

ORACLE RESTART AND DB UPGRADE 12CR2 TO 19C

Document Guide for DBA Internal Only

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Oracle Restart and DB Upgrade 12cR2 to 19c on RHEL7.7 x86_64

This activity based on Doc ID 2539778.1 and proven successful in Bank Indonesia. Upgrade path for 19c Oracle Database:

Source	Target
11.2.0.4	19c
12.1.0.2	19c
12.2.0.1	19c
18.1	19c

A. Gathering Information and Backup Database

The scripts available on: https://github.com/AzizPW/Oracle/blob/master/OraDBInfo.sql and https://github.com/AzizPW/Oracle/blob/master/RMAN-Fullbackup.sh

1. Gathering Information

```
[oracle@dc1sssdbo01 ~]$ . .db-profile
oracle@dc1sssdbo01 ~]$ env|grep ORA
ORACLE_SID=sss
ORACLE_BASE=/oracle
ORACLE_HOSTNAME=DC1SSSDB001.corp.bi.go.id
ORACLE_TERM=xterm
ORACLE_HOME=/oracle/product/12.2.0.1/db_1
[oracle@dc1sssdbo01 ~]$ srvctl config database -db sss
Database unique name: sss
Database name: sss
Oracle home: /oracle/product/12.2.0.1/db_1
Oracle user: oracle
Spfile: +SSS_DATA/SSS/PARAMETERFILE/spfile.266.1022348097
Password file:
Domain: corp.bi.go.id
Start options: open
Stop options: immediate
Database role: PRIMARY
Management policy: AUTOMATIC
Disk Groups: SSS_FRA,SSS_DATA
Services:
OSDBA group:
OSOPER group:
Database instance: sss
[oracle@dc1sssdbo01 ~]$ . .grid-profile
[oracle@dc1sssdbo01 ~]$ crsctl stat res -t
                                                             State details
Name
             Target State Server
Local Resources
ora.LISTENER.lsnr
```

	ONLINE	ONLINE	dc1sssdbo01	STABLE					
ora.LISTENER_G		ONLINE	dc1sssdbo01	STABLE					
ora.SSS_DATA.de				STABLE					
ora.SSS FRA.dg	ONLINE	ONLINE	dc1sssdbo01	STABLE					
ora.335_FRA.ug	ONLINE	ONLINE	dc1sssdbo01	STABLE					
ora.asm	ONL THE	ONLINE	da1aaadha01	Started,STABLE					
ora.ons	UNLINE	ONLINE	QC1222QD001	Started, STABLE					
	OFFLINE	OFFLINE	dc1sssdbo01	STABLE					
Cluster Resources									
ora.cssd									
1	ONLINE	ONLINE	dc1sssdbo01	STABLE					
ora.diskmon 1	OFFLINE	OFFLINE		STABLE					
ora.driver.afd	ONII TNIE	ONII TNIE	1-1	CTARL F					
1 ora.evmd	ONLINE	ONLINE	dc1sssdbo01	STABLE					
1	ONLINE	ONLINE	dc1sssdbo01	STABLE					
ora.sss.db 1	ONI THE	ONLINE	dc1sssdbo01	Open,HOME=/oracle/pr					
-	OHEIHE	OHEIHE	00133303001	oduct/12.2.0.1/db_1, STABLE					
[oracle@dc1sssdbo01 ~]\$ sqlplus / as sysdba									
SQL*Plus: Release 12.2.0.1.0 Production on Mon Jan 6 10:42:36 2020									
Copyright (c) 1982, 2016, Oracle. All rights reserved.									
Connected to: Oracle Database 12c Enterprise Edition Release 12.2.0.1.0 - 64bit Production									
SQL> @OraDBInfo.sql									

2. Backup Database

```
[oracle@dc1sssdbo01 ~]$ . .db-profile
[oracle@dc1sssdbo01 ~]$ sqlplus / as sysdba
SQL*Plus: Release 12.2.0.1.0 Production on Mon Jan 6 10:42:36 2020
Copyright (c) 1982, 2016, Oracle. All rights reserved.
Connected to:
Oracle Database 12c Enterprise Edition Release 12.2.0.1.0 - 64bit Production
SQL> create pfile='/backup/rman/initsss_20200101.ora' from spfile;
File created
SQL> exit
Disconnected from Oracle Database 12c Enterprise Edition Release 12.2.0.1.0 - 64bit Production
[oracle@dc1sssdbo01 ~]$ vi RMAN-Fullbackup.sh; chmod +x RMAN-Fullbackup.sh; cat RMAN-Fullbackup.sh;
#!/bin/bash
 /home/oracle/.db-profile; export NLS_DATE_FORMAT='DD-Mon-RR HH24:MI:SS';
$ORACLE_HOME/bin/rman target=/ log=/backup/rman/RMAN-Fullbackup_`date +%Y%m%d`.log << EOF
  CONFIGURE DEVICE TYPE DISK PARALLELISM 16;
  CROSSCHECK BACKUP;
  DELETE NOPROMPT EXPIRED BACKUP;
  CROSSCHECK ARCHIVELOG ALL;
  DELETE NOPROMPT EXPIRED ARCHIVELOG ALL;
  BACKUP AS COMPRESSED BACKUPSET SPFILE TAG 'SPFile' FORMAT '/backup/rman/SPF_%I%d%T_%s_%p.bkp';
```

```
SQL 'ALTER SYSTEM ARCHIVE LOG CURRENT';
BACKUP AS COMPRESSED BACKUPSET DATABASE TAG 'FULLDB' FORMAT '/backup/rman/DB_%I%d%T_%s_%p.bkp';
BACKUP AS COMPRESSED BACKUPSET ARCHIVELOG ALL DELETE ALL INPUT TAG 'ARCHIVELOGS' FORMAT
'/backup/rman/ARC_%I%d%T_%s_%p.bkp';
BACKUP AS COMPRESSED BACKUPSET CURRENT CONTROLFILE TAG 'PRIMCTRL' FORMAT
'/backup/rman/CTRL_%I%d%T_%s_%p.bkp';
BACKUP AS COMPRESSED BACKUPSET CURRENT CONTROLFILE FOR STANDBY TAG 'STBYCTRL' FORMAT
'/backup/rman/STBY_%I%d%T_%s_%p.bkp';
CONFIGURE DEVICE TYPE DISK CLEAR;}
EOF
[oracle@dc1sssdbo01 ~]$ nohup ./RMAN-Fullbackup.sh >> /backup/rman/nohupRMAN-Fullbackup_`date
+%Y%m%d`.log 2>&1 &
[1] 25376
[oracle@dc1sssdbo01 ~]$ tail -100f /backup/rman/RMAN-Fullbackup_20200106.log
```

B. Drop Database

You can choose drop database by using DBCA or SQL command line. If you wanna drop **RAC** DB by SQL command line, please ensure the **cluster_database=false** on the DB parameter.

```
[oracle@dc1sssdbo01 ~]$ . .db-profile
[oracle@dc1sssdbo01 ~]$ srvctl stop database -db sss
[oracle@dc1sssdbo01 ~]$ env|grep ORA; rlwrap sqlplus / as sysdba
ORACLE SID=sss
ORACLE_BASE=/oracle
ORACLE HOSTNAME=DC1SSSDB001.corp.bi.go.id
ORACLE TERM=xterm
ORACLE HOME=/oracle/product/12.2.0.1/db 1
SQL*Plus: Release 12.2.0.1.0 Production on Mon Jan 6 11:16:31 2020
Copyright (c) 1982, 2016, Oracle. All rights reserved.
Connected to an idle instance.
SQL> STARTUP MOUNT EXCLUSIVE RESTRICT;
ORACLE instance started.
Total System Global Area 8.1068E+10 bytes
Variable Size
                           29864808 bytes
                        1.3959E+10 bytes
Database Buffers
                       6.6840E+10 bytes
Redo Buffers
                          238567424 bytes
Database mounted.
SQL> SELECT NAME, DB_UNIQUE_NAME, DATABASE_ROLE FROM V$DATABASE;
NAME
          DB UNIQUE NAME
                                          DATABASE ROLE
SSS
                                          PRIMARY
SQL> select instance_name,status,host_name from v$instance;
INSTANCE NAME
                 STATUS
                             HOST NAME
                 MOUNTED
                             dc1sssdbo01.corp.bi.go.id
SQL> drop database;
Database dropped.
Disconnected from Oracle Database 12c Enterprise Edition Release 12.2.0.1.0 - 64bit Production
SQL> exit
```

C. Deinstall Oracle DB Software 12cR2

```
[oracle@dc1sssdbo01 ~]$ cd $ORACLE_HOME/deinstall; pwd;
/oracle/product/12.2.0.1/db_1/deinstall
[oracle@dc1sssdbo01 deinstall]$ env|grep ORA
ORACLE_SID=sss
ORACLE_BASE=/oracle
ORACLE HOSTNAME=DC1SSSDB001.corp.bi.go.id
ORACLE_TERM=xterm
ORACLE_HOME=/oracle/product/12.2.0.1/db_1
[oracle@dc1sssdbo01 deinstall]$ ./deinstall
Checking for required files and bootstrapping ...
Please wait ...
Location of logs /oracle/oraInventory/logs/
######### ORACLE DECONFIG TOOL START ##########
## [START] Install check configuration ##
Checking for existence of the Oracle home location /oracle/product/12.2.0.1/db_1
Oracle Home type selected for deinstall is: Oracle Single Instance Database
Oracle Base selected for deinstall is: /oracle
Checking for existence of central inventory location /oracle/oraInventory
## [END] Install check configuration ##
Network Configuration check config START
Network de-configuration trace file location: /oracle/oraInventory/logs/netdc_check2020-01-06_11-20-
35-AM.log
Network Configuration check config END
Database Check Configuration START
Database de-configuration trace file location: /oracle/oraInventory/logs/databasedc_check2020-01-
06 11-20-36-AM.log
Use comma as separator when specifying list of values as input
Specify the list of database names that are configured in this Oracle home [sss]: sss
###### For Database 'sss' ######
Specify the type of this database (1.Single Instance Database|2.Oracle Restart Enabled Database) [2]:
Specify the list of nodes on which this database has instances [dc1sssdbo01]: dc1sssdbo01
Specify the diagnostic destination location of the database [/oracle/diag/rdbms/sss]:
Specify the storage type used by the Database ASM|FS []: ASM
Specify if database Archive Mode is Enabled. y/n [n]: y
Database Check Configuration END
Oracle Configuration Manager check START
OCM check log file location : /oracle/oraInventory/logs//ocm_check2258.log
Oracle Configuration Manager check END
Oracle Home selected for deinstall is: /oracle/product/12.2.0.1/db 1
Inventory Location where the Oracle home registered is: /oracle/oraInventory
The following databases were selected for de-configuration : sss
Database unique name : sss
Storage used: ASM
```

```
Checking the config status for CCR
Oracle Home exists with CCR directory, but CCR is not configured
CCR check is finished
Do you want to continue (y - yes, n - no)? [n]: \mathbf{y}
A log of this session will be written to: '/oracle/oraInventory/logs/deinstall_deconfig2020-01-06_11-
20-35-AM.out
Any error messages from this session will be written to:
'/oracle/oraInventory/logs/deinstall deconfig2020-01-06 11-20-35-AM.err'
Database de-configuration trace file location: /oracle/oraInventory/logs/databasedc_clean2020-01-
06_11-22-36-AM.log
Database Clean Configuration START sss
This operation may take few minutes.
Database Clean Configuration END sss
Network Configuration clean config START
Network de-configuration trace file location: /oracle/oraInventory/logs/netdc_clean2020-01-06_11-23-
18-AM.log
De-configuring Local Net Service Names configuration file...
Local Net Service Names configuration file de-configured successfully.
De-configuring backup files...
Backup files de-configured successfully.
The network configuration has been cleaned up successfully.
Network Configuration clean config END
Oracle Configuration Manager clean START
OCM clean log file location : /oracle/oraInventory/logs//ocm_clean2258.log
Oracle Configuration Manager clean END
Successfully de-configured the following database instances : sss
Cleaning the config for CCR
As CCR is not configured, so skipping the cleaning of CCR configuration
CCR clean is finished
######### ORACLE DECONFIG TOOL END ###########
Using properties file /tmp/deinstall2020-01-06_11-20-18AM/response/deinstall_2020-01-06_11-20-35-
AM.rsp
Location of logs /oracle/oraInventory/logs/
########## ORACLE DEINSTALL TOOL START ###########
A log of this session will be written to: '/oracle/oraInventory/logs/deinstall_deconfig2020-01-06_11-
20-35-AM.out
Any error messages from this session will be written to:
'/oracle/oraInventory/logs/deinstall_deconfig2020-01-06_11-20-35-AM.err'
## [START] Preparing for Deinstall ##
Setting LOCAL NODE to dc1sssdbo01
Setting CRS_HOME to false
Setting oracle.installer.invPtrLoc to /tmp/deinstall2020-01-06_11-20-18AM/oraInst.loc
Setting oracle.installer.local to false
```

```
## [END] Preparing for Deinstall ##
Setting the force flag to false
Setting the force flag to cleanup the Oracle Base
Oracle Universal Installer clean START
Detach Oracle home '/oracle/product/12.2.0.1/db_1' from the central inventory on the local node :
Delete directory '/oracle/product/12.2.0.1/db_1' on the local node : Done
The Oracle Base directory '/oracle' will not be removed on local node. The directory is in use by
Oracle Home '/oracle/product/12.2.0.1/grid'.
The Oracle Base directory '/oracle' will not be removed on local node. The directory is in use by
central inventory.
Oracle Universal Installer cleanup was successful.
Oracle Universal Installer clean END
## [START] Oracle install clean ##
## [END] Oracle install clean ##
Successfully detached Oracle home '/oracle/product/12.2.0.1/db 1' from the central inventory on the
Successfully deleted directory '/oracle/product/12.2.0.1/db 1' on the local node.
Oracle Universal Installer cleanup was successful.
Review the permissions and contents of '/oracle' on nodes(s) 'dc1sssdbo01'.
If there are no Oracle home(s) associated with '/oracle', manually delete '/oracle' and its contents.
Oracle deinstall tool successfully cleaned up temporary directories.
########## ORACLE DEINSTALL TOOL END ############
[oracle@dc1sssdbo01 deinstall]$ cd ~
oracle@dc1sssdbo01 ~]$
```

