Environment

DB-Name	CBMN
DB-Unique-Name	CBMNET01
DB-Home	/u01/app/oracle/product/12.2.0.1/dbhome_1
Archive Log dest	Same db recovery
DB Recovery dest and size	/u01/app/oracle/fast_recovery_area/CBMNET01
Datafile dest	/u01/app/oracle/oradata/CBMNET01/DATAFILE

19C ENVIRONMENT

$ vi db19c

.bash_profile

Get the aliases and functions

if [-f ~/.bashrc]; then

    . ~/.bashrc

fi

User specific environment and startup programs

#Oracle Database ENV

export TMP=/tmp

export TMPDIR=$TMP

export ORACLE_BASE=/u01/app/oracle

export ORACLE_HOME=/u01/app/oracle/product/19.0.0/dbhome_1

export ORA_INVENTORY=/u01/app/oraInventory

export ORACLE_SID=CBMNET01

export PATH=$ORACLE_HOME/OPatch:$PATH

export PATH=/usr/sbin:/usr/local/bin:$PATH

export PATH=$ORACLE_HOME/bin:$PATH

export LD_LIBRARY_PATH=$ORACLE_HOME/lib:/lib:/usr/lib

export CLASSPATH=$ORACLE_HOME/jlib:$ORACLE_HOME/rdbms/jlib

CREATER 19C DB_HOME

[oracle@prodcbmnetdb01 ~]$ mkdir -p /u01/app/oracle/product/19.0.0/dbhome_1

UNZIP 19C SOFTWARE

[oracle@prodcbmnetdb01 19C-Installer]$ unzip LINUX.X64_193000_db_home.zip -d $ORACLE_HOME

ORACLE INSTALLATION REQUESTICS

[root@prodcbmnetdb01 ~]# yum install -y oracle-database-preinstall-19c

CHANGE OPatch AND CHECK OPatch VERSION

[oracle@prodcbmnetdb01 OPatch]$ mv OPatch/ OPatch_bkp

***Check Opatch version Before change OPatch

[oracle@prodcbmnetdb01 OPatch]$ unzip p6880880_190000_Linux-x86-64.zip -d $ORACLE_HOME

```
[oracle@prodcbmnetdb01 OPatch]$ ./opatch version
OPatch Version: 12.2.0.1.32

OPatch succeeded.
[oracle@prodcbmnetdb01 OPatch]$ 
```

RUN INSTALLER

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

 yum install compat-libcap1.x86_64

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

[oracle@prodcbmnetdb01 dbhome_1]$ ./runInstaller

APPLY PATCH AND CHECK

[oracle@prodcbmnetdb01 OPatch]$ ./opatch apply /home/oracle/19C-Installer/33859194/33806152

[oracle@prodcbmnetdb01 OPatch]$ ./opatch lsinventory

```
Lsinventory Output file location : /u01/app/oracle/product/19.0.0/dbhome_1/cfgtoollogs/opatch/lsinv/lsinventory2023-05-09_12-07-21PM.txt
---------------------------------------------------------------------------
Local Machine Information::
Hostname: prodcbmnetdb01
ARU platform id: 226
ARU platform description:: Linux x86-64

Installed Top-level Products (1):

Oracle Database 19c                                          19.0.0.0.0
There are 1 products installed in this Oracle Home.


Interim patches (2) :

Patch  33806152     : applied on Tue May 09 12:01:36 MMT 2023
Unique Patch ID:  24713297
Patch description:  "Database Release Update : 19.15.0.0.220419 (33806152)"
```

When we apply this opatch

[oracle@prodcbmnetdb01 OPatch]$ ./opatch apply /home/oracle/19C-Installer/33859194/33808367 , Error occurred

