

***Advanced Customer Support***

Oracle EBS Database

19c Install and XTTS migration to 19c IFSPROD

Prepared For

CVS



**Prepared by Advanced Customer Support**

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# **Summary - Introduction**

Oracle ACS is engaged by CVS Pharmacy to plan, manage, and execute database upgrades of EBS databases to 19c version.

This involves discovery, study, plan, and analysis and execute the implementation of upgrades of the databases listed in scope. The plan will also include testing upgrades and identify and fix performance regressions barring SQL rewriting and query tuning.

This document outlines the steps to migrate and upgrade the IFSPROD EBS database from 12.1.0.2 to 19.15 PDB using the transportable tablespace method.

## **Purpose**

This document will include step-by-step tasks needed to **upgrade 12.1.0.2 EBS database to 19.15c database using the transportable tablespace** method.

Using Transportable Tablespaces to Migrate Oracle E-Business Suite Release 12.2 Using Oracle Database 19c Enterprise Edition on a Multitenant Environment (Doc ID 2674405.1)

# **Prepare the source database**

## **Precheck**

On the Source 12.1 database, log in as sysdba

EXEC sys.dbms\_tts.transport\_set\_check ('APPS\_TS\_SEED',TRUE);

Run pre TTS script as sys user

cd /oraexport/ifsuexport/expdmp/scripts

@/oraexport/ifsuexport/expdmp/scripts/auxttspre.sql

Make copies of the output files from this script particularly auimpfulltts.dat

Review the auxttspre.log file should consist of only one line message “***Transportable set check completed successfully.***”

If not then there are issues with the data that need to be addressed. The log will indicate problem tablespaces. These Tablespaces will have been left out of the generated transport set.

You can run a script to help identify the problem tablespace and objects

select distinct tablespace\_name from dba\_segments where owner in (select unique(name) from sys.ku\_noexp\_tab where OBJ\_TYPE in

('USER','SCHEMA')) and tablespace\_name not in ('SYSTEM','SYSAUX','APPS\_UNDOTS1');

***Sample output***

*TABLESPACE\_NAME*

*------------------------------*

*AEADMIN*

*AEDBA*

*AEMON*

*APPS\_TS\_TX\_DATA*

*AUDIT\_SPACE*

*INTERIM*

*NOETIXD*

*PM1*

*USERSD*

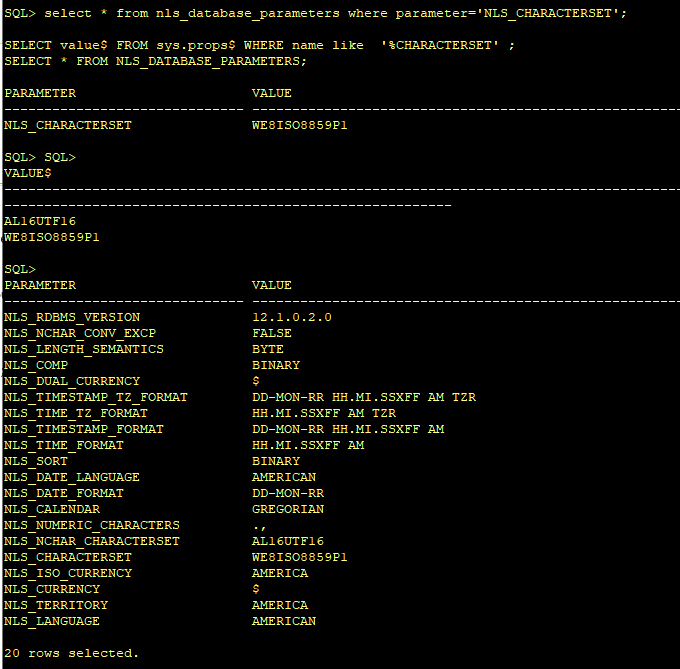
For each one of these tablespaces we need to identify the issue.

select OWNER,SEGMENT\_NAME,SEGMENT\_TYPE from dba\_segments where owner in (select unique(name) from sys.ku\_noexp\_tab where OBJ\_TYPE in

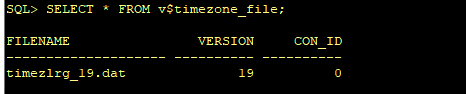
('USER','SCHEMA')) and tablespace\_name='APPS\_TS\_TX\_DATA';

**We do not need to deal with these issues now. We have run the auxttspre.sql script to create the necessary files to complete the setup of the 19c database and PDB. So move on with the rest of discovery and install/creation of the 19c Database.**

Check source database character set



Check timezone file version



# **Prepare the target database**

## **Install**

Run the installer from the new unzipped 19c binaries

Gold image location to copy

/orastage/ifsustage/19cUpgrade/gold/db\_gold.tar

Home will be **/orahome/allu01/app/oracle/product/19.0.0.0/db\_ifsprod**

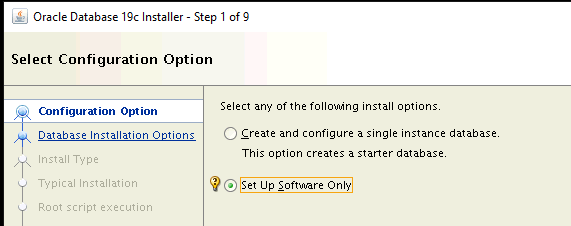
as root run /orahome/allu01/app/oracle/product/19.0.0.0/db\_ifsprod/clone/rootpre.sh

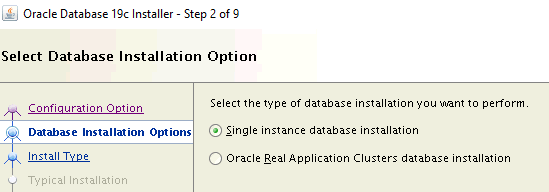
Switch back to oracle user

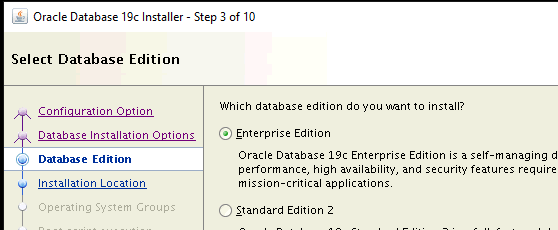
cd /orahome/allu01/app/oracle/product/19.0.0.0/db\_ifsprod

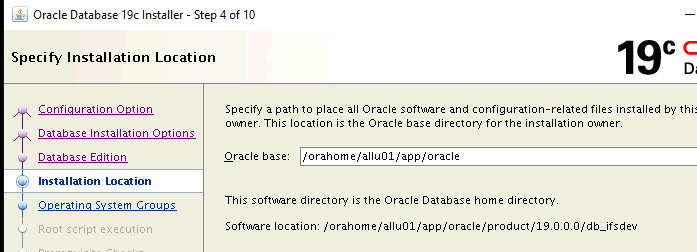
./runInstaller

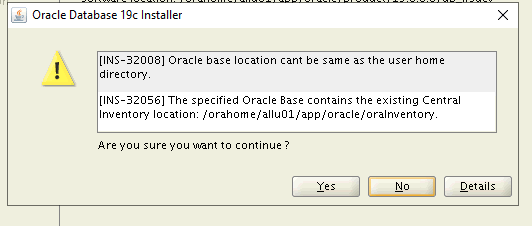
*Use the following screenshots as guide.*

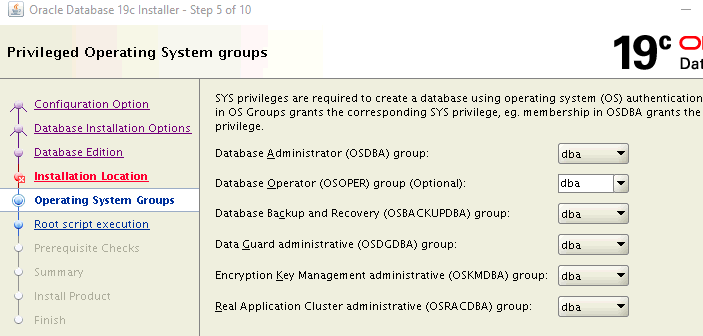


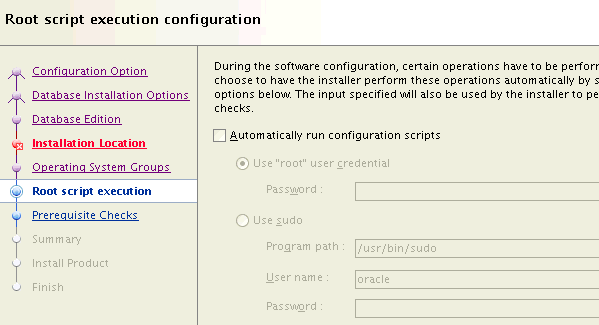


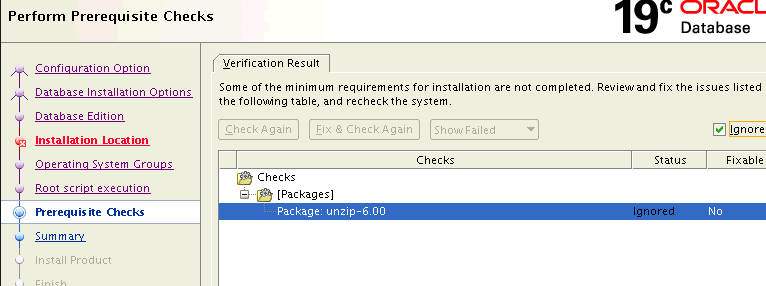


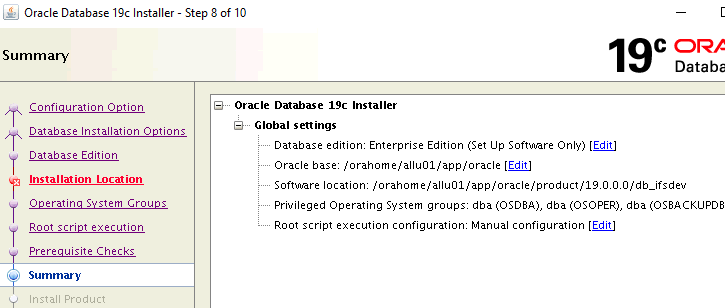






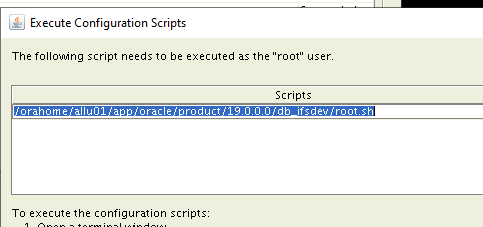






Click on INSTALL button to continue.

Send an email to CVS DBA to request that root.sh be run. Click on OK when confirmed.



