

UnionSys Technologies

UPGRADATION AND MIGRATION OF ORACLE E-BUSINESS SUIT

Upgrading of database from 10.2.0.4 to 11.2.0.3 on Windows on 11.5.10.2

Apply Interoperability patches for upgradation

Patch 3460000

Dependencies for Patch 3460000

1. 3384350
2. 3180816
3. 2368042
4. 8217898
5. 3882116
6. 3262159

2.Patch 8815204

3.Patch 5644137

4.Patch 6400762 (if using i-store)

ATG Rollup Patch

1. Patch 5903765
2. Patch 7456837.

Upgrade AutoConfig

Patch 9835302

Pre requisite patch- 9535311

Daylight Saving changes

1. Patch 5619414 or later
2. Patch 5630108 or later
3. Patch 6476631
Pre req. Patch- 5527842
4. Patch 6453109
5. Patch 6456596 (Conditional: Required if you are using Oracle Sales Online or Oracle Service.)
6. Patch 5744443

DirectX

Run the DirectX diagnostics tool DxDiag.exe in c:\windows\system32
If generic error- then upgrade it to Direct 9.0b

Apply GL patch 6815663

5903765 - 11i.ATG_PF.H.RUP7
5903765 - 11i.ATG_PF.H.RUP8
5903765 - 11i.ATG_PF.H.RUP9
5903765 - 11i.ATG_PF.H.RUP10
5903765 - 11i.ATG_PF.H.RUP11
5903765 - 11i.ATG_PF.H.RUP12
5903765 - 11i.ATG_PF.H.RUP13
5903765 - 11i.ATG_PF.H.RUP14
5903765 - 11i.ATG_PF.H.RUP15
5903765 - 11i.ATG_PF.H.RUP16
5903765 - 11i.ATG_PF.H.RUP17
5903765 - 11i.ATG_PF.H.RUP18
5903765 - 11i.ATG_PF.H.RUP19
5903765 - 11i.ATG_PF.H.RUP20
5903765 - 11i.ATG_PF.H.RUP21

Prepare to create the 11.2.0 Oracle home

Install the base 11.2.0 software

Create nls/data/9idata directory

On the database server node, as the owner of the Oracle RDBMS file system and database instance, run the \$ORACLE_HOME/nls/data/old/cr9idata.pl script to create the \$ORACLE_HOME/nls/data/9idata directory.

After creating the directory, make sure that the ORA_NLS10 environment variable is set to the full path of the 9idata directory whenever you enable the 11g Oracle home.

Apply additional 11.2.0 RDBMS patches

9595784

Database Upgrade:

Shut down Applications server processes and database listener

On each application tier server node, shut down all server processes or services.

On the database tier server node, shut down the Oracle Net or Net8 database listener in the old oracle home.

Note: The Applications will be unavailable to users until all remaining tasks in this section are completed.

Drop SYS.ENABLED\$INDEXES (conditional)

If the SYS.ENABLED\$INDEXES table exists, use SQL*Plus to connect to the database as SYSDBA and running the following command to drop it:

```
SQL> drop table sys.enabled$indexes;
```

Attention (Windows only)

Make sure that the Services applet window is closed on the database server node. You cannot remove the current database instance service during the upgrade if this window is open.

Copy file : utlu111i.sql to d:\temp (any temporary location) from "D:\Oradb11g\RDBMS\ADMIN" .
Connected into Oracle 10g instance while DB is up and running and execute the .sql file from SQL prompt and get the below status.

```
SQL> @utlu111i.sql
SQL> select * from v$timezone_file;
SQL> SELECT CASE COUNT(DISTINCT(tzname))
WHEN 183 then 1
WHEN 355 then 1
WHEN 347 then 1
WHEN 377 then 2
WHEN 186 then case COUNT(tzname) WHEN 636 then 2 WHEN 626 then 3 ELSE 0 end
WHEN 185 then 3
WHEN 386 then 3
WHEN 387 then case COUNT(tzname) WHEN 1438 then 3 ELSE 0 end
WHEN 391 then case COUNT(tzname) WHEN 1457 then 4 ELSE 0 end
WHEN 392 then case COUNT(tzname) WHEN 1458 then 4 ELSE 0 end
WHEN 188 then case COUNT(tzname) WHEN 637 then 4 ELSE 0 end
WHEN 189 then case COUNT(tzname) WHEN 638 then 4 ELSE 0 end
ELSE 0 end VERSION
FROM v$timezone_names;

VERSION
4
SQL> select banner from v$banner;
```

Gather Statistics

```
SQL> EXEC DBMS_STATS.GATHER_DICTIONARY_STATS;
SQL> EXEC DBMS_STATS.GATHER_SCHEMA_STATS('SYS');
SQL> EXEC DBMS_STATS.GATHER_SCHEMA_STATS ('SYSMAN');
```

Copy initialization file (pfile) from source (10g) to target (11g)
Adjust initialization parameter specific to 11g.

perform the Database upgrade steps using DBUA

Create the TNS service for upgraded database

Post Checks after Upgradation

Views to be verified-

nls_database_parameters

recreating the emca repository-

emca -repos recreate

Post Upgrade Steps

Start the listener of new Oracle Home (11.2.0.1.0)

Run the adgrants_nt.sql and pass apps as parameter

adgrants_nt.sql is present in the \$APPL_TOP/admin/ directory

```
$ sqlplus "/ as sysdba" @adgrants_nt.sql apps
```

Grant create procedure privilege on CTXSYS

```
$ sqlplus apps/[APPS password] @adctxprv.sql
```

Set CTXSYS parameter

```
$ sqlplus "/ as sysdba"
```

```
SQL> exec ctxsys.ctx_adm.set_parameter('file_access_role', 'public');
```

Implement and run AutoConfig

Shut down all processes, including the database and the listener, and restart them to load the new environment settings.

Gather statistics for SYS schema

Run the database in restricted mode

Run the adstats.sql and restart the database in normal mode

```
$ sqlplus "/ as sysdba"
```

```
SQL> shutdown normal;
```

```
SQL> startup restrict;
```

```
SQL> @adstats.sql
```

```
SQL> shutdown normal;
```

```
SQL> startup;
```

SQL> exit;

Recreate custom database links

\$ sqlplus apps/[apps password]

SQL> select db_link from dba_db_links;

\$ sqlplus apps/[apps password]

SQL> drop database link [custom database link];

SQL> create database link [custom database link] connect to

[user] identified by [password] using

'(DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=[hostname])

(PORT=[port number]))(CONNECT_DATA=(SID=[ORACLE_SID])));

Apply Oracle Human Resources (HRMS) patch 7721754 (conditional)

If you are using Oracle HRMS, apply patch 7721754.

Recreate grants and synonyms

Restart application services

Migration of 11.2.0.1 database from Windows Server to 11.2.0.1 of Solaris 11

Section 1: Prepare the Source system

Perform prerequisite steps

Apply following patches

Patch 3460000

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1. 3384350
2. 3180816
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ATG Rollup Patch

1. Patch 5903765
2. Patch 7456837.

Developer 6i (If your Patch set level is earlier then patch set 18 then follow document # 125767.1

Upgrade AutoConfig(ID 165195.1)

Patch 9835302

Pre requisite patch- 9535311

Daylight Saving changes

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5903765 - 11i.ATG_PF.H.RUP14
5903765 - 11i.ATG_PF.H.RUP15
5903765 - 11i.ATG_PF.H.RUP16
5903765 - 11i.ATG_PF.H.RUP17
5903765 - 11i.ATG_PF.H.RUP18
5903765 - 11i.ATG_PF.H.RUP19
5903765 - 11i.ATG_PF.H.RUP20
5903765 - 11i.ATG_PF.H.RUP21
```

Apply the Applications consolidated export/import utility patch

Apply Patch 12353539 to the source administration server node

Create a working directory

```
$ mkdir D:/apps/expimp
```

Generate target database instance creation script aucrdb.sql

The export/import patch provides the auclondb.sql script which generates aucrdb.sql, which you use to create the target database instance with the appropriate tablespace and file structure.

```
$ cd [working directory]
$ sqlplus system/[system password] \
  @$AU_TOP/patch/115/sql/auclondb.sql 11
```

Record Advanced Queue settings

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

```
$ sqlplus /nolog
SQL> connect / as sysdba;
SQL> @auque1.sql
```

Remove rebuild index parameter in spatial indexes

```
SQL> select * from dba_indexes where index_type='DOMAIN' and  
upper(parameters) like '%REBUILD%';
```

To remove the rebuild index parameter run the following command:

```
SQL> alter index [index name] rebuild parameters [parameters]
```

Synchronize Text indexes

```
SQL> select pnd_index_owner,pnd_index_name,count(*)  
from ctxsys.ctx_pending  
group by pnd_index_owner,pnd_index_name;
```

```
exec ctx_ddl.sync_index('IBC.IBC_ATTRIBUTE_BUNDLES_CTX');  
exec ctx_ddl.sync_index('APPLSYS.FND_LOBS_CTX');  
exec ctx_ddl.sync_index('JTF.JTF_AMV_ITEMS_DESC_CTX')
```

```
exec ctx_ddl.sync_index('CS.CS_KB_SOLN_CAT_TL_N1')
```

```
exec ctx_ddl.sync_index('JTF.JTF_AMV_ITEMS_NAME_CTX')  
exec ctx_ddl.sync_index('JTF.JTF_AMV_ITEMS_TEXT_CTX')  
exec ctx_ddl.sync_index('CS.CS_KB_ELEMENTS_TL_N2')  
exec ctx_ddl.sync_index('CS.CS_KB_SETS_TL_N3')  
exec ctx_ddl.sync_index('ICX.ICX_QUES_CTX')
```

Section 2: Prepare a target Applications Release 11i database instance

Create the target initialization parameter file and CBO parameter file

update both the init.ora and ifilecbo.ora files with any necessary changes. You may also need to update initialization parameters involving the db_name, control_files, and directory structures

Create a working directory

```
$ mkdir /u01/expimp
```


Create the target database instance

Copy the aucrdb.sql script, generated in Section 1, from the source administration server node to the working directory in the target database server node.

```
SQL> startup nomount;
SQL> @aucrdb.sql
SQL> exit;
```

Copy database preparation scripts to target Oracle home

The database preparation scripts that you applied to the source administration server node in Section 1 contain four scripts that are needed on the target database server node. Copy the following files from the \$AU_TOP/patch/115/sql directory of the source administration server node to the working directory in the target database server node: audb1120.sql, ausy1120.sql, aujv1120.sq, and aumsc1120.sql

Set up the SYS schema

On the target database server node, use SQL*Plus to connect to the target database instance as SYSDBA and run audb1120.sql

```
$ sqlplus "/ as sysdba"
SQL>@/u01/expimp/audb1120.sql
```

Set up the SYSTEM schema

On the target database server node, use SQL*Plus to connect to the target database instance as SYSTEM and run ausy1120.sql .

```
$ sqlplus "/ as sysdba"
SQL>@/u01/expimp/ausy1120.sql
```

Install Java Virtual Machine

On the target database server node, use SQL*Plus to connect to the target database instance as SYSTEM and run aujv1120.sql

```
$ sqlplus "/ as sysdba"
SQL>@/u01/expimp/aujv1120.sql
```

Install other required components

On the target database server node, use SQL*Plus to connect to the target database instance as SYSTEM and run aumsc1120.sql

```
$ sqlplus "/ as sysdba"
SQL>@/u01/expimp/aumsc1120.sql
```

Disable automatic gathering of statistics

```
$ sqlplus "/ as sysdba"
SQL> shutdown normal;
SQL> startup restrict;
SQL> @adstats.sql
SQL> exit;
```

Back up the target database instance

Section 3: Export the source Applications Release 11*i* database instance

Create the export parameter file

Copy \$AU_TOP/patch/115/import/auexpdp.dat from the source administration server node to the working directory in the source database server node.

```
$ sqlplus system/[system password]
SQL> create directory dmpdir as 'D:/apps/expimp';
```

Shut down Applications server processes

Grant privilege to source system schema

```
SQL> grant EXEMPT ACCESS POLICY to system;
```

Export the database instance

```
$ sqlplus system/[system password]
$ expdp system/manager parfile=auexpdp.dat
```

Revoke privilege from source system schema

```
SQL> revoke EXEMPT ACCESS POLICY from system;
```

Section 4: Import the Applications Release 11*i* database instance

Create the import parameter file

Copy the export parameter file you created in Section 1 from the source database server node to the working directory in the target database server node

Updating the new file with the following changes converts it to an import parameter file:

- Remove the exclude parameters.
- Remove the filesize parameter.
- Change the name of the log file.
- Uncomment the transform parameter.

```
$ sqlplus system/[system password]
SQL> create directory dmpdir as '/u01/expimp';
```

Copy the export dump files

Copy the export dump files from the source database server node to the target database server node.

Import the database instance

```
$ impdp '/' as sysdba" parfile=/u01/expimp/auimpdp.dat
```

Revoke privilege from target system schema

```
SQL> revoke EXEMPT ACCESS POLICY from system;
```

Section 5: Update the imported Applications Release 11i database instance

Reset Advanced Queues

Copy the auque2.sql script that was generated in Section 1 from the working directory in the source database server node to the working directory on the target database server node.

```
$ sqlplus /nolog
```

```
SQL> connect / as sysdba;
```

```
SQL> @/u01/expimp/auque2.sql
```

Compile invalid objects

```
$ sqlplus "/" as sysdba" @$ORACLE_HOME/rdbms/admin/utl rp.sql
```

Upgrade of Oracle Applications Version R12.1.1 to R12.1.3

Required Patches to be Downloaded

p9239089_R12.AD.B_R12_LINUX.zip
p10349415_R12.AD.B_R12_GENERIC.zip (Optional)
p9239090_R12_LINUX_1of6.zip
p9239090_R12_LINUX_2of6.zip
p9239090_R12_LINUX_3of6.zip
p9239090_R12_LINUX_4of6.zip
p9239090_R12_LINUX_5of6.zip
p9239090_R12_LINUX_6of6.zip
p9239095_R12_GENERIC.zip
p9822544_R12.MSC.B_R12_GENERIC.zip(Optional)

POST Upgrade Patches

p9966055_R12.FND.B_R12_GENERIC.zip
p9817770_R12.ATG_PF.B_R12_LINUX.zip

Run adadmin and put Maintenance Mode

Run the adgrants.sql from \$ORACLE_HOME as SYSDBA

Unzip patch p9239089.zip

Copy adgrants.sql from "admin" in patch directory to \$ORACLE_HOME
sql>@adgrants.sql

Apply patch 9239089

Apply Oracle E-Business Suite Release 12.1.3 Patch 9239090

Apply Oracle E-Business Suite Online Help for 12.1.3 Release Update Pack patch 9239095

Apply Patch 9822544 for Advanced Supply Chain Planning. (Optional). This patch fixes the issue of collecting resource requirements of OPM batches WIP warehouse does not belong to resource warehouse.

Apply mandatory Patch 9817770 (9817770:R12.ATG_PF.B [POST-R12.ATG_PF.B.DELTA.3 CONSOLIDATEDPATCH].)

Apply mandatory Patch 9966055 (9966055:R12.FND.B [TRANSLATED VERSION OF FNDSCSGN NOT LAUNCHED].)

Run Application and Database Environment files

Run AutoConfig on the APPL_TOP

perl<AD_TOP>/bin/admkappsutil.pl

Copy or FTP the appsutil.zip file to the <RDBMS ORACLE_HOME>. Uncompress appsutil.zip under the <RDBMS ORACLE_HOME>

```
unzip -o appsutil.zip
```

Run AutoConfig on the <RDBMS ORACLE_HOME>.

Run adpreclone.pl on the database tier and the application tier

```
perl adpreclone.pl dbTier
```

```
perl adpreclone.pl appsTier
```

Disable Maintenance Mode using adadmin and check the version using following sql statement.

```
SQL> select release_name from fnd_product_groups;
```

```
RELEASE_NAME
```

```
-----
```

```
12.1.3
```