ERROR

Make failed to invoke "/usr/bin/make -f ins_rdbms.mk javavm_refresh ORACLE_HOME=/u01/app/oracle/product/19.0.0/dbhome_1 OPATCH_SESSION=apply"....'make: perl: Command not found

make: *** [ins_rdbms.mk:573: javavm_refresh] Error 127

SOLUTION

```
export PATH=$ORACLE_HOME/perl/bin:$PATH
```

```
export PERL5LIB=$ORACLE_HOME/perl/lib
```
[oracle@prodcbmnetdb01 OPatch]$ ./opatch apply /home/oracle/19C-Installer/33859194/33808367

```
Patch  33808367    : applied on Tue May 09 12:18:06 MMT 2023
Unique Patch ID:   24680225
Patch description:  "OJVM RELEASE UPDATE: 19.15.0.0.220419 (33808367)"
    Created on 11 Mar 2022, 08:31:41 hrs UTC
    Bugs fixed:
        29445548, 29254623, 29540327, 29774362, 30134746, 30160625, 30534662
        29512125, 29942275, 30855101, 31306261, 31359215, 30895577, 29224710
        26716835, 31668872, 32165759, 32069696, 32032733, 30889443, 30674373
        32167592, 32523206, 29415774, 28777073, 32124570, 31247838, 29540831
        32892883, 31776121, 33223248, 33563137, 33184467, 31844357, 31727233
        31494420, 28209601, 31311732, 33805155

Patch  33806152    : applied on Tue May 09 12:01:36 MMT 2023
Unique Patch ID:   24713297
Patch description:  "Database Release Update : 19.15.0.0.220419 (33806152)"
    Created on 4 Apr 2022, 06:06:27 hrs UTC
    Bugs fixed:
        1297945, 7391838, 8460502, 8476681, 14570574, 14735102, 15931756
        15959416, 16662822, 16664572, 16750494, 17275499, 17395507, 17428816
        17468475, 17777718, 18534283, 18697534, 19080742, 19138896, 19697993
        19884953, 19958239, 20007421, 20083476, 20313356, 20319830, 20479545
        20867658, 20922160, 21119541, 21232786, 21245711, 21374587, 21528318
        21629064, 21639146, 21888352, 21965541, 22066547, 22252368, 22325312
        22387320, 22553815, 22580355, 22725871, 22729345, 22748979, 23020668
        23066463, 23094775, 23125587, 23294761, 23296836, 23311885, 23606241
        23645975, 23734075, 23734111, 23763462, 24336782, 24356932, 24559425
        24561942, 24596874, 24597536, 24669730, 24687075, 24833686, 24916492
        24957575, 24971456, 25030027, 25033515, 25092651, 25093917, 25148135
        25404117, 25415139, 25416731, 25541233, 25560538, 25562258, 25607406
        25607716, 25632308, 25661172, 25677036, 25756945, 25792962, 25804387
        25804908, 25806201, 25809128, 25883179, 25905368, 25913778, 25979242
```

START UPGRADE

1.Check dg broker

There is no DG BROKER

```
[oracle@prodcbmnetdb01 ~]$ dgmgrl /
DGMGRL for Linux: Release 12.2.0.1.0 - Production on Tue May 9 13:51:51 2023

Copyright (c) 1982, 2017, Oracle and/or its affiliates.  All rights reserved.

Welcome to DGMGRL, type "help" for information.
Connected to "CBMNET01"
Connected as SYSDG.
DGMGRL> show configuration;
ORA-16532: Oracle Data Guard broker configuration does not exist

Configuration details cannot be determined by DGMGRL
```

2.Stop Dataguard

Before stop Dataguard, check dg sync status

```
SQL> select scn_to_timestamp(current_scn),to_char(current_scn) from v$database;

SCN_TO_TIMESTAMP(CURRENT_SCN)
---------------------------------------------------------------------------
TO_CHAR(CURRENT_SCN)
-----------------------------------------
09-MAY-23 01.57.23.000000000 PM
609816504


SQL> /

SCN_TO_TIMESTAMP(CURRENT_SCN)
---------------------------------------------------------------------------
TO_CHAR(CURRENT_SCN)
-----------------------------------------
09-MAY-23 01.57.26.000000000 PM
609816506


SQL> /

SCN_TO_TIMESTAMP(CURRENT_SCN)
---------------------------------------------------------------------------
TO_CHAR(CURRENT_SCN)
-----------------------------------------
09-MAY-23 01.57.26.000000000 PM
609816508
```