## **Post Install**

After the installation, make sure that:

1. The ORACLE\_BASE environment variable is set accordingly.
2. The ORACLE\_HOME environment variable points to the new 19c Oracle home.
3. The PATH environment variable includes $ORACLE\_HOME/bin and the directory where the new perl executable is located (usually $ORACLE\_HOME/perl/bin).
4. The LD\_LIBRARY\_PATH environment variable includes $ORACLE\_HOME/lib.
5. The PERL5LIB environment variable points to the directories where the new perl libraries are located: $ORACLE\_HOME/perl/lib/<*perl version*> and $ORACLE\_HOME/perl/lib/site\_perl/<*perl version*> for UNIX/Linux, or $ORACLE\_HOME/perl/lib

## **Create 9i data directory**

Since we have gold image this directory just needs to be validated

perl $ORACLE\_HOME/nls/data/old/cr9idata.pl

Creating directory /orahome/allu01/app/oracle/product/19.0.0.0/db\_ifsprod/nls/data/9idata ...

Copying files to /orahome/allu01/app/oracle/product/19.0.0.0/db\_ifsprod/nls/data/9idata...

Copy finished.

Please reset environment variable ORA\_NLS10 to /orahome/allu01/app/oracle/product/19.0.0.0/db\_ifsprod/nls/data/9idata!

## **Copy appsutil**

Create a tarball of the 12.1 home appsutil directory.

/orahome/allu01/app/oracle/product/12.1.0.2\_210420/db\_ifsprod/appsutil

Then cd $ORACLE\_HOME (19c)

cp /orahome/allu01/app/oracle/product/12.1.0.2\_210420/db\_ifsprod/appsutil.tar .

tar –xf appsutil.tar

# **Create the 19C CDB**

Pre create directories for cdb databases, archivelogs,redo,and temp

mkdir -p /oraarchlog/ifsuarchive/CIFSPROD

mkdir -p /orabackup/ifsubackup/CIFSPROD

mkdir -p /oratemp/ifsut200/CIFSPROD

mkdir -p /oraredo/ifsur200/CIFSPROD

mkdir -p /oraredo/ifsur201/CIFSPROD

mkdir -p /oraredo/ifsur202/CIFSPROD

mkdir -p /oraundo/ifsuu200/CIFSPROD

mkdir -p /oraindex/ifsui200/CIFSPROD

mkdir -p /oraindex/ifsui201/CIFSPROD

mkdir -p /oraindex/ifsui202/CIFSPROD

mkdir -p /oraindex/ifsui203/CIFSPROD

mkdir -p /oraindex/ifsui204/CIFSPROD

mkdir -p /oradata/ifsud200/CIFSPROD - system and sysaux

mkdir -p /oradata/ifsud201/CIFSPROD

mkdir -p /oradata/ifsud202/CIFSPROD

mkdir -p /oradata/ifsud203/CIFSPROD

mkdir -p /oradata/ifsud204/CIFSPROD

mkdir -p /oradata/ifsud205/CIFSPROD

mkdir -p /oradata/ifsud206/CIFSPROD

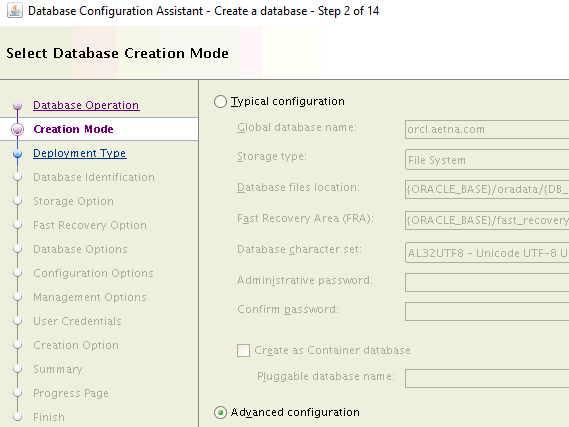
mkdir -p /oradata/ifsud207/CIFSPROD

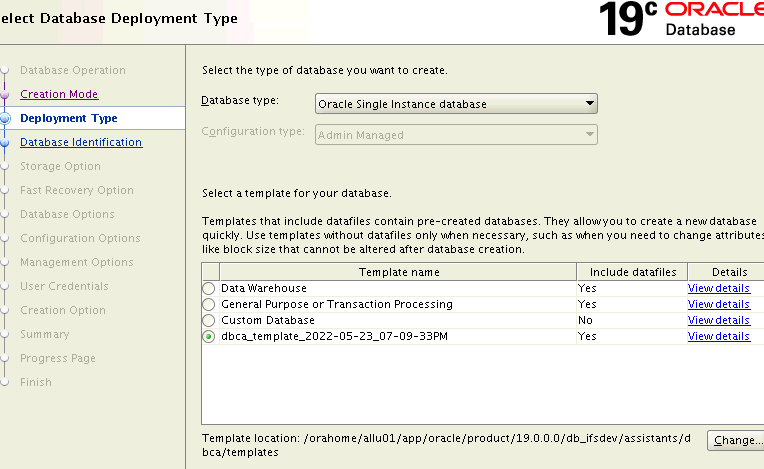
mkdir -p /oradata/ifsud208/CIFSPROD

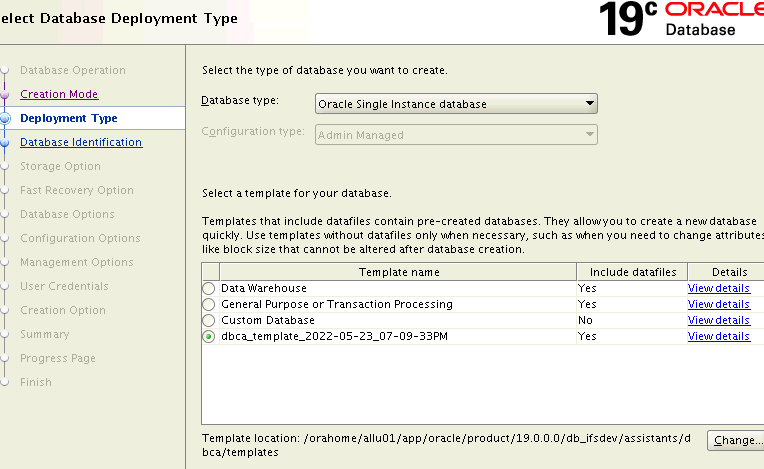
mkdir -p /oradata/ifsud209/CIFSPROD

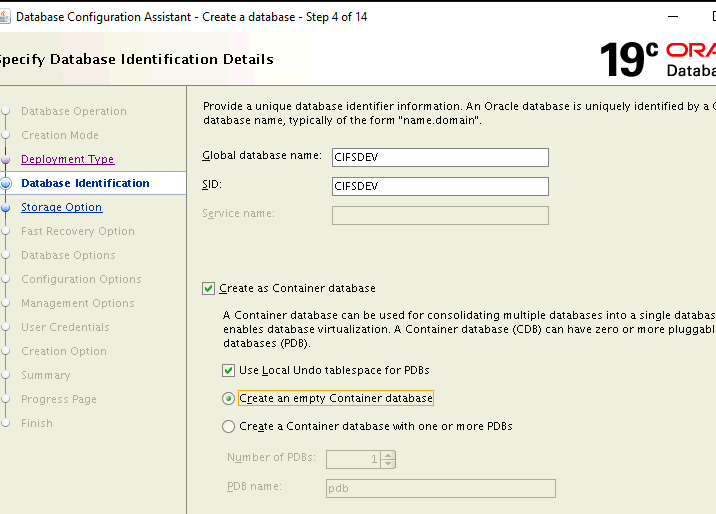
From the new home run dbca to create a new CDB database

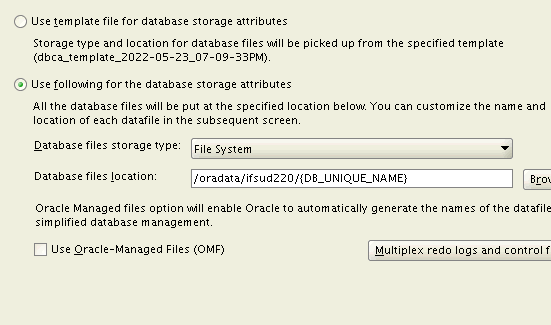
*Use the following screenshots as guide.*

