mkdir -p /u01/app/oracle/product/12.1.0.2/dbhome\_1

ssh exa1node2 "mkdir -p /u01/app/oracle/product/12.1.0.2/dbhome\_1"

ssh exa2node2 "mkdir -p /u01/app/oracle/product/12.1.0.2/dbhome\_1"

ssh exa2node1 "mkdir -p /u01/app/oracle/product/12.1.0.2/dbhome\_1"

unzip linuxamd64\_12102\_database\_1of2.zip

unzip linuxamd64\_12102\_database\_2of2.zip

grep -Ev '^$|^#|=$' db\_install.rsp

oracle.install.responseFileVersion=/oracle/install/rspfmt\_dbinstall\_response\_schema\_v12.1.0

oracle.install.option=INSTALL\_DB\_SWONLY

ORACLE\_HOSTNAME=exa1node1

UNIX\_GROUP\_NAME=oinstall

SELECTED\_LANGUAGES=en

ORACLE\_HOME=/u01/app/oracle/product/12.1.0.2/dbhome\_1

ORACLE\_BASE=/u01/app/oracle

oracle.install.db.InstallEdition=EE

oracle.install.db.DBA\_GROUP=oinstall

oracle.install.db.OPER\_GROUP=oinstall

oracle.install.db.DGDBA\_GROUP=oinstall

oracle.install.db.CLUSTER\_NODES=exa1node1,exa1node2

DECLINE\_SECURITY\_UPDATES=true

./runInstaller -ignoreSysPrereqs -ignorePrereq -waitforcompletion -showProgress -silent -responseFile /software/database/response/db\_install.rsp

[oracle@exa1node1 database]$ ./runInstaller -ignoreSysPrereqs -ignorePrereq -waitforcompletion -showProgress -silent -responseFile /software/database/response/db\_install.rsp

Starting Oracle Universal Installer...

Checking Temp space: must be greater than 500 MB. Actual 3419 MB Passed

Checking swap space: must be greater than 150 MB. Actual 10239 MB Passed

Preparing to launch Oracle Universal Installer from /tmp/OraInstall2020-03-25\_04-44-45PM. Please wait ...You can find the log of this install session at:

/u01/app/oraInventory/logs/installActions2020-03-25\_04-44-45PM.log

Prepare in progress.

.................................................. 8% Done.

Prepare successful.

Copy files in progress.

.................................................. 13% Done.

.................................................. 18% Done.

.................................................. 23% Done.

.................................................. 28% Done.

.................................................. 33% Done.

.................................................. 38% Done.

.................................................. 43% Done.

..........

Copy files successful.

Link binaries in progress.

..........

Link binaries successful.

.................................................. 53% Done.

Setup files in progress.

Setup files successful.

.................................................. 59% Done.

Setup Inventory in progress.

Setup Inventory successful.

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

Finish Setup successful.

Perform remote operations in progress.

Perform remote operations successful.

.................................................. 72% Done.

Saving Cluster Inventory in progress.

..........

Saving Cluster Inventory successful.

The installation of Oracle Database 12c was successful.

Please check '/u01/app/oraInventory/logs/silentInstall2020-03-25\_04-44-45PM.log' for more details.

Setup Oracle Base in progress.

Setup Oracle Base successful.

.................................................. 86% Done.

Update Inventory in progress.

Update Inventory successful.

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

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

1. /u01/app/oracle/product/12.1.0.2/dbhome\_1/root.sh

Execute /u01/app/oracle/product/12.1.0.2/dbhome\_1/root.sh on the following nodes:

[exa1node1, exa1node2]

[oracle@exa1node1 admin]$ sqlplus / as sysdba

SQL\*Plus: Release 11.2.0.4.0 Production on Wed Mar 25 17:53:55 2020

Copyright (c) 1982, 2013, Oracle. All rights reserved.

Connected to:

Oracle Database 11g Enterprise Edition Release 11.2.0.4.0 - 64bit Production

With the Partitioning, Real Application Clusters, Automatic Storage Management, OLAP,

Data Mining and Real Application Testing options

SQL> @preupgrd.sql

Loading Pre-Upgrade Package...

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Executing Pre-Upgrade Checks in EXA1DB...

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

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====>> ERRORS FOUND for EXA1DB <<====

The following are \*\*\* ERROR LEVEL CONDITIONS \*\*\* that must be addressed

prior to attempting your upgrade.

Failure to do so will result in a failed upgrade.