D. Deinstall Oracle Gateways 12cR2 (if exists)

```
[oracle@dc1sssdbo01 ~]$ ps -ef|grep tnsl
oracle 12288
                   1
                          2019 ?
                                          00:01:40 /oracle/product/12.2.0.1/grid/bin/tnslsnr LISTENER -
no_crs_notify -inherit
oracle 12300
                   1 0
                                          00:03:32 /oracle/product/12.2.0.1/GW1_HOME/bin/tnslsnr
LISTENER_GTW -no_crs_notify -inherit
oracle 32428 28008 0 11:26 pts/2 00:00:00 grep --color=auto tnsl [oracle@dc1sssdbo01 ~]$ export ORACLE_HOME=/oracle/product/12.2.0.1/GW1_HOME
         32428 28008 0 11:26 pts/2
[oracle@dc1sssdbo01 ~]$ cd $0RACLE_HOME/
[oracle@dc1sssdbo01 GW1_HOME]$ bin/lsnrctl status LISTENER_GTW
LSNRCTL for Linux: Version 12.2.0.1.0 - Production on 06-JAN-2020 11:28:30
Copyright (c) 1991, 2016, Oracle. All rights reserved.
Connecting to (DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=dc1sssdbo01.corp.bi.go.id)(PORT=1522)))
STATUS of the LISTENER
                            LISTENER_GTW
Alias
```

```
TNSLSNR for Linux: Version 12.2.0.1.0 - Production
Version
Start Date
                       28-OCT-2019 10:05:44
Uptime
                       70 days 1 hr. 22 min. 46 sec
Trace Level
                       off
                       ON: Local OS Authentication
Security
SNMP
                       0FF
Listener Parameter File
                       /oracle/product/12.2.0.1/GW1_HOME/network/admin/listener.ora
Listener Log File
                       /oracle/diag/tnslsnr/dc1sssdbo01/listener gtw/alert/log.xml
Listening Endpoints Summary...
 (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp)(HOST=dc1sssdbo01.corp.bi.go.id)(PORT=1522)))
 (DESCRIPTION=(ADDRESS=(PROTOCOL=ipc)(KEY=EXTPROC1522)))
The listener supports no services
The command completed successfully
[oracle@dc1sssdbo01 GW1_HOME]$ bin/lsnrctl stop LISTENER_GTW
LSNRCTL for Linux: Version 12.2.0.1.0 - Production on 06-JAN-2020 11:29:14
Copyright (c) 1991, 2016, Oracle. All rights reserved.
Connecting to (DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=dc1sssdbo01.corp.bi.go.id)(PORT=1522)))
The command completed successfully
[oracle@dc1sssdbo01 GW1_HOME]$ ps -ef|grep tnsl
                                   . 00:01:40 /oracle/product/12.2.0.1/grid/bin/tnslsnr LISTENER -
ōracle
       12288
                1 0 2019 ?
no_crs_notify -inherit
       32670 28008 0 11:29 pts/2
                                   00:00:00 grep --color=auto tnsl
[oracle@dc1sssdbo01 GW1_HOME]$ cd deinstall/
[oracle@dc1sssdbo01 deinstall]$ ./deinstall
Checking for required files and bootstrapping ...
Please wait
Location of logs /oracle/oraInventory/logs/
######### ORACLE DECONFIG TOOL START ##########
## [START] Install check configuration ##
Checking for existence of the Oracle home location /oracle/product/12.2.0.1/GW1_HOME
Oracle Home type selected for deinstall is: Oracle Database Gateway
Oracle Base selected for deinstall is: /oracle
Checking for existence of central inventory location /oracle/oraInventory
## [END] Install check configuration ##
Network Configuration check config START
Network de-configuration trace file location: /oracle/oraInventory/logs/netdc_check2020-01-06_11-30-
29-AM.log
Specify all Oracle Restart enabled listeners that are to be de-configured. Enter .(dot) to deselect
all. [LISTENER_GTW]: LISTENER_GTW
Network Configuration check config END
Oracle Home selected for deinstall is: /oracle/product/12.2.0.1/GW1 HOME
Inventory Location where the Oracle home registered is: /oracle/oraInventory
Do you want to continue (y - yes, n - no)? [n]: y
A log of this session will be written to: '/oracle/oraInventory/logs/deinstall_deconfig2020-01-06_11-
30-29-AM.out'
Any error messages from this session will be written to:
'/oracle/oraInventory/logs/deinstall_deconfig2020-01-06_11-30-29-AM.err'
```

```
Network Configuration clean config START
Network de-configuration trace file location: /oracle/oraInventory/logs/netdc_clean2020-01-06_11-30-
48-AM.log
De-configuring Oracle Restart enabled listener(s): LISTENER_GTW
De-configuring listener: LISTENER GTW
   Stopping listener: LISTENER_GTW
   Warning: Failed to stop listener. Listener may not be running.
   Unregistering listener: LISTENER GTW
   Listener unregistered successfully.
   Deleting listener: LISTENER GTW
   Listener deleted successfully.
Listener de-configured successfully.
De-configuring Naming Methods configuration file...
Naming Methods configuration file de-configured successfully.
De-configuring backup files...
Backup files de-configured successfully.
The network configuration has been cleaned up successfully.
Network Configuration clean config END
Following Oracle Restart enabled listener(s) were de-configured successfully: LISTENER_GTW
######### ORACLE DECONFIG TOOL END ###########
Using properties file /tmp/deinstall2020-01-06_11-30-10AM/response/deinstall_2020-01-06_11-30-29-
Location of logs /oracle/oraInventory/logs/
######### ORACLE DEINSTALL TOOL START ##########
A log of this session will be written to: '/oracle/oraInventory/logs/deinstall_deconfig2020-01-06_11-
30-29-AM.out'
Any error messages from this session will be written to:
'/oracle/oraInventory/logs/deinstall deconfig2020-01-06 11-30-29-AM.err'
## [START] Preparing for Deinstall ##
Setting LOCAL_NODE to dc1sssdbo01
Setting CRS HOME to false
Setting oracle.installer.invPtrLoc to /tmp/deinstall2020-01-06_11-30-10AM/oraInst.loc
Setting oracle.installer.local to false
## [END] Preparing for Deinstall ##
Setting the force flag to false
Setting the force flag to cleanup the Oracle Base
Oracle Universal Installer clean START
Detach Oracle home '/oracle/product/12.2.0.1/GW1_HOME' from the central inventory on the local node :
Done
Delete directory '/oracle/product/12.2.0.1/GW1_HOME' on the local node : Done
```

```
The Oracle Base directory '/oracle' will not be removed on local node. The directory is in use by
Oracle Home '/oracle/product/12.2.0.1/grid'.
The Oracle Base directory '/oracle' will not be removed on local node. The directory is in use by
central inventory.
Oracle Universal Installer cleanup was successful.
Oracle Universal Installer clean END
## [START] Oracle install clean ##
## [END] Oracle install clean ##
Successfully detached Oracle home '/oracle/product/12.2.0.1/GW1 HOME' from the central inventory on
the local node.
Successfully deleted directory '/oracle/product/12.2.0.1/GW1_HOME' on the local node.
Oracle Universal Installer cleanup was successful.
Review the permissions and contents of '/oracle' on nodes(s) 'dc1sssdbo01'. If there are no Oracle home(s) associated with '/oracle', manually delete '/oracle' and its contents. Oracle deinstall tool successfully cleaned up temporary directories.
[oracle@dc1sssdbo01 deinstall]$ cd ~
[oracle@dc1sssdbo01 ~]$
```

E. Deinstall Grid Infrastructure 12cR2

```
[oracle@dc1sssdbo01 ~]$ . .grid-profile
[oracle@dc1sssdbo01 ~]$ rlwrap sqlplus / as sysasm
SQL*Plus: Release 12.2.0.1.0 Production on Mon Jan 6 11:36:44 2020
Copyright (c) 1982, 2016, Oracle. All rights reserved.
Connected to:
Oracle Database 12c Enterprise Edition Release 12.2.0.1.0 - 64bit Production
SQL> set lines 250 pages 5000 timing on;
SOL> COL PATH FOR A50;
SOL> COL NAME FOR A25;
SQL> SELECT
MOUNT_STATUS, HEADER_STATUS, STATE, ROUND(TOTAL_MB/1024,2)TOTAL_GB, ROUND(FREE_MB/1024,2)FREE_GB, NAME, PAT
H FROM V$ASM_DISK ORDER BY NAME;
MOUNT_S HEADER_STATU STATE
                                TOTAL_GB
                                             FREE_GB NAME
                                                                                 PATH
------ ----<del>-</del>-- ------
CACHED MEMBER
                NORMAL
NORMAL
                                      200
                                              199.93 FRA1
                                                                                 AFD:SSS_FRA1
CACHED
       MEMBER
                     NORMAL
                                      200
                                              199.93 FRA2
                                                                                 AFD:SSS_FRA2
CACHED MEMBER
                     NORMAL
                                              499.96 SSS_DATA1
                                      500
                                                                                 AFD:SSS_DATA1
CACHED MEMBER
                     NORMAL
                                              499.95 SSS DATA2
                                                                                 AFD:SSS DATA2
                                      500
CACHED MEMBER
                     NORMAL
                                      500
                                              499.97 SSS_DATA3
                                                                                 AFD:SSS_DATA3
CACHED MEMBER
                     NORMAL
                                      500
                                              499.97 SSS_DATA4
                                                                                 AFD:SSS_DATA4
IGNORED MEMBER
                                                                                 /dev/sddlmae1
                     NORMAL
                                        0
                                                   0
IGNORED MEMBER
                     NORMAL
                                        0
                                                                                 /dev/sddlmab1
                                                    0
```

```
IGNORED MEMBER
                     NORMAL
                                                                                 /dev/sddlmaf1
IGNORED MEMBER
                     NORMAL
                                        0
                                                                                 /dev/sddlmad1
                                                   0
IGNORED MEMBER
                     NORMAL
                                        0
                                                   0
                                                                                 /dev/sddlmaa1
IGNORED MEMBER
                     NORMAI
                                        0
                                                   0
                                                                                 /dev/sddlmac1
12 rows selected.
Elapsed: 00:00:00.05
SQL> SELECT
NAME, TYPE, ROUND(TOTAL_MB/1024,2)TOTAL_GB, ROUND(FREE_MB/1024,2)FREE_GB, ROUND(USABLE_FILE_MB/1024,2)USA
BLE_FILE_GB,STATE,SECTOR_SIZE,BLOCK_SIZE FROM V$ASM_DISKGROUP ORDER BY NAME;
                          TYPE
                                    TOTAL GB
                                                FREE GB USABLE FILE GB STATE
                                                                                     SECTOR SIZE
BLOCK_SIZE
         ......
SSS_DATA
                          EXTERN
                                     1999.98
                                                1999.85
                                                                1999.85 MOUNTED
                                                                                             512
4096
SSS_FRA
                          EXTERN
                                      399.99
                                                 399.87
                                                                 399.87 MOUNTED
                                                                                             512
4096
Elapsed: 00:00:00.02
SOL > COL ASMDISK FOR A15;
SQL> COL DISKGROUP FOR A25;
SQL> SELECT DG.NAME DISKGROUP, DG. TYPE, D. NAME
ASMDISK, D.PATH, ROUND(D.TOTAL_MB/1024,2)TOTAL_GB, ROUND(D.FREE_MB/1024,2)FREE_GB, D.VOTING_FILE, DG.SECTO R_SIZE, DG.BLOCK_SIZE FROM V$ASM_DISKGROUP DG JOIN V$ASM_DISK D ON DG.GROUP_NUMBER=D.GROUP_NUMBER
ORDER BY 3;
DISKGROUP
                          TYPE ASMDISK
                                                   PATH
            FREE_GB V SECTOR_SIZE BLOCK_SIZE
TOTAL_GB
                                                  ______
SSS_FRA
                         EXTERN FRA1
                                                  AFD:SSS_FRA1
200
       199.93 N
                         512
                                    4096
SSS_FRA
                          EXTERN FRA2
                                                  AFD:SSS_FRA2
200
       199.93 N
                         512
                                    4096
                          EXTERN SSS DATA1
SSS_DATA
                                                  AFD:SSS_DATA1
500
        499.96 N
                         512
                                    4096
                          EXTERN SSS DATA2
SSS_DATA
                                                  AFD:SSS_DATA2
500
       499.95 N
                          512
                                    4096
SSS_DATA
                          EXTERN SSS_DATA3
                                                  AFD:SSS_DATA3
500
       499.97 N
                                    4096
                          512
SSS DATA
                          EXTERN SSS DATA4
                                                   AFD:SSS DATA4
        499.97 N
500
                                    4096
                          512
6 rows selected.
Elapsed: 00:00:00.03
SQL > COL VOLUME_NAME FOR A10;
SQL> COL USAGE FOR A10;
SOL> COL MOUNTPATH FOR A35;
SQL> COL VOLUME_DEVICE FOR A30;
SQL> SELECT
GROUP NUMBER, VOLUME NAME, ROUND(SIZE MB/1024,2)SIZE GB, VOLUME NUMBER, REDUNDANCY, STATE, FILE NUMBER, USAG
E, VOLUME_DEVÍCE, MOUNTPATH FROM V$ASM_VOLUME;
no rows selected
Elapsed: 00:00:00.00
SQL> exit
Disconnected from Oracle Database 12c Enterprise Edition Release 12.2.0.1.0 - 64bit Production
[oracle@dc1sssdbo01 ~]$ . .grid-profile
[oracle@dc1sssdbo01 ~]$ env[grep ORA
ORACLE SID=+ASM
ORACLE_BASE=/oracle
ORACLE_HOSTNAME=DC1SSSDB001.corp.bi.go.id
ORACLE_TERM=xterm
ORACLE_HOME=/oracle/product/12.2.0.1/grid
[oracle@dc1sssdbo01 ~]$ cd $ORACLE_HOME/deinstall
[oracle@dc1sssdbo01 deinstall]$ ./deinstall
```

```
Checking for required files and bootstrapping ...
Please wait
Location of logs /tmp/deinstall2020-01-06_11-35-51AM/logs/
######### ORACLE DECONFIG TOOL START ##########
## [START] Install check configuration ##
Checking for existence of the Oracle home location /oracle/product/12.2.0.1/grid
Oracle Home type selected for deinstall is: Oracle Grid Infrastructure for a Standalone Server
Oracle Base selected for deinstall is: /oracle
Checking for existence of central inventory location /oracle/oraInventory
Checking for existence of the Oracle Grid Infrastructure home /oracle/product/12.2.0.1/grid
## [END] Install check configuration ##
Traces log file: /tmp/deinstall2020-01-06_11-35-51AM/logs//crsdc_2020-01-06_11-36-06-AM.log
Network Configuration check config START
Network de-configuration trace file location: /tmp/deinstall2020-01-06_11-35-
51AM/logs/netdc_check2020-01-06_11-36-06-AM.log
Specify all Oracle Restart enabled listeners that are to be de-configured. Enter .(dot) to deselect
all. [LISTENER]: LISTENER
Network Configuration check config END
Asm Check Configuration START
ASM de-configuration trace file location: /tmp/deinstall2020-01-06_11-35-51AM/logs/asmcadc_check2020-
01-06 11-36-14-AM.log
Automatic Storage Management (ASM) instance is detected in this Oracle home
/oracle/product/12.2.0.1/grid.
ASM Diagnostic Destination : /oracle
ASM Diskgroups : +SSS DATA,+SSS FRA
ASM diskstring : AFD:*,/dev/sddlma*1
Diskgroups will be dropped and all ASM filter driver labels will be cleared
De-configuring ASM will drop all the diskgroups and their contents at cleanup time. Also ASM filter
driver labels will be cleared. This will affect all of the databases and ACFS that use this ASM
instance(s).
If you want to retain the existing diskgroups and associated ASM filter driver labels or if any of
the information detected is incorrect, you can modify by entering 'y'. Do you want to modify above
information (y|n) [n]: n
Database Check Configuration START
Database de-configuration trace file location: /tmp/deinstall2020-01-06_11-35-
51AM/logs/databasedc check2020-01-06 11-39-11-AM.log
Database Check Configuration END
Oracle Grid Infrastructure Home is: /oracle/product/12.2.0.1/grid
Oracle Home selected for deinstall is: /oracle/product/12.2.0.1/grid
Inventory Location where the Oracle home registered is: /oracle/oraInventory
Following Oracle Restart enabled listener(s) will be de-configured: LISTENER
ASM instance will be de-configured from this Oracle home
Do you want to continue (y - yes, n - no)? [n]: y
A log of this session will be written to: '/tmp/deinstall2020-01-06_11-35-
51AM/logs/deinstall_deconfig2020-01-06_11-36-06-AM.out'
Any error messages from this session will be written to: '/tmp/deinstall2020-01-06_11-35-
51AM/logs/deinstall_deconfig2020-01-06_11-36-06-AM.err
```

```
Database de-configuration trace file location: /tmp/deinstall2020-01-06 11-35-
51AM/logs/databasedc_clean2020-01-06_11-39-21-AM.log
ASM de-configuration trace file location: /tmp/deinstall2020-01-06_11-35-51AM/logs/asmcadc_clean2020-
01-06_11-39-21-AM.log
ASM Clean Configuration START
ASM Clean Configuration END
Network Configuration clean config START
Network de-configuration trace file location: /tmp/deinstall2020-01-06_11-35-
51AM/logs/netdc_clean2020-01-06_11-41-23-AM.log
De-configuring Oracle Restart enabled listener(s): LISTENER
De-configuring listener: LISTENER
   Stopping listener: LISTENER
   Listener stopped successfully
   Unregistering listener: LISTENER
   Listener unregistered successfully.
   Deleting listener: LISTENER
   Listener deleted successfully
Listener de-configured successfully.
De-configuring Naming Methods configuration file...
Naming Methods configuration file de-configured successfully.
De-configuring backup files...
Backup files de-configured successfully.
The network configuration has been cleaned up successfully.
Network Configuration clean config END
---->
Run the following command as the root user or the administrator on node "dc1sssdbo01".
oracle/product/12.2.0.1/grid/crs/install/roothas.sh -force -deconfig -paramfile/
/tmp/deinstall2020-01-06_11-35-51AM/response/deinstall_OraGI12Home1.rsp
Press Enter after you finish running the above commands
<-----
ASM instance was de-configured successfully from the Oracle home
Following Oracle Restart enabled listener(s) were de-configured successfully: LISTENER
Oracle Restart was already stopped and de-configured on node "dc1sssdbo01"
Oracle Restart is stopped and de-configured successfully.
########## ORACLE DECONFIG TOOL END ###########
Using properties file /tmp/deinstall2020-01-06 11-35-51AM/response/deinstall 2020-01-06 11-36-06-
AM.rsp
Location of logs /tmp/deinstall2020-01-06 11-35-51AM/logs/
########## ORACLE DEINSTALL TOOL START ##########
```

```
A log of this session will be written to: '/tmp/deinstall2020-01-06 11-35-
51AM/logs/deinstall_deconfig2020-01-06_11-36-06-AM.out
Any error messages from this session will be written to: '/tmp/deinstall2020-01-06_11-35-51AM/logs/deinstall_deconfig2020-01-06_11-36-06-AM.err'
## [START] Preparing for Deinstall ##
Setting LOCAL NODE to dc1sssdbo01
Setting CRS_HOME to true
Setting oracle.installer.invPtrLoc to /tmp/deinstall2020-01-06_11-35-51AM/oraInst.loc
Setting oracle.installer.local to false
## [END] Preparing for Deinstall ##
Setting the force flag to false
Setting the force flag to cleanup the Oracle Base
Oracle Universal Installer clean START
Detach Oracle home '/oracle/product/12.2.0.1/grid' from the central inventory on the local node :
Delete directory '/oracle/product/12.2.0.1/grid' on the local node : Done
Delete directory '/oracle/oraInventory' on the local node : Done
Failed to delete the directory '/oracle/log/diag/asmcmd/user_root/dc1sssdbo01.corp.bi.go.id/trace'.
Either user has no permission to delete or it is in use.
The Oracle Base directory '/oracle' will not be removed on local node. The directory is not empty.
Oracle Universal Installer cleanup was successful.
Oracle Universal Installer clean END
## [START] Oracle install clean ##
## [END] Oracle install clean ##
Successfully detached Oracle home '/oracle/product/12.2.0.1/grid' from the central inventory on the
local node.
Successfully deleted directory '/oracle/product/12.2.0.1/grid' on the local node. Successfully deleted directory '/oracle/oraInventory' on the local node.
Oracle Universal Installer cleanup was successful.
Run 'rm -r /etc/oraInst.loc' as root on node(s) 'dc1sssdbo01' at the end of the session.
Run 'rm -r /opt/ORCLfmap' as root on node(s) 'dc1sssdbo01' at the end of the session. Run 'rm -r /etc/oratab' as root on node(s) 'dc1sssdbo01' at the end of the session.
Review the permissions and contents of '/oracle' on nodes(s) 'dc1sssdbo01'.

If there are no Oracle home(s) associated with '/oracle', manually delete '/oracle' and its contents.
Oracle deinstall tool successfully cleaned up temporary directories.
########## ORACLE DEINSTALL TOOL END ############
[oracle@dc1sssdbo01 deinstall]$ cd ~
[oracle@dc1sssdbo01 ~]$
[root@dc1sssdbo01 ~]# cd /oracle/product/12.2.0.1/grid/crs/install
[root@dc1sssdbo01 install]# ./roothas.sh -force -deconfig -paramfile "/tmp/deinstall2020-01-06_11-
35-51AM/response/deinstall_0raGI12Home1.rsp"
Using configuration parameter file: /tmp/deinstall2020-01-06_11-35-
51AM/response/deinstall OraGI12Home1.rsp
```

```
The log of current session can be found at:
    /tmp/deinstall2020-01-06_11-35-51AM/logs/hadeconfig.log

CRS-2791: Starting shutdown of Oracle High Availability Services-managed resources on 'dc1sssdbo01'

CRS-2673: Attempting to stop 'ora.ewmd' on 'dc1sssdbo01'

CRS-2677: Stop of 'ora.ewmd' on 'dc1sssdbo01' succeeded

CRS-2673: Attempting to stop 'ora.cssd' on 'dc1sssdbo01'

CRS-2677: Stop of 'ora.cssd' on 'dc1sssdbo01' succeeded

CRS-2673: Attempting to stop 'ora.driver.afd' on 'dc1sssdbo01'

CRS-2677: Stop of 'ora.driver.afd' on 'dc1sssdbo01'

CRS-2677: Stop of 'ora.driver.afd' on 'dc1sssdbo01' succeeded

CRS-2793: Shutdown of Oracle High Availability Services-managed resources on 'dc1sssdbo01' has completed

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

2020/01/06 11:44:49 CLSRSC-337: Successfully deconfigured Oracle Restart stack

[root@dc1sssdbo01 install]# cd /home/oracle

[root@dc1sssdbo01 oracle]# rm -r /etc/oraInst.loc

rm: remove regular file '/etc/oraInst.loc'?

[root@dc1sssdbo01 oracle]# rm -rf /etc/oraInst.loc

[root@dc1sssdbo01 oracle]# rm -rf /etc/oraInst.loc

[root@dc1sssdbo01 oracle]# rm -rf /etc/oratab

[root@dc1sssdbo01 oracle]# rm -rf /etc/oratab

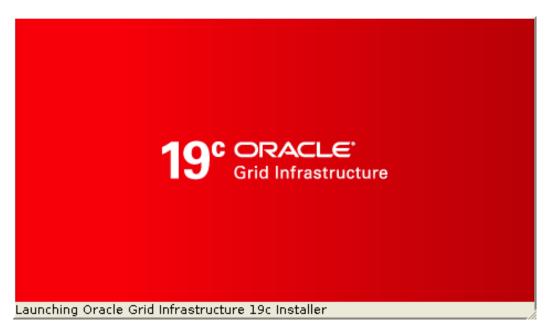
[root@dc1sssdbo01 oracle]# rm -rf /etc/oratab
```

