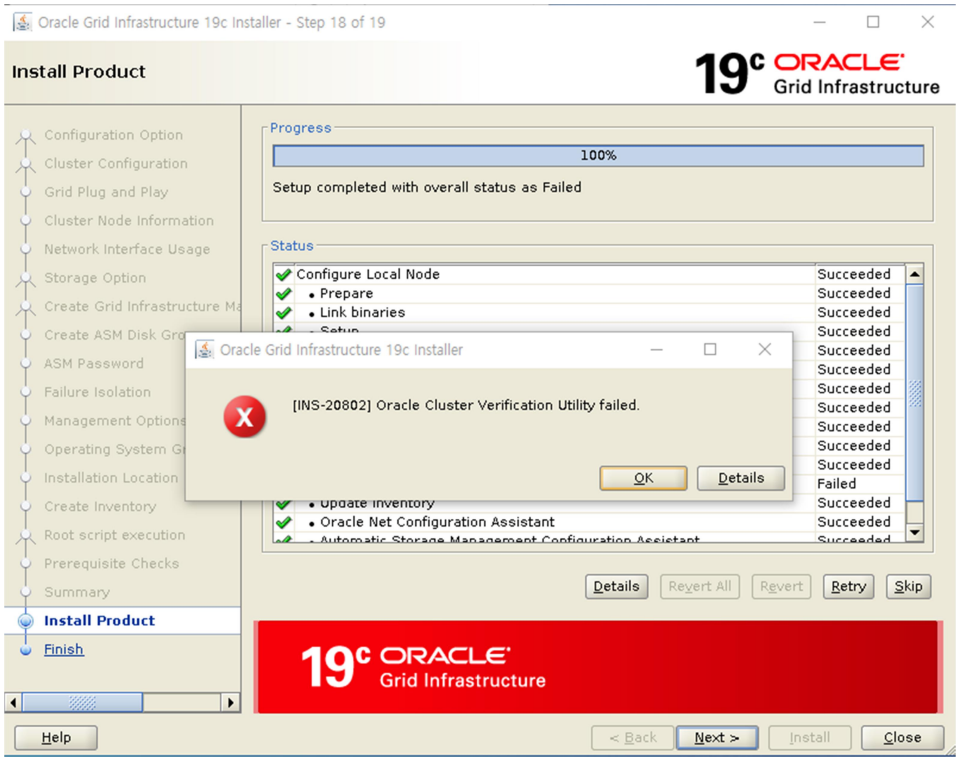
설치 중



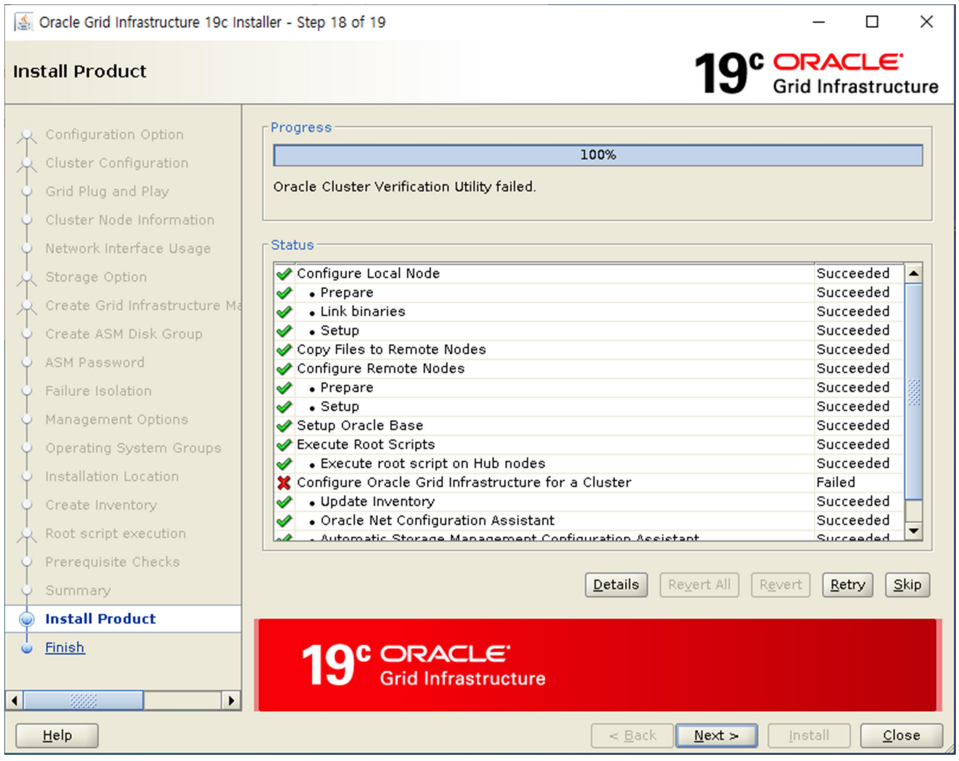
Root 스크립트 자동 실행 여부(YES)

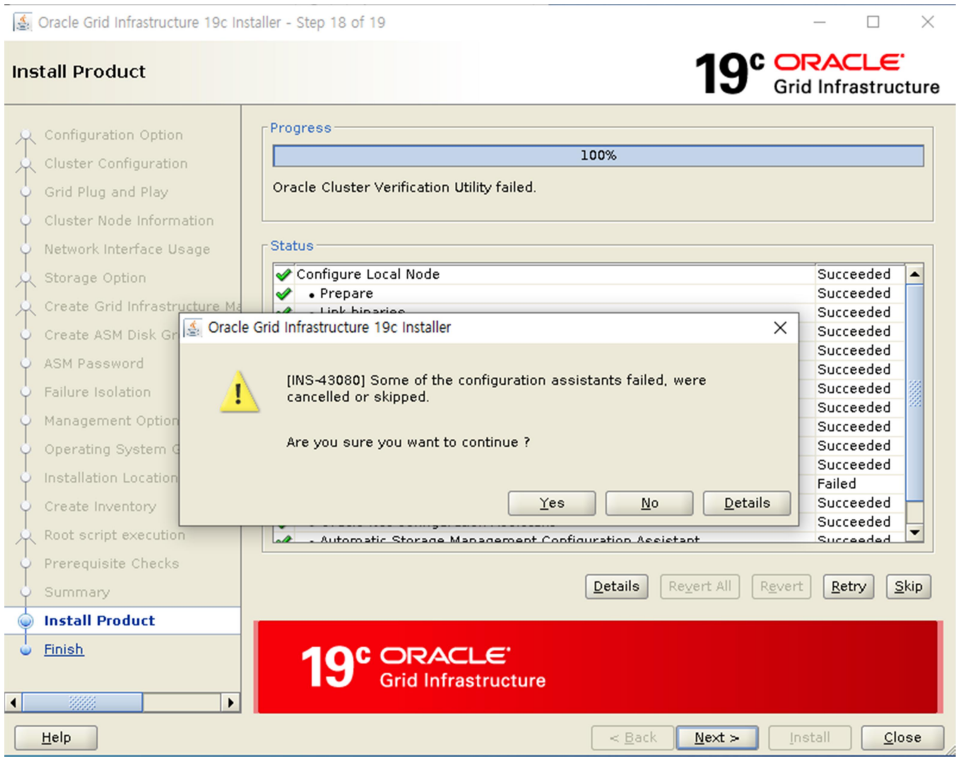


SCAN IP가 DNS에 등록되어 있지 않아서 발생한 문제 무시 해도됨 OK

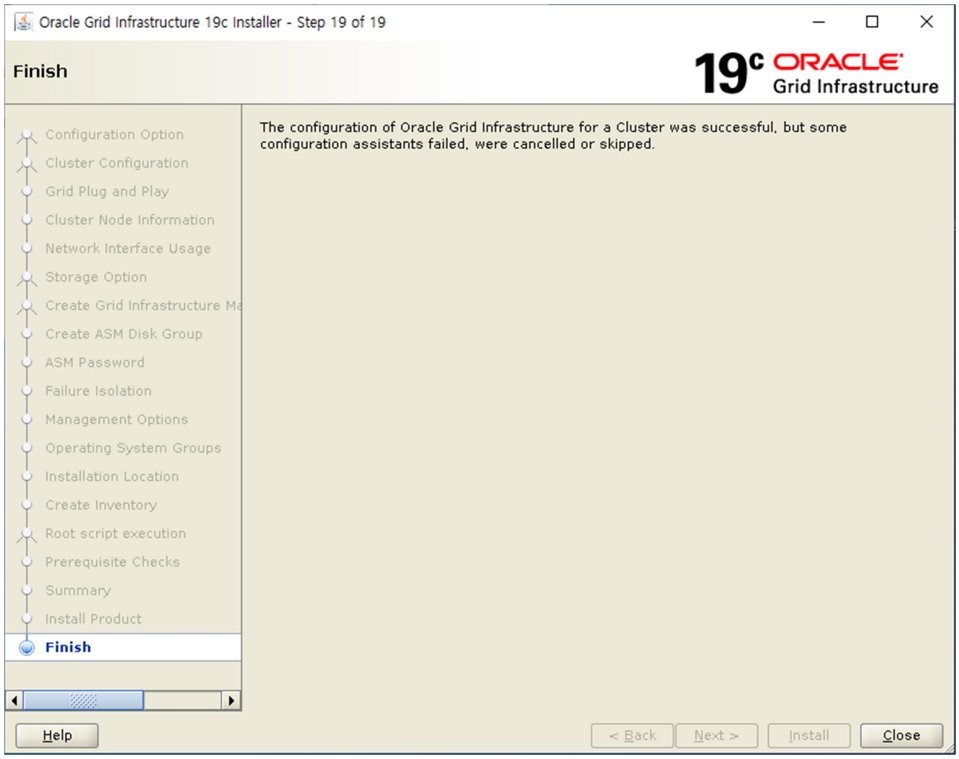


위 fail로 인한 configure cluster fail 발생이지만 정상(next)





설치 종료(Close)



설치 후 crs 상태 확인)

```
# crsctl stat res -t
# ocrcheck
```

< 실행 결과 >

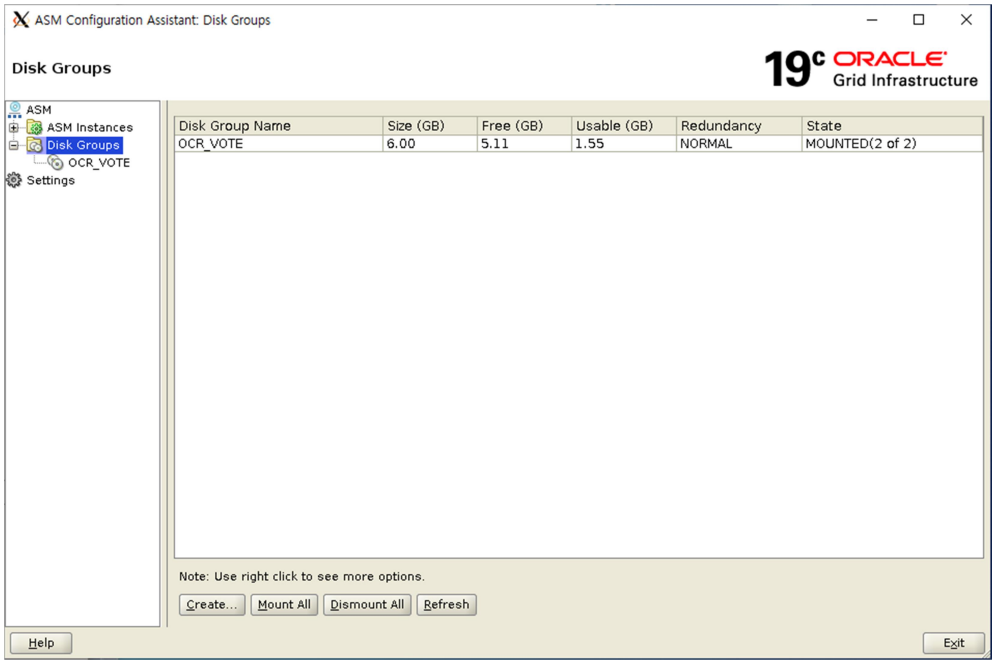
```
oracle@oel8db1:/oracle/app/grid/19c
[oracle@oel8db1 19c]$ crsctl stat res -t
--------------------------------------------------------------------------------
Name           Target  State        Server                   State details
--------------------------------------------------------------------------------
Local Resources
--------------------------------------------------------------------------------
ora.LISTENER.lsnr
               ONLINE  ONLINE       oel8db1                  STABLE
               ONLINE  ONLINE       oel8db2                  STABLE
ora.chad
               ONLINE  ONLINE       oel8db1                  STABLE
               ONLINE  ONLINE       oel8db2                  STABLE
ora.net1.network
               ONLINE  ONLINE       oel8db1                  STABLE
               ONLINE  ONLINE       oel8db2                  STABLE
ora.ons
               ONLINE  ONLINE       oel8db1                  STABLE
               ONLINE  ONLINE       oel8db2                  STABLE
--------------------------------------------------------------------------------
Cluster Resources
--------------------------------------------------------------------------------
ora.ASMNET1LSNR_ASM.lsnr(ora.asmgroup)
      1        ONLINE  ONLINE       oel8db1                  STABLE
      2        ONLINE  ONLINE       oel8db2                  STABLE
      3        OFFLINE OFFLINE                               STABLE
ora.LISTENER_SCAN1.lsnr
      1        ONLINE  ONLINE       oel8db1                  STABLE
ora.OCR_VOTE.dg(ora.asmgroup)
      1        ONLINE  ONLINE       oel8db1                  STABLE
      2        ONLINE  ONLINE       oel8db2                  STABLE
      3        OFFLINE OFFLINE                               STABLE
ora.asm(ora.asmgroup)
      1        ONLINE  ONLINE       oel8db1                  Started,STABLE
      2        ONLINE  ONLINE       oel8db2                  Started,STABLE
      3        OFFLINE OFFLINE                               STABLE
ora.asmnet1.asmnetwork(ora.asmgroup)
      1        ONLINE  ONLINE       oel8db1                  STABLE
      2        ONLINE  ONLINE       oel8db2                  STABLE
      3        OFFLINE OFFLINE                               STABLE
```

```
oracle@oel8db1:/oracle/app/grid/19c
[oracle@oel8db1 19c]$ ocrcheck
Status of Oracle Cluster Registry is as follows :
         Version                  :          4
         Total space (kbytes)     :     491684
         Used space (kbytes)      :      84136
         Available space (kbytes) :     407548
         ID                       : 2097739158
         Device/File Name         :  +OCR_VOTE
                                    Device/File integrity check succeeded

                                    Device/File not configured

                                    Device/File not configured

                                    Device/File not configured

                                    Device/File not configured

         Cluster registry integrity check succeeded

         Logical corruption check bypassed due to non-privileged user

[oracle@oel8db1 19c]$
```