Stop DataGuard and check dg status

```
SQL> select name,open_mode,database_role from v$database;

NAME       OPEN_MODE            DATABASE_ROLE
--------   --------------------  ----------------
CBMN       READ ONLY WITH APPLY PHYSICAL STANDBY

SQL> alter database recover managed standby database cancel;

Database altered.

SQL> select scn_to_timestamp(current_scn),to_char(current_scn) from v$database;

SCN_TO_TIMESTAMP(CURRENT_SCN)
---------------------------------------------------------------------------
TO_CHAR(CURRENT_SCN)
----------------------------------------
09-MAY-23 02.06.49.000000000 PM
609818946


SQL> /

SCN_TO_TIMESTAMP(CURRENT_SCN)
---------------------------------------------------------------------------
TO_CHAR(CURRENT_SCN)
----------------------------------------
09-MAY-23 02.06.49.000000000 PM
609818946
```

3.Change Standby Database to Primary and Open Database

SQL> select name,open_mode,database_role from v$database;

SQL> alter database activate standby database;

SQL> select name,open_mode,database_role from v$database;

SQL> alter database open;

```
SQL> select name,open_mode,database_role from v$database;

NAME        OPEN_MODE            DATABASE_ROLE
--------    --------------------  ----------------
CBMN        READ ONLY            PHYSICAL STANDBY

SQL> alter database activate standby database;

Database altered.

SQL> select name,open_mode,database_role from v$database;

NAME        OPEN_MODE            DATABASE_ROLE
--------    --------------------  ----------------
CBMN        MOUNTED              PRIMARY

SQL> alter database open;

Database altered.

SQL> select name,open_mode,database_role from v$database;

NAME        OPEN_MODE            DATABASE_ROLE
--------    --------------------  ----------------
CBMN        READ WRITE           PRIMARY
```

4.PREUPGRADE TASK

[oracle@prodcbmnetdb01 ~]$ /u01/app/oracle/product/12.2.0.1/dbhome_1/jdk/bin/java -jar
/u01/app/oracle/product/19.0.0/dbhome_1/rdbms/admin/preupgrade.jar FILE DIR
/home/oracle/preupgrade

```
[oracle@prodcbmnetdb01 ~]$ /u01/app/oracle/product/12.2.0.1/dbhome_1/jdk/bin/java -jar /u01/app/oracle/product/19.0.0/dbhome_1/rdbms/admin/preupgrad
me/oracle/preupgrade
==================
PREUPGRADE SUMMARY
==================
  /home/oracle/preupgrade/preupgrade.log
  /home/oracle/preupgrade/preupgrade_fixups.sql
  /home/oracle/preupgrade/postupgrade_fixups.sql

Execute fixup scripts as indicated below:

Before upgrade:

Log into the database and execute the preupgrade fixups
@/home/oracle/preupgrade/preupgrade_fixups.sql

After the upgrade:

Log into the database and execute the postupgrade fixups
@/home/oracle/preupgrade/postupgrade_fixups.sql

Preupgrade complete: 2023-05-09T14:18:57
[oracle@prodcbmnetdb01 ~]$ ll /home/oracle/preupgrade/
total 720
-rw-r----- 1 oracle oinstall      2 May  9 14:18 checksBuffer.tmp
-rw-r----- 1 oracle oinstall  41134 May  9 14:18 components.properties
-rw-r----- 1 oracle oinstall  15085 May  9 14:18 dbms_registry_extended.sql
drwxr-x--- 3 oracle oinstall     21 May  9 14:18 oracle
-rw-r----- 1 oracle oinstall  14051 May  9 14:18 parameters.properties
-rw-r----- 1 oracle oinstall   8690 May  9 14:18 postupgrade_fixups.sql
-rw-r----- 1 oracle oinstall   7884 May  9 14:18 preupgrade_driver.sql
-rw-r----- 1 oracle oinstall  12333 May  9 14:18 preupgrade_fixups.sql
-rw-r----- 1 oracle oinstall   9596 May  9 14:18 preupgrade.log
-rw-r----- 1 oracle oinstall 110846 May  9 14:18 preupgrade_messages.properties
-rw-r----- 1 oracle oinstall 487682 May  9 14:18 preupgrade_package.sql
drwxr-x--- 3 oracle oinstall     24 May  9 14:18 upgrade
```