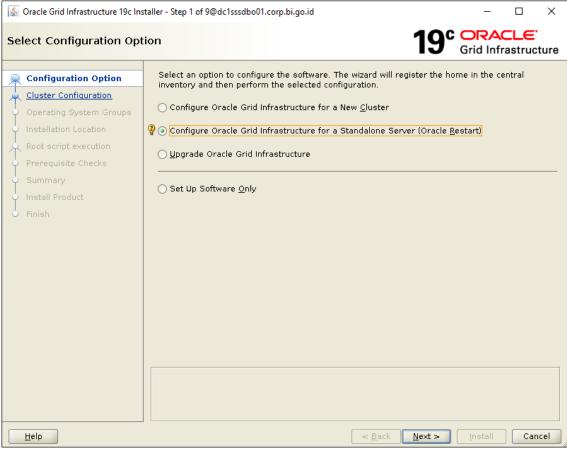
F. Emptying ASM Disks and reboot

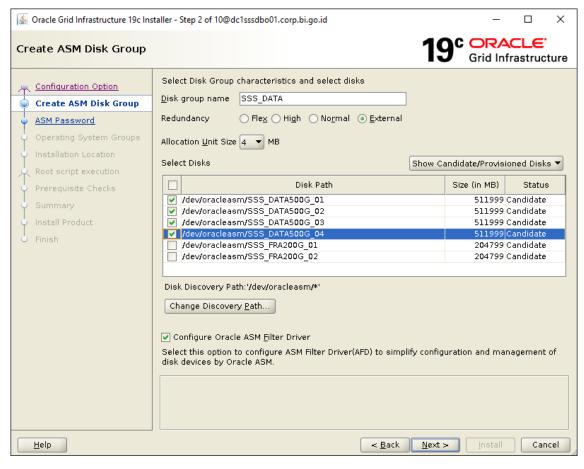
G. Install Grid Infrastructure 19c

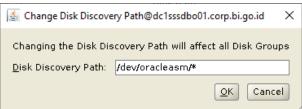
```
[oracle@dc1sssdbo01 ~]$ vi .grid-profile
[oracle@dc1sssdbo01 ~]$ cat .grid-profile
export TMP=/tmp
export TMPDIR=$TMP
export ORACLE_HOSTNAME=DC1SSSDB001.corp.bi.go.id
export ORACLE BASE=/oracle
#export ORACLE_HOME=/oracle/product/12.2.0.1/grid
export ORACLE_HOME=/oracle/product/19.3.0.0/grid export ORACLE_SID=+ASM
export ORACLE_TERM=xterm
export BASE_PATH=/usr/sbin:$PATH
export PATH=$ORACLE_HOME/bin:$BASE_PATH
export LD LIBRARY PATH=$ORACLE HOME/lib:/lib:/usr/lib
export CLASSPATH=$ORACLE_HOME/JRE:$ORACLE_HOME/jlib:$ORACLE_HOME/rdbms/jlib
alias alertlog='tail -200f /oracle/diag/asm/+asm/+ASM/trace/alert_+ASM.log'
[oracle@dc1sssdbo01 ~]$ . .grid-profile
oracle@dc1sssdbo01 ~]$ env[grep ORA
ORACLE_SID=+ASM
ORACLE_BASE=/oracle
ORACLE_HOSTNAME=DC1SSSDB001.corp.bi.go.id
ORACLE TERM=xterm
ORACLE_HOME=/oracle/product/19.3.0.0/grid
[oracle@dc1sssdbo01 ~]$ mkdir -p $ORACLE_HOME; cd $ORACLE_HOME; pwd
```

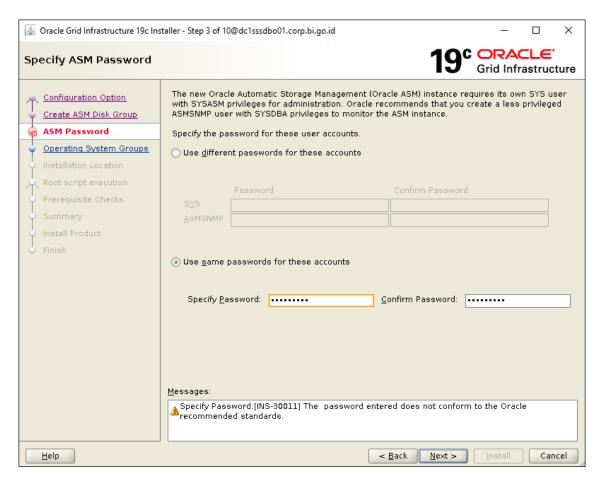
```
/oracle/product/19.3.0.0/grid
[oracle@dc1sssdbo01 grid]$ unzip ~/sources/LINUX.X64_193000_grid_home.zip
 extracting: md/jlib/geocoder.ear.zip
                                                     -> ../nls/lbuilder/lbuilder
      linking: bin/lbuilder
     linking: lib/libocci.so
linking: lib/libagtsh.so
                                                     -> libocci.so.19.1
                                                     -> libagtsh.so.1.0
      linking: lib/libodm19.so
                                                     -> libodmd19.so
      linking: lib/libclntsh.so
                                                    -> libclntsh.so.19.1
                                                    -> ../javavm/jdk/jdk8/lib/libjavavm19.a
-> ../../javavm/jdk/jdk8/lib/jce.jar
      linking: lib/libjavavm19.a
     linking: javavm/lib/jce.jar
     linking: lib/libocci.so.18.1
                                                     -> libocci.so
      linking: jdk/bin/ControlPanel
                                                     -> jcontrol
                                                     -> ../../javavm/jdk/jdk8/admin/cbp.jar
-> libclntshcore.so.19.1
      linking: javavm/admin/cbp.jar
      linking: lib/libclntshcore.so
      linking: lib/libclntsh.so.12.1
                                                     -> libclntsh.so
      linking: lib/libclntsh.so.18.1
                                                     -> libclntsh.so
      linking: lib/libclntsh.so.11.1
                                                     -> libclntsh.so
     linking: lib/libclntsh.so.10.1
                                                    -> libclntsh.so
     linking: jdk/jre/bin/ControlPanel -> jcontrol
linking: javavm/admin/libjtcjt.so -> ./../javavm/jdk/jdk8/admin/libjtcjt.so
     linking: javavm/admin/classes.bin -> ../../javavm/jdk/jdk8/admin/classes.bin linking: javavm/admin/classes.bin -> ../../javavm/jdk/jdk8/admin/lfclasses.bin linking: javavm/admin/lfclasses.bin -> ../../javavm/jdk/jdk8/lib/security/cacerts linking: javavm/lib/security/cacerts -> ../../javavm/jdk/jdk8/lib/security/cacerts linking: javavm/lib/security/README.txt -> ../../javavm/jdk/jdk8/lib/security/README.txt linking: javavm/lib/security/java.security -> ../../javavm/jdk/jdk8/lib/security/README.txt
../../javavm/jdk/jdk8/lib/security/java.security
      linking: jdk/jre/lib/amd64/server/libjsig.so -> ../libjsig.so
extracting: install/.img.bin finishing deferred symbolic links:
  lib/libocti.so -> libocti.so.19.1
lib/libodr10
  lib/libodm19.so
                                   -> libodmd19.so
  lib/libclntsh.so
                                   -> libclntsh.so.19.1
  lib/libjavavm19.a
                                   -> ../javavm/jdk/jdk8/lib/libjavavm19.a
                                  -> ../../javavm/jdk/jdk8/lib/jce.jar
-> libocci.so
  javavm/l̃ib/jce.jar
  lib/libocci.so.18.1
  jdk/bin/ControlPanel
                                   -> jcontrol
   javavm/admin/cbp.jar
                                  -> ../../javavm/jdk/jdk8/admin/cbp.jar
-> libclntshcore.so.19.1
  lib/libclntshcore.so
  lib/libclntsh.so.12.1 -> libclntsh.so
  lib/libclntsh.so.18.1 -> libclntsh.so
  lib/libclntsh.so.11.1 -> libclntsh.so
  lib/libclntsh.so.10.1 -> libclntsh.so
  lib/libcIntsh.so.10.1 -> libcIntsh.so
jdk/jre/bin/ControlPanel -> jcontrol
javavm/admin/libjtcjt.so -> ../../javavm/jdk/jdk8/admin/libjtcjt.so
javavm/admin/classes.bin -> ../../javavm/jdk/jdk8/admin/classes.bin
javavm/admin/lfclasses.bin -> ../../javavm/jdk/jdk8/admin/lfclasses.bin
javavm/lib/security/cacerts -> ../../javavm/jdk/jdk8/lib/security/cacerts
javavm/lib/security/README.txt -> ../../javavm/jdk/jdk8/lib/security/README.txt
javavm/lib/security/README.txt -> ../../../javavm/jdk/jdk8/lib/security/README.txt
  javavm/lib/security/java.security -> ../../javavm/jdk/jdk8/lib/security/java.security
jdk/jre/lib/amd64/server/libjsig.so -> ../libjsig.so
[oracle@dc1sssdbo01 grid]$ ./gridSetup.sh
Launching Oracle Grid Infrastructure Setup Wizard...
The response file for this session can be found at:
 /oracle/product/19.3.0.0/grid/install/response/grid_2020-01-06_01-34-11PM.rsp
You can find the log of this install session at:
/tmp/GridSetupActions2020-01-06_01-34-11PM/gridSetupActions2020-01-06_01-34-11PM.log
You can find the log of this install session at:
/oracle/oraInventory/logs/UpdateNodeList2020-01-06_01-34-11PM.log
Moved the install session logs to:
/oracle/oraInventory/logs/GridSetupActions2020-01-06_01-34-11PM [oracle@dc1sssdbo01 grid]$ crsctl query has releaseversion
Oracle High Availability Services release version on the local node is [19.0.0.0.0]
[oracle@dc1sssdbo01 grid]$
```