You MUST resolve the above errors prior to upgrade

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

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====>> PRE-UPGRADE RESULTS for EXA1DB <<====

ACTIONS REQUIRED:

1. Review results of the pre-upgrade checks:

/u01/app/oracle/cfgtoollogs/EXA1DB/preupgrade/preupgrade.log

2. Execute in the SOURCE environment BEFORE upgrade:

/u01/app/oracle/cfgtoollogs/EXA1DB/preupgrade/preupgrade\_fixups.sql

3. Execute in the NEW environment AFTER upgrade:

/u01/app/oracle/cfgtoollogs/EXA1DB/preupgrade/postupgrade\_fixups.sql

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Pre-Upgrade Checks in EXA1DB Completed.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

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Create Flashback Guaranteed Restore Point:

create restore point pre\_upgrade guarantee flashback database;

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;

DISABLE DATAGAURD:

oracle@exa1node1 software]$ dgmgrl /

DGMGRL for Linux: Version 11.2.0.4.0 - 64bit Production

Copyright (c) 2000, 2009, Oracle. All rights reserved.

Welcome to DGMGRL, type "help" for information.

Connected.

DGMGRL> show configuration;

Configuration - exadbconfig

Protection Mode: MaxPerformance

Databases:

exa1db - Primary database

exa2db - Physical standby database

Fast-Start Failover: DISABLED

Configuration Status:

SUCCESS

DGMGRL> show database exa2db

Database - exa2db

Role: PHYSICAL STANDBY

Intended State: APPLY-ON

Transport Lag: 0 seconds (computed 1 second ago)

Apply Lag: 0 seconds (computed 1 second ago)

Apply Rate: 129.00 KByte/s

Real Time Query: OFF

Instance(s):

EXA2DB1 (apply instance)

EXA2DB2

Database Status:

SUCCESS

DGMGRL> sql 'create tablespace dodo';

Succeeded.

DGMGRL> EDIT DATABASE 'exa2db' SET STATE='APPLY-OFF';

Succeeded.

DGMGRL> disable configuration;

Shutdown Databases (Primary and Secondary):

srvctl stop database -d EXA1DB

srvctl status database -d EXA1DB

srvctl stop database -d EXA2DB

srvctl status database -d EXA2DB

STOP LISTENER:

srvctl stop listener -n exa1node1

srvctl stop listener -n exa1node2

srvctl stop listener -n exa2node1

srvctl stop listener -n exa2node2

Copy init and password files from 11g to 12c dbs home

on all PRIMARY AND STANDBY nodes:

cp /u01/app/oracle/product/11.2.0/dbhome\_1/dbs/initEXA1DB1.ora /u01/app/oracle/product/12.1.0.2/dbhome\_1/dbs

cp /u01/app/oracle/product/11.2.0/dbhome\_1/dbs/orapwEXA1DB1 /u01/app/oracle/product/12.1.0.2/dbhome\_1/dbs

cp /u01/app/oracle/product/11.2.0/dbhome\_1/network/admin/tnsnames.ora /u01/app/oracle/product/12.1.0.2/dbhome\_1/network/admin

cp /u01/app/oracle/product/11.2.0/dbhome\_1/dbs/initEXA1DB2.ora /u01/app/oracle/product/12.1.0.2/dbhome\_1/dbs

cp /u01/app/oracle/product/11.2.0/dbhome\_1/dbs/orapwEXA1DB2 /u01/app/oracle/product/12.1.0.2/dbhome\_1/dbs

cp /u01/app/oracle/product/11.2.0/dbhome\_1/network/admin/tnsnames.ora /u01/app/oracle/product/12.1.0.2/dbhome\_1/network/admin

cp /u01/app/oracle/product/11.2.0/dbhome\_1/dbs/initEXA2DB1.ora /u01/app/oracle/product/12.1.0.2/dbhome\_1/dbs

cp /u01/app/oracle/product/11.2.0/dbhome\_1/dbs/orapwEXA2DB1 /u01/app/oracle/product/12.1.0.2/dbhome\_1/dbs

cp /u01/app/oracle/product/11.2.0/dbhome\_1/network/admin/tnsnames.ora /u01/app/oracle/product/12.1.0.2/dbhome\_1/network/admin

cp /u01/app/oracle/product/11.2.0/dbhome\_1/dbs/initEXA2DB2.ora /u01/app/oracle/product/12.1.0.2/dbhome\_1/dbs

cp /u01/app/oracle/product/11.2.0/dbhome\_1/dbs/orapwEXA2DB2 /u01/app/oracle/product/12.1.0.2/dbhome\_1/dbs

cp /u01/app/oracle/product/11.2.0/dbhome\_1/network/admin/tnsnames.ora /u01/app/oracle/product/12.1.0.2/dbhome\_1/network/admin