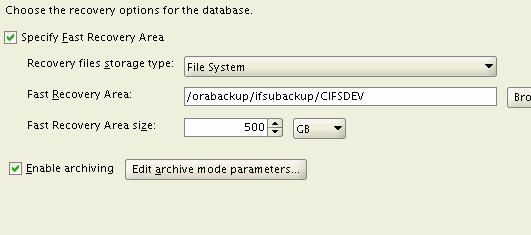


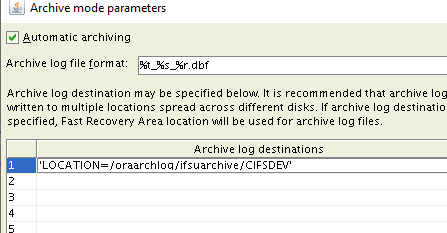






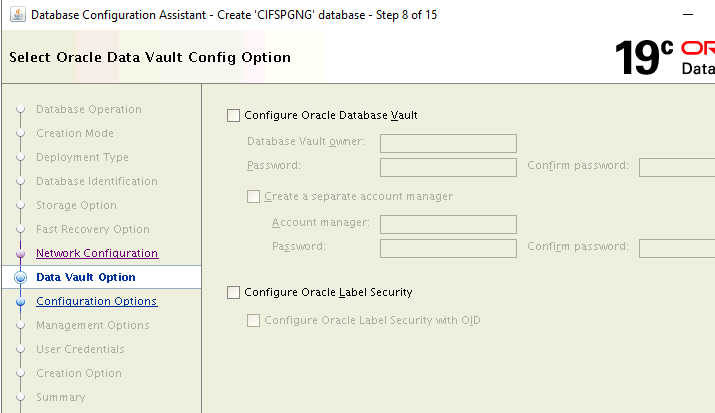


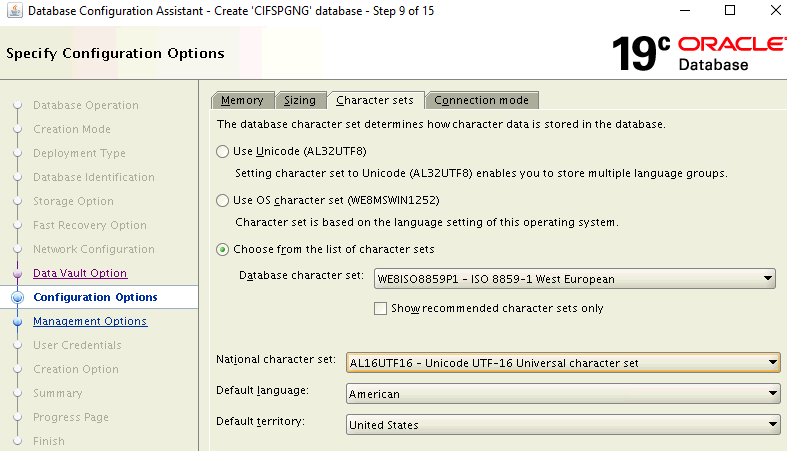




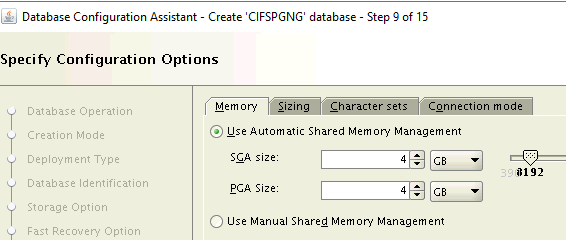
**Don’t create a listener**

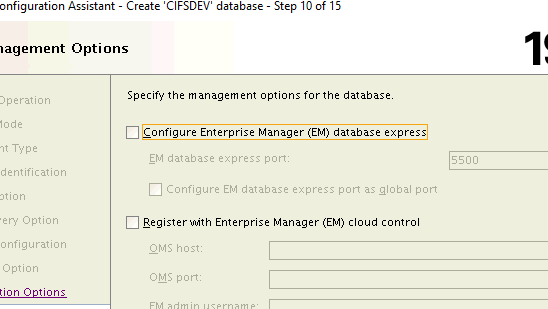


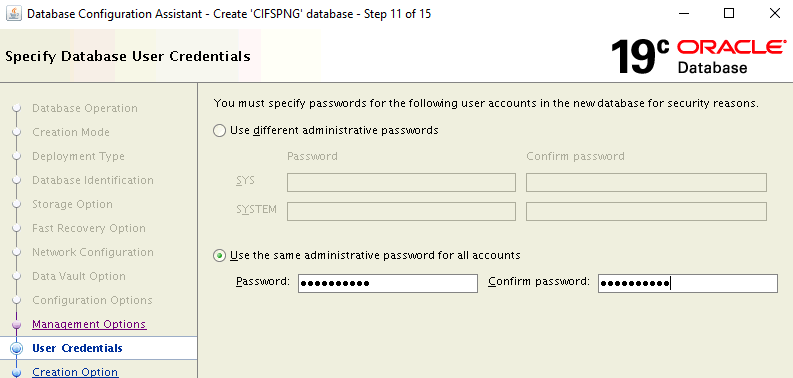


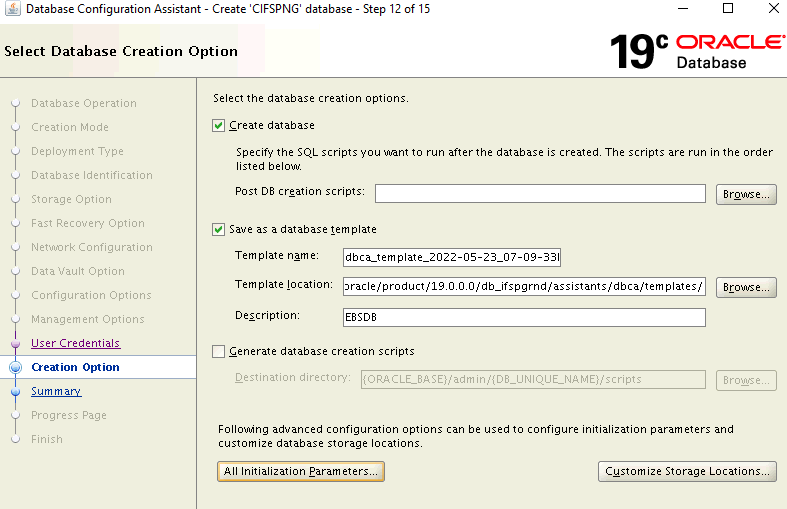


Choose small memory foot print for setup of database

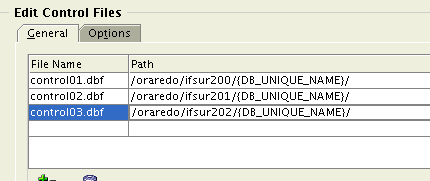


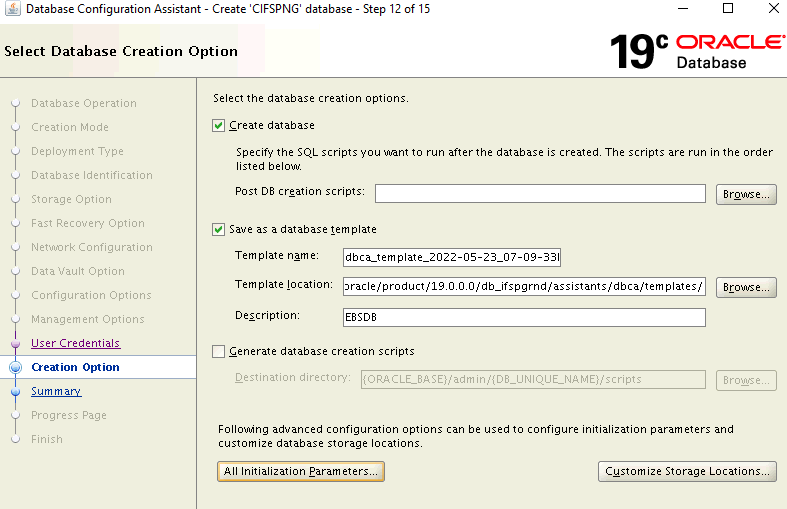




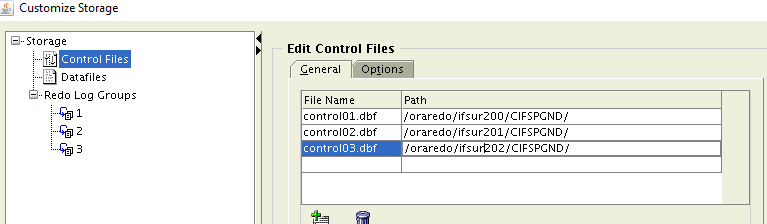


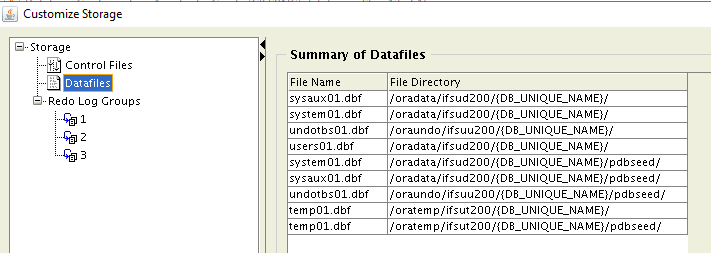
Select customize storage locations





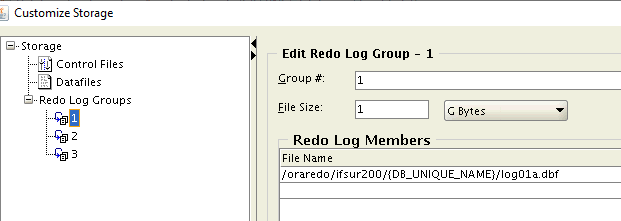
Check file storage

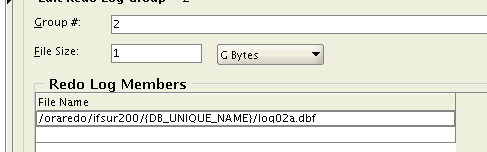


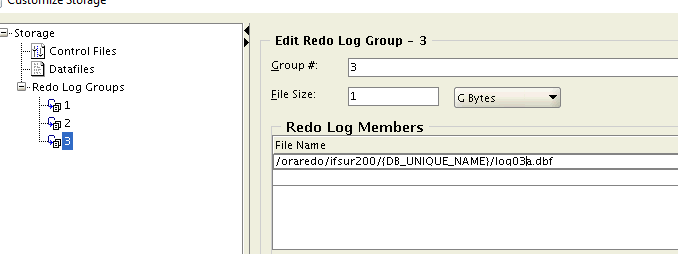


Go to customize storage locations and configure controlfiles, redo logs and customize datafile locations.

Set redo logs to 1GB. with the same format as source. We’ll add more later with SQL as it’s faster.



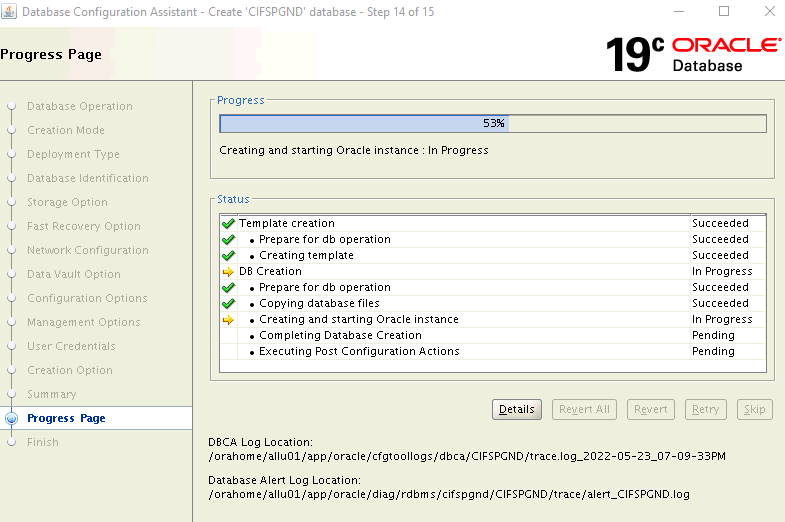




Validate **init.ora** prameters. Specifically check **db-create-file** and **db\_create\_online\_log\_dest** are NULL

Click next and then go to summary.