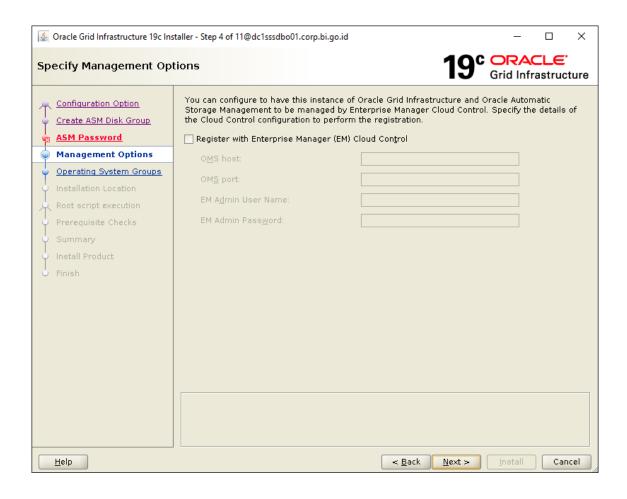


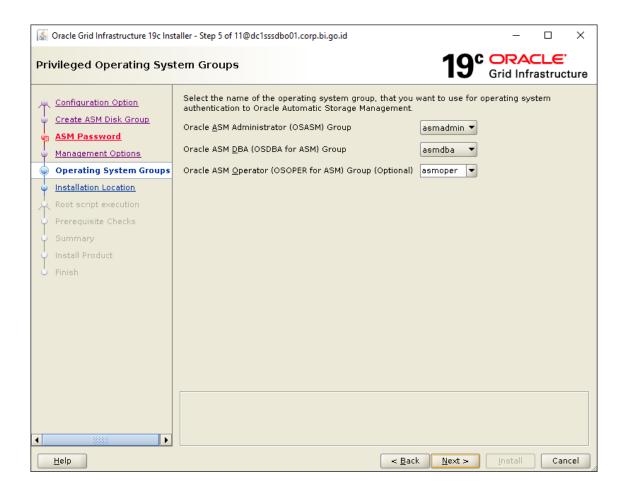




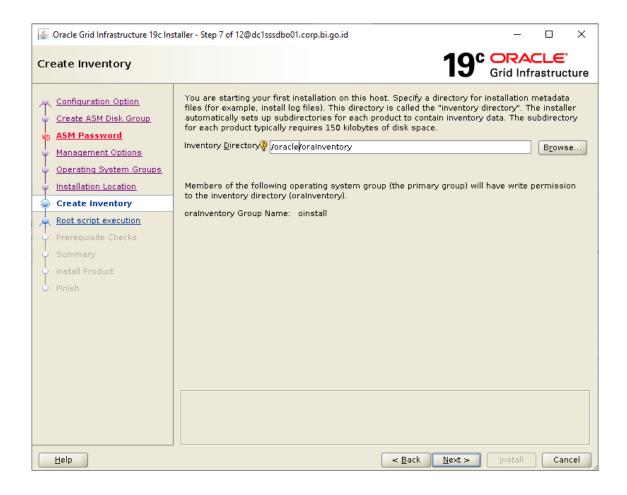


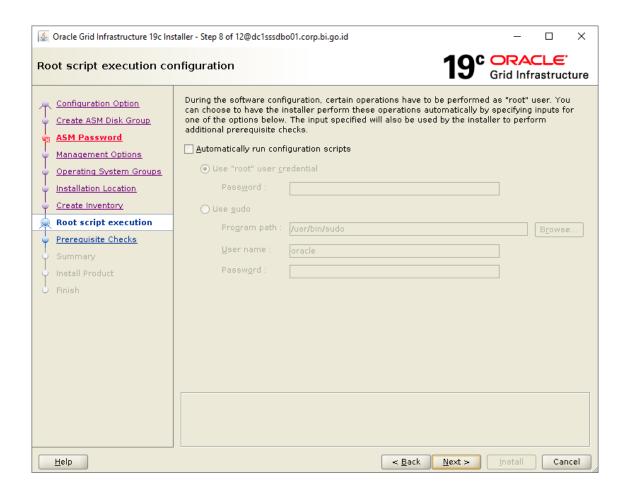
Password: oracle123

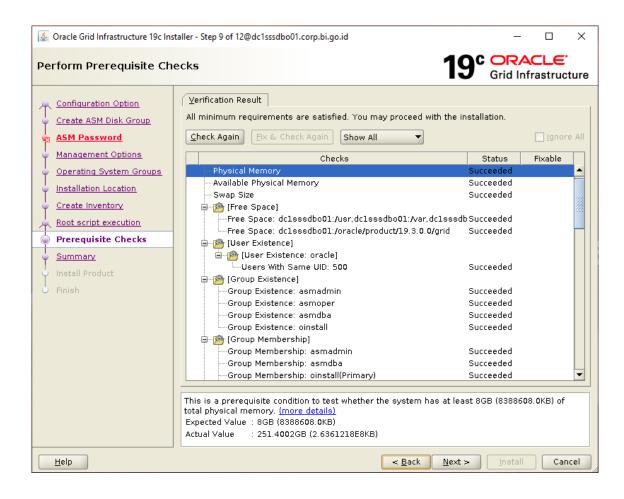


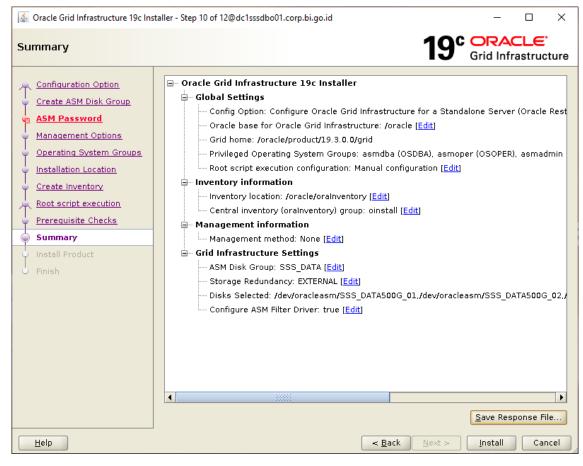


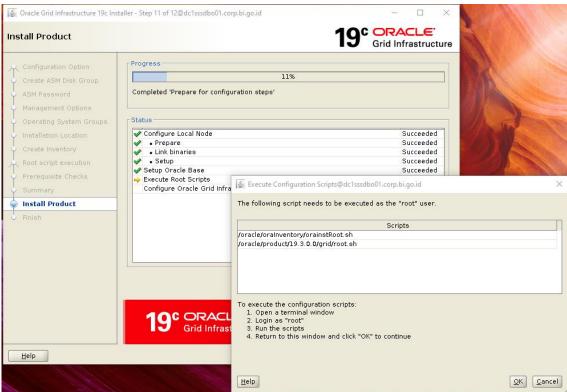


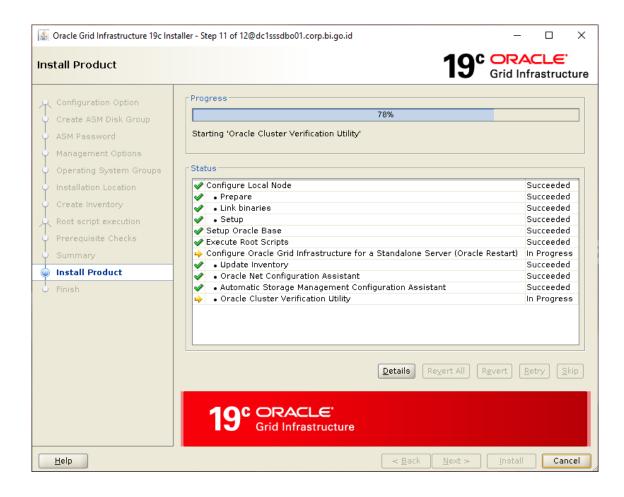










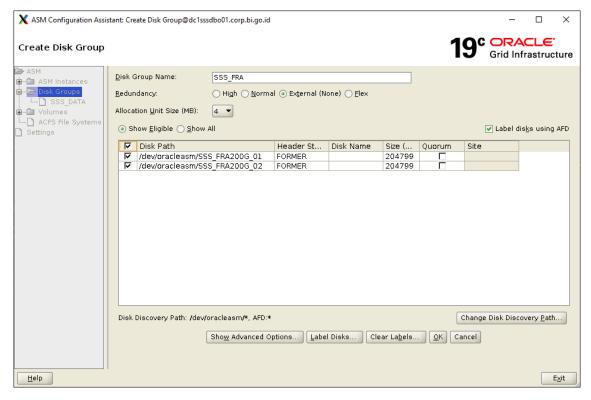


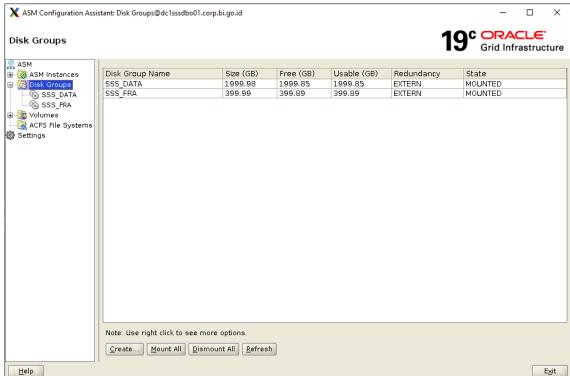


H. Create ASM Diskgroups

[oracle@dc1sssdbo01 grid]\$ asmca







<pre>[oracle@dc1sssdbo01 grid]\$ crsctl stat res -t</pre>							
Name	Target State	Server	State details				
Local Reso	urces						

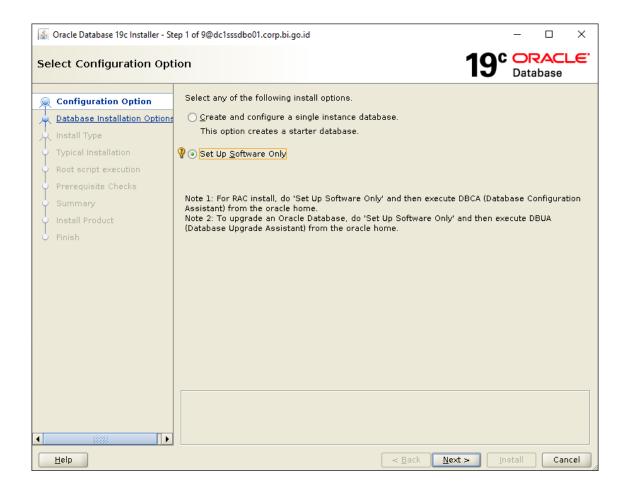
```
ora.LISTENER.lsnr
               ONLINE ONLINE
                                     dc1sssdbo01
                                                               STABLE
ora.SSS_DATA.dg
               ONLINE ONLINE
                                     dc1sssdbo01
                                                               STABLE
ora.SSS_FRA.dg
               ONLINE ONLINE
                                     dc1sssdbo01
                                                               STABLE
ora.asm
                                     dc1sssdbo01
               ONLINE ONLINE
                                                               Started, STABLE
ora.ons
               OFFLINE OFFLINE
                                     dc1sssdbo01
                                                               STABLE
Cluster Resources
ora.cssd
               ONLINE ONLINE
                                     dc1sssdbo01
      1
                                                               STABLE
ora.diskmon
               OFFLINE OFFLINE
                                                               STABLE
ora.driver.afd
               ONLINE ONLINE
                                     dc1sssdbo01
                                                               STABLE
      1
ora.evmd
               ONLINE ONLINE
                                     dc1sssdbo01
                                                               STABLE
      1
[oracle@dc1sssdbo01 grid]$
```

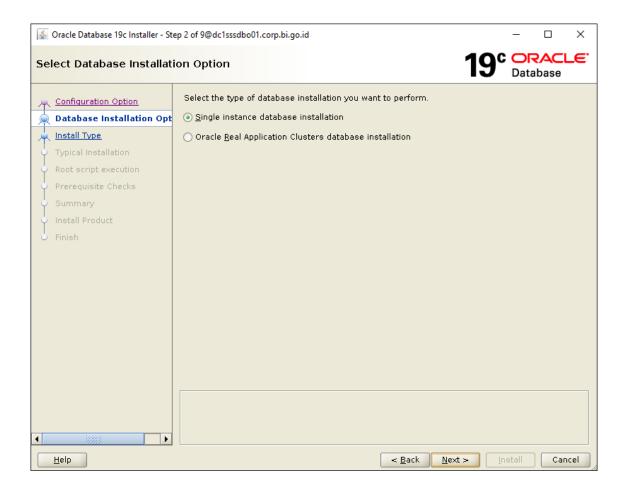
I. Install Oracle DB Software 19c

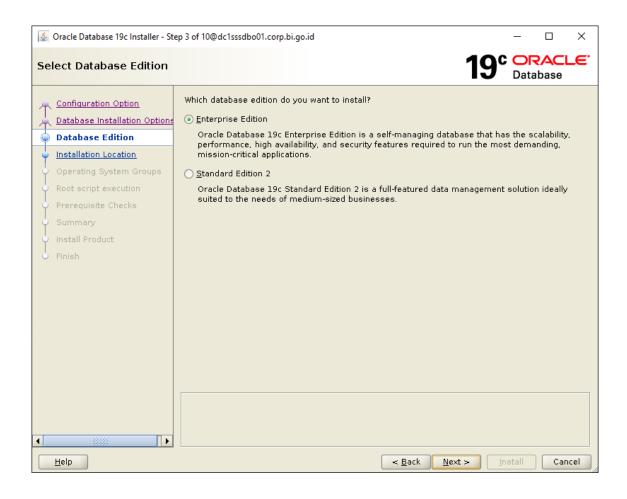
```
[oracle@dc1sssdbo01 ~]$ vi .db-profile
oracle@dc1sssdbo01 ~ | cat .db-profile
# DB Setting
ORACLE BASE=/oracle; export ORACLE BASE
#ORACLE_HOME=/oracle/product/12.2.0.1/db_1; export ORACLE_HOME
ORACLE_HOME=/oracle/product/19.3.0.0/db_1; export ORACLE_HOME
ORACLE SID=sss; export ORACLE SID
PATH=$ORACLE_HOME/bin:/usr/sbin:$PATH; export PATH
LD_LIBRARY_PATH=$ORACLE_HOME/lib:/lib:/lib:/export LD_LIBRARY_PATH
CLASSPATH=$ORACLE_HOME/JRE:$ORACLE_HOME/jlib:$ORACLE_HOME/rdbms/jlib; export CLASSPATH
alias alertlog='tail -250f $ORACLE_BASE/diag/rdbms/sss/sss/trace/alert_sss.log';
[oracle@dc1sssdbo01 ~]$ . .db-profile
[oracle@dc1sssdbo01 ~]$ env|grep ORA
ORACLE_SID=sss
ORACLE_BASE=/oracle
ORACLE_HOSTNAME=DC1SSSDB001.corp.bi.go.id
ORACLE TERM=xterm
ORACLE_HOME=<mark>/oracle/product/19.3.0.0/db_1</mark>
[oracle@dc1sssdbo01 ~]$ mkdir -p $ORACLE_HOME; cd $ORACLE_HOME; pwd;
/oracle/product/19.3.0.0/db 1
[oracle@dc1sssdbo01 db_1]$ unzip ~/sources/LINUX.X64_193000_db_home.zip
     linking: javavm/admin/lfclasses.bin -> ../../javavm/jdk/jdk8/admin/lfclasses.bin
linking: javavm/lib/security/cacerts -> ../../javavm/jdk/jdk8/lib/security/cacerts
linking: javavm/lib/sunjce_provider.jar -> ../../javavm/jdk/jdk8/lib/sunjce_provider.jar
linking: javavm/lib/security/README.txt -> ../../javavm/jdk/jdk8/lib/security/README.txt
     linking: javavm/lib/security/java.security ->
../../javavm/jdk/jdk8/lib/security/java.security linking: jdk/jre/lib/amd64/server/libjsig.so -> ../libjsig.so
 extracting: install/.img.bin
finishing deferred symbolic links:
                                -> ../nls/lbuilder/lbuilder
  bin/lbuilder
                                -> libocci.so.19.1
  lib/libocci.so
  lib/libagtsh.so
                                -> libagtsh.so.1.0
  lib/libodm19.so
                                -> libodmd19.so
  lib/libclntsh.so
                                -> libclntsh.so.19.1
                                -> ../javavm/jdk/jdk8/lib/libjavavm19.a
  lib/libjavavm19.a
  javavm/lib/jce.jar
                                -> ../../javavm/jdk/jdk8/lib/jce.jar
  lib/libocci.so.18.1
                                -> libocci.so
  lib/libclntshcore.so
                                -> libclntshcore.so.19.1
  jdk/bin/ControlPanel
                                -> jcontrol
```