START UPGRADE

export ORACLE\_HOME=/u01/app/oracle/product/12.1.0.2/dbhome\_1

export ORACLE\_SID=EXA1DB1

export PATH=$ORACLE\_HOME/bin:$PATH; export PATH

sqlplus / as sysdba

startup nomount;

alter system set cluster\_database=FALSE scope=spfile sid='\*' ;

shutdown immediate;

startup upgrade;

select instance\_name,version,status from v$instance;

cd $ORACLE\_HOME/rdbms/admin

$ORACLE\_HOME/perl/bin/perl catctl.pl -n 4 catupgrd.sql

[oracle@exa1node1 admin]$ $ORACLE\_HOME/perl/bin/perl catctl.pl -n 4 catupgrd.sql

Argument list for [catctl.pl]

SQL Process Count n = 4

SQL PDB Process Count N = 0

Input Directory d = 0

Phase Logging Table t = 0

Log Dir l = 0

Script s = 0

Serial Run S = 0

Upgrade Mode active M = 0

Start Phase p = 0

End Phase P = 0

Log Id i = 0

Run in c = 0

Do not run in C = 0

Echo OFF e = 1

No Post Upgrade x = 0

Reverse Order r = 0

Open Mode Normal o = 0

Debug catcon.pm z = 0

Debug catctl.pl Z = 0

Display Phases y = 0

Child Process I = 0

catctl.pl version: 12.1.0.2.0

Oracle Base = /u01/app/oracle

Analyzing file catupgrd.sql

Log files in /u01/app/oracle/product/12.1.0.2/dbhome\_1/rdbms/admin

catcon: ALL catcon-related output will be written to catupgrd\_catcon\_28990.lst

catcon: See catupgrd\*.log files for output generated by scripts

catcon: See catupgrd\_\*.lst files for spool files, if any

Number of Cpus = 1

SQL Process Count = 4

------------------------------------------------------

Phases [0-73]

