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Install Oracle11g R2 and upgrade Oracle 11g R1 to Oracle 11gR2

High Level Steps

- > Install Oracle software 11gR2
- > Start the old 11.1.0.7 database
- > Stop the old listener and create a new listener for Oracle 11gR2
- > Run utlu112i.sql to verify whether all the prereqs have matched – OLD Home
- > Run catupgrd.sql for upgrade from 11.1.0.7 to 11gR2 – New Home

OLD HOME= /d03/oracle/RACDB/db/tech_st/11.1.0

NEW HOME= /d03/oracle/RACDB/db/tech_st/11.2.0

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-- Install Oracle software 11gR2

```
mkdir -p /d03/oracle/RACDB/db/tech_st/11.2.0
```

Oracle Database 11g Release 2 Installer - Installing database - Step 1 of 9

Configure Security Updates

Provide your email address to be informed of security issues, install the product and initiate configuration manager. [View details.](#)

Email:

Easier for you if you use your My Oracle Support email address/username..

I wish to receive security updates via My Oracle Support.

My Oracle Support Password:

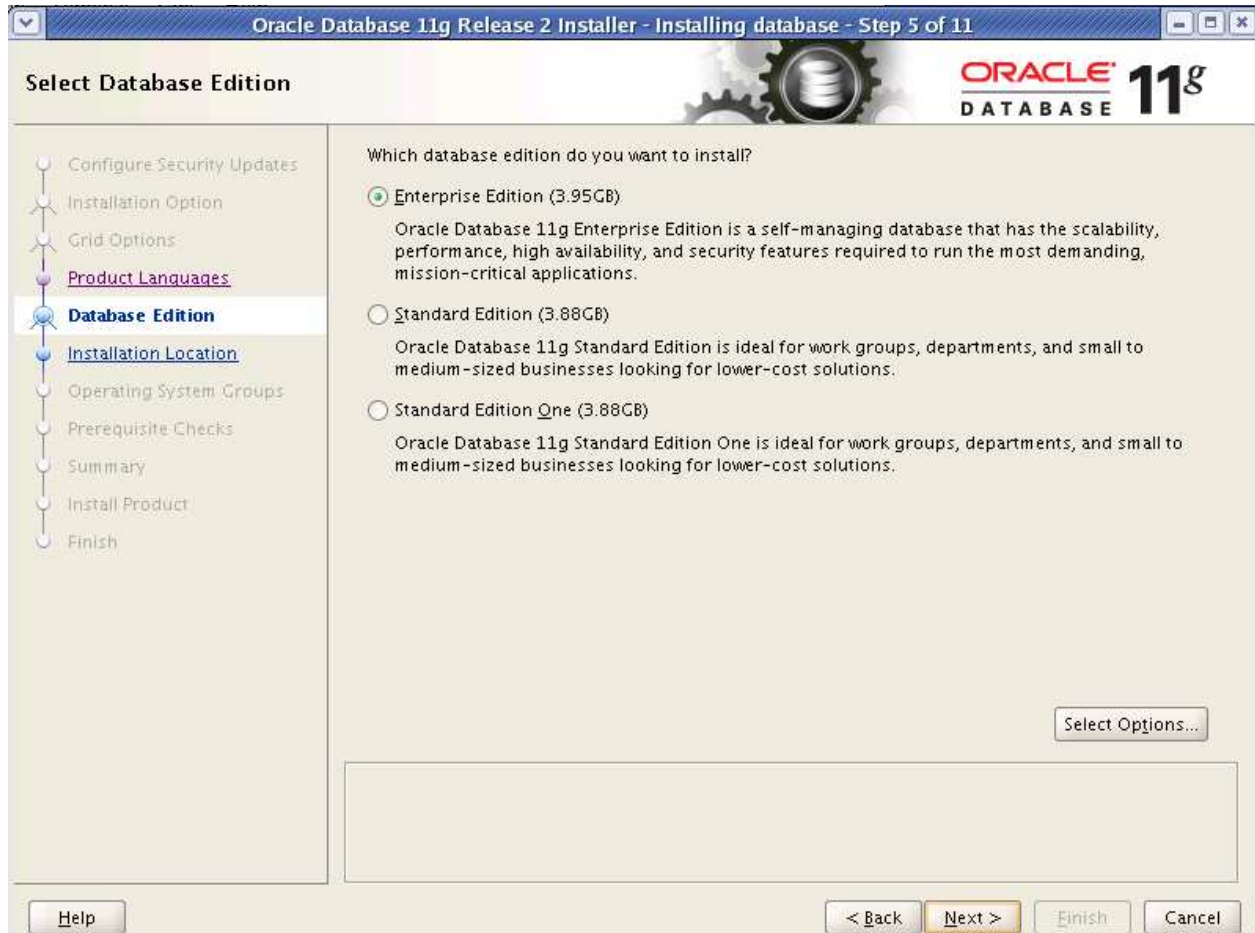
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Create Inventory

You are starting your first installation on this host. Specify a directory for installation files. This directory is called the "inventory directory". The installer automatically sets up subdirectories for each product to contain inventory data. The subdirectory for each product typically requires 150 kilobytes of disk space.

Inventory Directory:

Specify an operating system group whose members have write permission to the inventory directory (oralInventory).

oralInventory Group Name:

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Oracle Database 11g Release 2 Installer - Installing database - Step 8 of 12

Privileged Operating System Groups

SYSDBA and SYSOPER privileges are required to create a database using operating system (OS) authentication. Membership in OSDBA grants the SYSDBA privilege, and membership in OSOPER grants the SYSOPER privilege, which is a subset of SYSDBA privileges. Select the name of the OSDBA group to grant the SYSDBA privilege. You must be a member of this group.

Database Administrator (OSDBA) Group: dba

Database Operator (OSOPER) Group: dba

Help < Back Next > Finish Cancel

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Oracle Database 11g Release 2 Installer - Installing database - Step 9 of 12

Perform Prerequisite Checks

Some of the minimum requirements for installation are not completed. Review and fix the issues listed in the following table, and recheck the system.

Checks	Status	Fixable
Checks		
Packages		
Package: glibc-2.3.4-2.41	Failed	

This is a prerequisite condition to test whether the package "glibc-2.3.4-2.41" is available on the system. [\(more details\)](#)
Expected Value : glibc-2.3.4-2.41
Actual Value : glibc-2.3.4-2.39

Ignore the above issue, click Ignore all and continue 😊

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Oracle Database 11g Release 2 Installer - Installing database - Step 10 of 12

Summary

Configure Security Updates
Installation Option
Grid Options
Product Languages
Database Edition
Installation Location
Create Inventory
Operating System Groups
Prerequisite Checks
Summary
Install Product
Finish

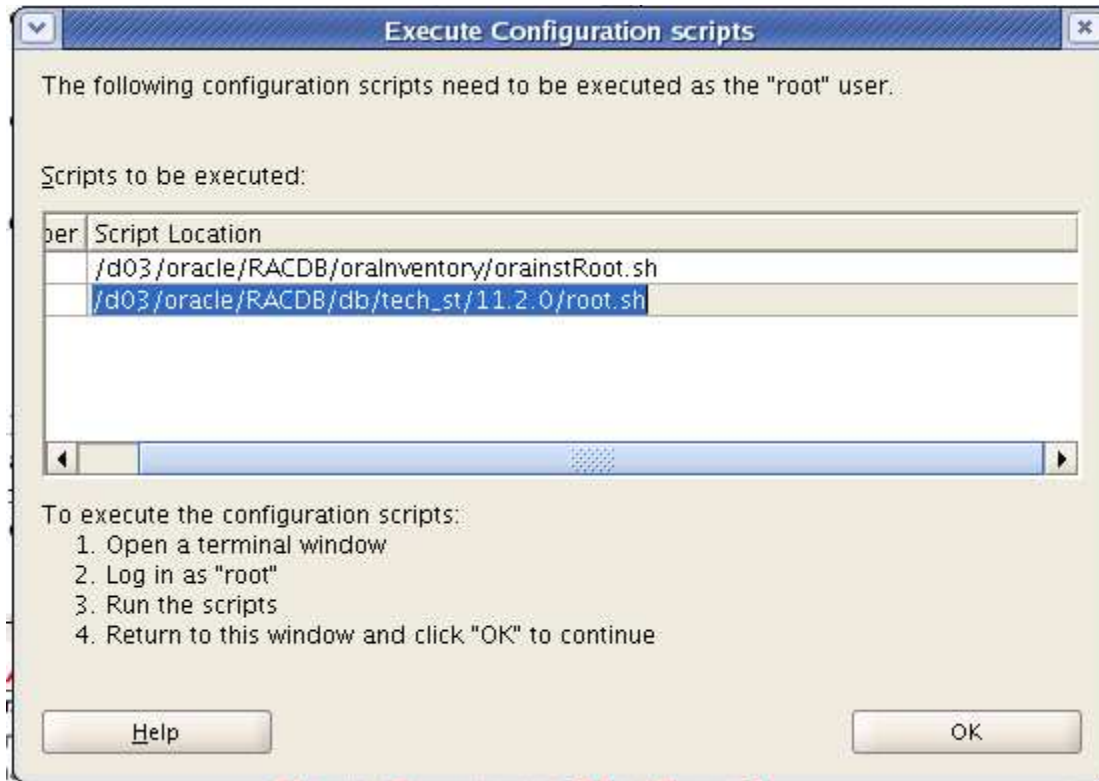
Oracle Database 11g Release 2 Installer

- Global settings**
 - Disk space: required 3.95 GB available 16.89 GB
 - Source location: /d01/oracle/RAC/11gR2/database/install/./stage/products.xml
 - Install method: Typical installation
 - Database edition: Enterprise Edition (Install database software only)
 - Oracle base: /d03/oracle/RACDB/oracle
 - Software location: /d03/oracle/RACDB/db/tech_st/11.2.0
 - OSDBA group: dba
- Inventory information**
 - Inventory location: /d03/oracle/RACDB/orainventory
 - orainventory group: oinstall

Save Response File...

Help < Back Next > Finish Cancel

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-- Start 11.1.0.7 database

```
-bash-3.00$ sqlplus "/as sysdba"
```

```
SQL*Plus: Release 11.1.0.7.0 - Production on Wed Jul 28 21:54:46 2010
```

```
Copyright (c) 1982, 2008, Oracle. All rights reserved.
```

```
Connected to an idle instance.
```

```
SQL> startup
```

```
ORACLE instance started.
```

```
Total System Global Area 1071333376 bytes
```

```
Fixed Size          1318172 bytes
```

```
Variable Size      427819748 bytes
```

```
Database Buffers   629145600 bytes
```

```
Redo Buffers       13049856 bytes
```

```
Database mounted.
```

```
Database opened.
```

Stop the old listener and run netca from the new home

Copy the old environment file, initRACDB.ora, make the changes 11.1.0 to 11.2.0

Run the new environment file from Oracle 11gR2

```
./RACDB_linux1_R2.env
```

```
netca &
```

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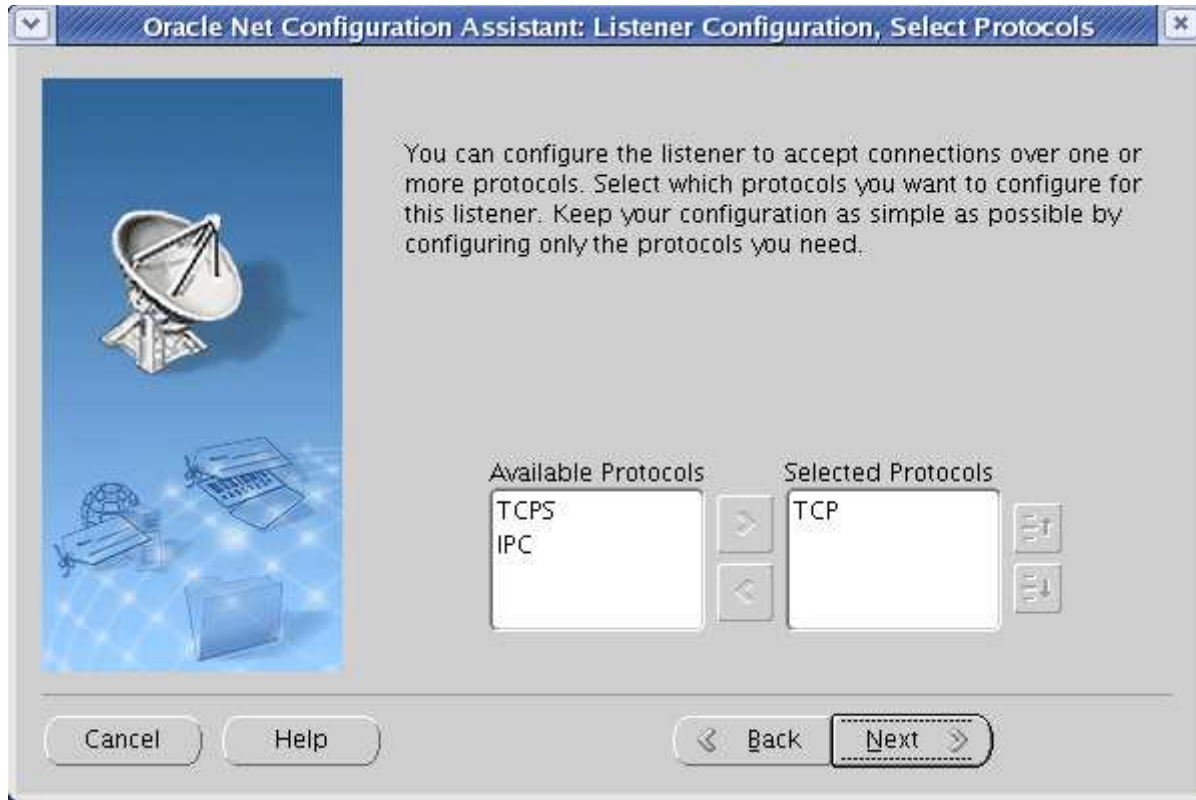
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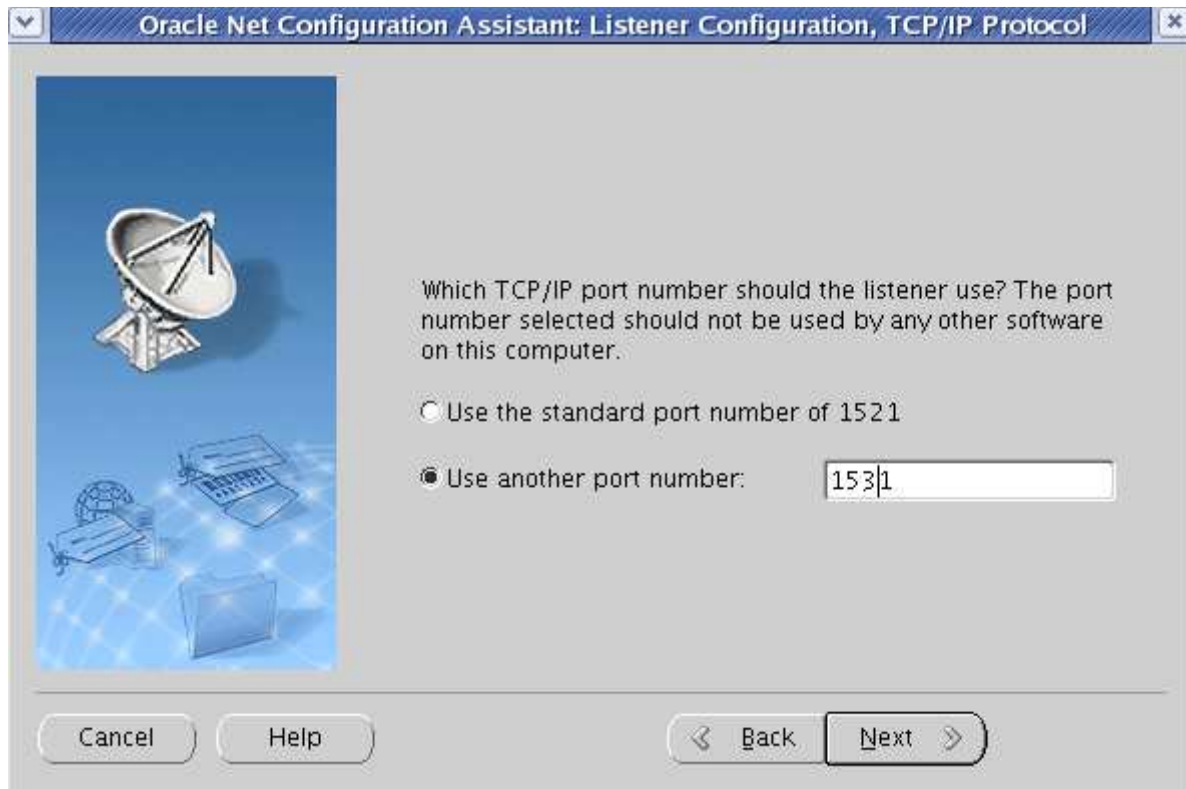
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Copy listener.ora, tnsnames.ora from old home to new home and make necessary changes if required

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After Installation for Oracle 11gR2, while connecting I am getting the below error

sqlplus

SP2-1503: Unable to initialize Oracle call interface

SP2-0152: ORACLE may not be functioning properly

<http://arjudba.blogspot.com/2010/07/after-112g-new-installation-invoking.html>

Cause of the Problem

If you look for the `ls -l` output you will see `timezone.dat` and `timezlrq.dat` are not present but multiple versions `timezlrq.*` and `timezone.*` are present. The problem happened because there is a choice of timezone versions are available.

Solution of the Problem

To resolve the problem, create links to one of the `timezone_nn.dat` files. While creating symbolic links you should choose the latest timezone version unless you have a requirement for a specific version.

```
$ cd $ORACLE_HOME/oracore/zoneinfo
$ ln -s timezone_11.dat timezone.dat
$ ln -s timezlrq_11.dat timezlrq.dat
```

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Run utlu112i.sql from the old home to check whether all the prereqs have matched

- Connect to OLD Home

```
cd $ORACLE_HOME/rdbms/admin
cp utlu112i.sql /tmp
-bash-3.00$ ./RACDB_linux1.env
-bash-3.00$ sqlplus "/as sysdba"
```

SQL*Plus: Release 11.1.0.7.0 - Production on Wed Jul 28 22:48:32 2010

Copyright (c) 1982, 2008, Oracle. All rights reserved.

Connected to:

Oracle Database 11g Enterprise Edition Release 11.1.0.7.0 - Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options

```
SQL> @/tmp/utlu112i.sql
```

```
Oracle Database 11.2 Pre-Upgrade Information Tool 07-28-2010 22:50:24
```

```
.
*****
```

```
Database:
```

```
*****
```

```
--> name:      RACDB
--> version:   11.1.0.7.0
--> compatible: 11.1.0
--> blocksize: 8192
--> platform:  Linux IA (32-bit)
--> timezone file: V10
```

```
.
*****
```

```
Tablespaces: [make adjustments in the current environment]
```

```
*****
```

```
--> SYSTEM tablespace is adequate for the upgrade.
.... minimum required size: 11073 MB
--> CTXD tablespace is adequate for the upgrade.
.... minimum required size: 19 MB
--> ODM tablespace is adequate for the upgrade.
```

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```
.... minimum required size: 10 MB
--> APPS_UNDOTS1 tablespace is adequate for the upgrade.
.... minimum required size: 1761 MB
--> APPS_TS_TX_DATA tablespace is adequate for the upgrade.
.... minimum required size: 5163 MB
--> APPS_TS_QUEUES tablespace is adequate for the upgrade.
.... minimum required size: 107 MB
--> OLAP tablespace is adequate for the upgrade.
.... minimum required size: 16 MB
WARNING: --> SYSAUX tablespace is not large enough for the upgrade.
.... currently allocated size: 472 MB
.... minimum required size: 515 MB
.... increase current size by: 43 MB
.... tablespace is NOT AUTOEXTEND ENABLED.
.
*****
Flashback: OFF
*****
*****
Update Parameters: [Update Oracle Database 11.2 init.ora or spfile]
*****
WARNING: --> "java_pool_size" needs to be increased to at least 64 MB
.
*****
Renamed Parameters: [Update Oracle Database 11.2 init.ora or spfile]
*****
-- No renamed parameters found. No changes are required.
.
*****
Obsolete/Deprecated Parameters: [Update Oracle Database 11.2 init.ora or spfile]
*****
--> plsql_native_library_dir 11.2 OBSOLETE
--> plsql_native_library_subdir_11.2 OBSOLETE
.
*****
Components: [The following database components will be upgraded or installed]
*****
--> Oracle Catalog Views [upgrade] VALID
--> Oracle Packages and Types [upgrade] VALID
--> JServer JAVA Virtual Machine [upgrade] VALID
```

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```
--> Oracle XDK for Java      [upgrade] VALID
--> Real Application Clusters [upgrade] INVALID
--> OLAP Analytic Workspace  [upgrade] VALID
--> OLAP Catalog            [upgrade] VALID
--> Oracle Text              [upgrade] VALID
--> Oracle XML Database      [upgrade] VALID
--> Oracle Java Packages     [upgrade] VALID
--> Oracle interMedia       [upgrade] VALID
--> Spatial                  [upgrade] VALID
--> Data Mining              [upgrade] VALID
--> Oracle OLAP API         [upgrade] VALID
```

```
.
*****
```

Miscellaneous Warnings

```
*****
```

WARNING: --> Database is using a timezone file older than version 11.
.... After the release migration, it is recommended that DBMS_DST package
.... be used to upgrade the 11.1.0.7.0 database timezone version
.... to the latest version which comes with the new release.

WARNING: --> Database contains schemas with stale optimizer statistics.

.... Refer to the Upgrade Guide for instructions to update
.... schema statistics prior to upgrading the database.

.... Component Schemas with stale statistics:

```
.... SYS
.... OLAPSYS
.... CTXSYS
.... MDSYS
```

WARNING: --> Database contains INVALID objects prior to upgrade.

.... The list of invalid SYS/SYSTEM objects was written to
.... registry\$sys_inv_objs.

.... The list of non-SYS/SYSTEM objects was written to
.... registry\$nonsys_inv_objs.

.... Use utluiobj.sql after the upgrade to identify any new invalid
.... objects due to the upgrade.

.... USER ORDSYS has 2 INVALID objects.

.... USER SYS has 1 INVALID objects.

WARNING:--> recycle bin in use.

.... Your recycle bin is turned on and it contains

.... 1565 object(s). It is REQUIRED

.... that the recycle bin is empty prior to upgrading

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.... your database.
.... The command: PURGE DBA_RECYCLEBIN
.... must be executed immediately prior to executing your upgrade.

.

PL/SQL procedure successfully completed.

■ **Run catupgrd.sql for upgrade from 11.1.0.7 to 11gR2**

■ **Connect to new ORACLE_HOME**

su – oracle

./RACDB_linux1_R2.env

SQL> startup upgrade

ORA-01078: failure in processing system parameters

ORA-32004: obsolete or deprecated parameter(s) specified for RDBMS instance

-- Check whether you are having the below issues

*.compatible='11.2.0'

shared_pool_size increase to 298MB [as suggested -- 325058560]

user_dump_dest — REMOVE

background_dump_dest — REMOVE

core_dump_dest — REMOVE

#plsql_native_library_dir = /d03/oracle/RACDB/db/tech_st/11.2.0/plsql/nativelib

#plsql_native_library_subdir_count = 149

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The next error was follows

```
SQL> startup upgrade
ORACLE instance started.

Total System Global Area 1071333376 bytes
Fixed Size                  1341312 bytes
Variable Size               427821184 bytes
Database Buffers            629145600 bytes
Redo Buffers                 13025280 bytes
Database mounted.
```

ORA-01092: Oracle instance terminated, Disconnection forced

ORA-12701: Create Database character set is not known

Process ID: 14755

Solution

```
perl $ORACLE_HOME/nls/data/old/cr9idata.pl
```

Creating directory /d03/oracle/RACDB/db/tech_st/11.2.0/nls/data/9idata ...

Copying files to /d03/oracle/RACDB/db/tech_st/11.2.0/nls/data/9idata...

Copy finished.

Please reset environment variable ORA_NLS10 to
/d03/oracle/RACDB/db/tech_st/11.2.0/nls/data/9idata!

DB startup fails with 'ORA-01092 ORACLE instance terminated. Disconnection forced' and 'ORA-12701: CREATE DATABASE character set is not known' (Doc ID 553264.1)

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```
export ORA_NLS10=/d03/oracle/RACDB/db/tech_st/11.2.0/nls/data/9idata
```

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

```
startup upgrade
```

```
cd /d03/oracle/RACDB/db/tech_st/11.2.0/rdbms/admin/
```

```
SPOOL upgrade.log
```

```
@catupgrd.sql
```

```
SPOOL OFF
```

- Upgrade took couple of hours

After the upgrade, got the below error

```
SQL> Rem Set errorlogging off
SQL> SET ERRORLOGGING OFF;
SQL>
SQL> Rem *****
SQL> Rem END catupgrd.sql
SQL> Rem *****
SQL> SPOOL OFF
SQL>
SQL>
SQL> startup
SP2-1540: Oracle Database cannot startup in an Edition session.
```

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Solution - Open a new session and run utlrp.sql

```
-bash-3.00$ sqlplus "/as sysdba"
```

```
SQL*Plus: Release 11.2.0.1.0 Production on Thu Jul 29 06:26:09 2010
```

```
Copyright (c) 1982, 2009, Oracle. All rights reserved.
```

```
Connected to an idle instance.
```

```
SQL> startup  
ORACLE instance started.
```

```
Total System Global Area 1071333376 bytes  
Fixed Size 1341312 bytes  
Variable Size 427821184 bytes  
Database Buffers 629145600 bytes  
Redo Buffers 13025280 bytes  
Database mounted.
```

```
Database opened.
```

```
@utlrp
```

```
-bash-3.00$ sqlplus "/as sysdba" @utlrp
```

```
SQL*Plus: Release 11.2.0.1.0 Production on Thu Jul 29 06:27:43 2010
```

```
Copyright (c) 1982, 2009, Oracle. All rights reserved.
```

```
Connected to:  
Oracle Database 11g Enterprise Edition Release 11.2.0.1.0 - Production  
With the Partitioning, OLAP, Data Mining and Real Application Testing options
```

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On apps tier

```
perl $AD_TOP/bin/admkappsutil.pl
```

Starting the generation of appsutil.zip

Log file located at

```
/d01/oracle/RACDB/inst/apps/RACDB_linux1/admin/log/MakeAppsUtil_11021425.log
```

output located at /d01/oracle/RACDB/inst/apps/RACDB_linux1/admin/out/appsutil.zip

on dbtier