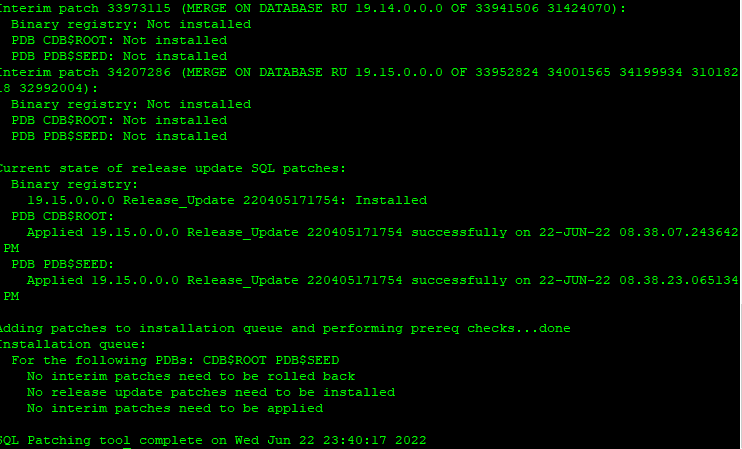
Review the summary page for correctness and press finish



## **Run datapatch on the new CDB database**

**cd $ORACLE\_HOME/Opatch**

**./datapatch**



## **Add redo log groups to CDB**

ALTER DATABASE ADD LOGFILE GROUP 4 ('/oraredo/ifsur200/CIFSPROD/log04a.dbf','/oraredo/ifsur201/CIFSPROD/log04b.dbf', '/oraredo/ifsur202/CIFSPROD/log04c.dbf') SIZE 1024M ;

ALTER DATABASE ADD LOGFILE GROUP 5 ('/oraredo/ifsur200/CIFSPROD/log05a.dbf','/oraredo/ifsur201/CIFSPROD/log05b.dbf', '/oraredo/ifsur202/CIFSPROD/log05c.dbf') SIZE 1024M ;

ALTER DATABASE ADD LOGFILE GROUP 6 ('/oraredo/ifsur200/CIFSPROD/log06a.dbf','/oraredo/ifsur201/CIFSPROD/log06b.dbf', '/oraredo/ifsur202/CIFSPROD/log06c.dbf') SIZE 1024M ;

ALTER DATABASE ADD LOGFILE MEMBER '/oraredo/ifsur201/CIFSPROD/log01b.dbf' TO GROUP 1;

ALTER DATABASE ADD LOGFILE MEMBER '/oraredo/ifsur202/CIFSPROD/log01c.dbf' TO GROUP 1;

ALTER DATABASE ADD LOGFILE MEMBER '/oraredo/ifsur201/CIFSPROD/log02b.dbf' TO GROUP 2;

ALTER DATABASE ADD LOGFILE MEMBER '/oraredo/ifsur202/CIFSPROD/log02c.dbf' TO GROUP 2;

ALTER DATABASE ADD LOGFILE MEMBER '/oraredo/ifsur201/CIFSPROD/log03b.dbf' TO GROUP 3;

ALTER DATABASE ADD LOGFILE MEMBER '/oraredo/ifsur202/CIFSPROD/log03c.dbf' TO GROUP 3;

## **Give grants on directory;**

grant read, write on directory ORACLE\_OCM\_CONFIG\_DIR to ORACLE\_OCM;

## **Create target PDB**

Be careful here as we cannot overwrite the source Db files which are on the same server.

sqlplus / as sysdb

create pluggable database "IFSPROD" admin user pdbadmin identified by IFSupg\_19c file\_name\_convert=('pdbseed','IFSPROD');

grant DATAPUMP\_IMP\_FULL\_DATABASE to system;

grant IMP\_FULL\_DATABASE to system;

alter pluggable database IFSPROD open;

alter pluggable database IFSPROD save state;

show pdbs;

## **Edit and run aucrdbpdb.sql**

Log back into the PDB

cd /oraexport/ifsuexport/expdmp/scripts

vi aucrdbpdb.sql

REM BEFORE RUNNING THE SCRIPT YOU MUST REVIEW

REM IT FOR THE FOLLOWING:

REM - Location and size of the data files

REM - Undo Tablespace information

REM - Temporary Tablespace information

ALTER TABLESPACE SYSTEM ADD DATAFILE

ALTER TABLESPACE SYSTEM ADD DATAFILE

'/oradata/ifsud220/CIFSPROD/IFSPROD/system02.dbf' SIZE 31G

/

alter database datafile '/oradata/ifsud220/CIFSPROD/IFSPROD/system01.dbf' resize 31G

/

alter database datafile'/oradata/ifsud220/CIFSPROD/IFSPROD/sysaux01.dbf' resize 31G

/

CREATE UNDO TABLESPACE "APPS\_UNDOTS1" DATAFILE

'/oraundo/ifsuu201/CIFSPROD/IFSPROD/undo01.dbf' SIZE 31G,

'/oraundo/ifsuu201/CIFSPROD/IFSPROD/undo02.dbf' SIZE 31G,

'/oraundo/ifsuu201/CIFSPROD/IFSPROD/undo03.dbf' SIZE 31G,

'/oraundo/ifsuu201/CIFSPROD/IFSPROD/undo04.dbf' SIZE 31G,

'/oraundo/ifsuu201/CIFSPROD/IFSPROD/undo05.dbf' SIZE 31G,

'/oraundo/ifsuu201/CIFSPROD/IFSPROD/undo06.dbf' SIZE 31G

/

CREATE TEMPORARY TABLESPACE "TEMP4U"

TEMPFILE

'/oratemp/ifsut201/CIFSPROD/IFSPROD/temp4u\_01.dbf' SIZE 2048M

EXTENT MANAGEMENT LOCAL UNIFORM SIZE 1M

/

CREATE TEMPORARY TABLESPACE "TEMPBM"

TEMPFILE

'/oratemp/ifsut201/CIFSPROD/IFSPROD/tempbm\_01.dbf' SIZE 2048M

EXTENT MANAGEMENT LOCAL UNIFORM SIZE 1M

/

CREATE TEMPORARY TABLESPACE "TIVOLIORTEMPTS"

TEMPFILE

'/oratemp/ifsut201/CIFSPROD/IFSPROD/tivoliortempts\_01.dbf' SIZE 1G

EXTENT MANAGEMENT LOCAL UNIFORM SIZE 1M

/

ALTER DATABASE DEFAULT TEMPORARY TABLESPACE "TEMP4U";

drop tablespace TEMP including contents and datafiles;

CREATE TEMPORARY TABLESPACE TEMP

TEMPFILE

'/oratemp/ifsut201/CIFSPROD/IFSPROD/temp01.dbf' SIZE 31G,

'/oratemp/ifsut201/CIFSPROD/IFSPROD/temp02.dbf' SIZE 31G

;

ALTER DATABASE DEFAULT TEMPORARY TABLESPACE TEMP;

prompt

prompt Ignore any errors related to the setting

prompt of the default temporary tablespace

prompt

sqlplus / as sysdba

show pdbs -- should only show the IFSPROD pdb not the seed.

@/oraexport/ifsuexport/expdmp/scripts/aucrdbpdb.sql

## **Run audb19c.sql**

@/oraexport/ifsuexport/expdmp/scripts/audb19c.sql

**Log off DB**

## **Run ausys19c.sql**

Connect as system to the PDB

@/oraexport/ifsuexport/expdmp/scripts/ausy19c.sql

**Log off DB**

sqlplus / as sysdba

@?/rdbms/admin/catmgd.sql

(Note: MGD does not show up in dba\_registry. This is normal for 12.2 and above)

grant text datastore access to public;

alter system enable restricted session;

@$ORACLE\_HOME/appsutil/admin/adstats.sql

sqlplus / as sysdba

alter system disable restricted session;

## **Install olap schema**

Both cdb and PDB

@?/olap/admin/olap.sql SYSAUX TEMP;

Run others on PDB

@?/rdbms/admin/dbmsxdbschmig.sql;

@?/rdbms/admin/prvtxdbschmig.plb;

Install utl\_mail

@?/rdbms/admin/utlmail.sql

@?/rdbms/admin/prvtmail.plb

grant execute on utl\_mail to public;

grant DATAPUMP\_IMP\_FULL\_DATABASE to system;

grant IMP\_FULL\_DATABASE to system;

## **Check the CTXSYS schema objects**

Do this check on the new CDB , PDB

set pages 1000

col object\_name format a40

col object\_type format a20

col comp\_name format a30

column library\_name format a8

column file\_spec format a60 wrap

spool text\_install\_verification.log

-- check on setup

select comp\_name, status, substr(version,1,10) as version from dba\_registry where comp\_id = 'CONTEXT';

select \* from ctxsys.ctx\_version;

select substr(ctxsys.dri\_version,1,10) VER\_CODE from dual;

select count(\*) from dba\_objects where owner='CTXSYS';

-- Get a summary count

select object\_type, count(\*) from dba\_objects where owner='CTXSYS' group by object\_type order by object\_type;

-- Any invalid objects

select object\_name, object\_type, status from dba\_objects where owner='CTXSYS' and status != 'VALID' order by object\_name;

spool off

If there are any invalid objects then try this fix

alter session set current\_schema=CTXSYS;

@?/ctx/admin/drixmd.plb

conn / as sysdba

set serveroutput on;

exec VALIDATE\_CONTEXT();

check invalids are gone

select object\_name, object\_type, status from dba\_objects where owner='CTXSYS' and status != 'VALID' order by object\_name;

## **Complete PDB setup**

alter system set undo\_tablespace =APPS\_UNDOTS1 scope=both;

Alter system set undo\_retention=1800 scope=both;

Double check the database timezone

**SELECT DBTIMEZONE FROM DUAL;**

## **Take a backup of the 19c database now.**

RMAN cold backup

Backup location /orabackup/ifsubackup/CIFSPROD/backupset/2022\_06\_26/

unset ORACLE\_PDB\_SID

Shutdown database 19c target database

Mount the database

rman

connect target /

Backup as compressed backupset database include current controlfile;

exit

Sqlplus / as sysdba

Shutdown immediate

# **Prepare the Source database**

On the SOUREC 12c database

## **Store the utlfile settings**

Set environment for the 12c source database and Reset the perl environment

export PERL5LIB=/orahome/allu01/app/oracle/product/12.1.0.2\_210420/db\_ifsprod/perl/lib/5.14.4:/orahome/allu01/app/oracle/product/12.1.0.2\_210420/db\_ifsprod/perl/lib/site\_perl/5.14.4:/orahome/allu01/app/oracle/product/12.1.0.2\_210420/db\_ifsprod/appsutil/perl

Run the txkCfgUtlfileDir.pl script in getUtlFileDir mode using the following command:

perl $ORACLE\_HOME/appsutil/bin/txkCfgUtlfileDir.pl \

-contextfile=/orahome/allu01/app/oracle/product/12.1.0.2\_210420/db\_ifsprod/appsutil/IFSPROD\_aebsw1q.xml \

-oraclehome=/orahome/allu01/app/oracle/product/12.1.0.2\_210420/db\_ifsprod \

-outdir=/oraexport/ifsuexport/expdmp \

-upgradedhome=/orahome/allu01/app/oracle/product/19.0.0.0/db\_ifsprod -mode=getUtlFileDir -servicetype=onpremise

Enter the APPS Password:

Script Name : txkCfgUtlfileDir.pl

Script Version : 120.0.12020000.15

Started : Wed May 25 19:20:34 EDT 2022

Log File : /oraexport/ifsuexport/expdmp/TXK\_UTIL\_DIR\_Wed\_May\_25\_19\_19\_26\_2022/txkCfgUtlfileDir.log

Context file: /orahome/allu01/app/oracle/product/12.1.0.2\_210420/db\_ifsprod/appsutil/IFSPROD\_aebsw1q.xml exists.

==============================================================================

Successfully generated the below file with UTL\_FILE\_DIR content:

/orahome/allu01/app/oracle/product/12.1.0.2\_210420/db\_ifsprod/dbs/IFSPROD\_utlfiledir.txt

==============================================================================

Completed : Wed May 25 19:20:36 EDT 2022

Successfully Completed the script

ERRORCODE = 0 ERRORCODE\_END

Check these are all valid. Create directories if required.

Store values in source database

perl $ORACLE\_HOME/appsutil/bin/txkCfgUtlfileDir.pl \

-contextfile=/orahome/allu01/app/oracle/product/12.1.0.2\_210420/db\_ifsprod/appsutil/IFSPROD\_aebsw1q.xml \

-oraclehome=/orahome/allu01/app/oracle/product/12.1.0.2\_210420/db\_ifsprod \

-outdir=/oraexport/ifsuexport/expdmp \

-upgradedhome=/orahome/allu01/app/oracle/product/19.0.0.0/db\_ifsprod \

-mode=setUtlFileDir -servicetype=onpremise

Enter the APPS Password:

Enter the SYSTEM Password:

Script Name : txkCfgUtlfileDir.pl

Script Version : 120.0.12020000.15

Started : Wed May 25 19:29:01 EDT 2022

Log File : /oraexport/ifsuexport/expdmp/TXK\_UTIL\_DIR\_Wed\_May\_25\_19\_28\_01\_2022/txkCfgUtlfileDir.log

Context file: /orahome/allu01/app/oracle/product/12.1.0.2\_210420/db\_ifsprod/appsutil/IFSPROD\_aebsw1q.xml exists.

Value for s\_applptmp on Apps Tier nodes is valid

Completed : Wed May 25 19:29:11 EDT 2022

Successfully Completed the script

ERRORCODE = 0 ERRORCODE\_END

Check they are stored in the database

Select value from v$parameter where name =’utl\_file\_dir’;

Select \* from apps.v$parameter;

Select \* from apps.v$parameter2;

Run ADZDSHOWIOBJS.sql and Check if application is clean

# **Export Source system**

Downtime starts

Ask CVS APPS admin to confirm EBS is down and that adop cycle is cleaned up.

## **Take a guaranteed restore point now**

Sqlplus / as sysdba

create restore point before\_setup guarantee flashback database;

Custom steps for CVS environments

 **Record Advanced Queue settings**

Advanced Queue settings are not propagated in the target database instance during the export/import process. Therefore, you must record them beforehand and enable them in the target database instance afterwards. [Patch 31405457](https://support.oracle.com/epmos/faces/ui/patch/PatchDetail.jspx?parent=DOCUMENT&sourceId=2707504.1&patchId=31405457) contains auque1.sql, which generates the script auque2.sql. You can use auque2.sql to enable the settings in the target database instance.

Copy the auque1.sql script from the $AU\_TOP/patch/115/sql directory in the administration server node to the working directory in the source database server node.

cd /oraexport/ifsuexport/expdmp/scripts

$ **sqlplus "/ as sysdba"**  
 **@auque1.sql**

 **Remove rebuild index parameter in spatial indexes and modify unusable spatial indexes**

Ensure that you do not have the rebuild index parameter in the spatial indexes and you do not have any unusable spatial indexes.

To see if you have any rebuild index parameters, on the source database server node, as the owner of the source database server file system and database instance, use SQL\*Plus to connect to the source database as SYSDBA and run the following command:

$ **sqlplus "/ as sysdba"**

**Set lines 180 pages 200**  
 **select \* from dba\_indexes where index\_type='DOMAIN' and upper(parameters) like '%REBUILD%';**

e.g

alter index HR.HR\_LOCATIONS\_SPT rebuild parameters ('sdo\_indx\_dims=2 sdo\_rtr\_pctfree=10 tablespace=APPS\_TS\_TX\_IDX');

check for unusable indexes

select \* from dba\_indexes where status='UNUSABLE';

rebuild if any….

select 'alter index '||owner||'.'||index\_name||' rebuild;' from dba\_indexes where status='UNUSABLE';

**Synchronize Text indexes**

**col PND\_INDEX\_OWNER format a10**

**select pnd\_index\_owner,pnd\_index\_name,count(\*) from ctxsys.ctx\_pending group by pnd\_index\_owner,pnd\_index\_name order by 1;**

PND\_INDEX\_ PND\_INDEX\_NAME COUNT(\*)

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APPLSYS FND\_LOBS\_CTX 13031

IBC IBC\_ATTRIBUTE\_BUNDLES\_CTX 28

JTF JTF\_AMV\_ITEMS\_DESC\_CTX 1132

JTF JTF\_AMV\_ITEMS\_NAME\_CTX 1132

JTF JTF\_AMV\_ITEMS\_TEXT\_CTX 1132

exec ctx\_ddl.sync\_index('APPLSYS.FND\_LOBS\_CTX');

exec ctx\_ddl.sync\_index('IBC.IBC\_ATTRIBUTE\_BUNDLES\_CTX');

exec ctx\_ddl.sync\_index('JTF.JTF\_AMV\_ITEMS\_DESC\_CTX') ;

exec ctx\_ddl.sync\_index('JTF.JTF\_AMV\_ITEMS\_NAME\_CTX');

exec ctx\_ddl.sync\_index('JTF.JTF\_AMV\_ITEMS\_TEXT\_CTX');

## **Create the export dump directory**

sqlplus system/pass

create directory dmpdir as '/oraexport/ifsuexport/expdmp';

## **DROP un-used stats table**

Connect as APPS

exec DBMS\_AQADM.DROP\_QUEUE\_TABLE (queue\_table =>JTF\_PF\_LOGGING\_TABLE', force => TRUE);

Export statistics

select owner, table\_name, stattype\_locked

from dba\_tab\_statistics

where stattype\_locked is not null and owner not in ('SYS','SYSTEM') order by 1;

then unlock the stats for each schema e.g.

exec dbms\_stats.unlock\_schema\_stats ('APPLSYS');

exec dbms\_stats.unlock\_schema\_stats ('DOCSAVI');

exec dbms\_stats.unlock\_schema\_stats ('WMS');

exec fnd\_stats.gather\_schema\_statistics(schemaname=>'ALL',estimate\_percent=>dbms\_stats.auto\_sample\_size,options=>'GATHER AUTO');

exec dbms\_stats.upgrade\_stat\_table('APPLSYS','FND\_STATTAB');

set verify off

whenever sqlerror exit failure rollback;

whenever oserror exit failure rollback;

DECLARE

BEGIN

FND\_STATS.BACKUP\_SCHEMA\_STATS(schemaname => 'ALL', statid => 'stats\_export ');

EXCEPTION

WHEN OTHERS THEN

RAISE\_APPLICATION\_ERROR(-20000, sqlerrm ||' Error while executing FND\_STATS.BACKUP\_SCHEMA\_STATS package.');

END;

/

exit;

## **Shut down APPS tier now if it isn’t already.**

## **Drop the SQLT schemas.**

cd /orastage/u177/sqlt/sqlt/install

sqlplus / as sysdba

@sqdrop.sql

purge dba\_recyclebin;

DBA Recyclebin purged.

grant exempt access policy to system;

grant export\_full\_database to system;

grant SELECT\_CATALOG\_ROLE to apps;

## **Export OLAP analytical workspaces**

Perform the detailed steps **1-3** as documented in My Oracle Support Knowledge [Document 352306.1](https://support.oracle.com/epmos/faces/DocumentDisplay?parent=DOCUMENT&sourceId=2707504.1&id=352306.1),

col owner format a15

col aw\_name format a15

select OWNER, AW\_NAME ,PAGESPACES from dba\_aws

where owner != 'SYS' order by 1,2;

OWNER AW\_NAME PAGESPACES

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

APPS ODPCODE 1241

APPS XWDEVKIT 1183

APPS XWDEVKIT\_BACKUP 1183

FPA FPAPJP 551

exec dbms\_aw.execute('aw attach APPS.ODPCODE rw');

exec dbms\_aw.execute('allstat');

exec dbms\_aw.execute('export all to eif file ''DMPDIR/OLAP1.eif''');

exec dbms\_aw.execute('aw detach APPS.ODPCODE');

exec dbms\_aw.execute('aw attach APPS.XWDEVKIT\_BACKUP rw');

exec dbms\_aw.execute('allstat');

exec dbms\_aw.execute('export all to eif file ''DMPDIR/OLAP2.eif''');

exec dbms\_aw.execute('aw detach APPS.XWDEVKIT\_BACKUP');

exec dbms\_aw.execute('aw attach FPA.FPAPJP rw');

exec dbms\_aw.execute('allstat');

exec dbms\_aw.execute('export all to eif file ''DMPDIR/OLAP3.eif''');

exec dbms\_aw.execute('aw detach FPA.FPAPJP');

exec dbms\_aw.execute('aw attach APPS.XWDEVKIT rw');

exec dbms\_aw.execute('allstat');

exec dbms\_aw.execute('export all to eif file ''DMPDIR/OLAP4.eif''');

exec dbms\_aw.execute('aw detach APPS.XWDEVKIT');

exec dbms\_aw.execute('aw delete APPS.ODPCODE');

exec dbms\_aw.execute('aw delete APPS.XWDEVKIT\_BACKUP');

exec dbms\_aw.execute('aw delete APPS.XWDEVKIT');

exec dbms\_aw.execute('aw delete FPA.FPAPJP');

## **FIX UP PROBLEM TABLESPACES**

Backup any customized scripts from auxttspre.sql then run auxttspre.sql script one more time to validate there are no issues. The logs should be clear.

Sqlplus / as sysdba

@/oraexport/ifsuexport/expdmp/scripts/auxttspre.sql

Sqlplus / as sysdba

cat auxttspre.log

Transportable set check completed successfully.

## **Upgrade DB timezone file**

On CDB

SELECT \* FROM v$timezone\_file;

FILENAME VERSION CON\_ID

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

timezlrg\_32.dat 32 0

On source

FILENAME VERSION CON\_ID

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

timezlrg\_18.dat 19 0

Result: need to upgrade TZ version at source.

Follow note: Applying the DSTv32 update for the Oracle Database (Doc ID 2463100.1)

to apply the patch

For 12.1.0.2:  
\* Request (if needed) and download the 12.1.0.2 DSTv32 [Patch 28125601](https://support.oracle.com/epmos/faces/ui/patch/PatchDetail.jspx?parent=DOCUMENT&sourceId=2463100.1&patchId=28125601) for your platform

\* Unzip the RDBMS DSTv32 [Patch 28125601](https://support.oracle.com/epmos/faces/ui/patch/PatchDetail.jspx?parent=DOCUMENT&sourceId=2463100.1&patchId=28125601)   
\* Apply the RDBMS DSTv32 [Patch 28125601](https://support.oracle.com/epmos/faces/ui/patch/PatchDetail.jspx?parent=DOCUMENT&sourceId=2463100.1&patchId=28125601) using Opatch.   
Note: in 11.2 and up there is no need to shut down or stop the database or other processes seen you are simply adding new files, not replacing used ones.  
For Opatch questions please see [Note 242993.1](https://support.oracle.com/epmos/faces/DocumentDisplay?parent=DOCUMENT&sourceId=2463100.1&id=242993.1) OPATCH FAQ  
\* Then update all databases using this home by:

or using the scripts in [note 1585343.1](https://support.oracle.com/epmos/faces/DocumentDisplay?parent=DOCUMENT&sourceId=2463100.1&id=1585343.1) Scripts to automatically update the RDBMS DST (timezone) version in an 11gR2 or 12cR1 database .

or following [note 1509653.1](https://support.oracle.com/epmos/faces/DocumentDisplay?parent=DOCUMENT&sourceId=2463100.1&id=1509653.1) Updating the RDBMS DST version in 12c Release 1 (12.1.0.1 and up) using DBMS\_DST from step 3a) using 32 as (<the new DST version number>) in that note.

cd /orastage/ifsustage/19cUpgrade/DBpatches/28125601

$ORACLE\_HOME/OPatch/opatch apply

Run scripts to perform TZ upgrade in the database

TZ upgrade scripts from note 1585343.1 have been copied to below.

Needs the listener UP.

cd /oraexport/ifsuexport/expdmp/scripts/DBMS\_DST\_scriptsV1.9

Sqlplus / as sysdba

create restore point before\_tz guarantee flashback database;

spool countstatsTSTZ.log  
@countstatsTSTZ.sql  
spool off

spool upg\_tzv\_check.log  
@upg\_tzv\_check.sql  
spool off

A successful run will show at the end:

 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.

If above is seen upg\_tzv\_apply.sql can be run.

**This script will restart the database 2 times WITHOUT any confirmation or prompt.**

@upg\_tzv\_apply.sql

Should look like this at the end

able list: "SQLTXPLAIN"."SQLT$\_DBA\_HISTGRM\_STATS\_VERSN"

Number of failures: 0

Table list: "SQLTXPLAIN"."SQLT$\_DBA\_COL\_STATS\_VERSIONS"

Number of failures: 0

Table list: "SQLTXPLAIN"."SQLT$\_DBA\_AUTOTASK\_CLIENT\_HST"

Number of failures: 0

Table list: "SQLTXPLAIN"."SQLI$\_STATTAB\_TEMP"

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 sqlplus session.

INFO: Do not use it for timezone related selects.

Exit the sql session. Log in again to check TZ

SQL> SELECT \* FROM v$timezone\_file;

FILENAME VERSION CON\_ID

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

timezlrg\_32.dat 32 0

purge dba\_recyclebin;

## **Grant user rights to avoid ORA-01950 during expdp**

alter user A665751 quota unlimited on sysaux;

**Avoid errors with granting global\_rewite during import**

update system\_privilege\_map set name ='GLOBAL QUERY REWRITE' where name='GLOBAL REWRITE';  
commit;

Take another guaranteed restore point

create restore point before\_export guarantee flashback database;

## **Stop the 12.1 listener**

lsnrctl stop IFSPROD

## **Export any objects that are missing from the main export**

Missing objects to be exported, trigger definitions etc.

grant create database link to AETNADBA;

grant create database link to READ;

alter sequence cn.CN\_CLRL\_API\_S restart start with 1;

## **Record SYS grants**

Create scripts to create grants for users

sqlplus / as sysdba

@missing\_grants.sql

This will create the objs\_upg19.sql script which we’ll run after the import

## **Mark transport set read only**

Set tablespaces read-only on source

cd /oraexport/ifsuexport/expdmp/scripts

**sqlplus "/ as sysdba" @auxttsread.sql**

## **Run the export**

Check the dat file excludes the non-transportable tablespaces

directory=dmpdir

metrics=y

dumpfile=xttsfulltts%U.dmp

filesize=1048576000

full=y

exclude=STATISTICS

exclude=tablespace:"IN('INTERIM','AEMON')"

logfile=expfulltts.log

parallel=8

transportable=always

logtime=all

expdp system parfile= /oraexport/ifsuexport/expdmp/scripts/auexpfulltts.dat

While this is running check/finalise the file copy scripts to be used for copy of the datafiles.

# **Import Target Database Objects**

All the following Steps are carried out in the 19c PDB unless otherwise specified.

alter system set undo\_tablespace =APPS\_UNDOTS1 scope=both;

alter system set undo\_retention=1800 scope=both;

## **Double check the database timezone on the pdb**

**SELECT DBTIMEZONE FROM DUAL;**

Should be -4

ADJUST 19C PGA/SGA settings to match the source

## **Copy the datafiles to correct locations.**

Shut down the source database before copying the files.

AIX does not allow the file copy if in use by the database.

When export completed shut down the 12c Database and copy the datafiles to new locations.

## **Modify import parameter file**

Edit the /oraexport/ifsuexport/expdmp/scripts/auimpfulltts.dat  
 file for the locations of the datafiles to be imported.

directory=dmpdir

metrics=y

dumpfile=xttsfulltts%U.dmp

full=y

logfile=impfulltts.log

parallel=4

logtime=all

transport\_datafiles=

'/oradata/ifsud210/CIFSPROD/IFSPROD/APPS\_TS\_MEDIA07.dbf',

'/oradata/ifsud210/CIFSPROD/IFSPROD/APPS\_TS\_MEDIA13.dbf',

'/oradata/ifsud210/CIFSPROD/IFSPROD/APPS\_TS\_SUMMARY07.dbf',

'/oradata/ifsud210/CIFSPROD/IFSPROD/APPS\_TS\_SUMMARY08.dbf',

'/oradata/ifsud210/CIFSPROD/IFSPROD/APPS\_TS\_TX\_DATA106.dbf',

'/oradata/ifsud210/CIFSPROD/IFSPROD/APPS\_TS\_TX\_DATA109.dbf',

'/oradata/ifsud210/CIFSPROD/IFSPROD/APPS\_TS\_TX\_DATA123.dbf',

'/oradata/ifsud210/CIFSPROD/IFSPROD/APPS\_TS\_TX\_DATA128.dbf',

'/oradata/ifsud210/CIFSPROD/IFSPROD/APPS\_TS\_TX\_DATA131.dbf',

'/oradata/ifsud210/CIFSPROD/IFSPROD/APPS\_TS\_TX\_DATA144.dbf',

'/oradata/ifsud210/CIFSPROD/IFSPROD/APPS\_TS\_TX\_DATA184.dbf',

'/oradata/ifsud210/CIFSPROD/IFSPROD/APPS\_TS\_TX\_DATA54.dbf',

'/oradata/ifsud210/CIFSPROD/IFSPROD/APPS\_TS\_TX\_DATA75.dbf',

'/oradata/ifsud210/CIFSPROD/IFSPROD/APPS\_TS\_TX\_DATA94.dbf',

'/oradata/ifsud210/CIFSPROD/IFSPROD/docsavi\_data01.dbf',

'/oradata/ifsud211/CIFSPROD/IFSPROD/aeadmin01.dbf',

'/oradata/ifsud211/CIFSPROD/IFSPROD/aedbax01.dbf',

'/oradata/ifsud211/CIFSPROD/IFSPROD/aedbax02.dbf',

'/oradata/ifsud211/CIFSPROD/IFSPROD/aedbax03.dbf',

………………………………………………………………………

'/oraindex/ifsui205/CIFSPROD/IFSPROD/APPS\_TS\_TX\_IDX62.dbf',

'/oraindex/ifsui205/CIFSPROD/IFSPROD/APPS\_TS\_TX\_IDX73.dbf',

'/oraindex/ifsui205/CIFSPROD/IFSPROD/APPS\_TS\_TX\_IDX74.dbf',

'/oraindex/ifsui205/CIFSPROD/IFSPROD/APPS\_TS\_TX\_IDX82.dbf',

'/oraindex/ifsui205/CIFSPROD/IFSPROD/APPS\_TS\_TX\_IDX90.dbf',

'/oraindex/ifsui205/CIFSPROD/IFSPROD/APPS\_TS\_TX\_IDX91.dbf',

'/oraindex/ifsui205/CIFSPROD/IFSPROD/APPS\_TS\_TX\_IDX97.dbf',

'/oraindex/ifsui205/CIFSPROD/IFSPROD/APPS\_TS\_TX\_IDX98.dbf'

## **Create dba directory’s**

create or replace directory AEAR\_FTPIN as '/aetnas46/oracmprod/IFSPROD/aear/ftp/in' ;

create or replace directory AEAR\_FTPOUT as '/aetnas46/oracmprod/IFSPROD/aear/ftp/out' ;

create or replace directory AEEDI\_FTPIN as '/aetnas46/oracmprod/IFSPROD/aeedi/ftp/in' ;

create or replace directory AEEDI\_FTPOUT as '/aetnas46/oracmprod/IFSPROD/aeedi/ftp/out' ;

create or replace directory AEFA\_FTPIN as '/aetnas46/oracmprod/IFSPROD/aefa/ftp/in' ;

create or replace directory AEFA\_FTPOUT as '/aetnas46/oracmprod/IFSPROD/aefa/ftp/out' ;

create or replace directory AEFND\_FTPIN as '/aetnas46/oracmprod/IFSPROD/aefnd/ftp/in' ;

create or replace directory AEFND\_FTPOUT as '/aetnas46/oracmprod/IFSPROD/aefnd/ftp/out' ;

create or replace directory AEFS\_FTPIN as '/aetnas46/oracmprod/IFSPROD/aefs/ftp/in' ;

create or replace directory AEFS\_FTPOUT as '/aetnas46/oracmprod/IFSPROD/aefs/ftp/out' ;

create or replace directory AEGL\_FTPIN as '/aetnas46/oracmprod/IFSPROD/aegl/ftp/in' ;

create or replace directory AEGL\_FTPOUT as '/aetnas46/oracmprod/IFSPROD/aegl/ftp/out' ;

create or replace directory AEIN\_FTPIN as '/aetnas46/oracmprod/IFSPROD/aein/ftp/in' ;

create or replace directory AEIN\_FTPOUT as '/aetnas46/oracmprod/IFSPROD/aein/ftp/out' ;

create or replace directory AEPO\_FTPIN as '/aetnas46/oracmprod/IFSPROD/aepo/ftp/in' ;

create or replace directory AEPO\_FTPOUT as '/aetnas46/oracmprod/IFSPROD/aepo/ftp/out' ;

create or replace directory APPO\_RESP as '/aetnas46/oracmprod/IFSPROD/utl\_dir' ;

create or replace directory APPS\_DATA\_FILE\_DIR as '/orahome/allu01/app/oracle/product/12.1.0.2\_210420/db\_ifsprod/appsutil/outbound/IFSPROD\_aebsw1q' ;

create or replace directory COMMON\_LOG as '/sifsdbm1pu04/app/IFSPRODcomn/admin/log/IFSPROD\_sifsdbm1p' ;

create or replace directory COMMON\_OUT as '/sifsdbm1pu04/app/IFSPRODcomn/admin/out/IFSPROD\_sifsdbm1p' ;

create or replace directory CSR\_XML\_TOP as '/ifsu01/app/IFSPROD/fs1/EBSapps/appl/csr/12.0.0/patch/115/xml' ;

create or replace directory DMPDIR as '/oraexport/ifsuexport/expdmp' ;

create or replace directory EBS\_DB\_DIR\_UTIL as '/aetnas46/oracmprod/IFSPROD/utl\_dir' ;

create or replace directory EBS\_UTL\_FILE\_DIR\_4784775248999 as '/orahome/allu01/app/oracle/product/19.0.0.0/temp/IFSPROD' ;

create or replace directory ECX\_UTL\_LOG\_DIR\_OBJ as '/orahome/allu01/app/oracle/product/19.0.0.0/temp/IFSPROD' ;

create or replace directory ECX\_UTL\_XSLT\_DIR\_OBJ as '/orahome/allu01/app/oracle/product/19.0.0.0/temp/IFSPROD' ;

create or replace directory ENKEY as '/opt/oracle/test/test111/enkey' ;

create or replace directory ENKEY2 as '/opt/filepath/enkey2' ;

create or replace directory ENKEY3 as '/aetnas27/oracmardev/IFSPROD' ;

create or replace directory ENKEY4 as '/aetnas27/oracmardev/IFSPROD/enkay4' ;

create or replace directory ENKEY5 as '/aetnas27/oracmardev/IFSPROD/enkey5' ;

create or replace directory FND\_DIAG\_DIR as '/orahome/allu01/app/oracle/diag/rdbms/cIFSPROD/CIFSPROD/trace' ;

create or replace directory OUT\_FILE\_LOC as '/tmp' ;

create or replace directory PREUPGRADE\_DIR as '/orahome/u01/app/oracle/cfgtoollogs/IFSPROD/preupgrade/' ;

create or replace directory SQLT$DIAG as '/orahome/allu01/app/oracle/diag/rdbms/cIFSPROD/CIFSPROD/trace' ;

create or replace directory TEST\_KEY as '/aetnas27/oracmardev/IFSPROD' ;

create or replace directory TEST\_KEY2 as '/ifsu01/app/IFSPROD/apps/apps\_st/appl/aeap/ftp/out' ;

create or replace directory TIMEZDIF\_DIR as '/sifsdbm1pu01/app/oracle/product/10.2.0/db\_ifsprod/oracore/zoneinfo' ;

create or replace directory TIVOLIOR\_TEMP as '/opt/Tivoli/itm/tmp' ;

create or replace directory TRACE\_DIR\_SRC\_4\_TCB as '/orahome/allu01/app/oracle/diag/rdbms/cifsprod/CIFSPROD/trace' ;

mkdir –p /orahome/allu01/app/oracle/product/19.0.0.0/db\_ifsprod/QOpatch

grant create procedure to CTXSYS;

#set ctxsys password and unlock account

GRANT GLOBAL QUERY REWRITE TO "SYSTEM"

## **Import the transportable tablespace set**

Ensure both CDB and PDB are running read/write and environment is set

Make sure ORACLE\_PDB\_SID is set

impdp system parfile=/oraexport/ifsuexport/expdmp/scripts/auimpfulltts.dat

# **Post Import steps**

**All the following steps connect to the PDB unless otherwise specified.**

## **Import OLAP analytical workspaces**

Perform the detailed step 7 as documented in My Oracle Support Knowledge [Document **352306.1**](https://support.oracle.com/epmos/faces/DocumentDisplay?parent=DOCUMENT&sourceId=2707504.1&id=352306.1) to import the OLAP analytical workspaces that were previously exported from the source machine.

[execute each line separately. Validate against the exports done on the source DB]

exec dbms\_aw.execute('aw create APPS.ODPCODE');

--- Replace ALIAS\_DIR with a defined directory alias

exec dbms\_aw.execute('import all from eif file ''DMPDIR/OLAP1.eif'' data dfns');

exec dbms\_aw.execute('update');

commit;

exec dbms\_aw.execute('aw detach APPS.ODPCODE');

exec dbms\_aw.execute('aw create APPS.XWDEVKIT\_BACKUP');

exec dbms\_aw.execute('import all from eif file ''DMPDIR/OLAP2.eif'' data dfns');

exec dbms\_aw.execute('update');

commit;

exec dbms\_aw.execute('aw detach APPS.XWDEVKIT\_BACKUP');

exec dbms\_aw.execute('aw create FPA.FPAPJP');

exec dbms\_aw.execute('import all from eif file ''DMPDIR/OLAP3.eif'' data dfns');

exec dbms\_aw.execute('update');

commit;

exec dbms\_aw.execute('aw detach FPA.FPAPJP');

exec dbms\_aw.execute('aw create APPS.XWDEVKIT');

exec dbms\_aw.execute('import all from eif file ''DMPDIR/OLAP4.eif'' data dfns');

exec dbms\_aw.execute('update');

commit;

exec dbms\_aw.execute('aw detach APPS.XWDEVKIT');

## **Reset advanced queues**

sqlplus / as sysdba

@/oraexport/ifsuexport/expdmp/scripts/auque2.sql

## **Import any problem objects separately**

If any

## **Run adgrants.sql**

grant READ on DIRECTORY FND\_DIAG\_DIR to "APPS"

grant read,write,execute on directory OPATCH\_INST\_DR to apps;

grant read,write,execute on directory OPATCH\_LOG\_DR to apps;

grant read,write,execute on directory OPATCH\_SCRIPT\_DR to apps;

GRANT GLOBAL QUERY REWRITE TO "APPS"

grant execute on utl\_mail to apps;

@?/appsutil/admin/adgrants.sql APPS

Get some erros. As per note 2507343.1 they can be ignored.

grant SELECT\_CATALOG\_ROLE to apps;

grant select any dictionary to apps;

grant execute on DBMS\_CRYPTO to APPS;

@objs\_upg19.sql  **( script created before export)**

## **Run post PDB script**

Note this is run against the CDB

cd $ORACLE\_HOME/appsutil

unset ORACLE\_PDB\_SID

. ./txkSetCfgCDB.env dboraclehome=/orahome/allu01/app/oracle/product/19.0.0.0/db\_ifsprod

cd bin

Double check PORT!

perl txkPostPDBCreationTasks.pl -dboraclehome=/orahome/allu01/app/oracle/product/19.0.0.0/db\_ifsprod \

-outdir=/orahome/allu01/app/oracle/product/19.0.0.0/db\_ifsprod/appsutil/log -cdbsid=CIFSPROD \

-pdbsid=IFSPROD \

-appsuser=apps -dbport=1542 -servicetype=onpremise

Log back into the PDB

export ORACLE\_PDB\_SID=IFSPROD

## **Gather system and fixed object statistics**

**sqlplus "/ as sysdba"**  
 **connect system/<system password>;**

**set timing on**  
**exec dbms\_stats.gather\_schema\_stats(ownname=>'SYS',options=>'GATHER AUTO');**  
**exec dbms\_stats.gather\_schema\_stats(ownname=>'SYSTEM',options=>'GATHER AUTO');**  
**exec dbms\_stats.gather\_dictionary\_stats;**  
**exec dbms\_stats.gather\_fixed\_objects\_stats;**

exec dbms\_stats.upgrade\_stat\_table('SYSTEM','EXP\_STATS');

exec dbms\_stats.gather\_table\_stats(ownname=>'SYSTEM',tabname=>'EXP\_STATS');

exec dbms\_stats.import\_database\_stats('EXP\_STATS');

## **Import statistics**

**connect "/ as sysdba";**  
 **alter system enable restricted session;**  
 @/orahome/allu01/app/oracle/product/19.0.0.0/db\_ifsprod/appsutil/admin**/adstats.sql**  
 **sqlplus "/ as sysdba"**  
**alter system disable restricted session;**

## **Grant privs to CTXSYS**

grant create procedure to CTXSYS;

## **Install SQLT into the USERSD tablespace.**

Scripts located : /orastage/u177/sqlt/sqlt/install

sqlplus / as sysdba

@sqcreate.sql

Specify optional Connect Identifier (as per Oracle Net)

Include "@" symbol, ie. @PROD

If not applicable, enter nothing and hit the "Enter" key.

You \*MUST\* provide a connect identifier when installing

SQLT in a Pluggable Database in 12c

This connect identifier is only used while exporting SQLT

repository everytime you execute one of the main methods.

Optional Connect Identifier (ie: @PROD): @IFSPROD

Password for user SQLTXPLAIN: IFSupg\_19c

Re-enter password:

The Tablespace name is case sensitive.

Do you want to see the free space of each tablespace

or is it ok just to show the list of tablespace [NO]?

Type YES or NO [Default NO]:NO

Specify PERMANENT tablespace to be used by SQLTXPLAIN.

Tablespace name is case sensitive.

Default tablespace [UNKNOWN]: USERSD

Specify TEMPORARY tablespace to be used by SQLTXPLAIN.

Tablespace name is case sensitive.

Temporary tablespace [UNKNOWN]: TEMP

## **Recreate problem network ACL’s**

check source and target with..

set lines 200 pages 200

col host format a10

col ACL format a50

col ACL\_OWNER format a10

col principal format a20

col privilege format a10

select \* from dba\_network\_acls order by ACL;

select ACL,PRINCIPAL,PRIVILEGE,ACL\_OWNER from dba\_network\_acl\_privileges order by 2,1;

Recreate missing ACLS.

BEGIN

DBMS\_NETWORK\_ACL\_ADMIN.CREATE\_ACL(

acl => 'OracleEBS.xml',

description => 'Network permissions for APPS',

principal => 'APPS',

is\_grant => TRUE,

privilege => 'connect');

END;

/

begin

dbms\_network\_acl\_admin.add\_privilege (

acl => 'OracleEBS.xml',

principal => 'APPS',

is\_grant => TRUE,

privilege => 'resolve');

END;

/

BEGIN

DBMS\_NETWORK\_ACL\_ADMIN.SET\_HOST\_ACL(

acl => 'OracleEBS.xml',

host => 'devifs',

lower\_port => 443,

upper\_port => 443);

END;

/

BEGIN

DBMS\_NETWORK\_ACL\_ADMIN.SET\_HOST\_ACL(

acl => 'OracleEBS.xml',

host => 'xifsapw3d',

lower\_port => 8041,

upper\_port => 8041);

END;

/

Check the 19 PDB matches the source database now

select \* from dba\_network\_acls order by ACL;

select ACL,PRINCIPAL,PRIVILEGE,ACL\_OWNER from dba\_network\_acl\_privileges order by 2,1;

e.g.

select \* from dba\_network\_acls order by ACL;

select ACL,PRINCIPAL,PRIVILEGE,ACL\_OWNER from dba\_network\_acl\_privileges order by 2,1;

HOST LOWER\_PORT UPPER\_PORT ACL ACLID ACL\_OWNER

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

devifs 443 443 /sys/acls/OracleEBS.xml 0000000080002788 SYS

xifsapw3d 8041 8041 /sys/acls/OracleEBS.xml 0000000080002788 SYS

\* NETWORK\_ACL\_8939E990888400DEE0530AF11A199560 0000000080002724 SYS

localhost NETWORK\_ACL\_E0855F14947702E2E053A74526B81E22 0000000080002760 SYS

ACL PRINCIPAL PRIVILEGE ACL\_OWNER

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

/sys/acls/OracleEBS.xml APPS resolve SYS

/sys/acls/OracleEBS.xml APPS connect SYS

NETWORK\_ACL\_8939E990888400DEE0530AF11A199560 APPS resolve SYS

NETWORK\_ACL\_8939E990888400DEE0530AF11A199560 APPS connect SYS

NETWORK\_ACL\_8939E990888400DEE0530AF11A199560 GGSYS resolve SYS

NETWORK\_ACL\_8939E990888400DEE0530AF11A199560 GSMADMIN\_INTERNAL resolve SYS

NETWORK\_ACL\_E0855F14947702E2E053A74526B81E22 ORACLE\_OCM resolve SYS

7 rows selected.