Serial Phase #: 0 Files: 1

Time: 262s

Serial Phase #: 1 Files: 5 Time: 50s

Restart Phase #: 2 Files: 1 Time: 1s

Parallel Phase #: 3 Files: 18 Time: 19s

Restart Phase #: 4 Files: 1 Time: 0s

Serial Phase #: 5 Files: 5 Time: 25s

Serial Phase #: 6 Files: 1 Time: 17s

Serial Phase #: 7 Files: 4 Time: 10s

Restart Phase #: 8 Files: 1 Time: 1s

Parallel Phase #: 9 Files: 62 Time: 96s

Restart Phase #:10 Files: 1 Time: 0s

Serial Phase #:11 Files: 1 Time: 19s

Restart Phase #:12 Files: 1 Time: 0s

Parallel Phase #:13 Files: 91 Time: 17s

Restart Phase #:14 Files: 1 Time: 0s

Parallel Phase #:15 Files: 111 Time: 35s

Restart Phase #:16 Files: 1 Time: 0s

Serial Phase #:17 Files: 3 Time: 2s

Restart Phase #:18 Files: 1 Time: 0s

Parallel Phase #:19 Files: 32 Time: 42s

Restart Phase #:20 Files: 1 Time: 0s

Serial Phase #:21 Files: 3 Time: 9s

Restart Phase #:22 Files: 1 Time: 0s

Parallel Phase #:23 Files: 23 Time: 112s

Restart Phase #:24 Files: 1 Time: 0s

Parallel Phase #:25 Files: 11 Time: 75s

Restart Phase #:26 Files: 1 Time: 1s

Serial Phase #:27 Files: 1 Time: 0s

Restart Phase #:28 Files: 1 Time: 0s

Serial Phase #:30 Files: 1 Time: 0s

Serial Phase #:31 Files: 257 Time: 27s

Serial Phase #:32 Files: 1 Time: 0s

Restart Phase #:33 Files: 1 Time: 0s

Serial Phase #:34 Files: 1 Time: 5s

Restart Phase #:35 Files: 1 Time: 0s

Restart Phase #:36 Files: 1 Time: 1s

Serial Phase #:37 Files: 4 Time: 57s

Restart Phase #:38 Files: 1 Time: 0s

Parallel Phase #:39 Files: 13 Time: 72s

Restart Phase #:40 Files: 1 Time: 0s

Parallel Phase #:41 Files: 10 Time: 12s

Restart Phase #:42 Files: 1 Time: 0s

Serial Phase #:43 Files: 1 Time: 6s

Restart Phase #:44 Files: 1 Time: 0s

Serial Phase #:45 Files: 1 Time: 8s

Serial Phase #:46 Files: 1 Time: 0s

Restart Phase #:47 Files: 1 Time: 1s

Serial Phase #:48 Files: 1 Time: 295s

Restart Phase #:49 Files: 1 Time: 0s

Serial Phase #:50 Files: 1 Time: 39s

Restart Phase #:51 Files: 1 Time: 0s

Serial Phase #:52 Files: 1 Time: 23s

Restart Phase #:53 Files: 1 Time: 1s

Serial Phase #:54 Files: 1 Time: 399s

Restart Phase #:55 Files: 1 Time: 1s

Serial Phase #:56 Files: 1 Time: 110s

Restart Phase #:57 Files: 1 Time: 0s

Serial Phase #:58 Files: 1 Time: 152s

Restart Phase #:59 Files: 1 Time: 1s

Serial Phase #:60 Files: 1 Time: 567s

Restart Phase #:61 Files: 1 Time: 0s

Serial Phase #:62 Files: 1 Time: 1300s

Restart Phase #:63 Files: 1 Time: 0s

Serial Phase #:64 Files: 1 Time: 1s

Serial Phase #:65 Files: 1 Calling sqlpatch with LD\_LIBRARY\_PATH=/u01/app/oracle/product/12.1.0.2/dbhome\_1/lib; export LD\_LIBRARY\_PATH;/u01/app/oracle/product/12.1.0.2/dbhome\_1/perl/bin/perl -I /u01/app/oracle/product/12.1.0.2/dbhome\_1/rdbms/admin -I /u01/app/oracle/product/12.1.0.2/dbhome\_1/rdbms/admin/../../sqlpatch /u01/app/oracle/product/12.1.0.2/dbhome\_1/rdbms/admin/../../sqlpatch/sqlpatch.pl -verbose -upgrade\_mode\_only > catupgrd\_datapatch\_upgrade.log 2> catupgrd\_datapatch\_upgrade.err

returned from sqlpatch

Time: 58s

Serial Phase #:66 Files: 1 Time: 50s

Serial Phase #:68 Files: 1 Time: 0s

Serial Phase #:69 Files: 1 Calling sqlpatch with LD\_LIBRARY\_PATH=/u01/app/oracle/product/12.1.0.2/dbhome\_1/lib; export LD\_LIBRARY\_PATH;/u01/app/oracle/product/12.1.0.2/dbhome\_1/perl/bin/perl -I /u01/app/oracle/product/12.1.0.2/dbhome\_1/rdbms/admin -I /u01/app/oracle/product/12.1.0.2/dbhome\_1/rdbms/admin/../../sqlpatch /u01/app/oracle/product/12.1.0.2/dbhome\_1/rdbms/admin/../../sqlpatch/sqlpatch.pl -verbose > catupgrd\_datapatch\_normal.log 2> catupgrd\_datapatch\_normal.err

returned from sqlpatch

Time: 145s

Serial Phase #:70 Files: 1 Time: 419s

Serial Phase #:71 Files: 1 Time: 1s

Serial Phase #:72 Files: 1 Time: 0s

Serial Phase #:73 Files: 1 Time: 48s

Grand Total Time: 4606s

LOG FILES: (catupgrd\*.log)

Upgrade Summary Report Located in:

/u01/app/oracle/product/12.1.0.2/dbhome\_1/cfgtoollogs/EXA1DB/upgrade/upg\_summary.log

Grand Total Upgrade Time: [0d:1h:16m:46s]

You have new mail in /var/spool/mail/oracle

SQL> startup

ORACLE instance started.

Total System Global Area 3070230528 bytes

Fixed Size 2929112 bytes

Variable Size 1107299880 bytes

Database Buffers 1946157056 bytes

Redo Buffers 13844480 bytes

Database mounted.

Database opened.

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

---------- ---------------------------------------- --------------- -----------

APEX Oracle Application Express 4.2.5.00.08 VALID

OWB OWB 11.2.0.4.0 VALID

AMD OLAP Catalog 11.2.0.4.0 OPTION OFF

SDO Spatial 12.1.0.2.0 UPGRADED

ORDIM Oracle Multimedia 12.1.0.2.0 VALID

XDB Oracle XML Database 12.1.0.2.0 VALID

CONTEXT Oracle Text 12.1.0.2.0 VALID

OWM Oracle Workspace Manager 12.1.0.2.0 VALID

CATALOG Oracle Database Catalog Views 12.1.0.2.0 UPGRADED

CATPROC Oracle Database Packages and Types 12.1.0.2.0 UPGRADED

JAVAVM JServer JAVA Virtual Machine 12.1.0.2.0 VALID

XML Oracle XDK 12.1.0.2.0 VALID

CATJAVA Oracle Database Java Packages 12.1.0.2.0 VALID

APS OLAP Analytic Workspace 12.1.0.2.0 VALID

XOQ Oracle OLAP API 12.1.0.2.0 VALID

RAC Oracle Real Application Clusters 12.1.0.2.0 VALID

16 rows selected.