5.Check all tablespaces are autoextend or not and DB Recovery File dest free

set lines 300 pages 100

col file_name for a90

select FILE_ID,FILE_NAME,TABLESPACE_NAME,BYTES/1024/1024 "MB",AUTOEXTENSIBLE FROM DBA_DATA_FILES;

```
SQL> set lines 300 pages 100
SQL> col file_name for a90
SQL> select FILE_ID,FILE_NAME,TABLESPACE_NAME,BYTES/1024/1024 "MB",AUTOEXTENSIBLE FROM DBA_DATA_FILES;

   FILE_ID FILE_NAME                                                         TABLESPACE_NAME                     MB AUT
---------- ------------------------------------------------------------ ------------------------------ ---------- ---
         7 /u01/app/oracle/oradata/CBMNET01/DATAFILE/users01.dbf             USERS                              330 YES
         4 /u01/app/oracle/oradata/CBMNET01/DATAFILE/undotbs01.dbf           UNDOTBS1                           610 YES
         1 /u01/app/oracle/oradata/CBMNET01/DATAFILE/system01.dbf            SYSTEM                             850 YES
         3 /u01/app/oracle/oradata/CBMNET01/DATAFILE/sysaux01.dbf            SYSAUX                            3350 YES
         5 /u01/app/oracle/oradata/CBMNET01/DATAFILE/cbmnet01.dbf            CBMNET                            2048 YES
         2 /u01/app/oracle/oradata/CBMNET01/DATAFILE/users02.dbf             USERS                             5120 YES
         8 /u01/app/oracle/oradata/CBMNET01/DATAFILE/users03.dbf             USERS                             5120 YES
         9 /u01/app/oracle/oradata/CBMNET01/DATAFILE/users04.dbf             USERS                             5120 YES
        10 /u01/app/oracle/oradata/CBMNET01/DATAFILE/users05.dbf             USERS                            10240 YES
        11 /u01/app/oracle/oradata/CBMNET01/DATAFILE/users06.dbf             USERS                            10240 YES

10 rows selected.
```

Check db_recover available space

column "Total Size (GB)" format 9999.999;

select sum(blocks*block_size)/1024/1024/1024 "Total Size (GB)" from v$archived_log where status = 'A' and standby_dest = 'NO';

set lines 299

select * from v$flash_recovery_area_usage;

```
SQL> archive log list;
Database log mode              Archive Mode
Automatic archival             Enabled
Archive destination            USE_DB_RECOVERY_FILE_DEST
Oldest online log sequence     1
Next log sequence to archive   2
Current log sequence           2
SQL> show parameter recover;

NAME                                 TYPE         VALUE
------------------------------------ ------------ ------------------------------
db_recovery_file_dest                string       /u01/app/oracle/fast_recovery_
                                                  area
db_recovery_file_dest_size           big integer  100G
db_unrecoverable_scn_tracking        boolean      TRUE
recovery_parallelism                 integer      0
remote_recovery_file_dest            string
SQL> exit
Disconnected from Oracle Database 12c Enterprise Edition Release 12.2.0.1.0 - 64bit Production
[oracle@prodcbmnetdb01 ~]$ df -h /u01/app/oracle/fast_recovery_area/
Filesystem                Size  Used Avail Use% Mounted on
/dev/mapper/U01VG-U01LV   500G   70G  430G  15% /u01
```

6.Gather dictionary STATS

set echo on

set serveroutput on

EXECUTE DBMS_STATS.GATHER_DICTIONARY_STATS;

```
SQL> set echo on
SQL> set serveroutput on
SQL> EXECUTE DBMS_STATS.GATHER_DICTIONARY_STATS;

PL/SQL procedure successfully completed.
```

Purge Recyclebin and Refresh MVs

SQL> PURGE DBA_RECYCLEBIN;

SQL> declare

list_failures integer(3) :=0;

begin

DBMS_MVIEW.REFRESH_ALL_MVIEWS(list_failures,'C','', TRUE, FALSE);

end;

/

```
SQL> PURGE DBA_RECYCLEBIN;

DBA Recyclebin purged.

SQL> declare
list_failures integer(3) :=0;
begin
DBMS_MVIEW.REFRESH_ALL_MVIEWS(list_failures,'C','', TRUE, FALSE);
end;
/
  2    3    4    5    6
PL/SQL procedure successfully completed.
```