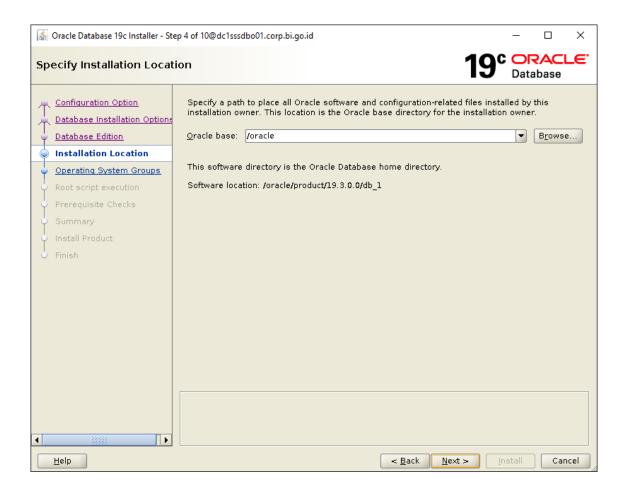
```
javavm/admin/cbp.jar -> ../../javavm/jdk/jdk8/admin/cbp.jar
lib/libclntsh.so.10.1 -> libclntsh.so
lib/libclntsh.so.11.1 -> libclntsh.so
lib/libclntsh.so.12.1 -> libclntsh.so
   lib/libclntsh.so.18.1 -> libclntsh.so
  precomp/public/SQLCA.H -> sqlca.h
precomp/public/SQLDA.H -> sqlda.h
   precomp/public/ORACA.H -> oraca.h
   precomp/public/SQLCA.COB -> sqlca.cob
   precomp/public/ORACA.COB -> oraca.cob
   javavm/admin/classes.bin -> ../../javavm/jdk/jdk8/admin/classes.bin
   javavm/admin/libjtcjt.so -> ../../javavm/jdk/jdk8/admin/libjtcjt.so
   jdk/jre/bin/ControlPanel -> jcontrol
   javavm/admin/lfclasses.bin -> ../../javavm/jdk/jdk8/admin/lfclasses.bin
javavm/lib/security/cacerts -> ../../javavm/jdk/jdk8/lib/security/cacerts
javavm/lib/sunjce_provider.jar -> ../../javavm/jdk/jdk8/lib/sunjce_provider.jar
javavm/lib/security/README.txt -> ../../javavm/jdk/jdk8/lib/security/README.txt
   javavm/lib/security/java.security -> ../../javavm/jdk/jdk8/lib/security/java.security
jdk/jre/lib/amd64/server/libjsig.so -> ../libjsig.so
[oracle@dc1sssdbo01 db_1]$ ./runInstaller
Launching Oracle Database Setup Wizard...
The response file for this session can be found at:
 /oracle/product/19.3.0.0/db_1/install/response/db_2020-01-06_02-11-35PM.rsp
You can find the log of this install session at:
 /oracle/oraInventory/logs/InstallActions2020-01-06_02-11-35PM/installActions2020-01-06_02-11-
35PM.log
[oracle@dc1sssdbo01 db_1]$
```