```
./RACDB_linux11g2.env
```

```
cd $ORACLE_HOME
```

```
cp /tmp/appsutil.zip .
```

```
unzip appsutil.zip
```

cp listener and tnsnames

```
cp -R /d01/oracle/RACDB/db/tech_st/11.1.0/network/admin/RACDB_linux1 .
```

Modify listener.ora

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```
[oracle@linux1 RACDB_linux1]$ lsnrctl start RACDB

LSNRCTL for Linux: Version 11.2.0.1.0 - Production on 02-NOV-2010 14:31:25

Copyright (c) 1991, 2009, Oracle. All rights reserved.

Starting /d01/oracle/RACDB/db/tech_st/11.2.0/bin/tnslsnr: please wait...

TNSLSNR for Linux: Version 11.2.0.1.0 - Production
System parameter file is /d01/oracle/RACDB/db/tech_st/11.2.0/network/admin/RACDB_linux1/listener.ora
Log messages written to /d01/oracle/RACDB/db/tech_st/11.2.0/log/diag/tnslsnr/linux1/racdb/alert/log.xml
Listening on: (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp)(HOST=linux1.oracle.com)(PORT=1531)))

Connecting to (DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=linux1.oracle.com)(PORT=1531)))
STATUS of the LISTENER
-----
Alias                RACDB
Version              TNSLSNR for Linux: Version 11.2.0.1.0 - Production
Start Date           02-NOV-2010 14:31:26
Uptime               0 days 0 hr. 0 min. 20 sec
Trace Level          off
Security             ON: Local OS Authentication
SNMP                 OFF
Listener Parameter File /d01/oracle/RACDB/db/tech_st/11.2.0/network/admin/RACDB_linux1/listener.ora
Listener Log File    /d01/oracle/RACDB/db/tech_st/11.2.0/log/diag/tnslsnr/linux1/racdb/alert/log.xml
Listening Endpoints Summary...
  (DESCRIPTION=(ADDRESS=(PROTOCOL=tcp)(HOST=linux1.oracle.com)(PORT=1531)))
Services Summary...
Service "RACDB" has 1 instance(s).
  Instance "RACDB", status UNKNOWN, has 1 handler(s) for this service...
The command completed successfully
```

```
[oracle@linux1 RACDB_linux1]$ perl $ORACLE_HOME/appstutil/bin/acbldxml.pl

Starting context file generation for db tier..

JRE_TOP not found at its desired location /d01/oracle/RACDB/db/tech_st/11.2.0/appstutil/jre
Restart /d01/oracle/RACDB/db/tech_st/11.2.0/appstutil/bin/acbldxml.pl with value for jtop as an necessary argument
```

Solution

```
cp -R /d01/oracle/RACDB/db/tech_st/11.1.0/appstutil.old/jre .
```

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```
[oracle@linux1 appstutil]$ perl $ORACLE_HOME/appstutil/bin/adbldxml.pl

Starting context file generation for db tier..
Using JVM from /d01/oracle/RACDB/db/tech_st/11.2.0/appstutil/jre/bin/java to execute java programs..
APPS Password: apps

The log file for this adbldxml session is located at:
/d01/oracle/RACDB/db/tech_st/11.2.0/appstutil/log/adbldxml_11021434.log

Enter the value for Display Variable: linux1.oracle.com

The context file has been created at:
/d01/oracle/RACDB/db/tech_st/11.2.0/appstutil/RACDB_linux1.xml
```

```
cd $ORACLE_HOME/appstutil/bin/
```

```
sh adconfig.sh
```

```
[oracle@linux1 appstutil]$ cd $ORACLE_HOME/appstutil/bin/
[oracle@linux1 bin]$ sh adconfig.sh
Enter the full path to the Context file: /d01/oracle/RACDB/db/tech_st/11.2.0/appstutil/RACDB_linux1.xml
Enter the APPS user password:
The log file for this session is located at: /d01/oracle/RACDB/db/tech_st/11.2.0/appstutil/log/RACDB_linux1/11021436/adconfig.log

AutoConfig is configuring the Database environment...

AutoConfig will consider the custom templates if present.
Using ORACLE_HOME location : /d01/oracle/RACDB/db/tech_st/11.2.0
Classpath      : /d01/oracle/RACDB/db/tech_st/11.2.0/jdbc/lib/ojdbc6.jar:/d01/oracle/RACDB/db/tech_st/11.2.0/appstutil/java/xmlparserv2.jar:/d01/oracle/RACDB/db/tech_st/11.2.0/appstutil/java:/d01/oracle/RACDB/db/tech_st/11.2.0/jlib/netcfg.jar

Using Context file      : /d01/oracle/RACDB/db/tech_st/11.2.0/appstutil/RACDB_linux1.xml

Context Value Management will now update the Context file
```

Start the service and Connect to the application

<http://rajorclappsdba.wordpress.com/2010/05/07/oracle-database-upgrade-11gr1-11-1-0-6-to-11gr2-11-2-0-1/>