## Run **ETCC** on target database

The create ctxsys objects step requires that ETCC check be run against the database before adop can run

Source the EBS database environment file

. $ORACLE\_HOME/

cd /orastage/ifsustage/19cUpgrade/ETCC/April2022

./checkDBpatch.sh

This will show a missing patch 31424070. This is not applied as it clashes with the consolidated datapump patch required for import. We will have to fix this up later.

## **Take a guaranteed restore point now**

sqlplus / as sysdba

create restore point after\_upgrade\_1 guarantee flashback database;

## **Run custom variance report** and perform the validation before AutoConfig

# Run AutoConfig

**ON the applications Tier**

## Step 1. Implement and run AutoConfig

On each application tier server node, modify the TNS entries and the context files to point to the new database. Then, run AutoConfig on each application tier server node.

To modify the TNS entries, use a text editor and edit the $TNS\_ADMIN/tnsnames.ora files to specify the CDB instance name. The following is an example of the new TNS entry.

IFSPROD=

(DESCRIPTION=

(ADDRESS=(PROTOCOL=tcp)(HOST=aebsw1q.aetna.com)(PORT=1562))

(CONNECT\_DATA=

(SERVICE\_NAME=ebs\_IFSPROD)

(INSTANCE\_NAME=CIFSPROD)

)

)

Update the following values in the context file of every application tier server node.

|  |  |
| --- | --- |
| **Variable Name** | **Value** |
| s\_dbhost | New database hostname **n/a** |
| s\_dbdomain | New database domain name **n/a** |
| s\_dbGlnam | **CIFSPROD** |
| s\_dbport | 1542 |
| s\_applptmp | Directory (not /usr/tmp) defined in UTL\_FILE\_DIR |

S\_applptmp should be one of these

/aetnas46/oracmprod/IFSPROD/utl\_dir

/orahome/allu01/app/oracle/product/19.0.0.0/temp/IFSPROD

To identify the allowable directories for s\_applptmp use, connect to the Oracle E-Business Suite database instance as the apps user and run the following query:

select value from v$parameter where name='utl\_file\_dir';

Run AutoConfig using the following command.

$INST\_TOP/admin/scripts/adautocfg.sh

**Note: AutoConfig will fail because jtfictx.sql requires AD\_CTX\_DDL, which is created in a later step. AutoConfig will be run again after AD\_CTX\_DDL has been created.**

Run the correct Oracle E-Business Suite file system environment file again, in a new window to ensure the correct environment variables are loaded. (Existing windows logged into the application tier may have the old environment variables loaded.) Shut down and restart all Oracle E-Business Suite application tier processes to load the new environment settings.

## Step 2. Create Oracle Text objects

Certain Oracle Text objects are not preserved by the import process. The consolidated export/import utility patch that you applied to the administration server node in Section 4 contains a perl script, dpost\_imp.pl, that you can run to generate an AutoPatch driver file. You use this driver file to call the scripts that create these objects. Run the following command.

$ **cd $AU\_TOP/patch/115/bin**  
$ **mkdir 6924477**  
$ **perl dpost\_imp.pl u6924477.drv <source database version>**  
$ **mv u6924477.drv 6924477**  
$ **adop phase=apply hotpatch=yes patchtop=$AU\_TOP/patch/115/bin patches=6924477 options=forceapply**

**On Database host**

## Run custom Variance report

Validate once again after the CVS APPS admin team

## Populate CTXSYS.DR$SQE table

To populate the CTXSYS.DR$SQE table, use SQL\*Plus on the database server node to connect to the Oracle E-Business Suite database instance as apps and run the following command:

$ **sqlplus apps@IFSPROD**   
 **exec icx\_cat\_sqe\_pvt.sync\_sqes\_for\_all\_zones;**

**Compile invalid objects**

CREATE OR REPLACE PUBLIC SYNONYM "V$SYSTEM\_PARAMETER2" FOR "SYS"."V\_$SYSTEM\_PARAMETER2" ;

grant select on sys.V\_$SYSTEM\_PARAMETER2 to apps ;

grant select on sys.aux\_stats$ to apps;

grant select on DBA\_STAT\_EXTENSIONS to apps;

grant select on dba\_tables to apps;

grant select on WRI$\_OPTSTAT\_TAB\_HISTORY to apps;

grant select on WRI$\_OPTSTAT\_IND\_HISTORY to apps;

Sqlplus / as sysdba

@?/rdbms/admin/utlrp

**Back on the Apps node**

## Run autoconfig on admin node

**$INST\_TOP/admin/scripts/adautocfg.sh**

## Reconfigure external integrations

External applications will need a copy of the new DBC file or changes to the TNS connect string

IFSPROD=

(DESCRIPTION=

(ADDRESS=(PROTOCOL=tcp)(HOST=aebsw1q.aetna.com)(PORT=1562))

(CONNECT\_DATA=

(SERVICE\_NAME=ebs\_IFSPROD)

(INSTANCE\_NAME=CIFSPROD)

)

)

## Start the EBS application Tier

Start all the application tier server processes. You can allow users to access the system at this time.

## Final Scripts that need to be run for FND\_FILE\_utl\_file workaround

GRANT READ,WRITE on directory EBS\_DB\_DIR\_UTIL to AEFA;

GRANT READ,WRITE on directory EBS\_DB\_DIR\_UTIL to AEAP;

GRANT READ,WRITE on directory EBS\_DB\_DIR\_UTIL to AEGL;

GRANT READ,WRITE on directory EBS\_DB\_DIR\_UTIL to AEPO;

GRANT READ,WRITE on directory EBS\_DB\_DIR\_UTIL to AEFND;

GRANT READ,WRITE on directory EBS\_DB\_DIR\_UTIL to APPS;

GRANT EXECUTE on directory EBS\_DB\_DIR\_UTIL to APPS;

## Execute the following scripts

Located at NAS Mount in IFSPROD at /aetnas67/oracmprod/IFSPROD/aeap/ftp/in

1. ITPR054071\_Docsavi\_ProcessingQ\_Recreate.sql (Run as DOCSAVI)  
2. ITPR054071\_Docsavi\_ProcessingQ\_Synonyms.sql (Run as APPS)  
3. ITPR044081\_grants\_to\_docsavi\_objects\_45.sql and when prompted for input please enter S038882 (Run as SYS)  
4. ITPR044081\_grants\_to\_related\_objects\_45.sql and when prompted for input please enter S038882 (Run as SYS)  
5. ITPR044081\_grants\_to\_docsavi\_objects\_45.sql and when prompted for input please enter S038882 (Run as APPS)  
6. ITPR044081\_grants\_to\_related\_objects\_45.sql and when prompted for input please enter S038882 (Run as APPS)

# **Validation**

## **Validate by logging on to the databases via sqlplus and running**

set lines 400

col host\_name for a20

col db\_unique\_name for a13

col VERSION for a10

col OPEN\_MODE for a15

col INSTANCE\_NAME for a10

col NAME for a10

col LOGINS for a10

col STATUS for a10

col DATABASE\_ROLE for a16

col log\_mode for a15

col TO\_CHAR(STARTUP\_TIME,'DD-MON-YYYYHH24:MI:SS') for a30

SELECT name,db\_unique\_name,VERSION,open\_mode,logins,INSTANCE\_NAME,host\_name,dbid,TO\_CHAR(STARTUP\_TIME,'DD-MON-YYYY HH24:MI:SS'),STATUS,database\_role,log\_mode FROM v$database,gv$INSTANCE;

## **Re-Run custom** variance report and perform the validation

Post migration validation activity – Recompile/get invalids, the count & list of database objects and their status (valid, invalid) from the IFSPROD environment – only the list will be taken

## **Drop All DB Restore Points**

Execute below in CDB

set line 400

col time for a50

col name for a50

select name,time from v$restore\_point;

select NAME,SCN,TIME,DATABASE\_INCARNATION#,GUARANTEE\_FLASHBACK\_DATABASE,  
 STORAGE\_SIZE  
 from v$restore\_point;

DROP RESTORE POINT Restore\_point\_name;

# **Backout Plan**

## Modify source tablespaces back to read/write mode

If the source database is still to be used, as the owner of the source database file system and database instance, use SQL\*Plus to connect to the source PDB as SYSDBA and run the auxttswrite.sql script.

$ sqlplus "/ as sysdba" @auxttswrite.sql

DO THIS BEFORE FLASHBACK

If we do no flashback then the following would also need to be done.

## Revoke privilege from source SYSTEM schema

If the source database is still to be used, revoke the exempt access policy privilege from SYSTEM by using SQL\*Plus to connect to the PDB as SYSDBA and run the following commands.

$ sqlplus "/ as sysdba"  
SQL> revoke EXEMPT ACCESS POLICY from system;

## Import OLAP analytical workspaces

exec dbms\_aw.execute('aw create APPS.ODPCODE');

exec dbms\_aw.execute('import all from eif file ''DMPDIR/OLAP1.eif'' data dfns');

exec dbms\_aw.execute('update');

commit;

exec dbms\_aw.execute('aw detach APPS.ODPCODE');

exec dbms\_aw.execute('aw create APPS.XWDEVKIT\_BACKUP');

exec dbms\_aw.execute('import all from eif file ''DMPDIR/OLAP2.eif'' data dfns');

exec dbms\_aw.execute('update');

commit;

exec dbms\_aw.execute('aw detach APPS.XWDEVKIT\_BACKUP');

exec dbms\_aw.execute('aw create FPA.FPAPJP');

exec dbms\_aw.execute('import all from eif file ''DMPDIR/OLAP3.eif'' data dfns');

exec dbms\_aw.execute('update');

commit;

exec dbms\_aw.execute('aw detach FPA.FPAPJP');

exec dbms\_aw.execute('aw create APPS.XWDEVKIT');

exec dbms\_aw.execute('import all from eif file ''DMPDIR/OLAP4.eif'' data dfns');

exec dbms\_aw.execute('update');

commit;

exec dbms\_aw.execute('aw detach APPS.XWDEVKIT');

## Re-install SQLT.

cd /orastage/u177/sqlt/sqlt/install

sqlplus / as sysdba

@sqcreate.sql