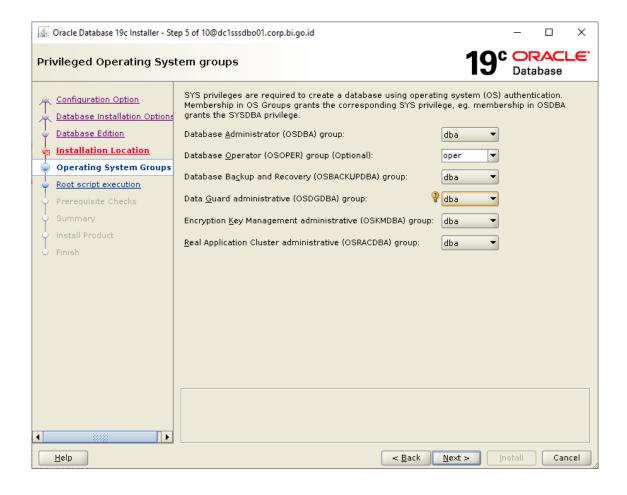


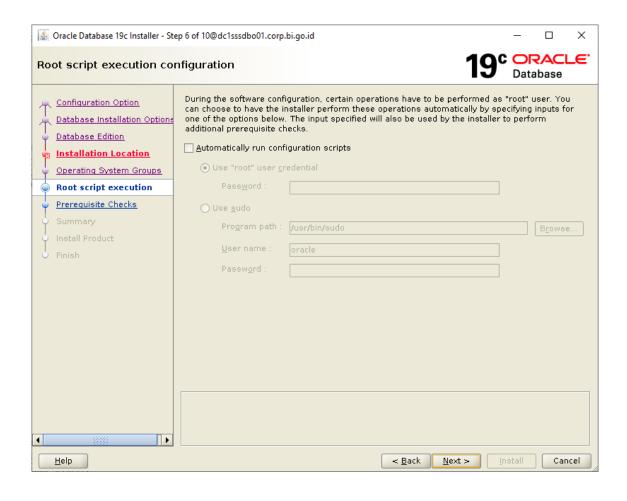


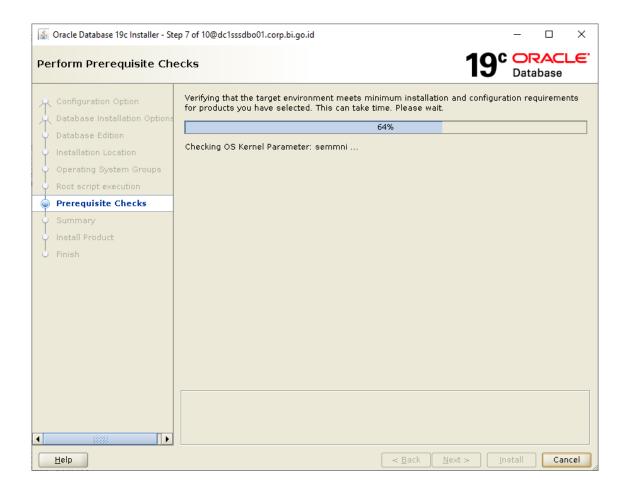


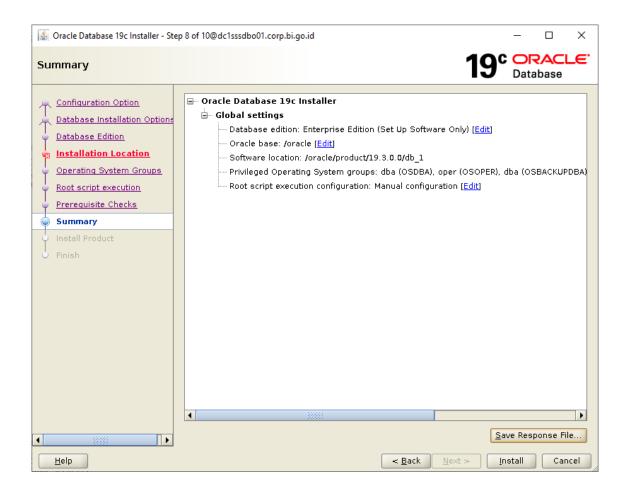


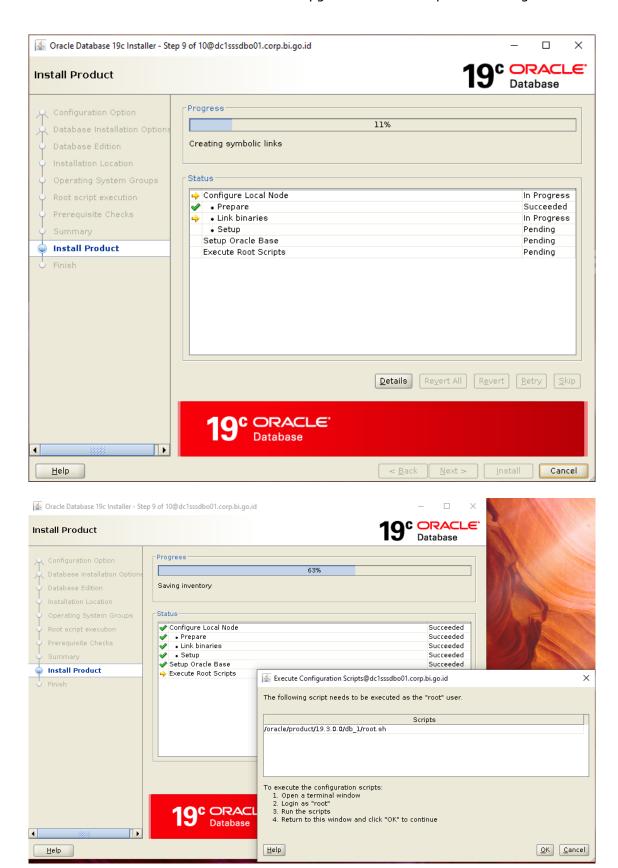


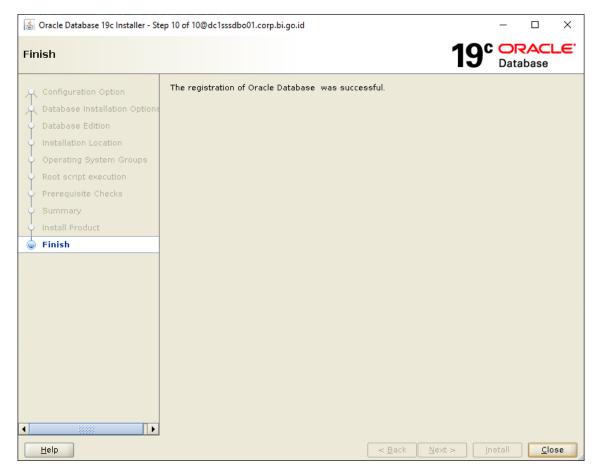












J. Restore, Recover, and Upgrade Database from Backup

Please do ./dbupgrade in nohup mode.

```
[oracle@dc1sssdbo01 ~]$ cp /backup/rman/initsss_20200101.ora /backup/rman/initsss19c_20200101.ora [oracle@dc1sssdbo01 ~]$ vi /backup/rman/initsss19c_20200101.ora [oracle@dc1sssdbo01 ~]$ cat /backup/rman/initsss19c_20200101.ora sss.__oracle_base='/oracle'#ORACLE_BASE set from environment *.audit_file_dest='/oracle/admin/sss/adump'
```

```
*.audit_trail='db'
*.compatible='19.0.0'
*.control_files='+SSS_DATA/SSS/CONTROLFILE/control01.ctl','+SSS_FRA/SSS/CONTROLFILE/control02.ctl'
*.db_block_size=8192
*.db_create_file_dest='+SSS_DATA'
*.db_domain='corp.bi.go.id
*.db_name='sss
*.db_recovery_file_dest='+SSS_FRA'

*.db_recovery_file_dest_size=350g

*.diagnostic_dest='/oracle'

*.dispatchers='(PROTOCOL=TCP) (SERVICE=sssXDB)'
*.nls_language='AMERICAN'
*.nls_territory='AMERICA'
*.open_cursors=300
*.pga_aggregate_target=25743m
*.processes=3840
*.remote_login_passwordfile='EXCLUSIVE'
*.sga_target=77229m
*.undo_tablespace='UNDOTBS1'
[oracle@dc1sssdbo01 ~]$ mkdir -p /oracle/admin/sss/adump
[oracle@dc1sssdbo01 ~]$ rlwrap rman target=/
Recovery Manager: Release 19.0.0.0.0 - Production on Mon Jan 6 14:28:51 2020
Version 19.3.0.0.0
Copyright (c) 1982, 2019, Oracle and/or its affiliates. All rights reserved.
connected to target database (not started)
RMAN> startup nomount pfile='/backup/rman/initsss19c 20200101.ora';
Oracle instance started
Total System Global Area
                             81067505896 bytes
Fixed Size
                                30140648 bytes
Variable Size
                              9663676416 bytes
Database Buffers
                             71135395840 bytes
Redo Buffers
                               238292992 bytes
RMAN> set dbid 1639194089
executing command: SET DBID
RMAN> restore primary controlfile from '/backup/rman/CTRL_1639194089SSS20200106_20_1.bkp';
Starting restore at 06-Jan-20 14:29:37
using target database control file instead of recovery catalog
allocated channel: ORA_DISK_1
channel ORA_DISK_1: SID=122 device type=DISK
channel ORA DISK 1: restoring control file
channel ORA_DISK_1: restore complete, elapsed time: 00:00:01
output file name=+SSS_DATA/SSS/CONTROLFILE/control01.ctl
output file name=+SSS FRA/SSS/CONTROLFILE/control02.ctl
Finished restore at 06-Jan-20 14:29:39
RMAN> alter database mount;
released channel: ORA_DISK_1
Statement processed
RMAN> crosscheck backup;
RMAN> crosscheck archivelog all;
RMAN> delete noprompt expired backup;
RMAN> delete noprompt expired archivelog all;
RMAN> list backup summary;
RMAN> list backup tag 'SPFILE';
List of Backup Sets
```

```
===========
                         Device Type Elapsed Time Completion Time
BS Key Type LV Size
       Full 96.00K DISK 00:00:00 06
                                                 06-Jan-20 10:51:51
       BP Key: 1 Status: AVAILABLE Compressed: YES Tag: SPFILE
       Piece Name: /backup/rman/SPF_1639194089SSS20200106_1_1.bkp
 SPFILE Included: Modification time: 06-Jan-20 10:49:01
 SPFILE db_unique_name: SSS
RMAN> exit
Recovery Manager complete.
[oracle@dc1sssdbo01 ~]$ vi RMAN-Fullrestore.sh
[oracle@dc1sssdbo01 ~]$ cat RMAN-Fullrestore.sh
#!/bin/bash
 /home/oracle/.db-profile; export NLS_DATE_FORMAT='DD-Mon-RR HH24:MI:SS';
$ORACLE_HOME/bin/rman target=/ log=/backup/rman/RMAN-Fullrestore_`date +%Y%m%d`.log << EOF
run{
 CONFIGURE DEVICE TYPE DISK PARALLELISM 32;
 RESTORE DATABASE;
 CONFIGURE DEVICE TYPE DISK CLEAR;}
[oracle@dc1sssdbo01 ~]$ nohup ./RMAN-Fullrestore.sh >> /backup/rman/nohupRMAN-
Fullrestore_20200106.log 2>&1 &
[1] 9231
[oracle@dc1sssdbo01 ~]$ tail -100f /backup/rman/RMAN-Fullrestore_`date +%Y%m%d`.log
[oracle@dc1sssdbo01 ~]$ . .db-profile
[oracle@dc1sssdbo01 ~]$ rlwrap sqlplus / as sysdba
SQL*Plus: Release 19.0.0.0.0 - Production on Mon Jan 6 14:59:26 2020
Version 19.3.0.0.0
Copyright (c) 1982, 2019, Oracle. All rights reserved.
Connected to:
Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production
Version 19.3.0.0.0
SQL> COL NAME FOR A65;
SQL> SELECT NAME, THREAD#, SEQUENCE# FROM V$ARCHIVED_LOG ORDER BY 3;
                                                                 THREAD# SEQUENCE#
_____
                                                                                 91
                                                                        1
                                                                        1
                                                                                 92
                                                                        1
SOL> exit
Disconnected from Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production
Version 19.3.0.0.0
[oracle@dc1sssdbo01 ~]$ rlwrap rman target=/
Recovery Manager: Release 19.0.0.0.0 - Production on Mon Jan 6 14:59:50 2020
Version 19.3.0.0.0
Copyright (c) 1982, 2019, Oracle and/or its affiliates. All rights reserved.
connected to target database: SSS (DBID=1639194089, not open)
RMAN> run{set until sequence 95;
2> recover database;}
executing command: SET until clause
```

```
Starting recover at 06-Jan-20 15:00:18
using target database control file instead of recovery catalog
allocated channel: ORA_DISK_1
channel ORA_DISK_1: SID=5446 device type=DISK
starting media recovery
channel ORA DISK 1: starting archived log restore to default destination
channel ORA_DISK_1: restoring archived log
archived log thread=1 sequence=94
channel ORA_DISK_1: reading from backup piece /backup/rman/ARC_1639194089SSS20200106_16_1.bkp
channel ORA_DISK_1: piece handle=/backup/rman/ARC_1639194089SSS20200106_16_1.bkp tag=ARCHIVELOGS
channel ORA DISK 1: restored backup piece 1
channel ORA_DISK_1: restore complete, elapsed time: 00:00:01
archived log file name=+SSS_FRA/SSS/ARCHIVELOG/2020_01_06/thread_1_seq_94.257.1028991621 thread=1
sequence=94
channel default: deleting archived log(s)
archived log file name=+SSS_FRA/SSS/ARCHIVELOG/2020_01_06/thread_1_seq_94.257.1028991621 RECID=6
STAMP=1028991621
media recovery complete, elapsed time: 00:00:00
Finished recover at 06-Jan-20 15:00:22
RMAN> exit
Recovery Manager complete.
[oracle@dc1sssdbo01 ~]$ rlwrap sqlplus / as sysdba
SQL*Plus: Release 19.0.0.0.0 - Production on Mon Jan 6 15:01:49 2020
Version 19.3.0.0.0
Copyright (c) 1982, 2019, Oracle. All rights reserved.
Connected to:
Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production
Version 19.3.0.0.0
SQL> ALTER DATABASE OPEN RESETLOGS UPGRADE;
Database altered.
SQL> SELECT NAME, OPEN_MODE FROM V$DATABASE UNION ALL SELECT INSTANCE_NAME, STATUS FROM V$INSTANCE;
NAME
                OPEN MODE
                 READ WRITE
SSS
                 OPEN MIGRATE
SSS
SQL> exit:
Disconnected from Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production
Version 19.3.0.0.0
[oracle@dc1sssdbo01 ~]$ cd $ORACLE_HOME/bin
[oracle@dc1sssdbo01 bin]$ pwd
/oracle/product/19.3.0.0/db_1/bin
[oracle@dc1sssdbo01 bin]$ ./dbupgrade
Argument list for [/oracle/product/19.3.0.0/db_1/rdbms/admin/catctl.pl]
For Oracle internal use only A = 0
                             c = 0
Run in
Do not run in
                             C = 0
Input Directory
                             d = 0
                             e = 1
Echo OFF
Simulate
                             E = 0
Forced cleanup
                             F = 0
Log Id
                             i = 0
Child Process
                             I = 0
Log Dir
                             1 = 0
                            L = 0
Priority List Name
Upgrade Mode active
                             M = 0
SQL Process Count
                             n = 0
```

```
SQL PDB Process Count
                            N = 0
Open Mode Normal
                            o = 0
Start Phase
                            p = 0
End Phase
                            .
P = 0
Reverse Order
                            r = 0
AutoUpgrade Resume
                            R = 0
Script
                            s = 0
Serial Run
RO User Tablespaces
                            T = 0
Display Phases
                            y = 0
Debug catcon.pm
                            z = 0
Debug catctl.pl
                            Z = 0
catctl.pl VERSION: [19.0.0.0.0]
          STATUS: [Production]
           BUILD: [RDBMS_19.3.0.0.0DBRU_LINUX.X64_190417]
/oracle/product/19.3.0.0/db_1/rdbms/admin/orahome = [/oracle/product/19.3.0.0/db_1]
/oracle/product/19.3.0.0/db_1/bin/orabasehome = [/oracle/product/19.3.0.0/db_1]
catctlGetOraBaseLogDir = [/oracle/product/19.3.0.0/db 1]
Analyzing file /oracle/product/19.3.0.0/db 1/rdbms/admin/catupgrd.sql
Log file directory = [/tmp/cfgtoollogs/upgrade20200106150356]
catcon::set_log_file_base_path: ALL catcon-related output will be written to
[/tmp/cfgtoollogs/upgrade20200106150356/catupgrd_catcon_12404.lst]
catcon::set log file base path: catcon: See [/tmp/cfgtoollogs/upgrade20200106150356/catupgrd*.log]
files for output generated by scripts
catcon::set log file base path: catcon: See [/tmp/cfgtoollogs/upgrade20200106150356/catupgrd *.lst]
files for spool files, if any
Number of Cpus
                     = 48
Database Name
                     = SSS
DataBase Version
                     = 12.2.0.1.0
catcon::set_log_file_base_path: ALL catcon-related output will be written to [/oracle/product/19.3.0.0/db_1/cfgtoollogs/sss/upgrade20200106150406/catupgrd_catcon_12404.lst]
catcon::set_log_file_base_path: catcon: See
[/oracle/product/19.3.0.0/db_1/cfgtoollogs/sss/upgrade20200106150406/catupgrd*.log] files for output
generated by scripts
catcon::set log file base path: catcon: See
[/oracle/product/19.3.0.0/db_1/cfgtoollogs/sss/upgrade20200106150406/catupgrd_*.lst] files for spool
files, if any
Log file directory = [/oracle/product/19.3.0.0/db 1/cfgtoollogs/sss/upgrade20200106150406]
Parallel SQL Process Count
Components in [sss]
   Installed [APS CATALOG CATJAVA CATPROC CONTEXT DV JAVAVM OLS ORDIM OWM SDO XDB XML XOQ]
Not Installed APEX EM MGW ODM RAC WK
-----
Phases [0-107] Start Time:[2020_01_06 15:04:20]
****** Executing Change Scripts *******
Serial Phase #:0 [sss] Files:1 Time: 20s
******* Catalog Core SQL *********
Serial Phase #:1
                    [sss] Files:5 Time: 18s
                     [sss] Files:1 Time: 2s
Restart Phase #:2
******* Catalog Tables and Views *******
Parallel Phase #:3
                     [sss] Files:19 Time: 6s
Restart Phase #:4
                     [sss] Files:1
                                      Time: 3s
*********** Catalog Final Scripts
Serial Phase #:5
                     [sss] Files:7
                                      Time: 8s
```

```
******
                  Catproc Start **********
Serial Phase #:6
                    [sss] Files:1
                                    Time: 9s
******
                                  ******
                   Catproc Types
                    [sss] Files:2
Serial Phase #:7
                                    Time: 6s
Restart Phase #:8
                     [sss] Files:1
                                    Time: 3s
******
                                  *****
                 Catproc Tables
Parallel Phase #:9
                     [sss] Files:67
                                    Time: 8s
                     [sss] Files:1
Restart Phase #:10
                                    Time: 2s
*********** Catproc Package Specs
                                     *******
Serial Phase #:11
                     [sss] Files:1
                                    Time: 34s
Restart Phase #:12
                     [sss] Files:1
                                    Time: 1s
*****
                                    *****
               Catproc Procedures
Parallel Phase #:13
                                    Time: 4s
                     [sss] Files:94
Restart Phase #:14
                     [sss] Files:1
                                    Time: 3s
                     [sss] Files:120
Parallel Phase #:15
                                    Time: 6s
Restart Phase #:16
                     [sss] Files:1
[sss] Files:22
                                    Time: 3s
Serial
        Phase #:17
                                    Time: 3s
Restart Phase #:18
                     [sss] Files:1
                                    Time: 4s
******
                  Catproc Views
                                  ******
Parallel Phase #:19
                     [sss] Files:32 Time: 7s
                     sss Files:1
Restart Phase #:20
                                    Time: 1s
                     [sss] Files:3
Serial
        Phase #:21
                                    Time: 7s
                     [sss] Files:1
Restart Phase #:22
                                    Time: 2s
Parallel Phase #:23
                     [sss] Files:25
                                     Time: 70s
Restart Phase #:24
                     [sss] Files:1
                                    Time: 3s
                     [sss] Files:12
Parallel Phase #:25
                                    Time: 48s
Restart Phase #:26
                     [sss] Files:1
                                    Time: 2s
Serial
        Phase #:27
                     sss | Files:1
                                    Time: 0s
Serial
        Phase #:28
                     [sss] Files:3
                                    Time: 3s
                     [sss] Files:1
        Phase #:29
                                    Time: 0s
Serial
Restart Phase #:30
                     [sss] Files:1
                                    Time: 4s
*****
               Catproc CDB Views
                                    *****
                     [sss] Files:1
[sss] Files:1
Serial
        Phase #:31
                                    Time: 2s
Restart Phase #:32
                                    Time: 4s
                     [sss] Files:1
Serial
        Phase #:34
                                    Time: 0s
                  Catproc PLBs
Serial
        Phase #:35
                     [sss] Files:293 Time: 13s
        Phase #:36
Serial
                     sssl Files:1
                                    Time: Os
Restart Phase #:37
                     [sss] Files:1
                                    Time: 1s
Serial
        Phase #:38
                     [sss] Files:6
                                    Time: 4s
Restart Phase #:39
                     [sss] Files:1
                                    Time: 4s
******
                Catproc DataPump
                                   ******
                     [sss] Files:3
Serial Phase #:40
                                    Time: 27s
Restart Phase #:41
                     [sss] Files:1
                                    Time: 3s
                   Catproc SQL **********
******
Parallel Phase #:42
                                    Time: 47s
                    [sss] Files:13
Restart Phase #:43
                     [sss] Files:1
                                    Time: 2s
Parallel Phase #:44
                     sss Files:11
                                    Time: 4s
Restart Phase #:45
                     [sss] Files:1
                                    Time: 4s
                     [sss] Files:3
[sss] Files:1
Parallel Phase #:46
                                    Time: 2s
Restart Phase #:47
                                    Time: 4s
*****
                                     *******
              Final
                    Catproc scripts
                     [sss] Files:1
        Phase #:48
Serial
                                    Time: 5s
Restart Phase #:49
                     [sss] Files:1
                                    Time: 2s
                                     ******
*****
              Final RDBMS scripts
Serial Phase #:50
                                     Time: 5s
                    [sss] Files:1
************* Upgrade Component Start
                                      *******
Serial
        Phase #:51
                    [sss] Files:1
                                    Time: 2s
Restart Phase #:52
                     [sss] Files:1
                                    Time: 3s
          Upgrading Java and non-Java *******
Serial Phase #:53
                     [sss] Files:2 Time: 137s
                                 *****
******
                  Upgrading XDB
Restart Phase #:54
                     [sss] Files:1
                                    Time: 2s
Serial
        Phase #:56
                     [sss] Files:3
                                    Time: 7s
        Phase #:57
                     [sss] Files:3
                                    Time: 5s
Serial
                     [sss] Files:10
Parallel Phase #:58
                                    Time: 5s
Parallel Phase #:59
                     sss] Files:25
                                    Time: 6s
                     [sss] Files:4
Serial
        Phase #:60
                                    Time: 7s
Serial
        Phase #:61
                     [sss] Files:1
                                     Time: 0s
                     [sss] Files:32
        Phase #:62
                                    Time: 5s
Serial
Serial
        Phase #:63
                     SSS
                          Files:1
                                    Time: 0s
```

```
Parallel Phase #:64
                    [sss] Files:6
                                    Time: 8s
        Phase #:65
Serial
                    [sss] Files:2
                                    Time: 15s
        Phase #:66
                    [sss] Files:3
                                    Time: 18s
Serial
Restart Phase #:67
                    [sss] Files:1
                                   Time: 3s
                    [sss] Files:1
[sss] Files:2
Serial
       Phase #:69
                                    Time: 4s
Parallel Phase #:70
                                    Time: 16s
Restart Phase #:71
                    [sss] Files:1
                                    Time: 4s
Parallel Phase #:72
                    [sss] Files:2
                                    Time: 4s
Serial Phase #:73
                    [sss] Files:2
                                    Time: 4s
Restart Phase #:74
                                   Time: 4s
                    [sss] Files:1
                    [sss] Files:1
Serial
       Phase #:76
                                    Time: 21s
       Phase #:77
                    [sss] Files:2
                                    Time: 5s
Serial
Restart Phase #:78
                    [sss] Files:1
                                    Time: 3s
                    [sss] Files:1
[sss] Files:1
                                    Time: 29s
       Phase #:79
Serial
Restart Phase #:80
                                    Time: 3s
Parallel Phase #:81
                    [sss] Files:3
                                    Time: 23s
                    [sss] Files:1
Restart Phase #:82
                                   Time: 3s
        Phase #:83
                    [sss] Files:1
                                    Time: 6s
Serial
                                    Time: 3s
Restart Phase #:84
                    [sss] Files:1
Serial
       Phase #:85
                    [sss] Files:1
                                   Time: 8s
                    [sss] Files:1
[sss] Files:4
Restart Phase #:86
                                    Time: 3s
Parallel Phase #:87
                                    Time: 32s
Restart Phase #:88
                    [sss] Files:1
                                    Time: 3s
                    [sss] Files:1
       Phase #:89
                                    Time: 4s
Serial
Restart Phase #:90
                    [sss] Files:1
                                    Time: 3s
       Phase #:91
                    [sss] Files:2
                                    Time: 8s
Serial
Restart Phase #:92
                    [sss] Files:1
                                    Time: 2s
                    [sss] Files:1
        Phase #:93
                                    Time: 2s
Serial
                    [sss] Files:1
Restart Phase #:94
                                    Time: 3s
*****
        Upgrading ODM, WK, EXF, RUL, XOQ ******
                    [sss] Files:1
[sss] Files:1
Serial
       Phase #:95
                                    Time: 11s
Restart Phase #:96
                                    Time: 2s
******* Final Component scripts
                                     *******
Serial Phase #:97
                                   Time: 3s
                   [sss] Files:1
******** Final Upgrade scripts
                                    ********
Serial Phase #:98 [sss] Files:1
                                   Time: 114s
                    Migration **********
******
Serial Phase #:99
                    [sss] Files:1 Time: 2s
*** End PDB Application Upgrade Pre-Shutdown
Serial Phase #:100 [sss] Files:1
                                   Time: 2s
                    [sss] Files:1
[sss] Files:1
       Phase #:101
Secial
                                   Time: 0s
      Phase #:102
Serial
                                   Time: 57s
******** Post Upgrade **********
Serial Phase #:103 [sss] Files:1 Time: 12s
*** End PDB Application Upgrade Post-Shutdown
       Phase #:105 [sss] Files:1
Phase #:106 [sss] Files:1
Serial
                                   Time: 2s
Serial
                                    Time: 0s
       Phase #:107 [sss] Files:1
Serial
                                    Time: 72s
------
Phases [0-107] End Time: [2020_01_06 15:23:06]
Grand Total Time: 1127s
LOG FILES: (/oracle/product/19.3.0.0/db_1/cfgtoollogs/sss/upgrade20200106150406/catupgrd*.log)
Upgrade Summary Report Located in:
/oracle/product/19.3.0.0/db_1/cfgtoollogs/sss/upgrade20200106150406/upg_summary.log
Grand Total Upgrade Time:
                          [0d:0h:18m:47s]
[oracle@dc1sssdbo01 bin]$ cat
oracle/product/19.3.0.0/db_1/cfgtoollogs/sss/upgrade20200106150406/upg_summary.log
Oracle Database Release 19 Post-Upgrade Status Tool
                                                   01-06-2020 15:21:5
Database Name: SSS
```

Component	Current	Full	Elapsed Time
Name	Status	Version	HH:MM:SS
Oracle Server	UPGRADED	19.3.0.0.0	00:07:01
JServer JAVA Virtual Machine	UPGRADED	19.3.0.0.0	00:00:46
Oracle XDK	UPGRADED	19.3.0.0.0	00:00:27
Oracle Database Java Packages	UPGRADED	19.3.0.0.0	
OLAP Analytic Workspace	UPGRADED	19.3.0.0.0	
Oracle Label Security	UPGRADED	19.3.0.0.0	
Oracle Database Vault	UPGRADED	19.3.0.0.0	
Oracle Text			
	UPGRADED	19.3.0.0.0	
Oracle Workspace Manager	UPGRADED	19.3.0.0.0	
Oracle Real Application Clusters	UPGRADED	19.3.0.0.0	
Oracle XML Database	UPGRADED	19.3.0.0.0	
Oracle_Multimedia	UPGRADED	19.3.0.0.0	
Spatial	UPGRADED	19.3.0.0.0	00:02:33
Oracle OLAP API	UPGRADED	19.3.0.0.0	00:00:08
Datapatch			00:01:46
Final Actions			00:01:55
Post Upgrade			00:00:10
Total Upgrade Time: 00:16:24			
Database time zone version is 26. It	is older than	current relea	<mark>se time</mark>
zone version 32. Time zone upgrade i	s needed using	the DBMS_DST	<mark>package.</mark>
Grand Total Upgrade Time: [0d:0h:	18m:47s]		
[oracle@dc1sssdbo01 bin]\$ cd	-		
[oracle@dc1sssdbo01 ~]\$ ps -ef grep	ckpt		
oracle 19178 10443 0 15:24 pts/0		epcolor=aut	o ckot
oracle 42723 1 0 13:55 ?	00:00:00 gr		o expe
[oracle@dc1sssdbo01 ~]\$ rlwrap sqlpl	us / as sysdba	"_ckbr_+A3II	
[Oracle@dc1sssdboot ~]\$ rtwrap sqtpt	.us / as sysuba		
501 ± D 1		45 04 50	2020
SQL*Plus: Release 19.0.0.0.0 - Produ	iction on Mon J	an 6 15:24:59	2020
Version 19.3.0.0.0			
Copyright (c) 1982, 2019, Oracle. A	All rights rese	rved.	
	_		
Connected to an idle instance.			
SQL> STARTUP PFILE='/backup/rman/ini	tsss19c 2020010	91.ога':	
ORACLE instance started.		J. 0. G ,	
ONACLE CIISCAIICE SCAI CEG.			
Total System Clobal Assa C 10605,10	hutaa		
Total System Global Area 8.1068E+10	,		
Fixed Size 30140648	. •		
Variable Size 9663676416	. •		
Database Buffers 7.1135E+10			
Redo Buffers 238292992	bytes		
Redo Buffers 238292992 Database mounted.	bytes		
	bytes		
Database mounted. Database opened.	bytes		
Database mounted.	bytes		
Database mounted. Database opened. SQL> @?/rdbms/admin/utlusts.sql	bytes		
Database mounted. Database opened. SQL> @?/rdbms/admin/utlusts.sql Enter value for 1: 1		01-06-202	0 15:29:3
Database mounted. Database opened. SQL> @?/rdbms/admin/utlusts.sql Enter value for 1: 1 Oracle Database Release 19 Post-Upgr		l 01-06-202	0 15:29:3
Database mounted. Database opened. SQL> @?/rdbms/admin/utlusts.sql Enter value for 1: 1		l 01-06-202	0 15:29:3
Database mounted. Database opened. SQL> @?/rdbms/admin/utlusts.sql Enter value for 1: 1 Oracle Database Release 19 Post-Upgr Database Name: SSS	ade Status Too		
Database mounted. Database opened. SQL> @?/rdbms/admin/utlusts.sql Enter value for 1: 1 Oracle Database Release 19 Post-Upgr Database Name: SSS Component	rade Status Too Current	Full	Elapsed Time
Database mounted. Database opened. SQL> @?/rdbms/admin/utlusts.sql Enter value for 1: 1 Oracle Database Release 19 Post-Upgr Database Name: SSS	ade Status Too		
Database mounted. Database opened. SQL> @?/rdbms/admin/utlusts.sql Enter value for 1: 1 Oracle Database Release 19 Post-Upgr Database Name: SSS Component Name	rade Status Too Current Status	Full Version	Elapsed Time HH:MM:SS
Database mounted. Database opened. SQL> @?/rdbms/admin/utlusts.sql Enter value for 1: 1 Oracle Database Release 19 Post-Upgr Database Name: SSS Component Name Oracle Server	cade Status Too Current Status UPGRADED	Full Version 19.3.0.0.0	Elapsed Time HH:MM:SS 00:07:01
Database mounted. Database opened. SQL> @?/rdbms/admin/utlusts.sql Enter value for 1: 1 Oracle Database Release 19 Post-Upgr Database Name: SSS Component Name Oracle Server JServer JAVA Virtual Machine	Current Status UPGRADED UPGRADED UPGRADED	Full Version 19.3.0.0.0 19.3.0.0.0	Elapsed Time HH:MM:SS 00:07:01 00:00:46
Database mounted. Database opened. SQL> @?/rdbms/admin/utlusts.sql Enter value for 1: 1 Oracle Database Release 19 Post-Upgr Database Name: SSS Component Name Oracle Server JServer JAVA Virtual Machine Oracle XDK	Current Status UPGRADED UPGRADED UPGRADED UPGRADED	Full Version 19.3.0.0.0 19.3.0.0.0	Elapsed Time HH:MM:SS 00:07:01 00:00:46 00:00:27
Database mounted. Database opened. SQL> @?/rdbms/admin/utlusts.sql Enter value for 1: 1 Oracle Database Release 19 Post-Upgr Database Name: SSS Component Name Oracle Server JServer JAVA Virtual Machine	Current Status UPGRADED UPGRADED UPGRADED	Full Version 19.3.0.0.0 19.3.0.0.0	Elapsed Time HH:MM:SS 00:07:01 00:00:46 00:00:27
Database mounted. Database opened. SQL> @?/rdbms/admin/utlusts.sql Enter value for 1: 1 Oracle Database Release 19 Post-Upgr Database Name: SSS Component Name Oracle Server JServer JAVA Virtual Machine Oracle XDK	Current Status UPGRADED UPGRADED UPGRADED UPGRADED	Full Version 19.3.0.0.0 19.3.0.0.0	Elapsed Time HH:MM:SS 00:07:01 00:00:46 00:00:27 00:00:05
Database mounted. Database opened. SQL> @?/rdbms/admin/utlusts.sql Enter value for 1: 1 Oracle Database Release 19 Post-Upgr Database Name: SSS Component Name Oracle Server JServer JAVA Virtual Machine Oracle XDK Oracle Database Java Packages OLAP Analytic Workspace	Current Status UPGRADED UPGRADED UPGRADED UPGRADED UPGRADED UPGRADED UPGRADED	Full Version 19.3.0.0.0 19.3.0.0.0 19.3.0.0.0 19.3.0.0.0	Elapsed Time HH:MM:SS 00:07:01 00:00:46 00:00:27 00:00:05 00:00:07
Database mounted. Database opened. SQL> @?/rdbms/admin/utlusts.sql Enter value for 1: 1 Oracle Database Release 19 Post-Upgr Database Name: SSS Component Name Oracle Server JServer JAVA Virtual Machine Oracle XDK Oracle Database Java Packages OLAP Analytic Workspace Oracle Label Security	Current Status UPGRADED	Full Version 19.3.0.0.0 19.3.0.0.0 19.3.0.0.0 19.3.0.0.0 19.3.0.0.0	Elapsed Time HH:MM:SS 00:07:01 00:00:46 00:00:27 00:00:05 00:00:07
Database mounted. Database opened. SQL> @?/rdbms/admin/utlusts.sql Enter value for 1: 1 Oracle Database Release 19 Post-Upgr Database Name: SSS Component Name Oracle Server JServer JAVA Virtual Machine Oracle XDK Oracle Database Java Packages OLAP Analytic Workspace Oracle Label Security Oracle Database Vault	Current Status UPGRADED	Full Version 19.3.0.0.0 19.3.0.0.0 19.3.0.0.0 19.3.0.0.0 19.3.0.0.0 19.3.0.0.0	Elapsed Time HH:MM:SS 00:07:01 00:00:46 00:00:27 00:00:05 00:00:07 00:00:02 00:00:08
Database mounted. Database opened. SQL> @?/rdbms/admin/utlusts.sql Enter value for 1: 1 Oracle Database Release 19 Post-Upgr Database Name: SSS Component Name Oracle Server JServer JAVA Virtual Machine Oracle XDK Oracle Database Java Packages OLAP Analytic Workspace Oracle Label Security Oracle Database Vault Oracle Text	Current Status UPGRADED	Full Version 19.3.0.0.0 19.3.0.0.0 19.3.0.0.0 19.3.0.0.0 19.3.0.0.0 19.3.0.0.0	Elapsed Time HH:MM:SS 00:07:01 00:00:46 00:00:27 00:00:05 00:00:07 00:00:02 00:00:02 00:00:08 00:00:18
Database mounted. Database opened. SQL> @?/rdbms/admin/utlusts.sql Enter value for 1: 1 Oracle Database Release 19 Post-Upgr Database Name: SSS Component Name Oracle Server JServer JAVA Virtual Machine Oracle XDK Oracle Database Java Packages OLAP Analytic Workspace Oracle Label Security Oracle Database Vault Oracle Text Oracle Workspace Manager	Current Status UPGRADED	Full Version 19.3.0.0.0 19.3.0.0.0 19.3.0.0.0 19.3.0.0.0 19.3.0.0.0 19.3.0.0.0 19.3.0.0.0	Elapsed Time HH:MM:SS 00:07:01 00:00:46 00:00:27 00:00:05 00:00:07 00:00:02 00:00:02 00:00:08 00:00:18 00:00:18
Database mounted. Database opened. SQL> @?/rdbms/admin/utlusts.sql Enter value for 1: 1 Oracle Database Release 19 Post-Upgr Database Name: SSS Component Name Oracle Server JServer JAVA Virtual Machine Oracle XDK Oracle Database Java Packages OLAP Analytic Workspace Oracle Label Security Oracle Database Vault Oracle Text Oracle Workspace Manager Oracle Real Application Clusters	Current Status UPGRADED	Full Version 19.3.0.0.0 19.3.0.0.0 19.3.0.0.0 19.3.0.0.0 19.3.0.0.0 19.3.0.0.0 19.3.0.0.0 19.3.0.0.0 19.3.0.0.0	Elapsed Time HH:MM:SS 00:07:01 00:00:46 00:00:27 00:00:05 00:00:07 00:00:07 00:00:02 00:00:08 00:00:18 00:00:18 00:00:00
Database mounted. Database opened. SQL> @?/rdbms/admin/utlusts.sql Enter value for 1: 1 Oracle Database Release 19 Post-Upgr Database Name: SSS Component Name Oracle Server JServer JAVA Virtual Machine Oracle XDK Oracle Database Java Packages OLAP Analytic Workspace Oracle Label Security Oracle Database Vault Oracle Text Oracle Workspace Manager	Current Status UPGRADED	Full Version 19.3.0.0.0 19.3.0.0.0 19.3.0.0.0 19.3.0.0.0 19.3.0.0.0 19.3.0.0.0 19.3.0.0.0	Elapsed Time HH:MM:SS 00:07:01 00:00:46 00:00:27 00:00:05 00:00:07 00:00:07 00:00:02 00:00:08 00:00:18 00:00:18 00:00:00

```
UPGRADED
                                                                       00:02:33
Spatial
                                                          19.3.0.0.0
Oracle OLAP API
                                                          19.3.0.0.0 00:00:08
                                          LIPGRADED
Datapatch
                                                                       00:01:46
Final Actions
                                                                       00:01:55
Post Upgrade
                                                                       00:00:10
Total Upgrade Time: 00:16:24
Database time zone version is 26. It is older than current release time
zone version 32. Time zone upgrade is needed using the DBMS_DST package.
SQL> @?/rdbms/admin/utlrp
SQL> exit
Disconnected from Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production
Version 19.3.0.0.0
[oracle@dc1sssdbo01 ~]$ cat /etc/oratab
#Backup file is /oracle/crsdata/dc1sssdbo01/output/oratab.bak.dc1sssdbo01.oracle line added by Agent
# This file is used by ORACLE utilities. It is created by root.sh
# and updated by either Database Configuration Assistant while creating
# a database or ASM Configuration Assistant while creating ASM instance.
# A colon, ':', is used as the field terminator. A new line terminates # the entry. Lines beginning with a pound sign, '#', are comments.
# Entries are of the form:
    $ORACLE SID:$ORACLE HOME:<N|Y>:
# The first and second fields are the system identifier and home
# directory of the database respectively. The third field indicates
# to the dbstart utility that the database should , "Y", or should not,
  "N", be brought up at system boot time.
# Multiple entries with the same $ORACLE_SID are not allowed.
+ASM:/oracle/product/19.3.0.0/grid:N
                                                    # line added by Agent
[oracle@dc1sssdbo01 ~]$ echo $ORACLE_SID:$ORACLE_HOME:Y
sss:/oracle/product/19.3.0.0/db_1:Y
[oracle@dc1sssdbo01 ~]$ echo $ORACLE_SID:$ORACLE_HOME:Y >> /etc/oratab
oracle@dc1sssdbo01 ~]$ cat /etc/oratab
#Backup file is /oracle/crsdata/dc1sssdbo01/output/oratab.bak.dc1sssdbo01.oracle line added by Agent
# This file is used by ORACLE utilities. It is created by root.sh
# and updated by either Database Configuration Assistant while creating
# a database or ASM Configuration Assistant while creating ASM instance.
# A colon, ':', is used as the field terminator. A new line terminates # the entry. Lines beginning with a pound sign, '#', are comments.
# Entries are of the form:
    $ORACLE_SID:$ORACLE_HOME:<N|Y>:
# The first and second fields are the system identifier and home
# directory of the database respectively. The third field indicates
  to the dbstart utility that the database should , "Y", or should not,
  "N", be brought up at system boot time.
# Multiple entries with the same $ORACLE_SID are not allowed.
                                                    # line added by Agent
+ASM:/oracle/product/19.3.0.0/grid:N
          e/product/19.3.0.0
[oracle@dc1sssdbo01 ~]$ . .db-profile
 oracle@dc1sssdbo01 ~]$ rlwrap sqlplus / as sysdba
```

```
SQL*Plus: Release 19.0.0.0.0 - Production on Mon Jan 6 15:38:23 2020
Version 19.3.0.0.0
Copyright (c) 1982, 2019, Oracle. All rights reserved.
Connected to an idle instance.
SQL> !env|grep ORA
ORACLE_SID=sss
ORACLE HOSTNAME=DC1SSSDB001.corp.bi.go.id
ORACLE_BASE=/oracle
ORACLE_TERM=xterm
ORACLE_HOME=/oracle/product/19.3.0.0/db_1
SQL> startup nomount pfile='/backup/rman/initsss19c_20200101.ora;
ORACLE instance started.
Total System Global Area 8.1068E+10 bytes
Fixed Size
                           30140648 bytes
Variable Size
                         9663676416 bytes
Database Buffers
                         7.1135E+10 bytes
                          238292992 bytes
Redo Buffers
SQL> create spfile='+SSS_DATA/SSS/parameterfile/spfilesss.ora' from
pfile='/backup/rman/initsss19c_20200101.ora';
File created.
SQL> shu immediate;
ORA-01507: database not mounted
ORACLE instance shut down.
SQL> exit
Disconnected from Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production
Version 19.3.0.0.0
[oracle@dc1sssdbo01 ~]$ vi $ORACLE_HOME/dbs/init$ORACLE_SID.ora
[oracle@dc1sssdbo01 ~]$ cat $ORACLE_HOME/dbs/init$ORACLE_SID.ora
spfile='+SSS_DATA/SSS/parameterf
[oracle@dc1sssdbo01 ~]$ rlwrap sqlplus / as sysdba
SQL*Plus: Release 19.0.0.0.0 - Production on Mon Jan 6 15:41:50 2020
Version 19.3.0.0.0
Copyright (c) 1982, 2019, Oracle. All rights reserved.
Connected to an idle instance.
SQL> STARTUP:
ORACLE instance started.
Total System Global Area 8.1068E+10 bytes
Fixed Size
                           30140648 bytes
Variable Size
                         9663676416 bytes
Database Buffers
                         7.1135E+10 bytes
Redo Buffers
                          238292992 bytes
Database mounted.
Database opened.
SQL> SHO PARAMETER PFILE;
NAME
                                     TYPE
                                                 VALUE
        -----
spfile
                                                  +SSS_DATA/SSS/parameterfile/sp
                                     string
                                                  filesss.ora
SQL> @?/rdbms/admin/utltz_countstats.sql
SQL> @?/rdbms/admin/utltz_countstar.sql
SQL> @?/rdbms/admin/utltz_upg_check.sql
SQL> @?/rdbms/admin/utltz_upg_apply.sql
Session altered.
```

```
INFO: If an ERROR occurs, the script will EXIT SQL*Plus. INFO: The database RDBMS DST version will be updated to DSTv32 .
WARNING: This script will restart the database 2 times
WARNING: WITHOUT asking ANY confirmation.
WARNING: Hit control-c NOW if this is not intended.
INFO: Restarting the database in UPGRADE mode to start the DST upgrade.
Database closed.
Database dismounted.
ORACLE instance shut down.
ORACLE instance started.
Total System Global Area 8.1068E+10 bytes
Fixed Size
                             30140648 bytes
Variable Size
                           9663676416 bytes
Database Buffers
                           7.1135E+10 bytes
Redo Buffers
                            238292992 bytes
Database mounted.
Database opened.
INFO: Starting the RDBMS DST upgrade.
INFO: Upgrading all SYS owned TSTZ data.
INFO: It might take time before any further output is seen ...
An upgrade window has been successfully started.
INFO: Restarting the database in NORMAL mode to upgrade non-SYS TSTZ data.
Database closed.
Database dismounted.
ORACLE instance shut down.
ORACLE instance started.
Total System Global Area 8.1068E+10 bytes
Fixed Size
                             30140648 bytes
                           9663676416 bytes
Variable Size
Database Buffers
                           7.1135E+10 bytes
Redo Buffers
                            238292992 bytes
Database mounted.
Database opened.
INFO: Upgrading all non-SYS TSTZ data.
INFO: It might take time before any further output is seen ...
INFO: Do NOT start any application yet that uses TSTZ data!
INFO: Next is a list of all upgraded tables:
Table list: "GSMADMIN_INTERNAL"."AQ$_CHANGE_LOG_QUEUE_TABLE_L"
Number of failures: 0
Table list: "GSMADMIN_INTERNAL"."AQ$_CHANGE_LOG_QUEUE_TABLE_S"
Number of failures: 0
Table list: "MDSYS"."SDO_DIAG_MESSAGES_TABLE"
Number of failures: 0
Table list: "DVSYS"."AUDIT_TRAIL$"
Number of failures: 0
Table list: "DVSYS"."SIMULATION_LOG$"
Number of failures: 0
Table list: "SSS"."TMP_64544012"
Number of failures: 0
INFO: Total failures during update of TSTZ data: 0 .
An upgrade window has been successfully ended.
INFO: Your new Server RDBMS DST version is DSTv32
INFO: The RDBMS DST update is successfully finished.
INFO: Make sure to exit this SQL*Plus session.
INFO: Do not use it for timezone related selects.
Session altered.
SQL> exit
Disconnected from Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production
Version 19.3.0.0.0
[oracle@dc1sssdbo01 ~]$ orapwd file=$ORACLE_HOME/dbs/orapw$ORACLE_SID format=12 password=oracle123 [oracle@dc1sssdbo01 ~]$ ls -lh $ORACLE_HOME/dbs
total 11M
-rw-rw----. 1 oracle asmadmin 1.6K Jan 6 15:45 hc_sss.dat
-rw-r--r. 1 oracle oinstall 3.1K May 14 2015 init.ora
-rw-r--r-. 1 oracle oinstall 51 Jan 6 15:41 initsss.ora
-rw-r---- 1 oracle asmadmin 24 Jan 6 14:29 lkSSS
-rw-r---- 1 oracle oinstall 2.0K Jan 6 15:50 orapwss:
```

```
-rw-r----. 1 oracle asmadmin 11M Jan 6 15:02 snapcf_sss.f
[oracle@dc1sssdbo01 ~]$ srvctl add database -db sss -oraclehome $ORACLE_HOME -dbname sss -domain
corp.bi.go.id -spfile +SSS_DATA/SSS/parameterfile/spfilesss.ora -pwfile
$ORACLE_HOME/dbs/orapw$ORACLE_SID -role PRIMARY -startoption OPEN -stopoption IMMEDIATE -instance sss -policy AUTOMATIC -diskgroup "SSS_DATA","SSS_FRA"
[oracle@dc1sssdbo01 ~]$ srvctl config database -db sss
Database unique name: sss
Database name: sss
Oracle home: /oracle/product/19.3.0.0/db_1
Oracle user: oracle
Spfile: +SSS DATA/SSS/parameterfile/spfilesss.ora
Password file: /oracle/product/19.3.0.0/db_1/dbs/orapwsss
Domain: corp.bi.go.id
Start options: open
Stop options: immediate
Database role: PRIMARY
Management policy: AUTOMATIC
Disk Groups: SSS_DATA, SSS_FRA
Services:
OSDBA group:
OSOPER group:
Database instance: sss
[oracle@dc1sssdbo01 ~]$ rlwrap sqlplus / as sysdba
SQL*Plus: Release 19.0.0.0.0 - Production on Mon Jan 6 15:54:10 2020
Version 19.3.0.0.0
Copyright (c) 1982, 2019, Oracle. All rights reserved.
Connected to:
Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production
Version 19.3.0.0.0
SQL> shu immediate:
Database closed.
Database dismounted.
ORACLE instance shut down.
SQL> exit;
Disconnected from Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production
Version 19.3.0.0.0
[oracle@dc1sssdbo01 ~]$ srvctl start database -db sss
oracle@dc1sssdbo01 ~]$ srvctl status database -db sss
Database is running.
[oracle@dc1sssdbo01 ~]$ . .grid-profile
[oracle@dc1sssdbo01 ~]$ crsctl stat res -t
               Target State
                                                               State details
Name
                                 Server
Local Resources
ora.LISTENER.lsnr
               ONLINE ONLINE
                                     dc1sssdbo01
                                                               STABLE
ora.SSS_DATA.dg
               ONLINE ONLINE
                                     dc1sssdbo01
                                                               STABLE
ora.SSS_FRA.dg
               ONLINE ONLINE
                                     dc1sssdbo01
                                                               STABLE
ora.asm
               ONLINE ONLINE
                                     dc1sssdbo01
                                                               Started, STABLE
ora.ons
               OFFLINE OFFLINE
                                     dc1sssdbo01
                                                               STABLE
Cluster Resources
ora.cssd
               ONLINE ONLINE
                                     dc1sssdbo01
                                                               STABLE
ora.diskmon
               OFFLINE OFFLINE
                                                               STABLE
      1
ora.driver.afd
               ONLINE ONLINE
                                     dc1sssdbo01
                                                               STABLE
      1
ora.evmd
```

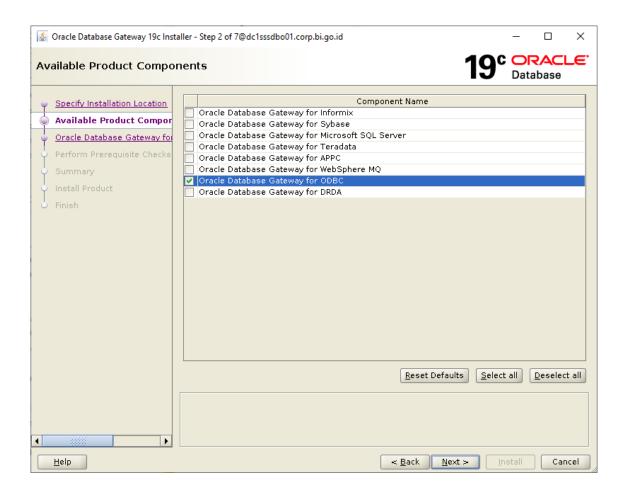
```
ONLINE ONLINE
                                    dc1sssdbo01
                                                             STABLE
     1
ora.sss.db
               ONLINE ONLINE
                                    dc1sssdbo01
                                                             Open, HOME=/oracle/pr
                                                             oduct/19.3.0.0/db_1,
                                                             STABLE
[oracle@dc1sssdbo01 ~]$ crsctl query has releaseversion
Oracle High Availability Services release version on the local node is [19.0.0.0.0]
[oracle@dc1sssdbo01 ~]$ . .db-profile
[oracle@dc1sssdbo01 ~]$ sqlplus / as sysdba
SQL*Plus: Release 19.0.0.0.0 - Production on Mon Jan 6 15:56:19 2020
Version 19.3.0.0.0
Copyright (c) 1982, 2019, Oracle. All rights reserved.
Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production
Version 19.3.0.0.0
SQL> select banner from v$version:
BANNER
Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production
SOL> exit
Disconnected from Oracle Database 19c Enterprise Edition Release 19.0.0.0.0 - Production
Version 19.3.0.0.0
[oracle@dc1sssdbo01 ~]$
```

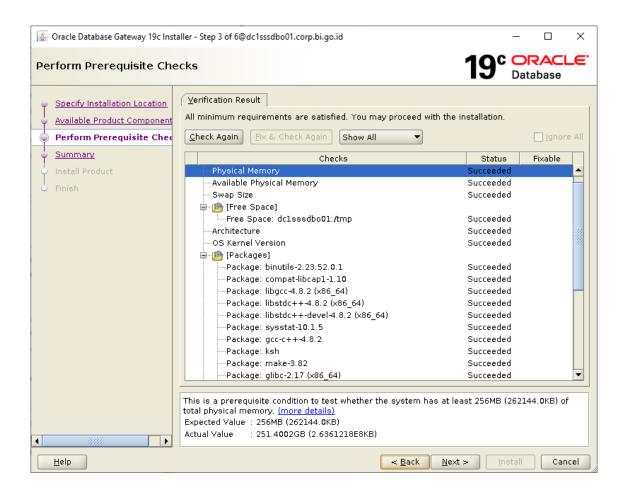
K. Install Oracle Gateways 19c

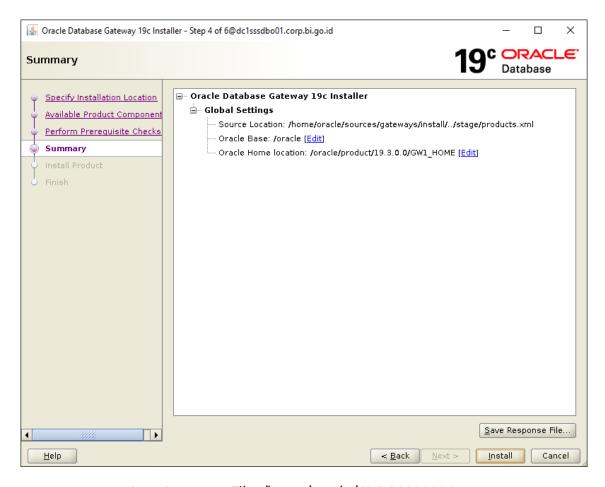
```
[oracle@dc1sssdbo01 ~]$ export ORACLE_HOME=/oracle/product/19.3.0.0/GW1_HOME
[oracle@dc1sssdbo01 ~]$ mkdir -p $ORACLE_HOME
[oracle@dc1sssdbo01 ~]$ echo $ORACLE_HOME
/oracle/product/19.3.0.0/GW1_HOME
[oracle@dc1sssdbo01 ~]$ cd sources/; unzip LINUX.X64_193000_gateways.zip
  inflating: gateways/stage/invDetails.properties
  creating: gateways/stage/ComponentList/
inflating: gateways/stage/ComponentList/oracle.tg_Custom.xml
   creating: gateways/stage/globalvariables/
  inflating: gateways/stage/globalvariables/globalvar.xml
  inflating: gateways/stage/globalvariables/variable.properties
  inflating: gateways/welcome.html
[oracle@dc1sssdbo01 sources]$ cd gateways/; pwd; ls
/home/oracle/sources/gateways
install response runInstaller stage welcome.html
[oracle@dc1sssdbo01 gateways]$ ./runInstaller
Starting Oracle Universal Installer...
Checking Temp space: must be greater than 415 MB.
                                                               Actual 37740 MB
Checking swap space: must be greater than 150 MB. Actual 65535 MB
Checking monitor: must be configured to display at least 256 colors.
                                                                                       Passed
                                                                                        Actual 16777216
                                                                                                               Passed
Preparing to launch Oracle Universal Installer from /tmp/OraInstall2020-01-07_11-23-54AM. Please wait
...[oracle@dc1sssdbo01 gateways]$ The response file for this session can be found at: /oracle/product/19.3.0.0/GW1_HOME/install/response/tg_2020-01-07_11-23-54AM.rsp
You can find the log of this install session at:
 /oracle/oraInventory/logs/installActions2020-01-07_11-23-54AM.log
[oracle@dc1sssdbo01 gateways]$ cd ../; rm -fr gateways
[oracle@dc1sssdbo01 sources]$ cd
[oracle@dc1sssdbo01 ~]$ . .gateways-profile
[oracle@dc1sssdbo01 ~]$ lsnrctl status LISTENER_GTW
```

```
LSNRCTL for Linux: Version 19.0.0.0.0 - Production on 07-JAN-2020 11:50:06
Copyright (c) 1991, 2019, Oracle. All rights reserved.
Connecting to (DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=dc1sssdbo01.corp.bi.go.id)(PORT=1522)))
STATUS of the LISTENER
Alias
                            LISTENER GTW
                            TNSLSNR for Linux: Version 19.0.0.0.0 - Production
Version
Start Date
                            07-JAN-2020 11:41:33
Uptime
                            0 days 0 hr. 8 min. 32 sec
Trace Level
                            off
Security
                            ON: Local OS Authentication
SNMP
                            OFF
                            /oracle/product/19.3.0.0/GW1_HOME/network/admin/listener.ora
Listener Parameter File
                             /oracle/diag/tnslsnr/dc1sssdbo01/listener_gtw/alert/log.xml
Listener Log File
Listening Endpoints Summary...
  (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp)(HOST=dc1sssdbo01.corp.bi.qo.id)(PORT=1522)))
  (DESCRIPTION=(ADDRESS=(PROTOCOL=ipc)(KEY=EXTPROC1522)))
The listener supports no services
The command completed successfully
[oracle@dc1sssdbo01 ~]$ ps -ef|grep tnsl
oracle 4922 1 0 11:41 ? 00
                                           00:00:00 /oracle/product/19.3.0.0/GW1_HOME/bin/tnslsnr
LISTENER_GTW -inherit
          6062 46666 0 11:50 pts/0
                                           00:00:00 grep --color=auto tnsl
oracle
         40900
                    1 0 Jan06 ?
                                           00:00:01 /oracle/product/19.3.0.0/grid/bin/tnslsnr LISTENER -
oracle
no_crs_notify -inherit
[oracle@dc1sssdbo01 ~]$ cat .gateways-profile
# GW Setting
ORACLE_BASE=/oracle; export ORACLE_BASE export ORACLE_HOME=/oracle/product/19.3.0.0/GW1_HOME
PATH=$ORACLE_HOME/bin:/usr/sbin:$PATH; export PATH
LD_LIBRARY_PATH=$ORACLE_HOME/lib:/lib:/usr/lib; export LD_LIBRARY_PATH
CLASSPATH=$ORACLE_HOME/JRE:$ORACLE_HOME/jlib:$ORACLE_HOME/rdbms/jlib; export CLASSPATH
umask 022
[oracle@dc1sssdbo01 ~]$
```









Save Response File: /home/oracle/GW_20200106.rsp