SQL> @utlu121s.sql

PL/SQL procedure successfully completed.

PL/SQL procedure successfully completed.

CATCTL REPORT = /u01/app/oracle/product/12.1.0.2/dbhome\_1/cfgtoollogs/EXA1DB/upgrade/upg\_summary.log

PL/SQL procedure successfully completed.

Oracle Database 12.1 Post-Upgrade Status Tool 03-26-2020 05:44:40

Component Current Version Elapsed Time

Name Status Number HH:MM:SS

Oracle Server UPGRADED 12.1.0.2.0 00:16:20

JServer JAVA Virtual Machine VALID 12.1.0.2.0 00:04:54

Oracle Real Application Clusters VALID 12.1.0.2.0 00:00:01

Oracle Workspace Manager VALID 12.1.0.2.0 00:01:23

OLAP Analytic Workspace VALID 12.1.0.2.0 00:00:22

OLAP Catalog OPTION OFF 11.2.0.4.0 00:00:00

Oracle OLAP API VALID 12.1.0.2.0 00:00:18

Oracle XDK VALID 12.1.0.2.0 00:00:38

Oracle Text VALID 12.1.0.2.0 00:01:09

Oracle XML Database VALID 12.1.0.2.0 00:05:29

Oracle Database Java Packages VALID 12.1.0.2.0 00:00:24

Oracle Multimedia VALID 12.1.0.2.0 00:02:32

Spatial UPGRADED 12.1.0.2.0 00:09:26

Oracle Application Express VALID 4.2.5.00.08 00:20:49

Final Actions 00:01:37

Post Upgrade 00:06:46

Total Upgrade Time: 01:12:52

PL/SQL procedure successfully completed.

SQL>

SQL> --

SQL> -- Update Summary Table with con\_name and endtime.

SQL> --

SQL> UPDATE sys.registry$upg\_summary SET reportname = :ReportName,

2 con\_name = SYS\_CONTEXT('USERENV','CON\_NAME'),

3 endtime = SYSDATE

4 WHERE con\_id = -1;

1 row updated.

SQL> commit;

Commit complete.

[oracle@exa1node1 admin]$ sqlplus / as sysdba

SQL\*Plus: Release 12.1.0.2.0 Production on Thu Mar 26 05:51:59 2020

Copyright (c) 1982, 2014, Oracle. All rights reserved.

Connected to:

Oracle Database 12c Enterprise Edition Release 12.1.0.2.0 - 64bit Production

With the Partitioning, Real Application Clusters, Automatic Storage Management, OLAP,

Advanced Analytics and Real Application Testing options

SQL> @/u01/app/oracle/cfgtoollogs/EXA1DB/preupgrade/postupgrade\_fixups.sql

Post Upgrade Fixup Script Generated on 2020-03-25 17:54:46 Version: 12.1.0.2 Build: 006

Beginning Post-Upgrade Fixups...

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Check Tag: OLD\_TIME\_ZONES\_EXIST

Check Summary: Check for use of older timezone data file

Fix Summary: Update the timezone using the DBMS\_DST package after upgrade is complete.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Fixup Returned Information:

INFORMATION: --> Older Timezone in use

Database is using a time zone file older than version 18.

After the upgrade, it is recommended that DBMS\_DST package

be used to upgrade the 12.1.0.2.0 database time zone version

to the latest version which comes with the new release.

Please refer to My Oracle Support note number 977512.1 for details.

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Check Tag: NOT\_UPG\_BY\_STD\_UPGRD

Check Summary: Identify existing components that will NOT be upgraded

Fix Summary: This fixup does not perform any action.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Fixup Returned Information:

This fixup does not perform any action.

If you want to upgrade those other components, you must do so manually.

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[Post-Upgrade Recommendations]

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\*\*\*\*\*\*\*\* Fixed Object Statistics \*\*\*\*\*\*\*\*

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Please create stats on fixed objects two weeks

after the upgrade using the command:

EXECUTE DBMS\_STATS.GATHER\_FIXED\_OBJECTS\_STATS;

^^^ MANUAL ACTION SUGGESTED ^^^

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

\*\*\*\*\*\*\*\*\*\*\*\*\* Fixup Summary \*\*\*\*\*\*\*\*\*\*\*\*

2 fixup routines generated INFORMATIONAL messages that should be reviewed.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Post Upgrade Fixup Script Complete \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

PL/SQL procedure successfully completed.