PRECHECK

SQL> SELECT * FROM v$recover_file;

no rows selected

SQL> SELECT * FROM v$backup WHERE status != 'NOT ACTIVE';

no rows selected

SQL> SELECT * from dba_users where username in ('SYS','SYSTEM') and default_tablespace!='SYSTEM';

no rows selected

SQL> SELECT * FROM dba_2pc_pending;

no rows selected

SQL> select owner, count(*) from dba_objects where status <> 'VALID'group by owner;

OWNER---

  COUNT(*)

CBMNET

     2

SYS

1

SQL> select count(*) from dba_objects where status='INVALID';

  COUNT(*)

        3

SQL> set lines 333 pages 111

SQL> col COMP_NAME form a55

SQL> select comp_name, version, status from dba_registry;

```
SQL> select comp_name, version, status from dba_registry;

COMP_NAME                                               VERSION              STATUS
------------------------------------------------------- -------------------- ---------------------------
Oracle Database Catalog Views                           12.2.0.1.0           VALID
Oracle Database Packages and Types                      12.2.0.1.0           INVALID
JServer JAVA Virtual Machine                            12.2.0.1.0           VALID
Oracle XDK                                              12.2.0.1.0           VALID
Oracle Database Java Packages                           12.2.0.1.0           VALID
OLAP Analytic Workspace                                 12.2.0.1.0           VALID
Oracle Real Application Clusters                        12.2.0.1.0           OPTION OFF
Oracle XML Database                                     12.2.0.1.0           VALID
Oracle Workspace Manager                                12.2.0.1.0           VALID
Oracle Text                                             12.2.0.1.0           VALID
Oracle Multimedia                                       12.2.0.1.0           VALID
Spatial                                                 12.2.0.1.0           VALID
Oracle OLAP API                                         12.2.0.1.0           VALID
Oracle Label Security                                   12.2.0.1.0           VALID
Oracle Database Vault                                   12.2.0.1.0           VALID

15 rows selected.
```

```
SQL> select count(*) from DBA_RECYCLEBIN;

  COUNT(*)
----------
         0

SQL> show parameter sec_case_sensitive_logon;

NAME                                 TYPE        VALUE
------------------------------------ ----------- -------
sec_case_sensitive_logon             boolean     TRUE
SQL> Select version from v$timezone_file;

   VERSION
----------
        26
```

7.RUN PREUPGRADE FIXUP

SQL> @/home/oracle/preupgrade/preupgrade_fixups.sql

```
SQL> @/home/oracle/preupgrade/preupgrade_fixups.sql

Executing Oracle PRE-Upgrade Fixup Script

Auto-Generated by:        Oracle Preupgrade Script
                          Version: 19.0.0.0.0 Build: 11
Generated on:             2023-05-09 14:18:53

For Source Database:      CBMN
Source Database Version:  12.2.0.1.0
For Upgrade to Version:   19.0.0.0.0

Preup                         Preupgrade
Action                        Issue Is
Number   Preupgrade Check Name Remedied       Further DBA Action
------   -------------------- ----------      ----------------------------
   1.    invalid_objects_exist  NO            Manual fixup recommended.
   2.    dictionary_stats       YES           None.
   3.    component_info         NO            Informational only.
                                             Further action is optional.
   4.    tablespaces_info       NO            Informational only.
                                             Further action is optional.
   5.    sync_standby_db        NO            Informational only.
                                             Further action is optional.
   6.    rman_recovery_version  NO            Informational only.
                                             Further action is optional.
   7.    invalid_ora_obj_info   NO            Informational only.
                                             Further action is optional.
   8.    invalid_app_obj_info   NO            Informational only.
                                             Further action is optional.

The fixup scripts have been run and resolved what they can. However,
there are still issues originally identified by the preupgrade that
have not been remedied and are still present in the database.
Depending on the severity of the specific issue, and the nature of
the issue itself, that could mean that your database is not ready
for upgrade.  To resolve the outstanding issues, start by reviewing
the preupgrade_fixups.sql and searching it for the name of
the failed CHECK NAME or Preupgrade Action Number listed above.
There you will find the original corresponding diagnostic message
```

Check log_mode and flashback

```
SQL> archive log list
Database log mode                   Archive Mode
Automatic archival                  Enabled
Archive destination                 USE_DB_RECOVERY_FILE_DEST
Oldest online log sequence          1
Next log sequence to archive        2
Current log sequence                2
SQL> show parameter recover

NAME                                TYPE        VALUE
----------------------------------- ----------- ---------------------------
db_recovery_file_dest               string      /u01/app/oracle/fast_recovery_
                                                area
db_recovery_file_dest_size          big integer 100G
db_unrecoverable_scn_tracking       boolean     TRUE
recovery_parallelism                integer     0
remote_recovery_file_dest           string
SQL>
SQL> !df -h /u01/app/oracle/fast_recovery_area
Filesystem               Size  Used Avail Use% Mounted on
/dev/mapper/U01VG-U01LV  500G   70G  430G  15% /u01

SQL> select flashback_on from v$database;

FLASHBACK_ON
------------------
NO

SQL> select name,open_mode,log_mode from v$database;

NAME       OPEN_MODE             LOG_MODE
---------- --------------------- ------------------
CBMN       READ WRITE            ARCHIVELOG

SQL> show parameter compatible

NAME                                TYPE        VALUE
----------------------------------- ----------- ---------------------------
compatible                          string      12.2.0
noncdb_compatible                   boolean     FALSE
```

Start 2:48

Create Flashback Restore point

```
SQL> select * from V$restore_point;

no rows selected

SQL> create restore point pre_upgrade guarantee flashback database;

Restore point created.

SQL> col name for a20
col GUARANTEE_FLASHBACK_DATABASE for a10
col TIME for a60
set lines 190
select NAME,GUARANTEE_FLASHBACK_DATABASE,TIME from V$restore_point;
SQL> SQL> SQL> SQL>
NAME                 GUARANTEE_ TIME
-------------------- ---------- -----------------------------------------------
PRE_UPGRADE          YES        09-MAY-23 02.48.40.000000000 PM
```

After Upgrade , Verify /etc/oratab

```
[oracle@prodcbmnetdb01 ~]$ /u01/app/oracle/product/19.0.0/dbhome_1/bin/dbua
Logs directory:  /u01/app/oracle/cfgtoollogs/dbua/upgrade2023-05-09_02-52-50PM
Database upgrade has been completed successfully, and the database is ready to use.
^C[oracle@prodcbmnetdb01 ~]$
[oracle@prodcbmnetdb01 ~]$
[oracle@prodcbmnetdb01 ~]$
[oracle@prodcbmnetdb01 ~]$ cd
[oracle@prodcbmnetdb01 ~]$ . db19c
[oracle@prodcbmnetdb01 ~]$ which sqlplus
/u01/app/oracle/product/19.0.0/dbhome_1/bin/sqlplus
[oracle@prodcbmnetdb01 ~]$ cat /etc/oratab
#



# 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 $ORACLE_SID are not allowed.
#
CBMNET01:/u01/app/oracle/product/19.0.0/dbhome_1:N
[oracle@prodcbmnetdb01 ~]$
```

Check Timezone and invalid

```
SQL> select name,open_mode,database_role from v$database;

NAME        OPEN_MODE             DATABASE_ROLE
---------   --------------------  ----------------
CBMN        READ WRITE            PRIMARY

SQL> SELECT version FROM v$timezone_file;

   VERSION
----------
        32

SQL> select count(1) from dba_objects where status='INVALID';

  COUNT(1)
----------
         2
```

Check DBA_REGISTRY

```
SQL> col COMP_ID for a10
col COMP_NAME for a40
col VERSION for a15
set lines 180
set pages 999
select COMP_ID,COMP_NAME,VERSION,STATUS from dba_registry;SQL> SQL> SQL> SQL> SQL>

COMP_ID     COMP_NAME                                  VERSION         STATUS
----------  -----------------------------------------  --------------  ------------
CATALOG     Oracle Database Catalog Views              19.0.0.0.0      VALID
CATPROC     Oracle Database Packages and Types         19.0.0.0.0      VALID
JAVAVM      JServer JAVA Virtual Machine               19.0.0.0.0      VALID
XML         Oracle XDK                                 19.0.0.0.0      VALID
CATJAVA     Oracle Database Java Packages              19.0.0.0.0      VALID
APS         OLAP Analytic Workspace                    19.0.0.0.0      VALID
RAC         Oracle Real Application Clusters           19.0.0.0.0      OPTION OFF
XDB         Oracle XML Database                        19.0.0.0.0      VALID
OWM         Oracle Workspace Manager                   19.0.0.0.0      VALID
CONTEXT     Oracle Text                                19.0.0.0.0      VALID
ORDIM       Oracle Multimedia                          19.0.0.0.0      VALID
SDO         Spatial                                    19.0.0.0.0      VALID
XOQ         Oracle OLAP API                            19.0.0.0.0      VALID
OLS         Oracle Label Security                      19.0.0.0.0      VALID
DV          Oracle Database Vault                      19.0.0.0.0      VALID

15 rows selected.
```

Run postupgrade.sql

```
SQL> @/home/oracle/preupgrade/postupgrade_fixups.sql

Session altered.


PL/SQL procedure successfully completed.


PL/SQL procedure successfully completed.


PL/SQL procedure successfully completed.


Package created.

No errors.

Package body created.


PL/SQL procedure successfully completed.

No errors.
```

Run UTLST.sql

```
SQL> @$ORACLE_HOME/rdbms/admin/utlusts.sql

Oracle Database Release 19 Post-Upgrade Status Tool     05-09-2023 15:44:5
Database Name: CBMN

Component                               Current      Full     Elapsed Time
Name                                    Status       Version  HH:MM:SS

Oracle Server                            VALID     19.15.0.0.0  00:07:53
JServer JAVA Virtual Machine             VALID     19.15.0.0.0  00:00:40
Oracle XDK                               VALID     19.15.0.0.0  00:00:38
Oracle Database Java Packages            VALID     19.15.0.0.0  00:00:08
OLAP Analytic Workspace                  VALID     19.15.0.0.0  00:00:08
Oracle Label Security                    VALID     19.15.0.0.0  00:00:04
Oracle Database Vault                    VALID     19.15.0.0.0  00:00:12
Oracle Text                              VALID     19.15.0.0.0  00:00:23
Oracle Workspace Manager                 VALID     19.15.0.0.0  00:00:20
Oracle Real Application Clusters    OPTION OFF     19.15.0.0.0  00:00:00
Oracle XML Database                      VALID     19.15.0.0.0  00:00:48
Oracle Multimedia                        VALID     19.15.0.0.0  00:00:27
Spatial                                  VALID     19.15.0.0.0  00:02:09
Oracle OLAP API                          VALID     19.15.0.0.0  00:00:07
Datapatch                                                      00:00:48
Final Actions                                                  00:00:51
Post Upgrade                                                   00:00:00
Post Compile                                                   00:00:01

Total Upgrade Time: 00:15:01

Database time zone version is 32. It meets current release needs.
```

Drop Restore point and Alter compatible

```
SQL> select name,open_mode from v$database;

NAME        OPEN_MODE
--------- --------------------
CBMN        READ WRITE

SQL> select * from v$restore_point;

no rows selected

SQL> show parameter compatible;

NAME                                 TYPE        VALUE
------------------------------------ ----------- ------------------------------
compatible                           string      12.2.0
noncdb_compatible                    boolean     FALSE
SQL> ALTER SYSTEM SET COMPATIBLE = '19.0.0' SCOPE=SPFILE;

System altered.

SQL> shut immediate;
Database closed.
Database dismounted.
ORACLE instance shut down.
SQL> startup
ORACLE instance started.

Total System Global Area 1.0268E+10 bytes
Fixed Size                  8907168 bytes
Variable Size            1610612736 bytes
Database Buffers         8623489024 bytes
Redo Buffers               24645632 bytes
Database mounted.
Database opened.
SQL> show parameter compatible;

NAME                                 TYPE        VALUE
------------------------------------ ----------- ------------------------------
compatible                           string      19.0.0
noncdb_compatible                    boolean     FALSE
```