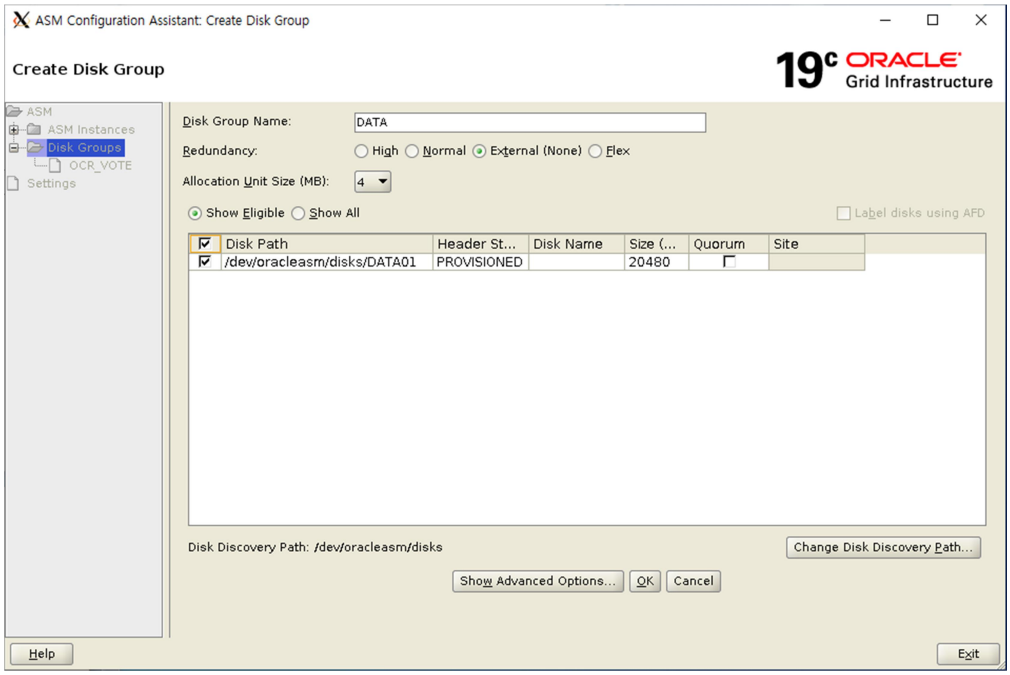
7. asm 디스크 구성

asmca <- xclock 가능한 세션에 계속 설치 진행(1번 노드)

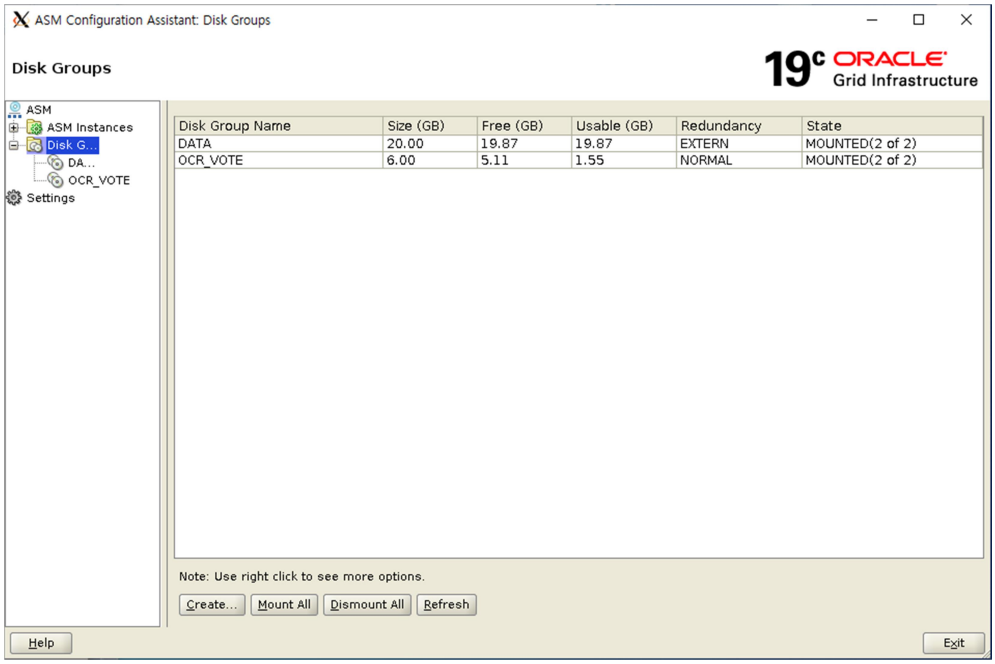
Disk group 선택 후 create



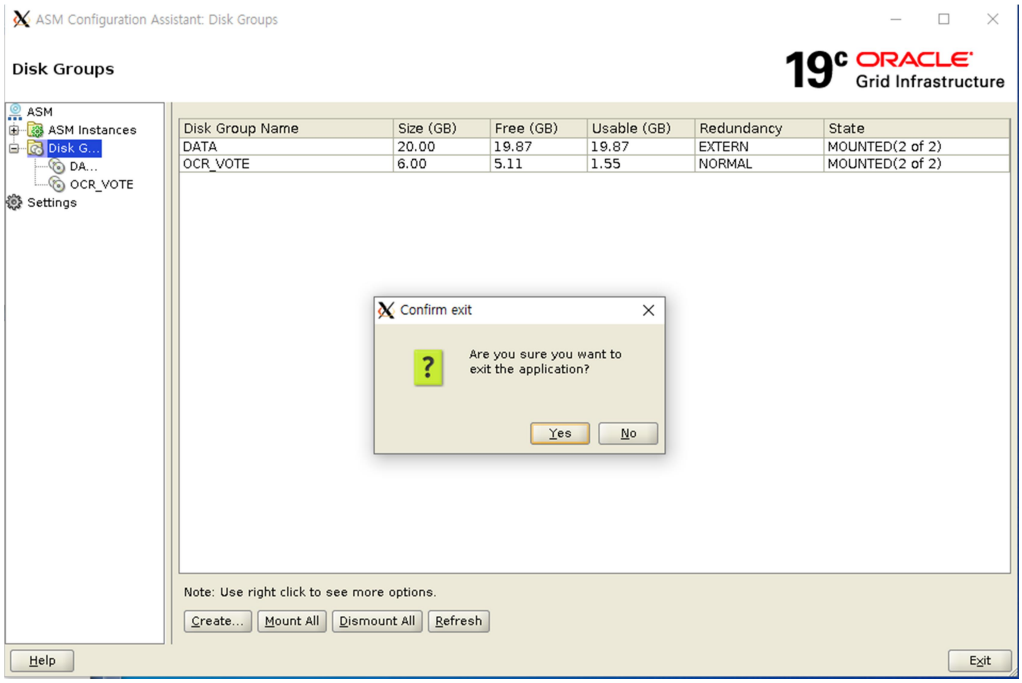
EXTERNAL DATA DISK 생성



확인 후 EXIT

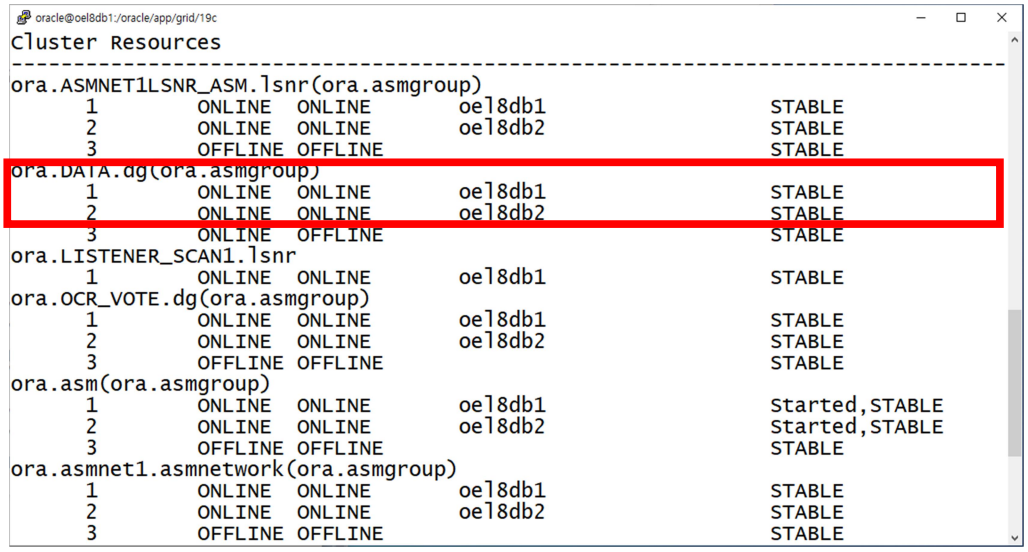


YES로 빠져 나옴



확인)

```
# crsctl stat res -t
```



8. DB 엔진 설치

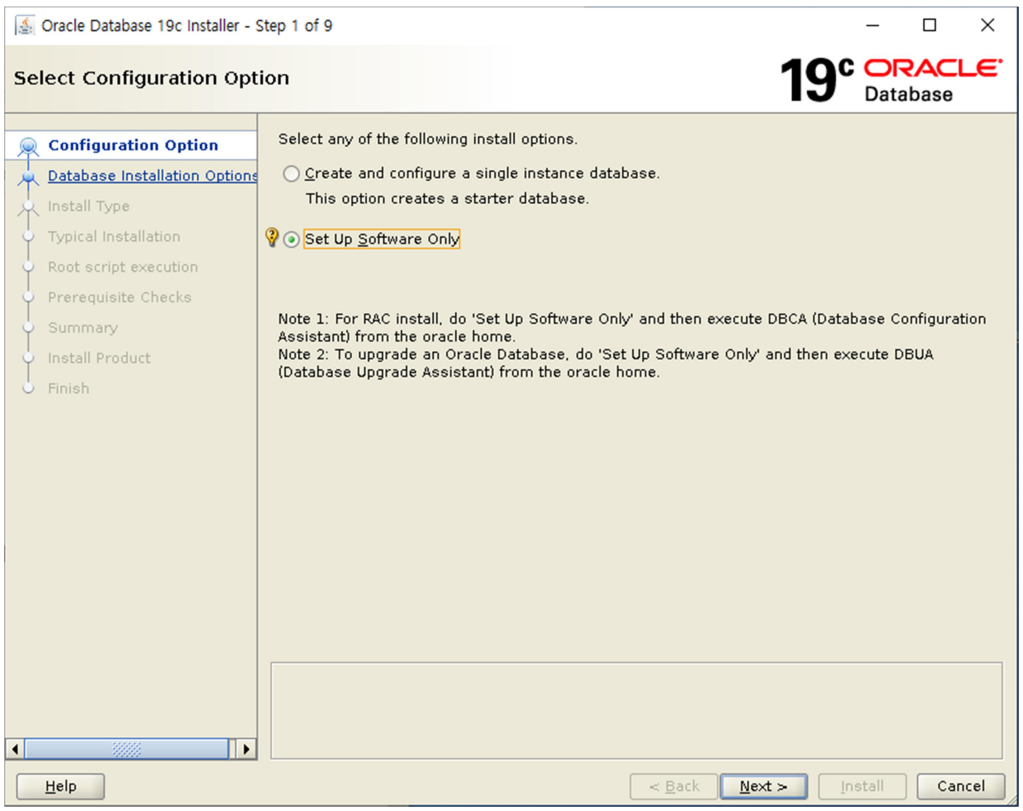
압축 해제(1번 노드, oracle 유저)

```
# cd $ORACLE_HOME
# unzip /oracle/media/V982063-01.zip
```

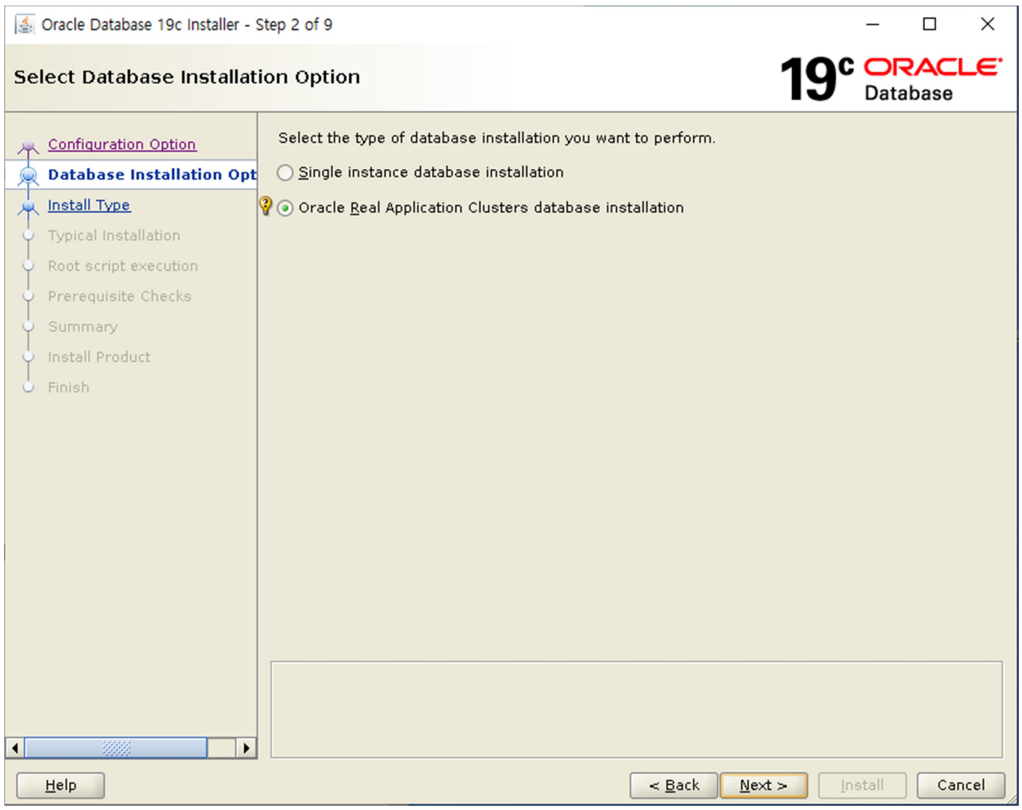
설치 진행(1번 노드, oracle 유저, xclock 가능한 세션)

```
# cd $ORACLE_HOME
# ./runInstaller
```

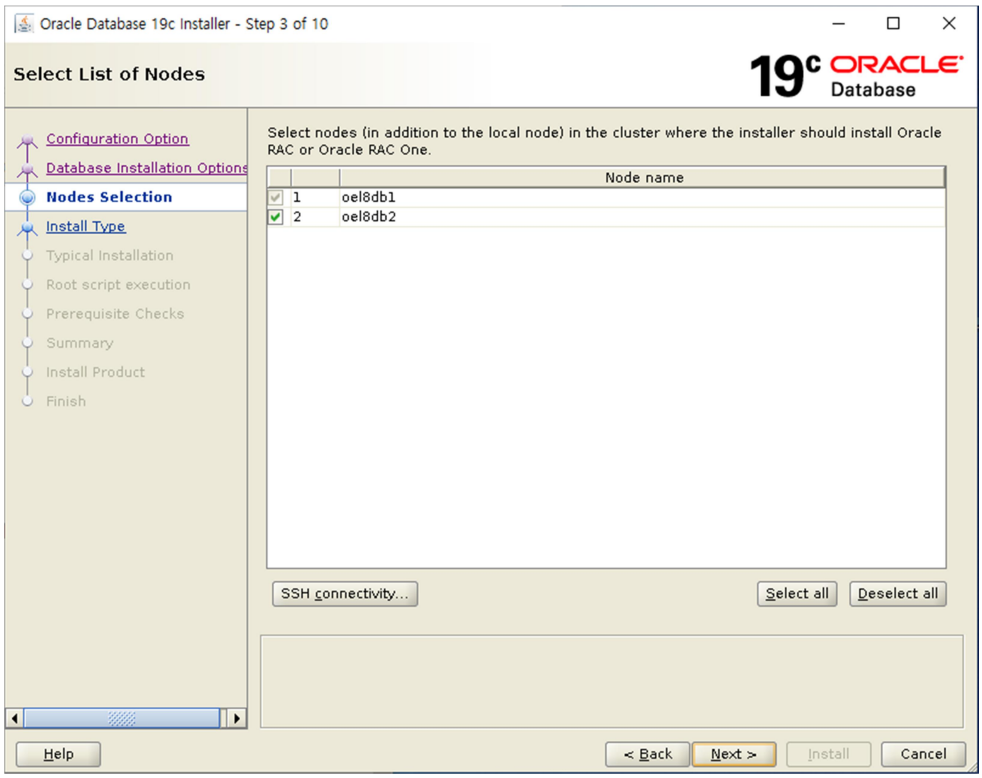
Software만 설치 진행(뒤에 DBCA로 DB 따로 구성)



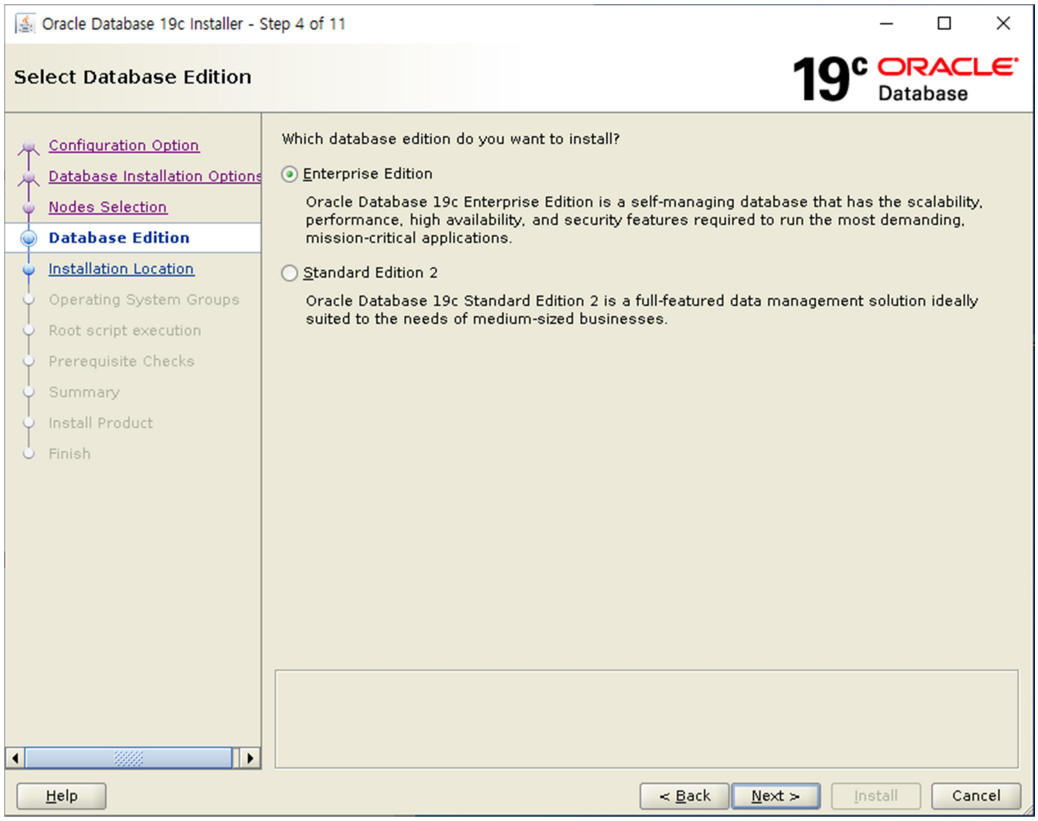
RAC 선택



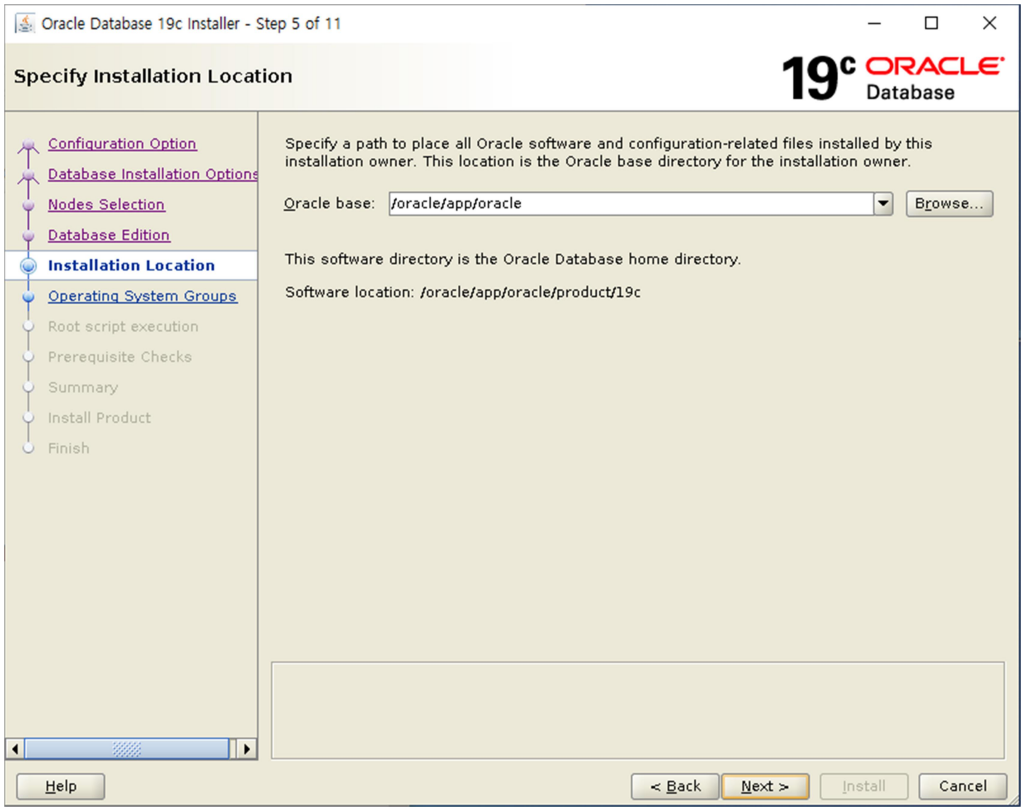
노드 확인(2번 선택 필수)



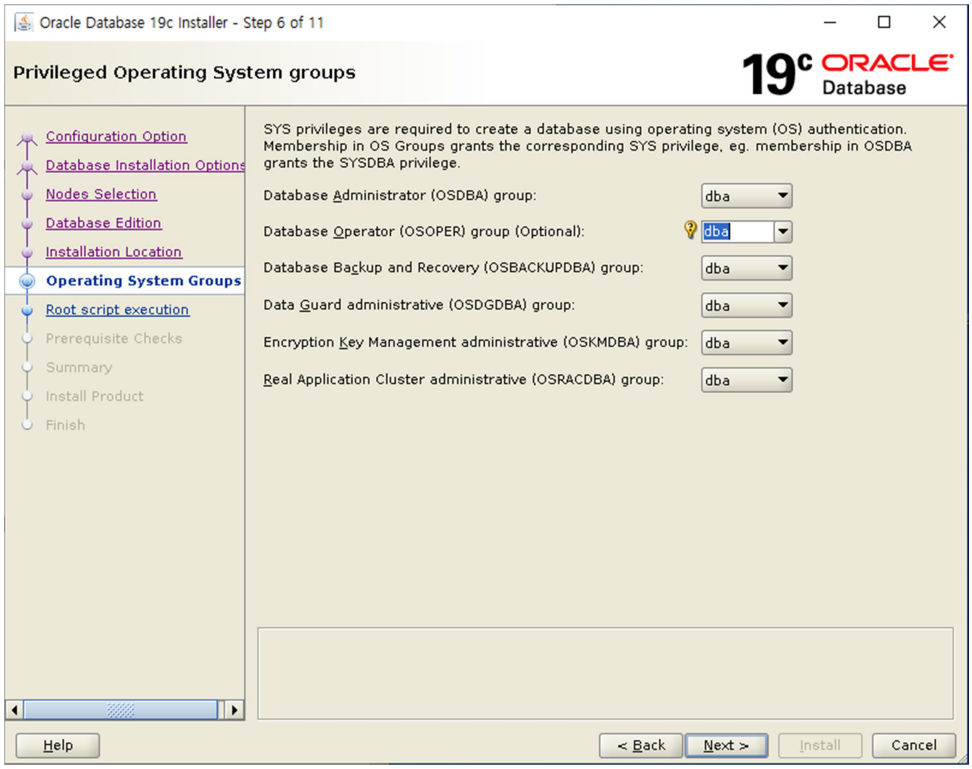
설치 edition 선택


Oracle Database 19c Installer - Step 4 of 11
Select Database Edition
19c ORACLE Database
Configuration Option
Database Installation Options
Nodes Selection
Database Edition
Installation Location
Operating System Groups
Root script execution
Prerequisite Checks
Summary
Install Product
Finish
Which database edition do you want to install?
Enterprise Edition
Oracle Database 19c Enterprise Edition is a self-managing database that has the scalability, performance, high availability, and security features required to run the most demanding, mission-critical applications.
Standard Edition 2
Oracle Database 19c Standard Edition 2 is a full-featured data management solution ideally suited to the needs of medium-sized businesses.
Help
< Back
Next >
Install
Cancel

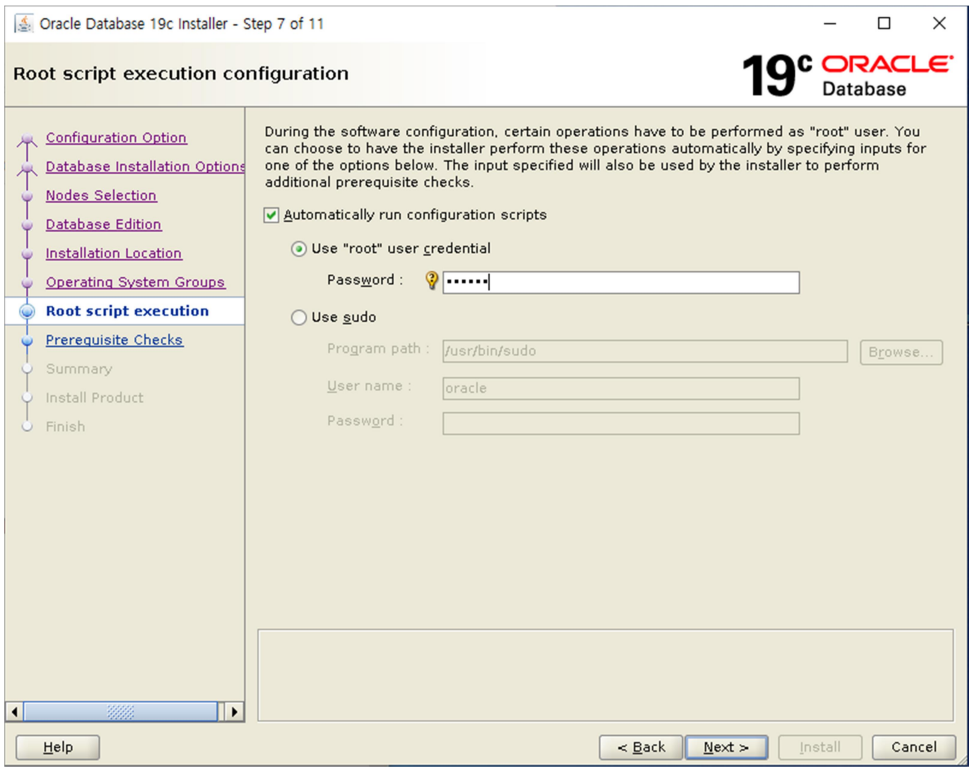
설치 위치 확인


Oracle Database 19c Installer - Step 5 of 11
Specify Installation Location
19c ORACLE Database
Configuration Option
Database Installation Options
Nodes Selection
Database Edition
Installation Location
Operating System Groups
Root script execution
Prerequisite Checks
Summary
Install Product
Finish
Specify a path to place all Oracle software and configuration-related files installed by this installation owner. This location is the Oracle base directory for the installation owner.
Oracle base: /oracle/app/oracle
Browse...
This software directory is the Oracle Database home directory.
Software location: /oracle/app/oracle/product/19c
Help
< Back
Next >
Install
Cancel

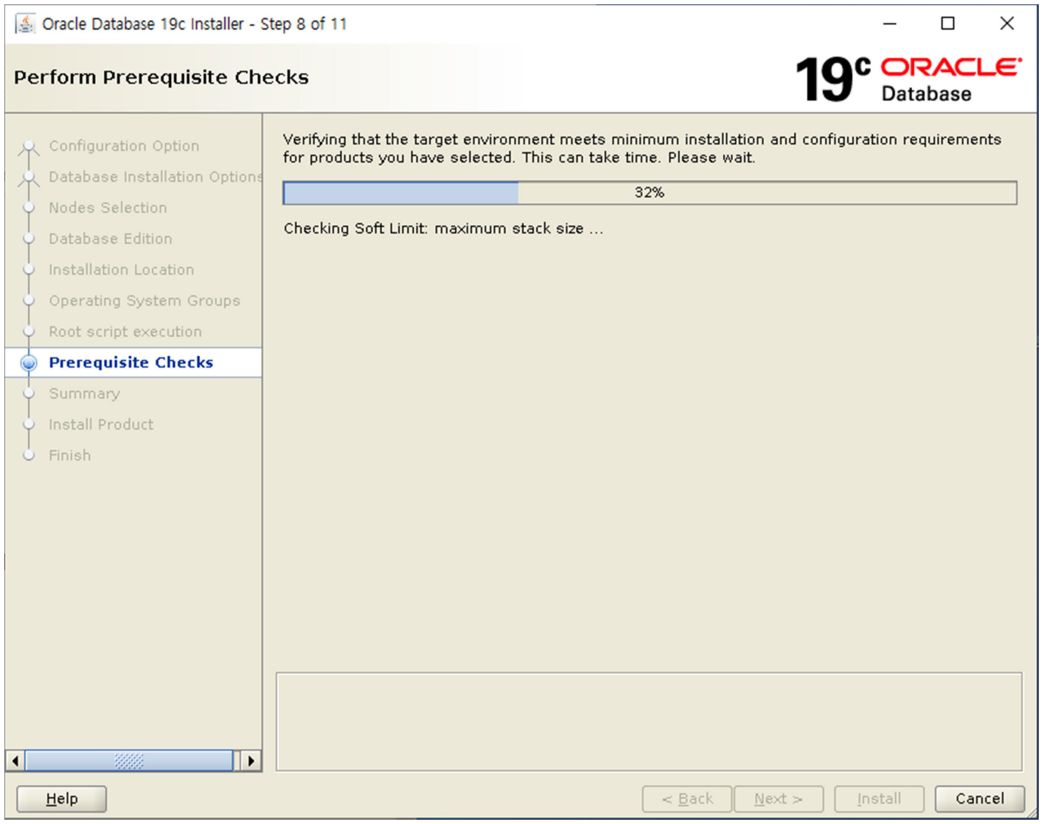
그룹 설정



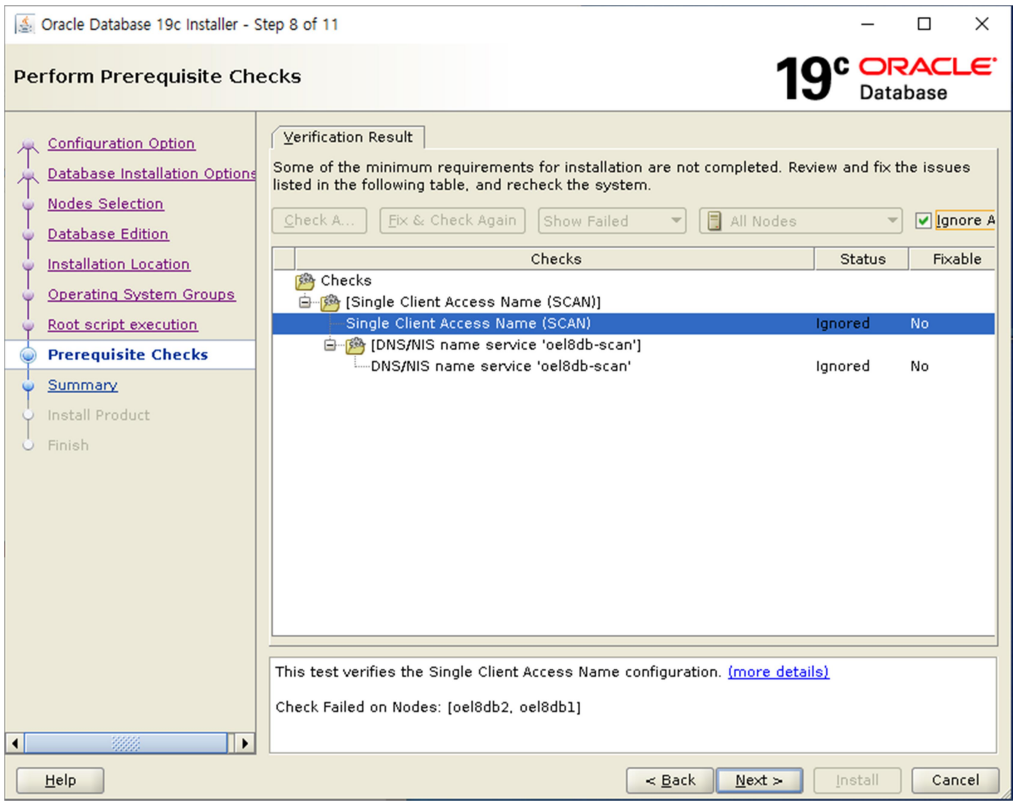
Root script 자동 실행 여부(root계정 패스워드 입력)



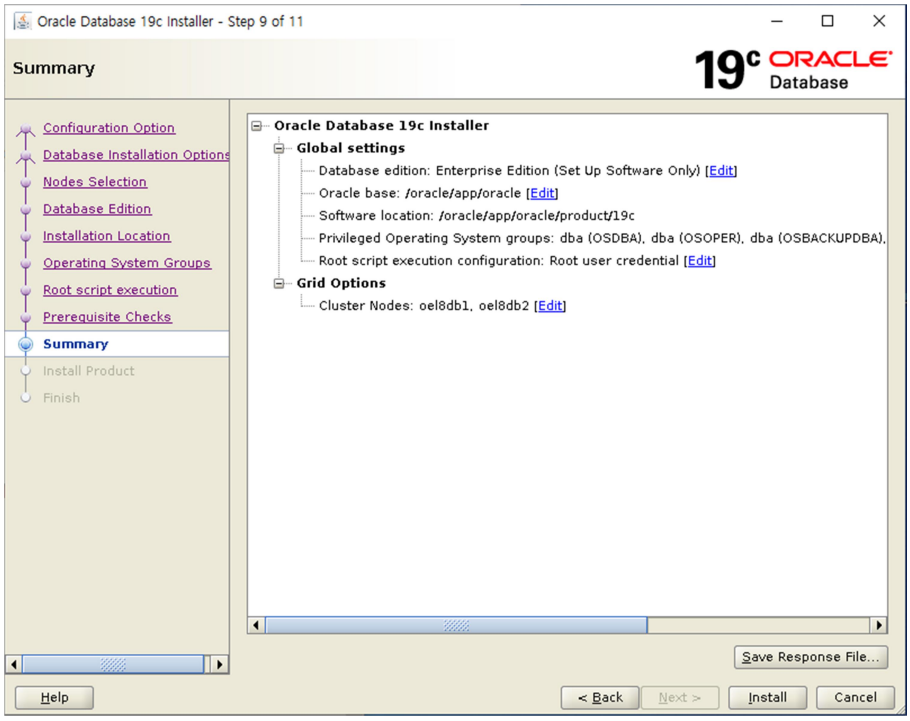
사전 요구사항 체크중



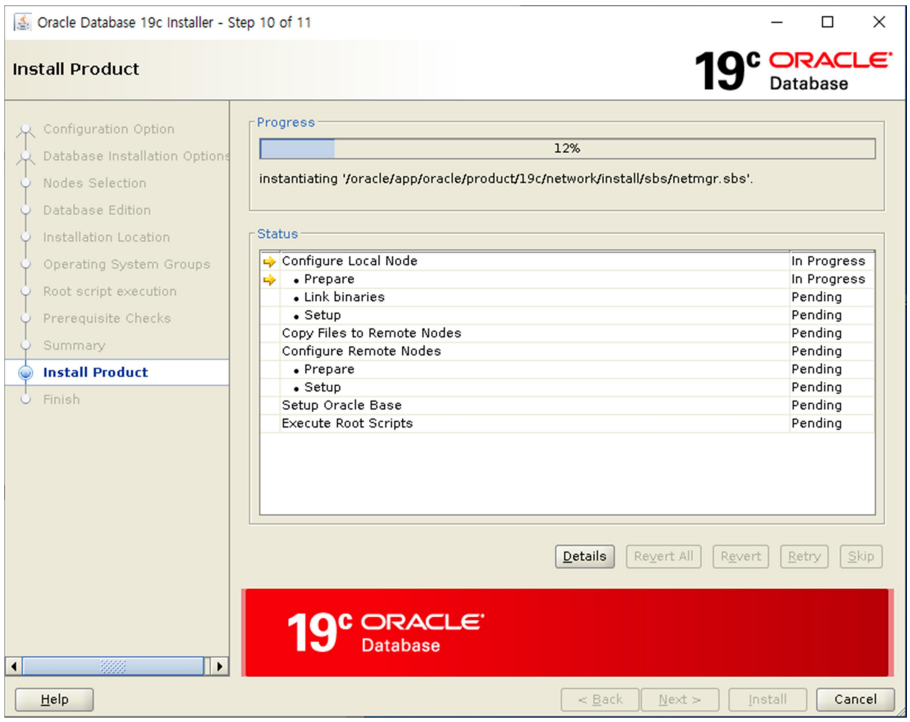
Scan IP 관련 에러 무시



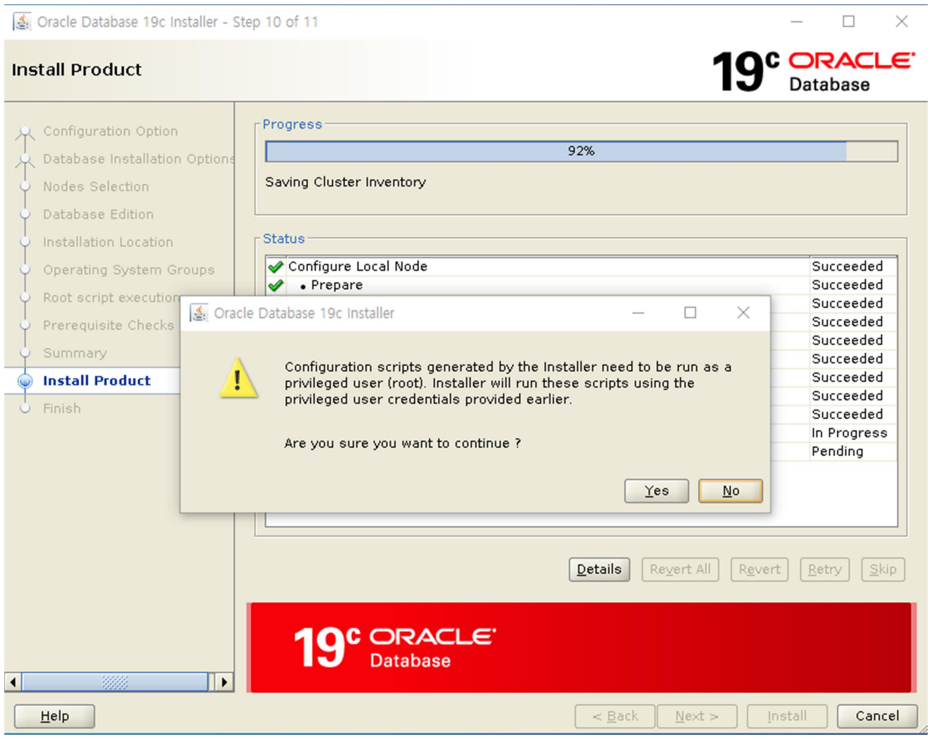
설치 진행



설치중



Root script 실행 여부(YES)



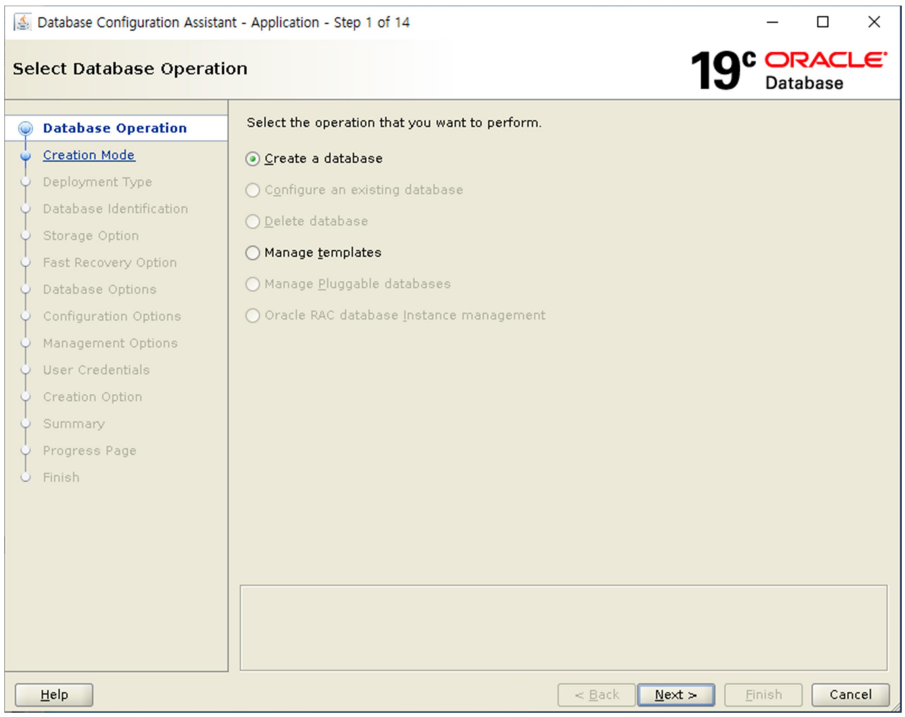
설치 종료(CLOSE)

10. DBCA로 DB 생성

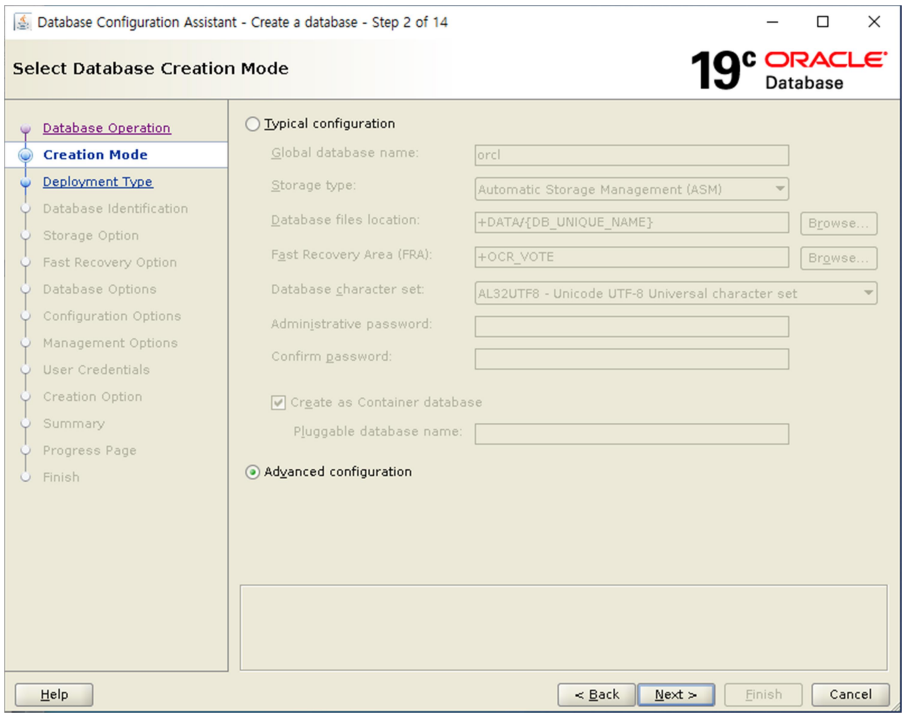
DBCA 수행(1번 노드, oracle 계정, xclock 가능한 세션)

```
$ dbca
```

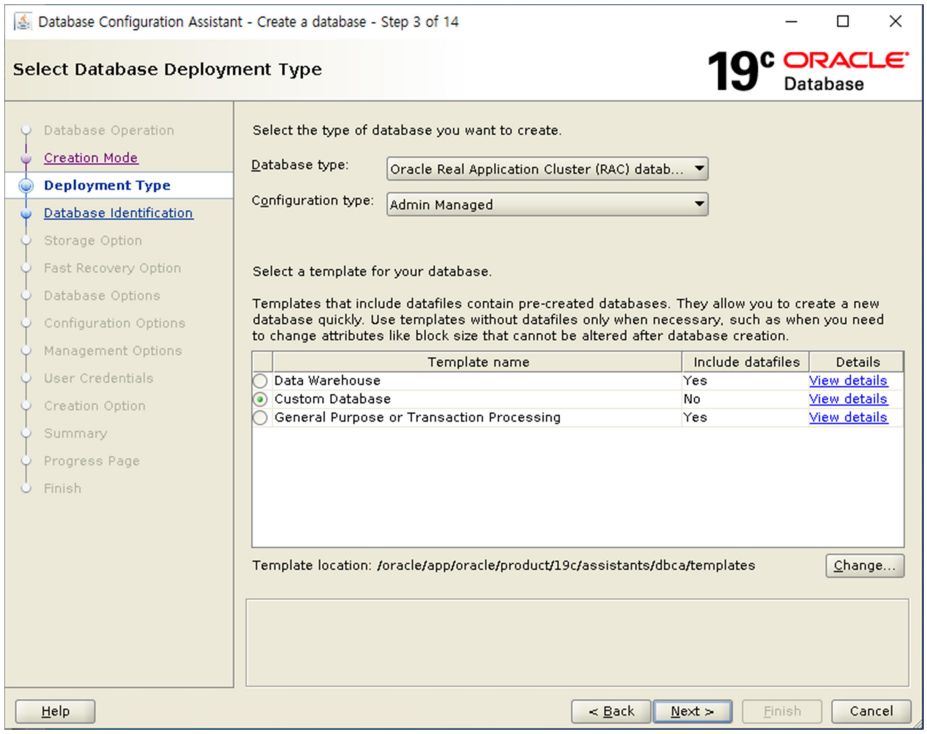
데이터베이스 생성



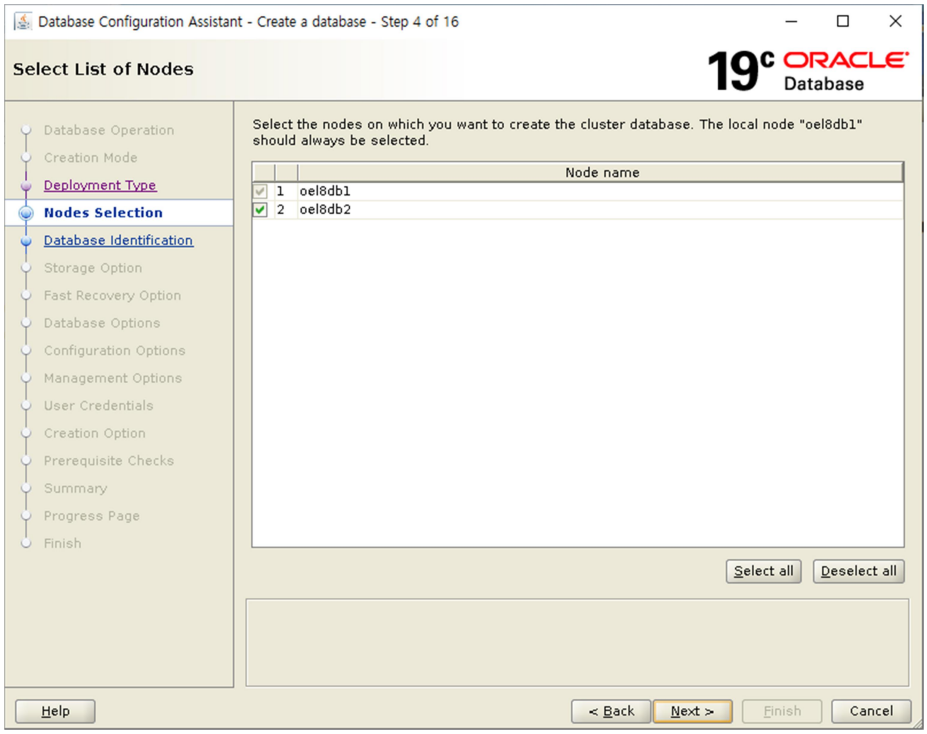
생성 모드 선택



Deployment type 선택(반드시 custom database 선택)

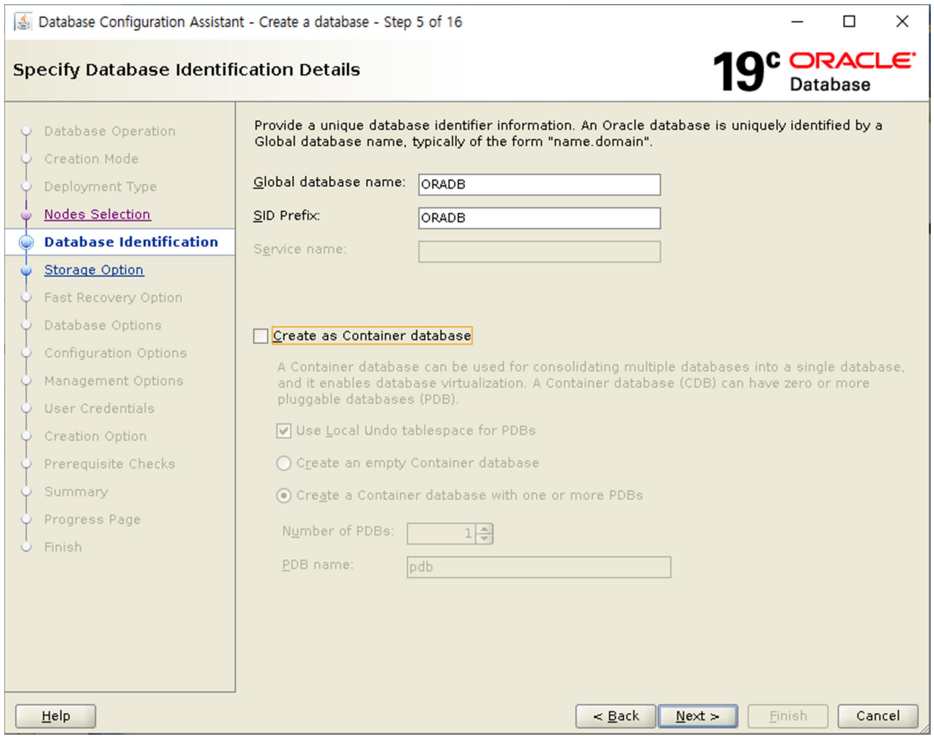


노드 선택(2번 반드시 선택)

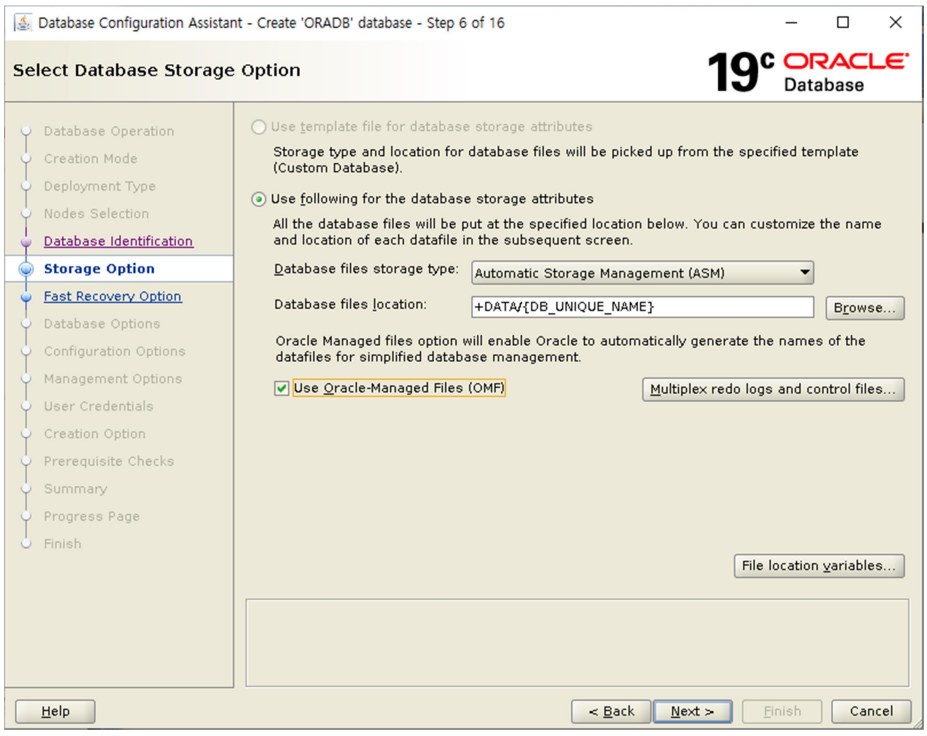


SSH 관련 에러는 무시했음

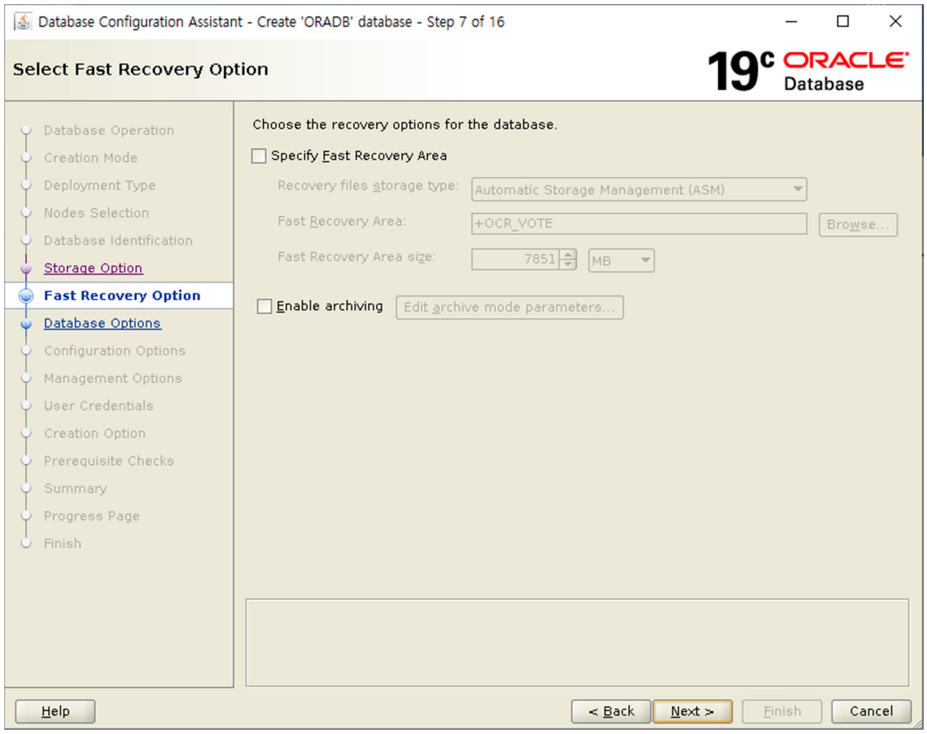
글로벌 DB 이름 설정



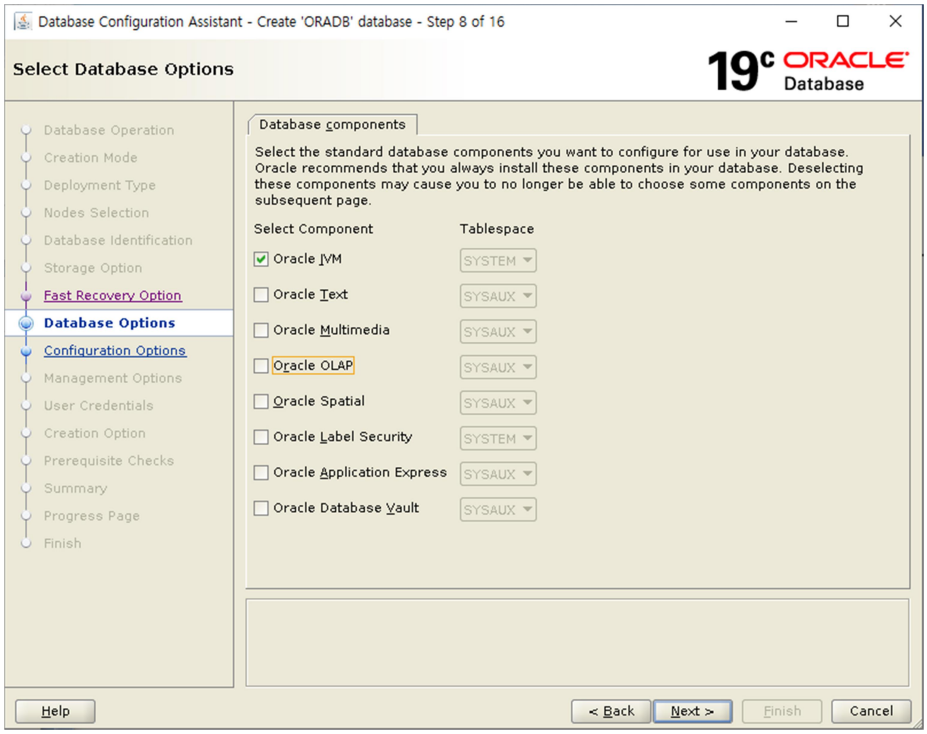
STORAGE 선택



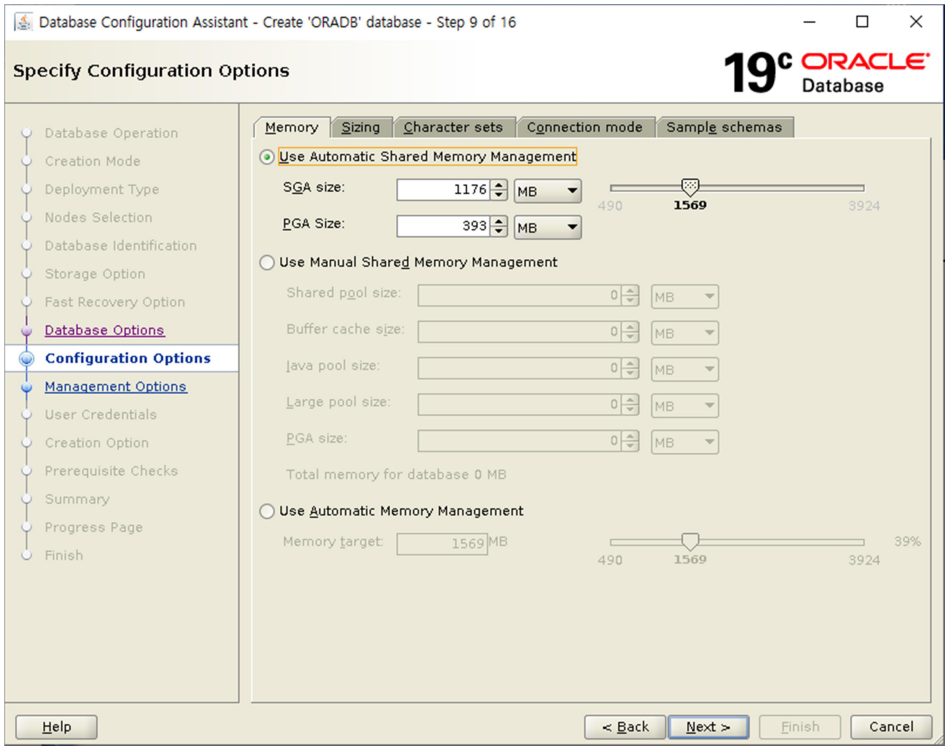
RECOVERY OPTION



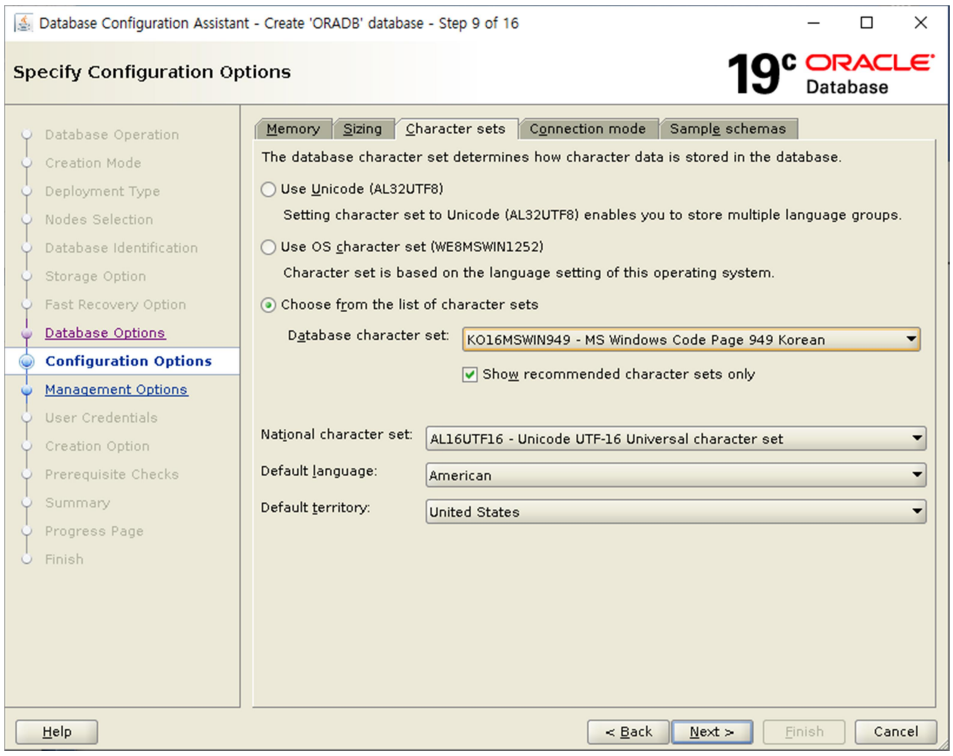
구성요소 선택



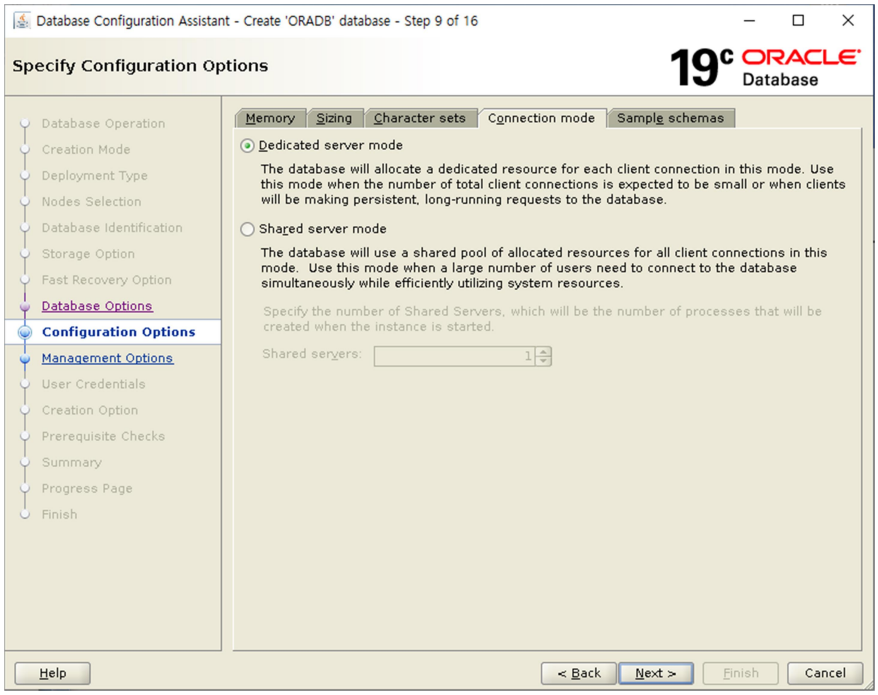
메모리 구성(사이즈는 권장 사항 그대로 따름)



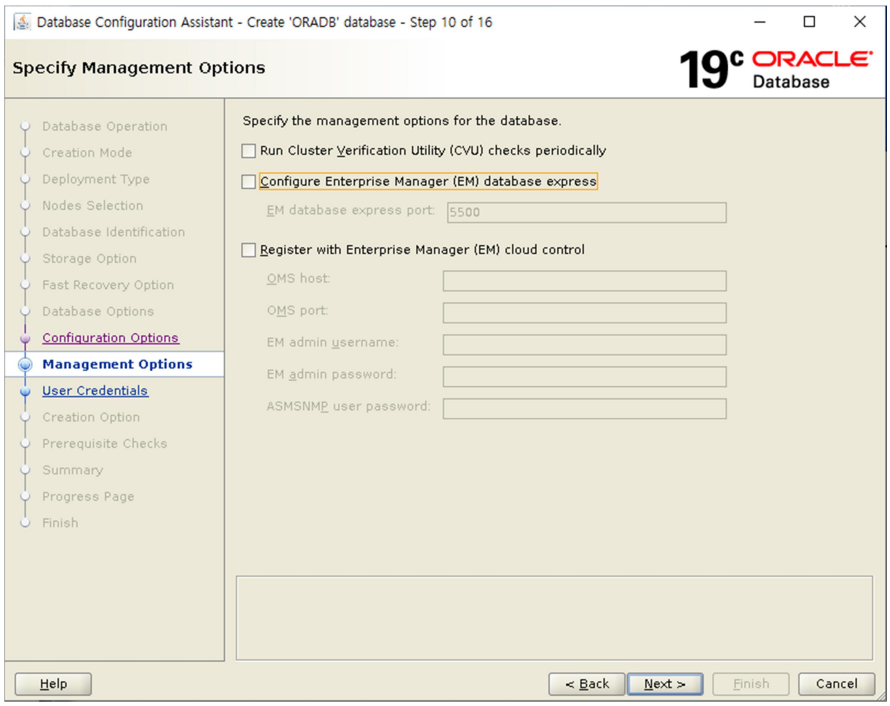
캐릭터 셋 선택



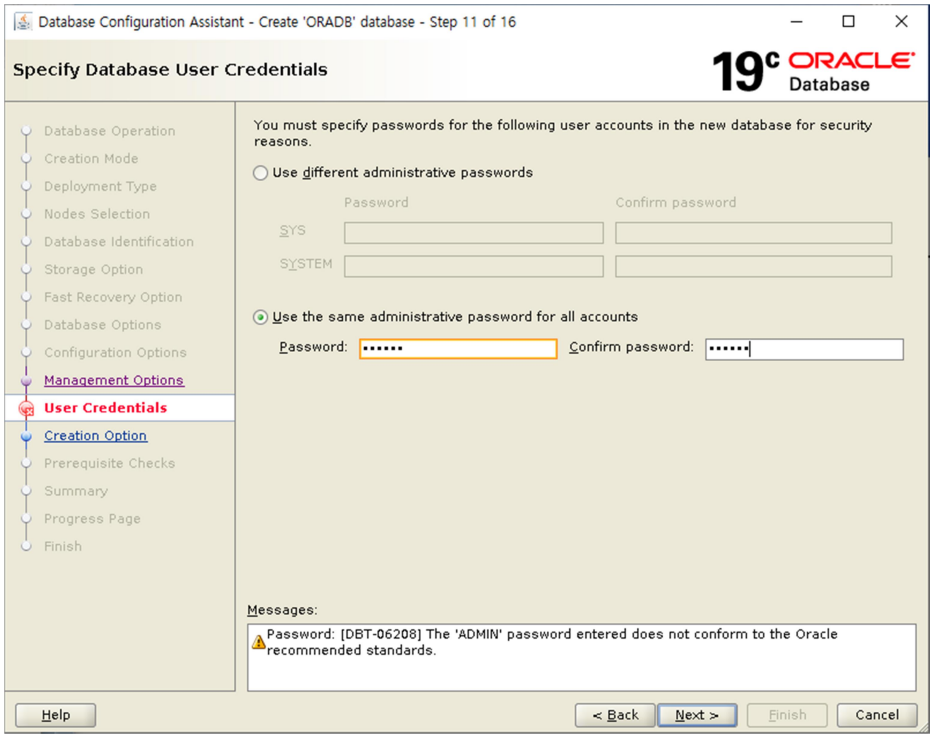
Dedicated server mode



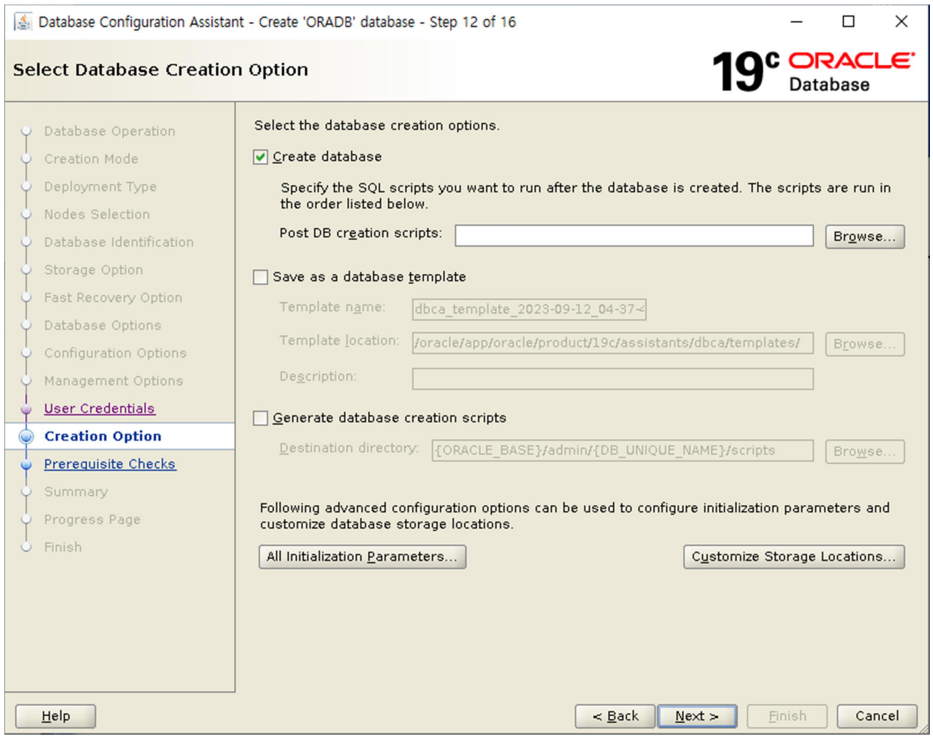
EM 체크 해제



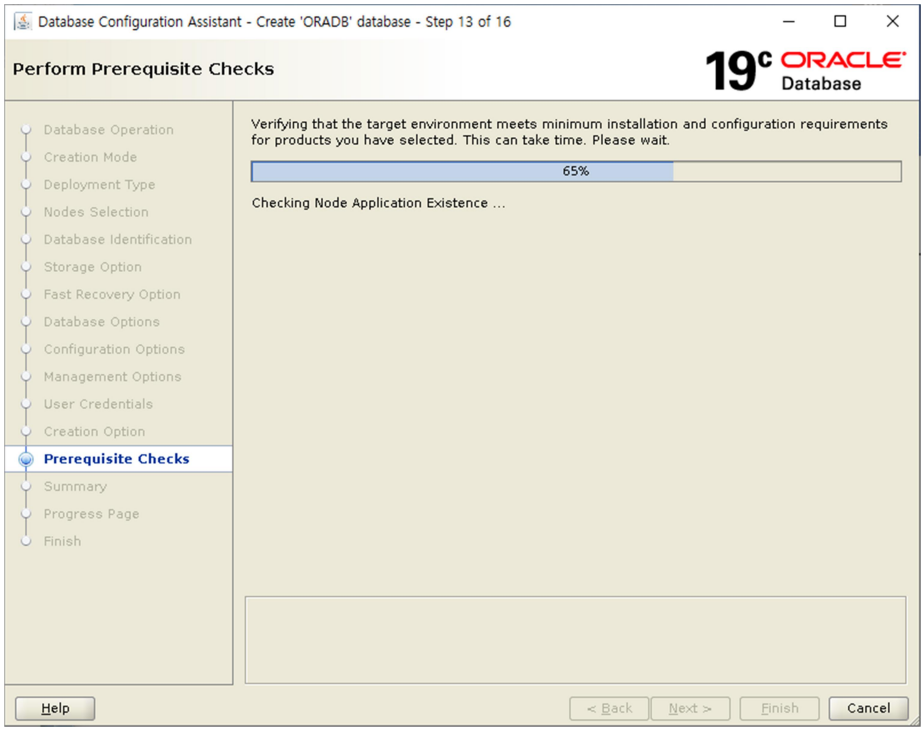
관리자 패스워드 설정



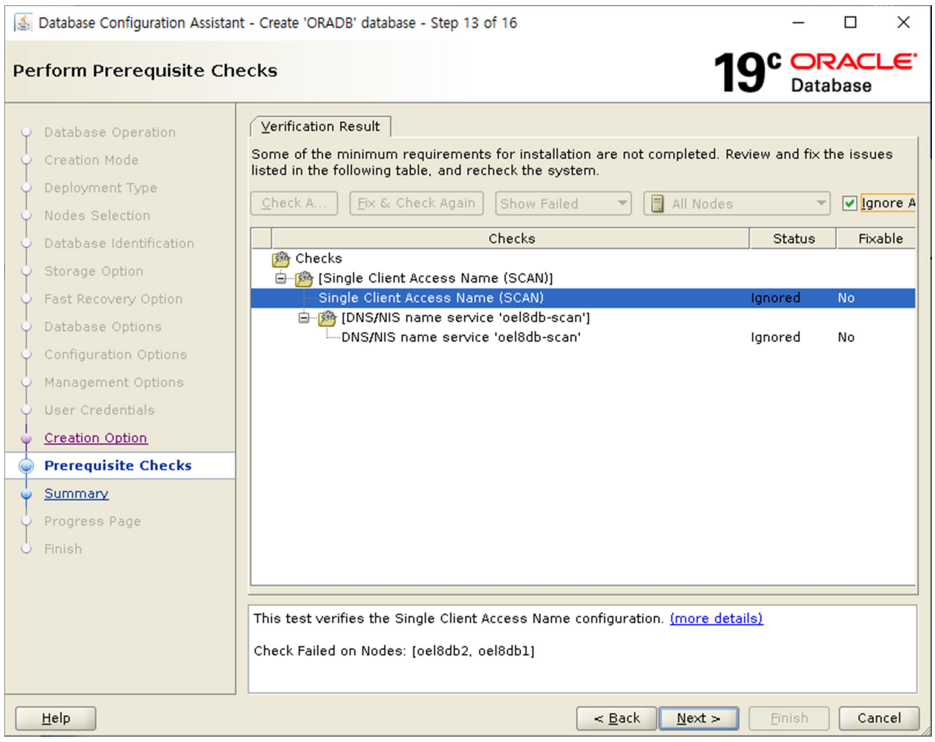
데이터 베이스 생성 옵션



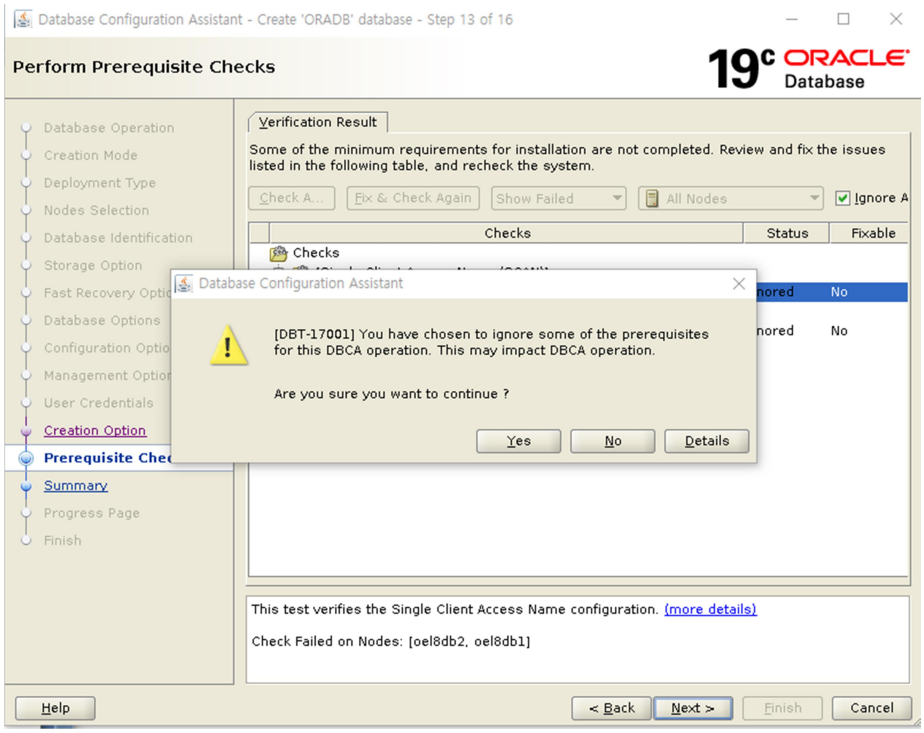
설치 환경 체크 중



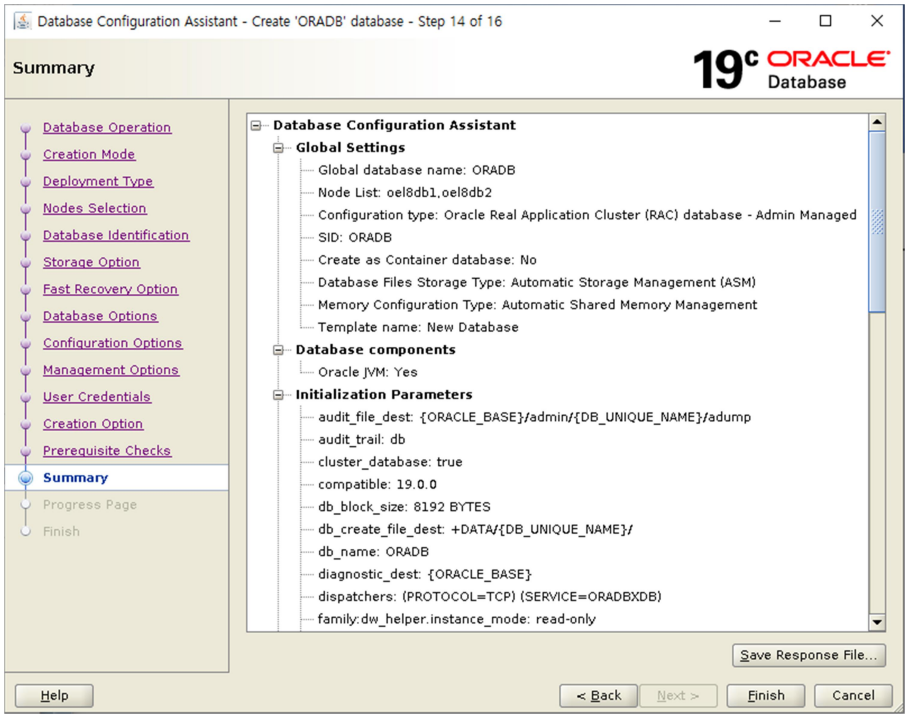
Scan 에러 무시



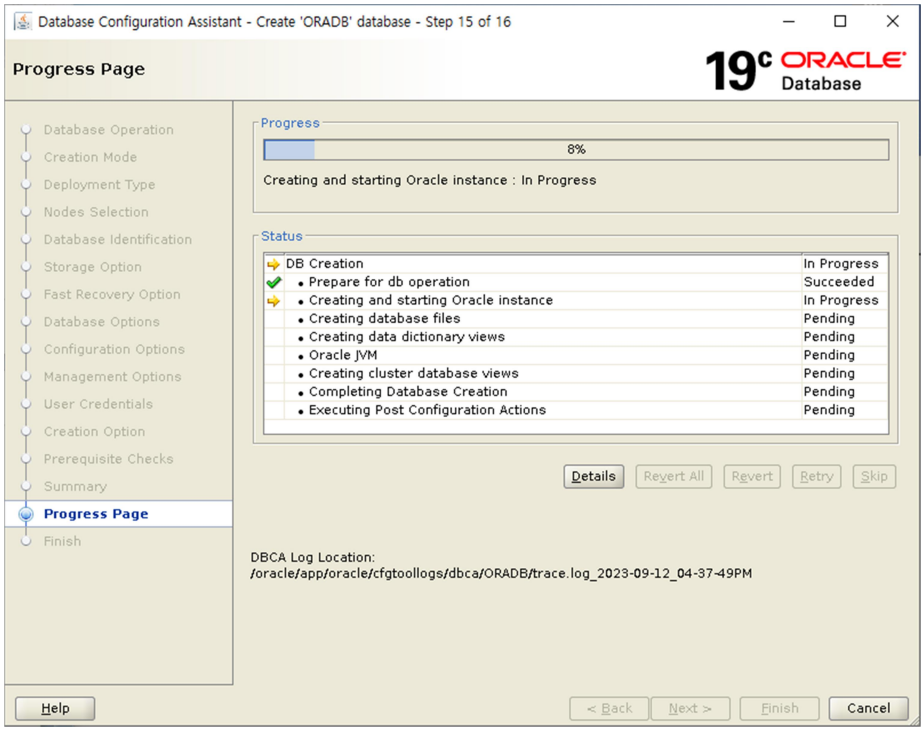
다음 단계 진행(YES)



설치 설정 종료(finish)



설치중



설치 종료

DB 생성 확인

```
# crsctl stat res -t
# sqlplus / as sysdba

SQL> select instance_name, version, status from gv$instance;

INSTANCE_NAME    VERSION           STATUS
---------------- ----------------- ------------
```

ORADB1	19.0.0.0.0	OPEN
ORADB2	19.0.0.0.0	OPEN

Root 유저 bash_profile 수정

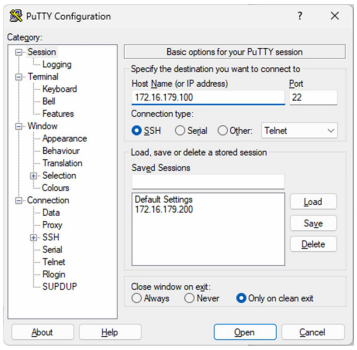
```
# su – root
# vi .bash_profile
(아래 등록)
# grid env
export ORACLE_BASE=/oracle/app/oracle
export ORACLE_HOME=$ORACLE_BASE/product/19c
export GRID_HOME=/oracle/app/grid/19c
export PATH=$ORACLE_HOME/bin:$GRID_HOME/bin:$PATH
export LD_LIBRARY_PATH=$ORACLE_HOME/lib:/lib:/usr/lib
export CLASSPATH=$ORACLE_HOME/jlib:$ORACLE_HOME/rdbms/jlib

# . .bash_profile
```

참고 : xlock 설치 및 구동

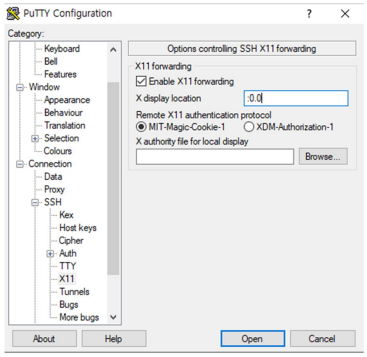
1) **xming 다운 및 설치 : https://sourceforge.net/projects/xming/**
2) **xclock 설치**

```
# dnf config-manager --enable ol8_codeready_builder
#  dnf install xorg-x11-apps
.....(생략)
================================================================================

Installing:
 xorg-x11-apps              x86_64        7.7-21.el8          ol8_codeready_builder     334 k
Installing dependencies:
 xorg-x11-fonts-misc        noarch        7.5-19.el8          ol8_appstream             5.8 M
 xorg-x11-xbitmaps          noarch        1.1.1-13.el8        ol8_appstream             42 k

Transaction Summary
================================================================================
Install  3 Packages

Total download size: 6.1 M
Installed size: 8.0 M
Is this ok [y/N]: y                    ← 설치 진행을 위해 y 입력
```

3) **xclock 실행**
   1. **putty실행(설치를 진행할 서버 아이피 입력)**



2. 왼쪽 목록에서 SSH -> X11 설정후 접속(oracle 계정으로)



3. display 설정 및 xclock 호출

```
# export DISPLAY=localhost:10.0
# xclock
```