Update Timezone

Download DBMS\_DST\_scriptsV1.9.zip from Oracle Support 1585343.1

[oracle@exa1node1 DST]$ unzip DBMS\_DST\_scriptsV1.9.zip

Archive: DBMS\_DST\_scriptsV1.9.zip

creating: DBMS\_DST\_scriptsV1.9/

inflating: DBMS\_DST\_scriptsV1.9/countstarTSTZ.sql

inflating: DBMS\_DST\_scriptsV1.9/countstatsTSTZ.sql

inflating: DBMS\_DST\_scriptsV1.9/upg\_tzv\_apply.sql

inflating: DBMS\_DST\_scriptsV1.9/upg\_tzv\_check.sql

[oracle@exa1node1 DST]$ cd DBMS\_DST\_scriptsV1.9/

[oracle@exa1node1 DBMS\_DST\_scriptsV1.9]$ sqlplus / as sysdba

SQL\*Plus: Release 12.1.0.2.0 Production on Thu Mar 26 06:54:20 2020

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Connected to:

Oracle Database 12c Enterprise Edition Release 12.1.0.2.0 - 64bit Production

With the Partitioning, Real Application Clusters, Automatic Storage Management, OLAP,

Advanced Analytics and Real Application Testing options

SQL> @upg\_tzv\_check.sql

INFO: Starting with RDBMS DST update preparation.

INFO: NO actual RDBMS DST update will be done by this script.

INFO: If an ERROR occurs the script will EXIT sqlplus.

INFO: Doing checks for known issues ...

INFO: Database version is 12.1.0.2 .

INFO: Database RDBMS DST version is DSTv14 .

INFO: No known issues detected.

INFO: Now detecting new RDBMS DST version.

A prepare window has been successfully started.

INFO: Newest RDBMS DST version detected is DSTv18 .

INFO: Next step is checking all TSTZ data.

INFO: It might take a while before any further output is seen ...

A prepare window has been successfully ended.

INFO: A newer RDBMS DST version than the one currently used is found.

INFO: Note that NO DST update was yet done.

INFO: Now run upg\_tzv\_apply.sql to do the actual RDBMS DST update.

INFO: Note that the upg\_tzv\_apply.sql script will

INFO: restart the database 2 times WITHOUT any confirmation or prompt.

SQL> @upg\_tzv\_apply.sql

INFO: If an ERROR occurs the script will EXIT sqlplus.

INFO: The database RDBMS DST version will be updated to DSTv18 .

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 3070230528 bytes

Fixed Size 2929112 bytes

Variable Size 989859368 bytes

Database Buffers 2063597568 bytes

Redo Buffers 13844480 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 3070230528 bytes

Fixed Size 2929112 bytes

Variable Size 989859368 bytes

Database Buffers 2063597568 bytes

Redo Buffers 13844480 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\_S"

Number of failures: 0

Table list: "GSMADMIN\_INTERNAL"."AQ$\_CHANGE\_LOG\_QUEUE\_TABLE\_L"

Number of failures: 0

Table list: "APEX\_040200"."WWV\_FLOW\_WORKSHEET\_NOTIFY"

Number of failures: 0

Table list: "APEX\_040200"."WWV\_FLOW\_FEEDBACK\_FOLLOWUP"

Number of failures: 0

Table list: "APEX\_040200"."WWV\_FLOW\_FEEDBACK"

Number of failures: 0

Table list: "APEX\_040200"."WWV\_FLOW\_DEBUG\_MESSAGES2"

Number of failures: 0

Table list: "APEX\_040200"."WWV\_FLOW\_DEBUG\_MESSAGES"

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 DSTv18 .

INFO: The RDBMS DST update is successfully finished.

INFO: Make sure to exit this sqlplus session.

INFO: Do not use it for timezone related selects.

SQL> SELECT version FROM v$timezone\_file;

VERSION

----------

18

1 row selected.

SQL> @utlrp.sql

TIMESTAMP

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COMP\_TIMESTAMP UTLRP\_BGN 2020-03-26 07:42:00

DOC> The following PL/SQL block invokes UTL\_RECOMP to recompile invalid

DOC> objects in the database. Recompilation time is proportional to the

DOC> number of invalid objects in the database, so this command may take

DOC> a long time to execute on a database with a large number of invalid

DOC> objects.

DOC>

DOC> Use the following queries to track recompilation progress:

DOC>

DOC> 1. Query returning the number of invalid objects remaining. This

DOC> number should decrease with time.

DOC> SELECT COUNT(\*) FROM obj$ WHERE status IN (4, 5, 6);

DOC>

DOC> 2. Query returning the number of objects compiled so far. This number

DOC> should increase with time.

DOC> SELECT COUNT(\*) FROM UTL\_RECOMP\_COMPILED;

DOC>

DOC> This script automatically chooses serial or parallel recompilation

DOC> based on the number of CPUs available (parameter cpu\_count) multiplied

DOC> by the number of threads per CPU (parameter parallel\_threads\_per\_cpu).

DOC> On RAC, this number is added across all RAC nodes.

DOC>

DOC> UTL\_RECOMP uses DBMS\_SCHEDULER to create jobs for parallel

DOC> recompilation. Jobs are created without instance affinity so that they

DOC> can migrate across RAC nodes. Use the following queries to verify

DOC> whether UTL\_RECOMP jobs are being created and run correctly:

DOC>

DOC> 1. Query showing jobs created by UTL\_RECOMP

DOC> SELECT job\_name FROM dba\_scheduler\_jobs

DOC> WHERE job\_name like 'UTL\_RECOMP\_SLAVE\_%';

DOC>

DOC> 2. Query showing UTL\_RECOMP jobs that are running

DOC> SELECT job\_name FROM dba\_scheduler\_running\_jobs

DOC> WHERE job\_name like 'UTL\_RECOMP\_SLAVE\_%';

DOC>#

PL/SQL procedure successfully completed.

TIMESTAMP

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COMP\_TIMESTAMP UTLRP\_END 2020-03-26 07:42:02

DOC> The following query reports the number of objects that have compiled

DOC> with errors.

DOC>

DOC> If the number is higher than expected, please examine the error

DOC> messages reported with each object (using SHOW ERRORS) to see if they

DOC> point to system misconfiguration or resource constraints that must be

DOC> fixed before attempting to recompile these objects.

DOC>#

OBJECTS WITH ERRORS

-------------------

0

DOC> The following query reports the number of errors caught during

DOC> recompilation. If this number is non-zero, please query the error

DOC> messages in the table UTL\_RECOMP\_ERRORS to see if any of these errors

DOC> are due to misconfiguration or resource constraints that must be

DOC> fixed before objects can compile successfully.

DOC>#

ERRORS DURING RECOMPILATION

---------------------------

0

Function created.

PL/SQL procedure successfully completed.

Function dropped.

...Database user "SYS", database schema "APEX\_040200", user# "110" 07:42:13

...Compiled 0 out of 3014 objects considered, 0 failed compilation 07:42:13

...271 packages

...263 package bodies

...452 tables

...11 functions

...16 procedures

...3 sequences

...457 triggers

...1320 indexes

...211 views

...0 libraries

...6 types

...0 type bodies

...0 operators

...0 index types

...Begin key object existence check 07:42:13

...Completed key object existence check 07:42:13

...Setting DBMS Registry 07:42:13

...Setting DBMS Registry Complete 07:42:14

...Exiting validate 07:42:14

PL/SQL procedure successfully completed.

SQL> @utluiobj.sql

.

Oracle Database 12.1 Post-Upgrade Invalid Objects Tool 03-26-2020 07:42:41

.

This tool lists post-upgrade invalid objects that were not invalid

prior to upgrade (it ignores pre-existing pre-upgrade invalid objects).

.

Owner Object Name Object Type

.

PL/SQL procedure successfully completed.

SQL> @utluiobj.sql

.

Oracle Database 12.1 Post-Upgrade Invalid Objects Tool 03-26-2020 07:42:41

.

This tool lists post-upgrade invalid objects that were not invalid

prior to upgrade (it ignores pre-existing pre-upgrade invalid objects).

.

Owner Object Name Object Type

.

PL/SQL procedure successfully completed.

SQL> @utlu121s.sql

PL/SQL procedure successfully completed.

PL/SQL procedure successfully completed.

CATCTL REPORT = /u01/app/oracle/product/12.1.0.2/dbhome\_1/cfgtoollogs/EXA1DB/upgrade/upg\_summary.log

PL/SQL procedure successfully completed.

Oracle Database 12.1 Post-Upgrade Status Tool 03-26-2020 07:43:49

Component Current Version Elapsed Time

Name Status Number HH:MM:SS

Oracle Server VALID 12.1.0.2.0 00:16:20

JServer JAVA Virtual Machine VALID 12.1.0.2.0 00:04:54

Oracle Real Application Clusters VALID 12.1.0.2.0 00:00:01

Oracle Workspace Manager VALID 12.1.0.2.0 00:01:23

OLAP Analytic Workspace VALID 12.1.0.2.0 00:00:22

OLAP Catalog OPTION OFF 11.2.0.4.0 00:00:00

Oracle OLAP API VALID 12.1.0.2.0 00:00:18

Oracle XDK VALID 12.1.0.2.0 00:00:38

Oracle Text VALID 12.1.0.2.0 00:01:09

Oracle XML Database VALID 12.1.0.2.0 00:05:29

Oracle Database Java Packages VALID 12.1.0.2.0 00:00:24

Oracle Multimedia VALID 12.1.0.2.0 00:02:32

Spatial VALID 12.1.0.2.0 00:09:26

Oracle Application Express VALID 4.2.5.00.08 00:20:49

Final Actions 00:01:37

Post Upgrade 00:06:46

Total Upgrade Time: 01:12:52

PL/SQL procedure successfully completed.

SQL>

SQL> --

SQL> -- Update Summary Table with con\_name and endtime.

SQL> --

SQL> UPDATE sys.registry$upg\_summary SET reportname = :ReportName,

2 con\_name = SYS\_CONTEXT('USERENV','CON\_NAME'),

3 endtime = SYSDATE

4 WHERE con\_id = -1;

1 row updated.

SQL> commit;

Commit complete.

SQL> alter system set COMPATIBLE ='12.1.0' scope=spfile;

stop database

srvctl upgrade database -d EXA1DB -o $ORACLE\_HOME

srvctl start database -d EXA1DB

srvctl status database -d EXA1DB

Instance EXA1DB1 is running on node exa1node1

Instance EXA1DB2 is running on node exa1node2

[oracle@exa1node1 admin]$ srvctl config database -d EXA1DB

Database unique name: EXA1DB

Database name: EXA1DB

Oracle home: /u01/app/oracle/product/12.1.0.2/dbhome\_1

Oracle user: oracle

Spfile: +DGDATA/EXA1DB/spfileEXA1DB.ora

Password file:

Domain:

Start options: open

Stop options: immediate

Database role: PRIMARY

Management policy: AUTOMATIC

Server pools:

Disk Groups: DGDATA,DGRECO

Mount point paths:

Services:

Type: RAC

Start concurrency:

Stop concurrency:

OSDBA group: oinstall

OSOPER group: oinstall

Database instances: EXA1DB1,EXA1DB2

Configured nodes: exa1node1,exa1node2

Database is administrator managed

WORK ON STANDBY RAC CLUSTER

srvctl upgrade database -d EXA2DB -o $ORACLE\_HOME

sqlplus / as sysdba

SQL\*Plus: Release 12.1.0.2.0 Production on Thu Mar 26 11:33:20 2020

Copyright (c) 1982, 2014, Oracle. All rights reserved.

Connected to an idle instance.

SQL> startup nomount;

ORACLE instance started.

Total System Global Area 3070230528 bytes

Fixed Size 2929112 bytes

Variable Size 1040191016 bytes

Database Buffers 2013265920 bytes

Redo Buffers 13844480 bytes

SQL> show parameters compatible

NAME TYPE VALUE

------------------------------------ ----------- ------------------------------

compatible string 11.2.0.4

noncdb\_compatible boolean FALSE

SQL> alter system set compatible='12.1.0' scope=spfile;

System altered.

SQL> shutdown immediate;

ORA-01507: database not mounted

ORACLE instance shut down.

SQL> exit

Disconnected from Oracle Database 12c Enterprise Edition Release 12.1.0.2.0 - 64bit Production

With the Partitioning, Real Application Clusters, OLAP, Advanced Analytics

and Real Application Testing options

[oracle@exa2node1 ~]$ srvctl status database -d EXA2DB

Instance EXA2DB1 is not running on node exa2node1

Instance EXA2DB2 is not running on node exa2node2

[oracle@exa2node1 ~]$ srvctl config database -d EXA2DB

Database unique name: EXA2DB

Database name:

Oracle home: /u01/app/oracle/product/12.1.0.2/dbhome\_1

Oracle user: oracle

Spfile: +DG\_DATA/EXA2DB/PARAMETERFILE/spfileEXA2DB1.ora

Password file:

Domain:

Start options: mount

Stop options: immediate

Database role: PHYSICAL\_STANDBY

Management policy: AUTOMATIC

Server pools:

Disk Groups: DG\_DATA,DG\_RECO

Mount point paths:

Services:

Type: RAC

Start concurrency:

Stop concurrency:

OSDBA group: oinstall

OSOPER group: oinstall

Database instances: EXA2DB1,EXA2DB2

Configured nodes: exa2node1,exa2node2

Database is administrator managed

[oracle@exa2node1 ~]$ srvctl start database -d EXA2DB

[oracle@exa2node1 ~]$ srvctl status database -d EXA2DB

Instance EXA2DB1 is running on node exa2node1

Instance EXA2DB2 is running on node exa2node2

[oracle@exa2node1 ~]$ srvctl status database -d EXA2DB -v

Instance EXA2DB1 is running on node exa2node1. Instance status: Mounted (Closed).

Instance EXA2DB2 is running on node exa2node2. Instance status: Mounted (Closed).

ACTIVATE DATAGUARD: