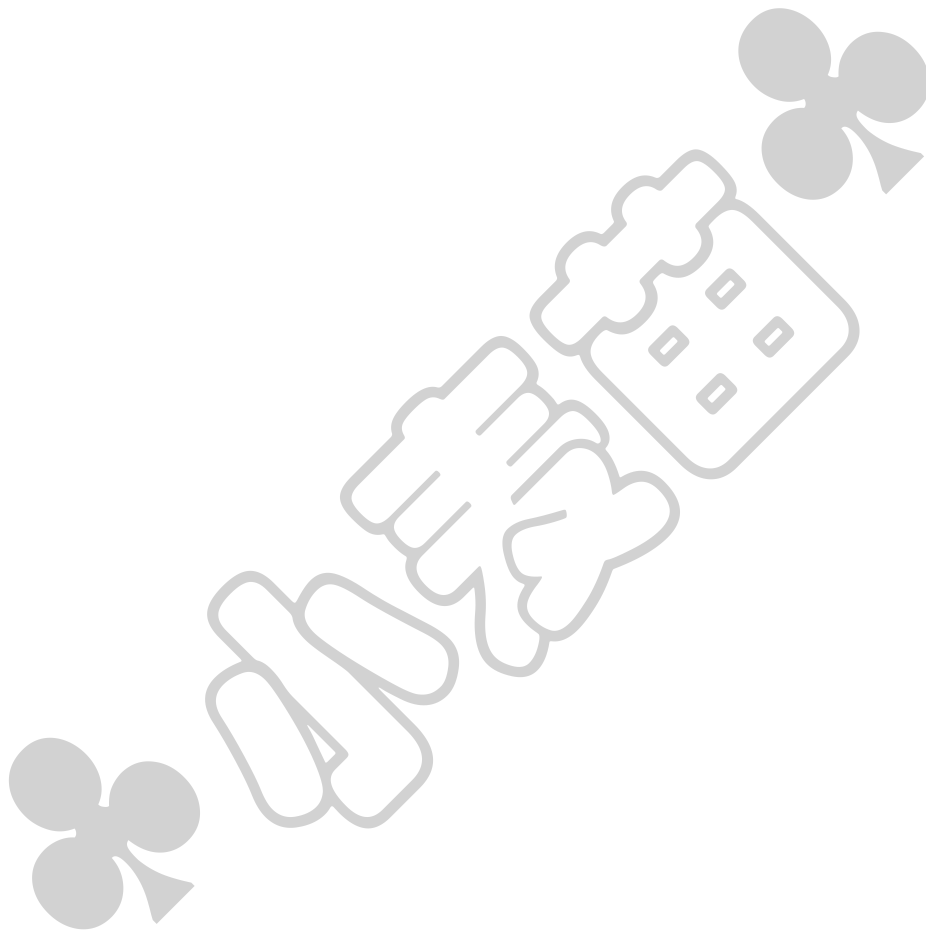


最近听了李光老师的关于 oracle 的升级公开课，深有感悟，所以这几天自己在虚拟机上来测试了一下，测试的过程中



## 1.1 文档结构

1.1	数据库情况
1.2	数据库原始状态
1.3	升级 Oracle database 软件
1.4	升级 Instance
1.4.1	使用 DBUA 工具
1.4.2	手动升级
1.4.2.1	第一步 utlu112i.sql
1.4.2.2	第二步 DBUPGDIAG.SQL
1.4.2.3	第三步 备份
1.4.2.4	第四步 干净的关闭数据库
1.4.2.5	第五步 配置目标 11.2.0.3 ORACLE ...
1.4.2.6	第六步 开始升级
1.4.2.7	验证

## 1.2 数据库情况

- 单实例非 ASM 存储
- ORACLE\_SID : orcl
- ORACLE\_HOME: /u01/app/oracle/product/11.2.0/dbhome\_1

## 1.3 数据库原始状态

```
[oracle@rhel6 tmp]$ sqlplus / as sysdba
```

```
SQL*Plus: Release 11.2.0.1.0 Production on Fri Sep 26 16:44:37 2014
```

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

```
Connected to:
```

```
Oracle Database 11g Enterprise Edition Release 11.2.0.1.0 - 64bit Production
```

```
With the Partitioning, OLAP, Data Mining and Real Application Testing options
```

```
SQL> create table test as select * from user_objects;
```

```
Table created.
```

```
SQL> select count(1) from test;
```

```
COUNT(1)
```

```
30804
```

```
SQL>set linesize 150
```

```
SQL>set pagesize 9999
```

```
SQL> col comp_name format a40
```

```
SQL> SELECT COMP_NAME, VERSION, STATUS FROM SYS.DBA_REGISTRY;
```

COMP_NAME	VERSION	STATUS
OWB	11.2.0.1.0	VALID
Oracle Application Express	3.2.1.00.10	VALID
Oracle Enterprise Manager	11.2.0.1.0	VALID
OLAP Catalog	11.2.0.1.0	VALID
Spatial	11.2.0.1.0	VALID
Oracle Multimedia	11.2.0.1.0	VALID
Oracle XML Database	11.2.0.1.0	VALID
Oracle Text	11.2.0.1.0	VALID
Oracle Expression Filter	11.2.0.1.0	VALID
Oracle Rules Manager	11.2.0.1.0	VALID
Oracle Workspace Manager	11.2.0.1.0	VALID
Oracle Database Catalog Views	11.2.0.1.0	VALID
Oracle Database Packages and Types	11.2.0.1.0	VALID
JServer JAVA Virtual Machine	11.2.0.1.0	VALID
Oracle XDK	11.2.0.1.0	VALID
Oracle Database Java Packages	11.2.0.1.0	VALID
OLAP Analytic Workspace	11.2.0.1.0	VALID
Oracle OLAP API	11.2.0.1.0	VALID

```
18 rows selected.
```

```
[oracle@rhel6 tmp]$ sqlplus / as sysdba

SQL*Plus: Release 11.2.0.1.0 Production on Fri Sep 26 16:44:37 2014

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

Connected to:
Oracle Database 11g Enterprise Edition Release 11.2.0.1.0 - 64bit Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options

SQL> create table test as select * from user_objects;

Table created.

SQL> select count(1) from test;

  COUNT(1)
-----
      30804

SQL> |
```

```
SQL> SELECT COMP_NAME, VERSION, STATUS FROM SYS.DBA_REGISTRY;
```

COMP_NAME	VERSION	STATUS
OWB	11.2.0.1.0	VALID
Oracle Application Express	3.2.1.00.10	VALID
Oracle Enterprise Manager	11.2.0.1.0	VALID
OLAP Catalog	11.2.0.1.0	VALID
Spatial	11.2.0.1.0	VALID
Oracle Multimedia	11.2.0.1.0	VALID
Oracle XML Database	11.2.0.1.0	VALID
Oracle Text	11.2.0.1.0	VALID
Oracle Expression Filter	11.2.0.1.0	VALID
Oracle Rules Manager	11.2.0.1.0	VALID
Oracle Workspace Manager	11.2.0.1.0	VALID
Oracle Database Catalog Views	11.2.0.1.0	VALID
Oracle Database Packages and Types	11.2.0.1.0	VALID
JServ Java Virtual Machine	11.2.0.1.0	VALID
Oracle XDK	11.2.0.1.0	VALID
Oracle Database Java Packages	11.2.0.1.0	VALID
OLAP Analytic Workspace	11.2.0.1.0	VALID
Oracle OLAP API	11.2.0.1.0	VALID

18 rows selected.

```
[oracle@rhel6 share-D]$ sqlplus / as sysdba

SQL*Plus: Release 11.2.0.1.0 Production on Fri Sep 26 16:09:21 2014

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

Connected to:
Oracle Database 11g Enterprise Edition Release 11.2.0.1.0 - 64bit Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options

SQL> |
```

数据库保持运行状态:

```
[oracle@rhel6 share-D]$ ll
total 2442042
-rwxrwxrwx. 1 root root 1358454646 Dec 14 2011 p10404530_112030_Linux-x86-64_1of7.zip
-rwxrwxrwx. 1 root root 1142195302 May 25 2012 p10404530_112030_Linux-x86-64_2of7.zip
```

解压命令:

```
unzip p10404530_112030_Linux-x86-64_1of7.zip -d /tmp && unzip p10404530_112030_Linux-x86-64_2of7.zip
-d /tmp
```

```
[oracle@rhel6 database]$ ll
total 64
drwxr-xr-x. 12 oracle oinstall 4096 Sep 19 2011 doc
drwxr-xr-x. 4 oracle oinstall 4096 Sep 22 2011 install
-rwxr-xr-x. 1 oracle oinstall 28122 Sep 22 2011 readme.html
drwxr-xr-x. 2 oracle oinstall 4096 Sep 22 2011 response
drwxr-xr-x. 2 oracle oinstall 4096 Sep 22 2011 rpm
-rwxr-xr-x. 1 oracle oinstall 3226 Sep 22 2011 runInstaller
drwxr-xr-x. 2 oracle oinstall 4096 Sep 22 2011 salsesetup
drwxr-xr-x. 14 oracle oinstall 4096 Sep 22 2011 stage
-rwxr-xr-x. 1 oracle oinstall 5466 Aug 23 2011 welcome.html
[oracle@rhel6 database]$ pwd
/tmp/database
[oracle@rhel6 database]$ |
```

## 1.4 升级 Oracle database 软件

开始安装:

```
[oracle@rhel6 database]$ ./runInstaller
Starting Oracle Universal Installer...
```

```
Checking Temp space: must be greater than 120 MB.   Actual 35912 MB   Passed
Checking swap space: must be greater than 150 MB.   Actual 961 MB   Passed
Checking monitor: must be configured to display at least 256 colors.   Actual 1
6777216   Passed
```

```
Preparing to launch Oracle Universal Installer from /tmp/OraInstall2014-09-26_04
-33-18PM. Please wait ...[oracle@rhel6 database]$ You can find the log of this i
n stall session at:
```

```
_u01/app/oraInventory/logs/installActions2014-09-26_04-33-18PM.log
```

**Configure Security Updates**

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

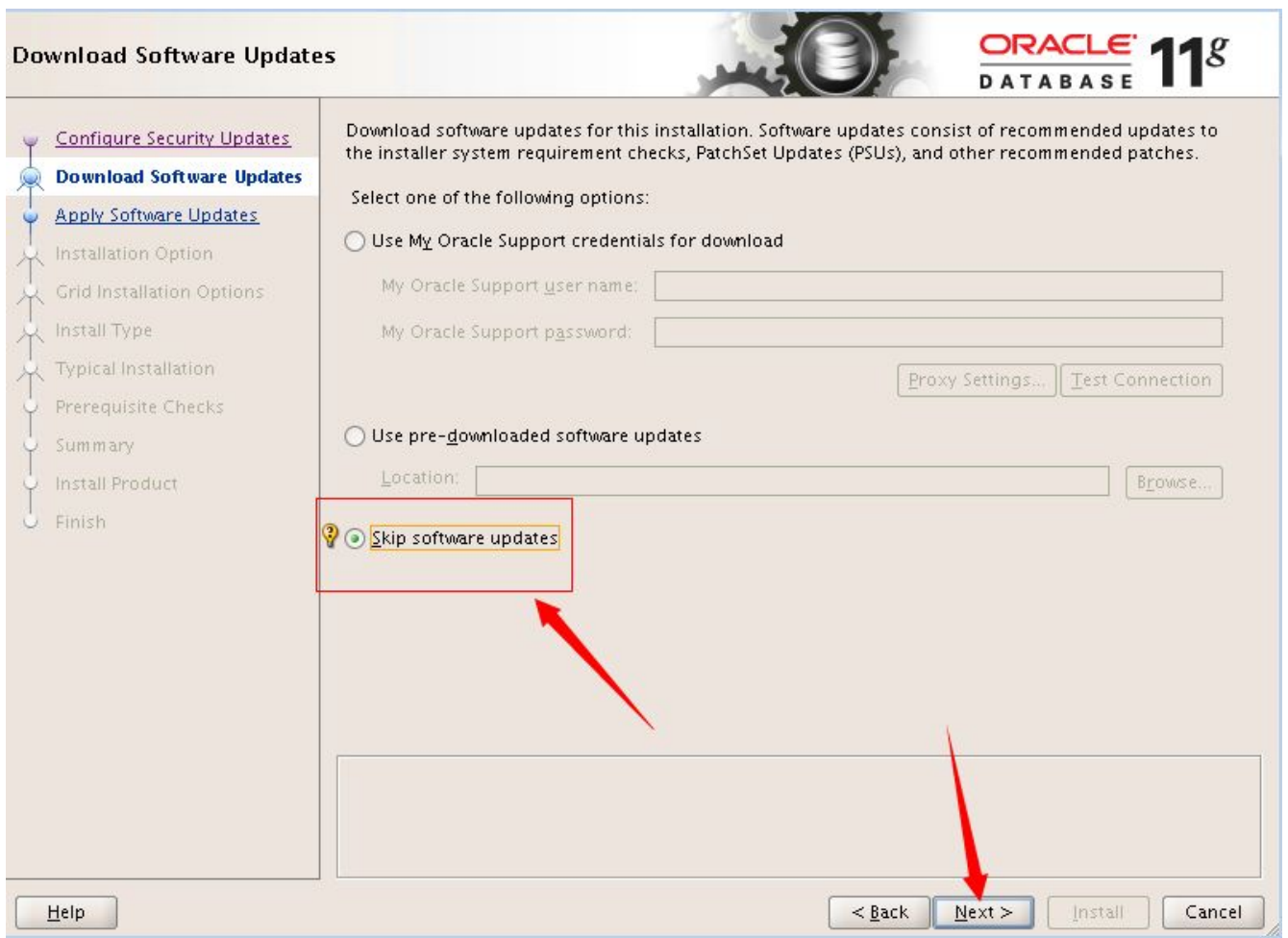
Email:

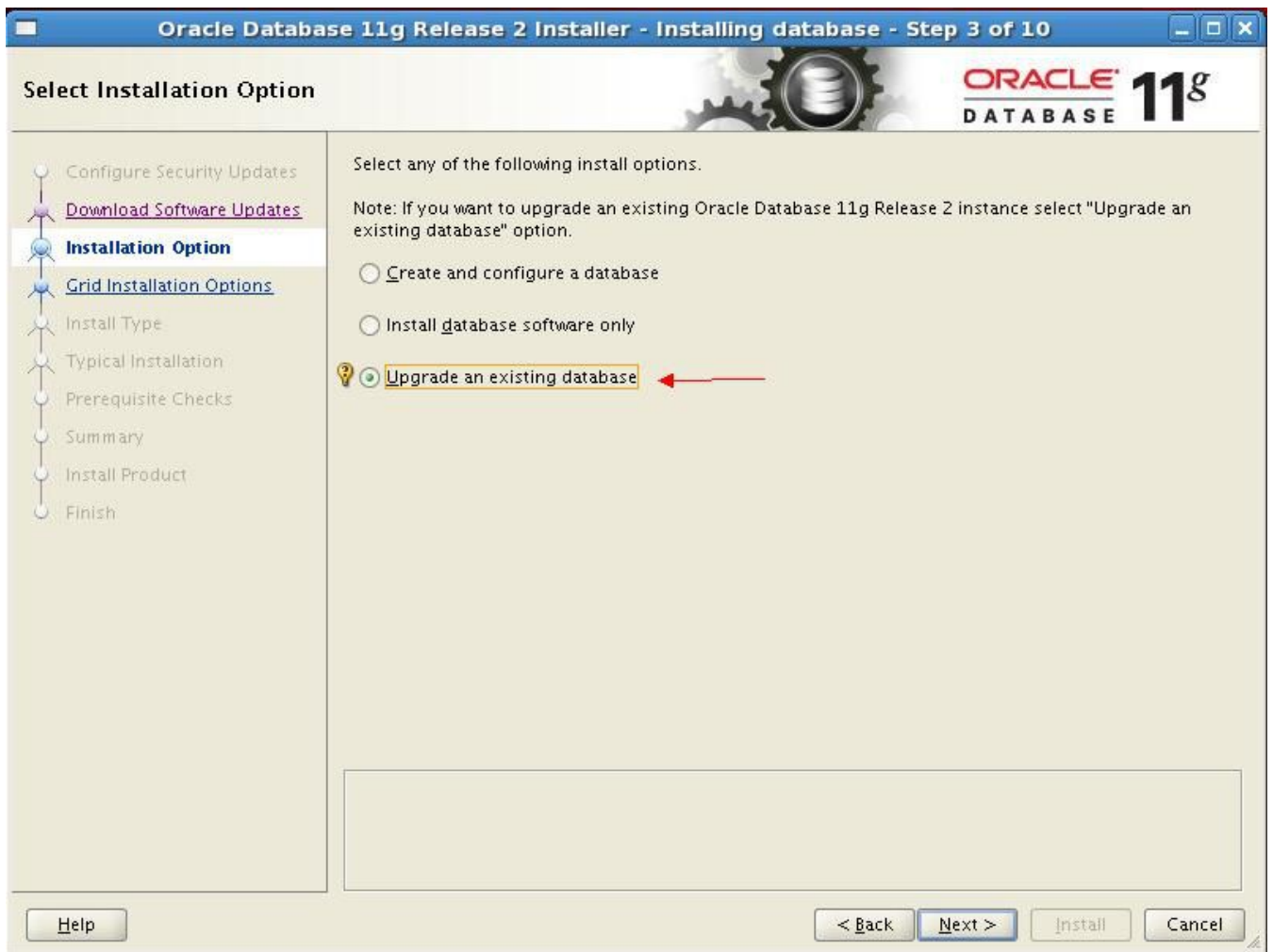
Easier for you if you use your My Oracle Support email address/username.

☐ I wish to receive security updates via My Oracle Support.

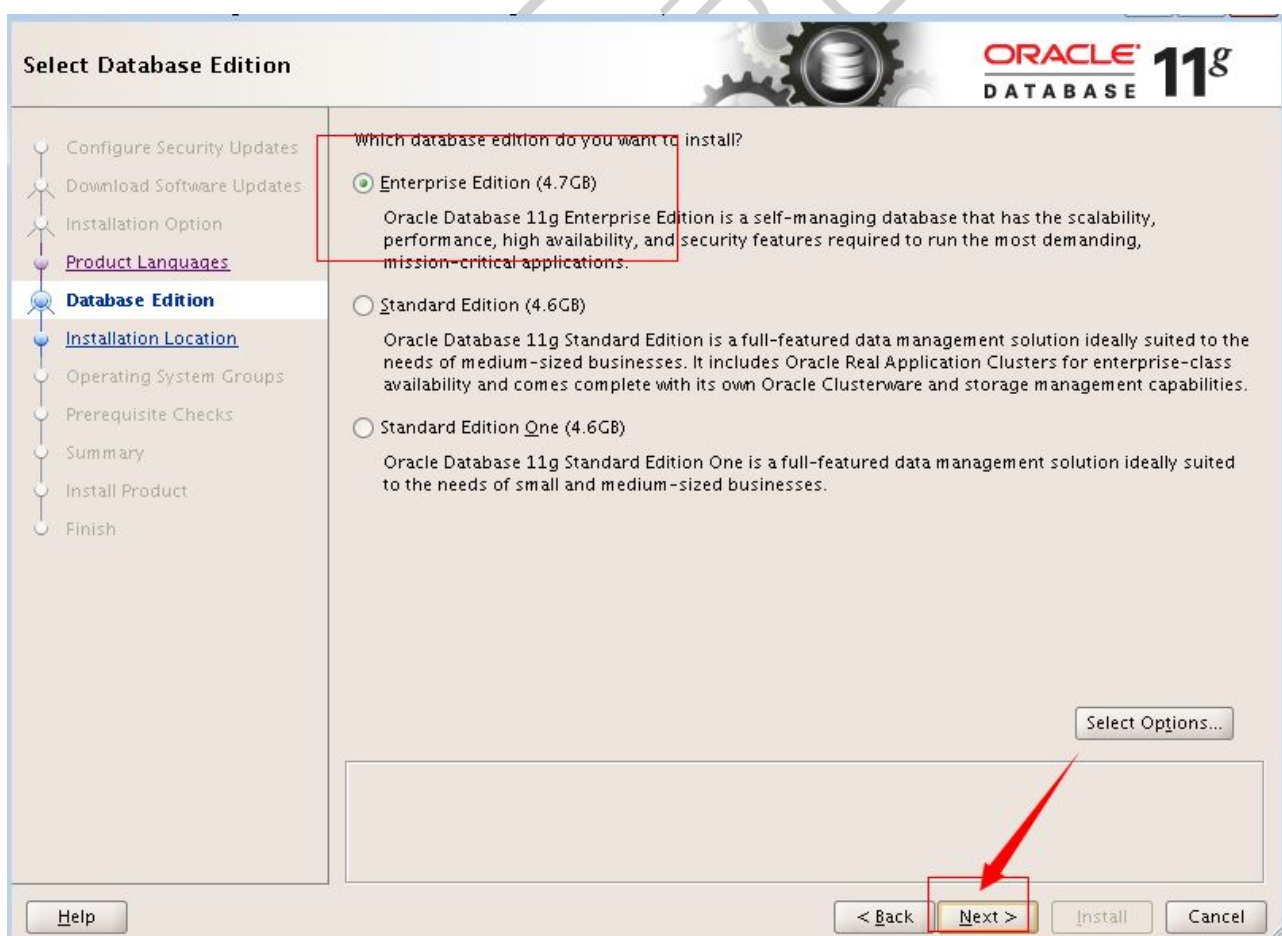
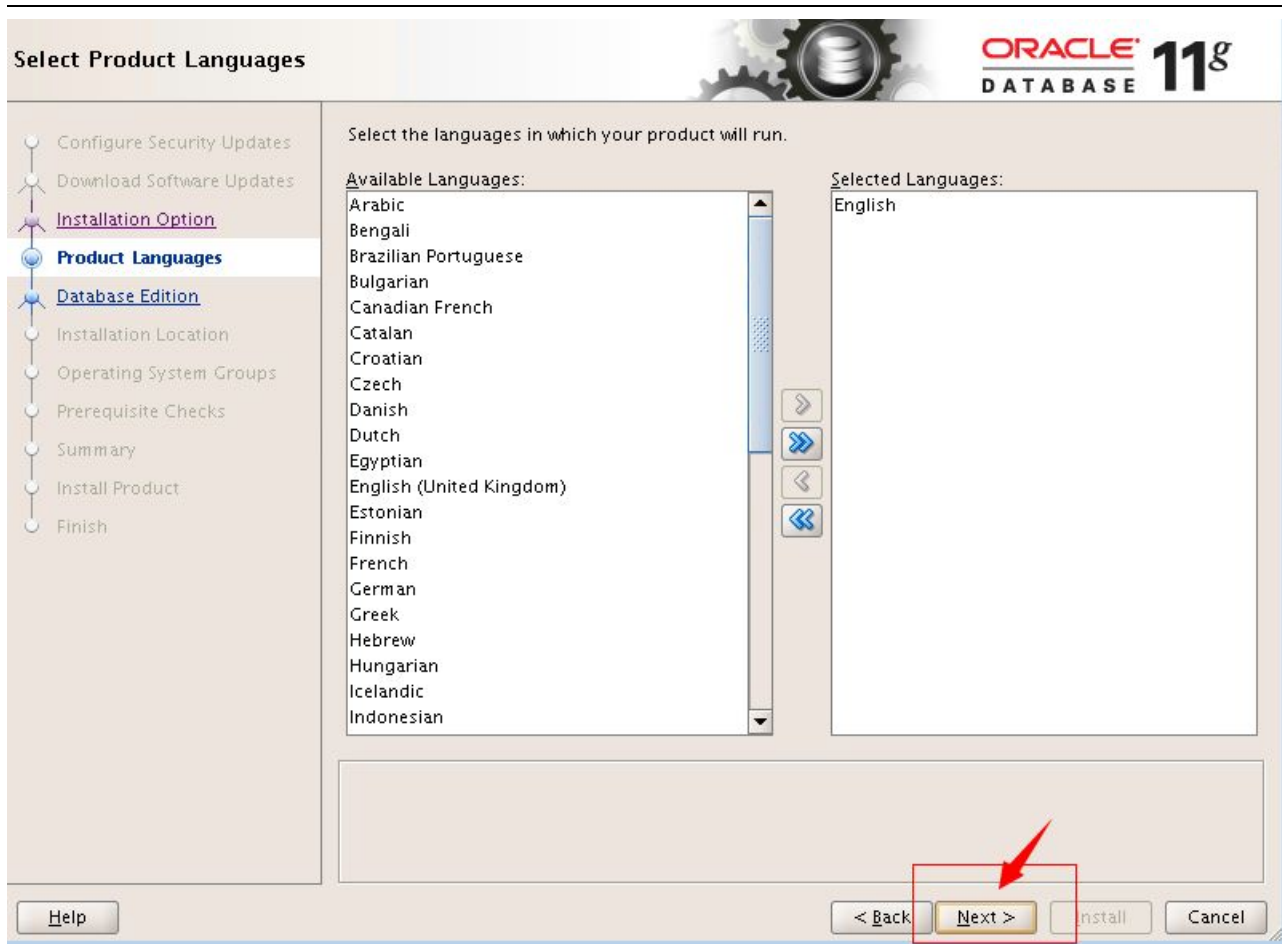
My Oracle Support Password:

[Help](#) [< Back](#) [Next >](#) [Install](#) [Cancel](#)









### Specify Installation Location

ORACLE DATABASE 11g

Specify a path to place all Oracle software and configuration-related files installed by this installation owner. This location is the Oracle base directory for the installation owner.

Oracle Base: /u01/app/oracle

Specify a location for storing Oracle database software files separate from database configuration files in the Oracle base directory. This software directory is the Oracle database home directory.

Software Location: /u01/app/oracle/product/11.2.0.4/dbhome\_1

这里是新的路径哦!

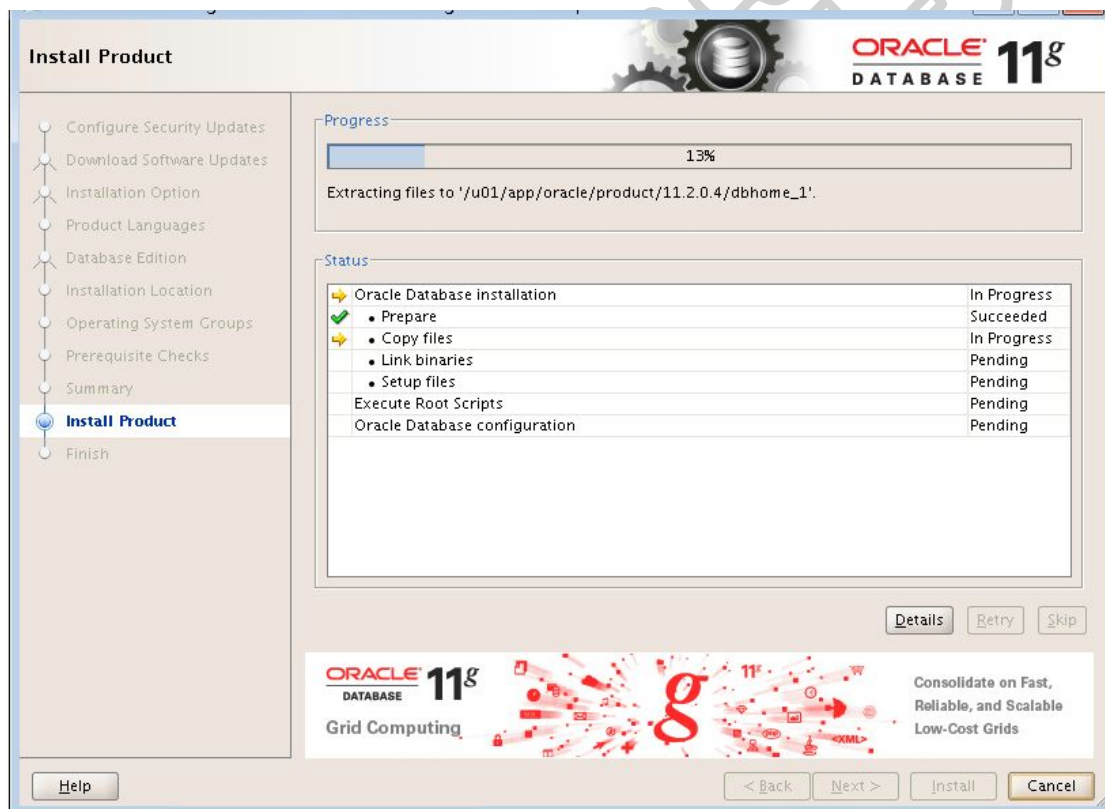
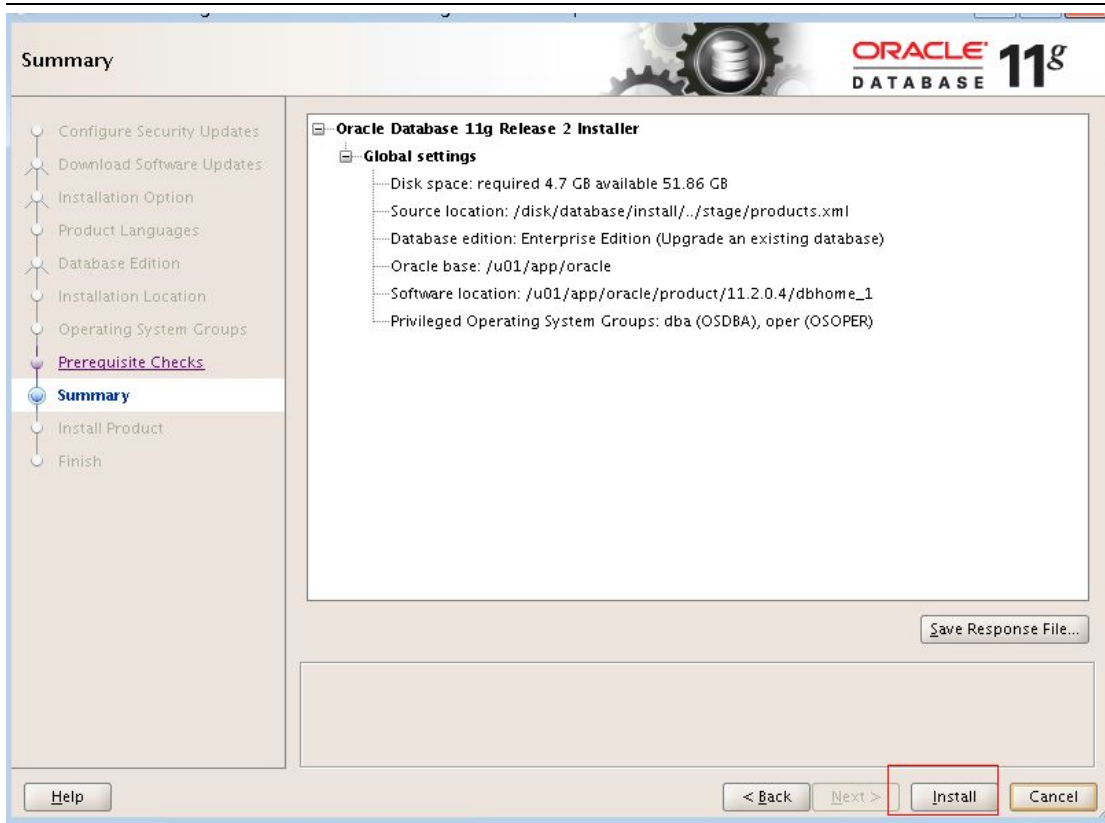
### Privileged Operating System Groups

ORACLE DATABASE 11g

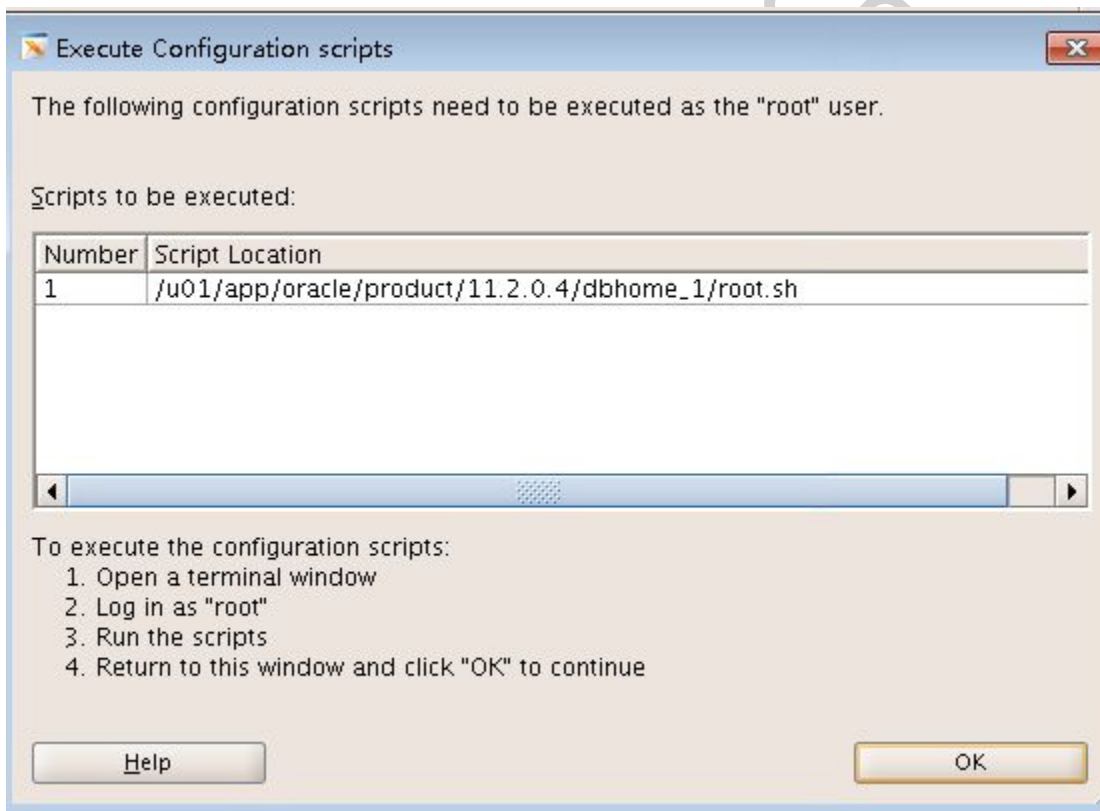
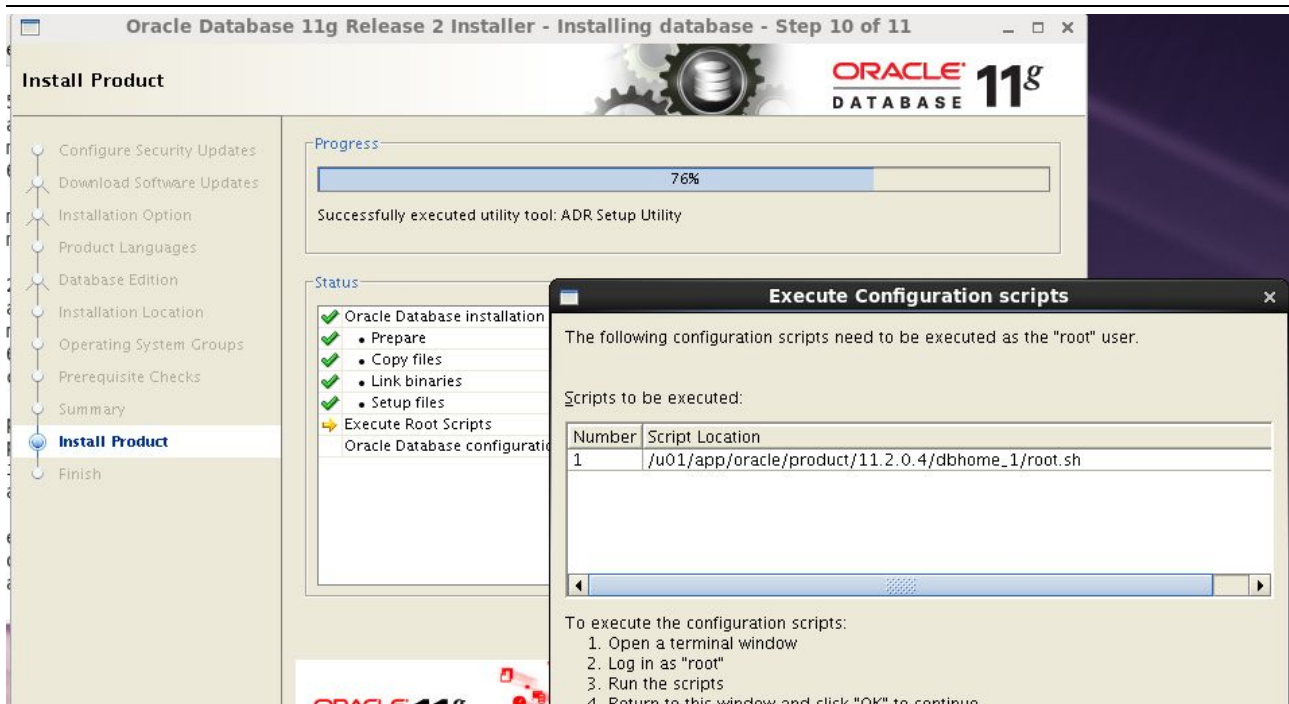
SYSDBA and SYSOPER privileges are required to create a database using operating system (OS) authentication. Membership in OSDBA grants the SYSDBA privilege, and membership in OSOPER grants the SYSOPER privilege, which is a subset of SYSDBA privileges. Select the name of the OSDBA group to grant the SYSDBA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

Database Administrator (OSDBA) Group: dba

Database Operator (OSOPER) Group (Optional): oper



执行到 76%的时候弹出如下窗口：



```
[root@rhel6 ~]# /u01/app/oracle/product/11.2.0.4/dbhome_1/root.sh
Performing root user operation for Oracle 11g

The following environment variables are set as:
  ORACLE_OWNER= oracle
  ORACLE_HOME=  /u01/app/oracle/product/11.2.0.4/dbhome_1

Enter the full pathname of the local bin directory: [/usr/local/bin]:
The contents of "dbhome" have not changed. No need to overwrite.
The file "oraenv" already exists in /usr/local/bin. Overwrite it? (y/n)
[n]:
The file "coraenv" already exists in /usr/local/bin. Overwrite it? (y/n)
[n]:

Entries will be added to the /etc/oratab file as needed by
Database Configuration Assistant when a database is created
Finished running generic part of root script.
Now product-specific root actions will be performed.
Finished product-specific root actions.
[root@rhel6 ~]#
```

```
[root@rhel6 ~]# /u01/app/oracle/product/11.2.0.4/dbhome_1/root.sh
Performing root user operation for Oracle 11g
```

The following environment variables are set as:

ORACLE\_OWNER= oracle

ORACLE\_HOME= /u01/app/oracle/product/11.2.0.4/dbhome\_1

Enter the full pathname of the local bin directory: [/usr/local/bin]:

The contents of "dbhome" have not changed. No need to overwrite.

The file "oraenv" already exists in /usr/local/bin. Overwrite it? (y/n)

[n]:

The file "coraenv" already exists in /usr/local/bin. Overwrite it? (y/n)

[n]:

Entries will be added to the /etc/oratab file as needed by

Database Configuration Assistant when a database is created

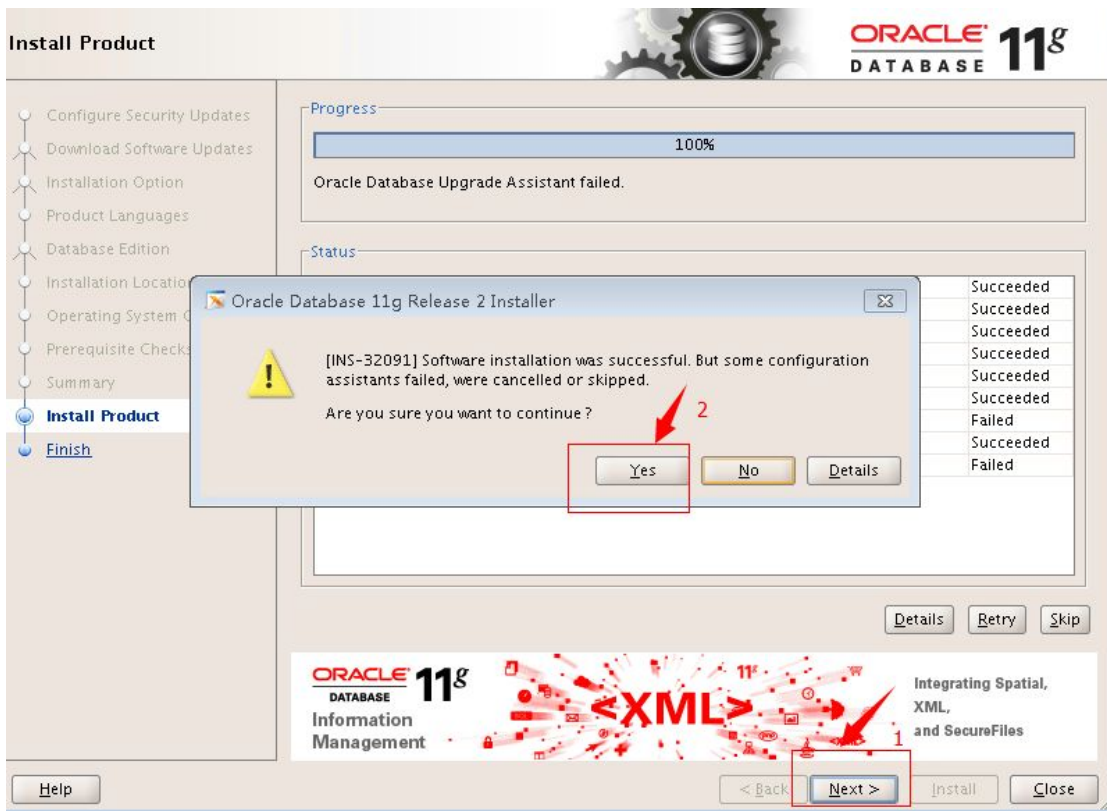
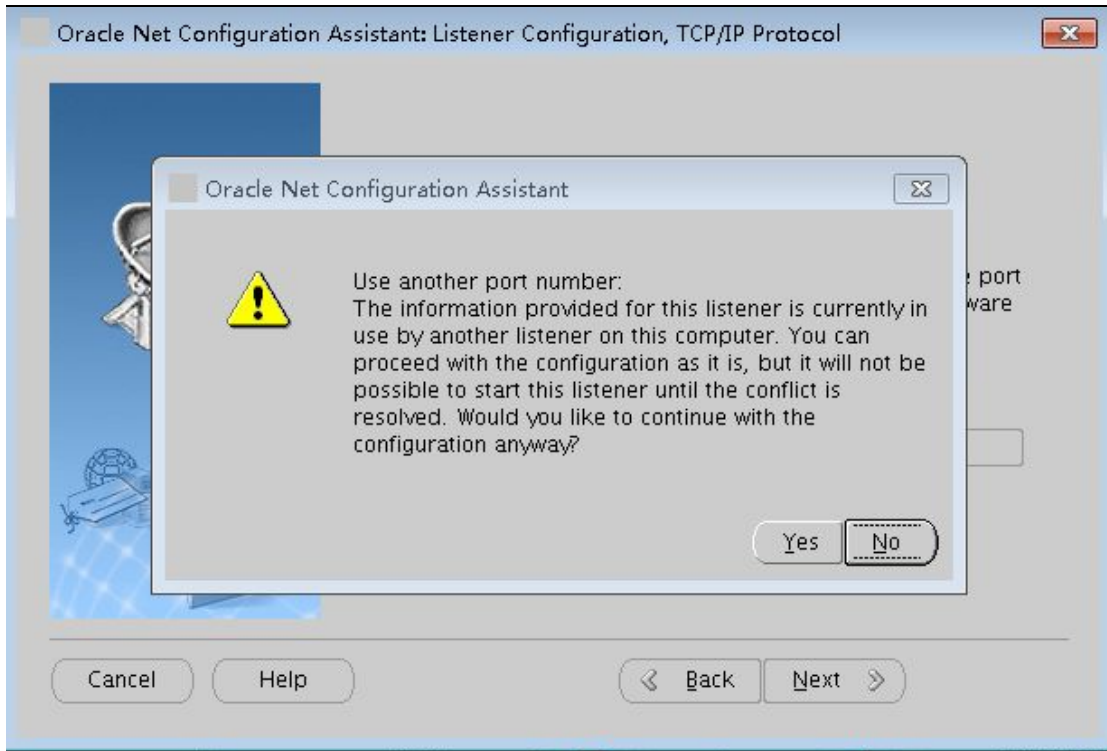
Finished running generic part of root script.

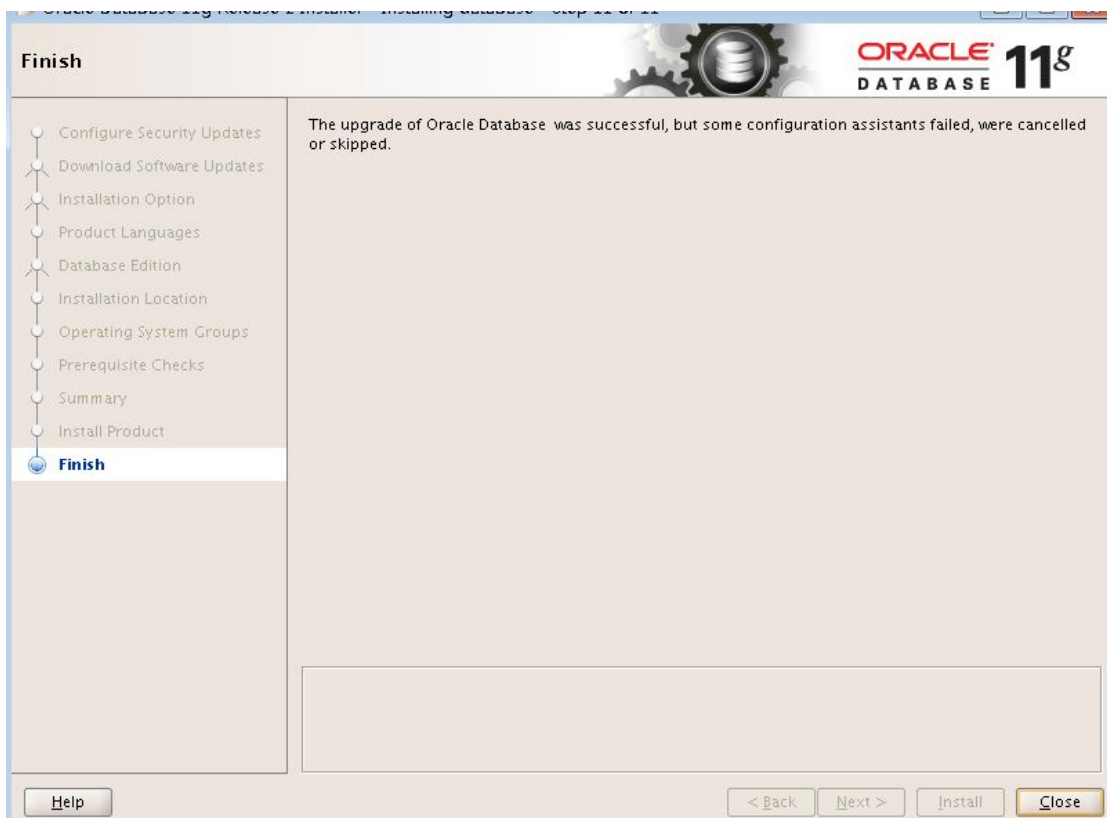
Now product-specific root actions will be performed.

Finished product-specific root actions.

[root@rhel6 ~]#







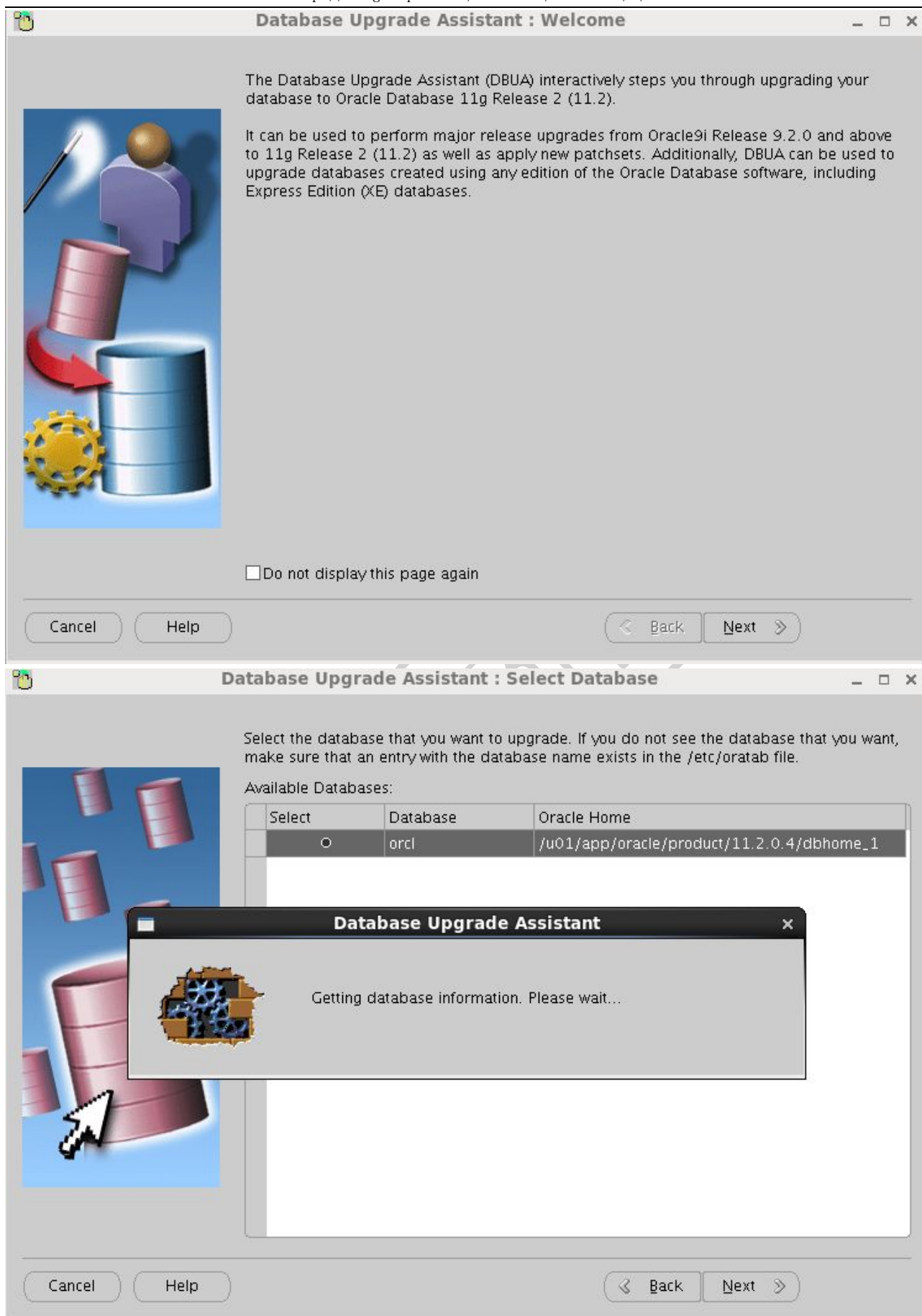
## 1.5 升级 Instance

升级 Instance 有两种方法，第一种是使用 dbua 工具，第二种是手工执行脚本。

### 1.5.1 使用 DBUA 工具

```
[oracle@rhel6 ~]$ source .bash_profile
[oracle@rhel6 ~]$ dbua
```

操作界面：



该步骤可以在告警日志中查看相关信息:

Sun Sep 28 16:16:31 2014



Starting ORACLE instance (normal)

LICENSE\_MAX\_SESSION = 0

LICENSE\_SESSIONS\_WARNING = 0

Picked latch-free SCN scheme 3

Using	LOG_ARCHIVE_DEST_1	parameter	default	value	as
	/u01/app/oracle/product/11.2.0.4/dbhome_1/dbs/arch				

Autotune of undo retention is turned on.

IMODE=BR

ILAT=167

LICENSE\_MAX\_USERS = 0

SYS auditing is disabled

Starting up:

Oracle Database 11g Enterprise Edition Release 11.2.0.3.0 - 64bit Production

With the Partitioning, OLAP, Data Mining and Real Application Testing options.

ORACLE\_HOME = /u01/app/oracle/product/11.2.0.4/dbhome\_1

System name: Linux

Node name: rhel6.5

Release: 2.6.32-431.el6.x86\_64

Version: #1 SMP Sun Nov 10 22:19:54 EST 2013

Machine: x86\_64

VM name: VMWare Version: 6

Using parameter settings in server-side spfile /u01/app/oracle/product/11.2.0.4/dbhome\_1/dbs/spfileorcl.ora

System parameters with non-default values:

processes	= 1000
shared_pool_size	= 252M
java_pool_size	= 252M
memory_target	= 1G
control_files	= "/u01/app/oracle/oradata/orcl/control01.ctl"
control_files	= "/u01/app/oracle/oradata/orcl/control02.ctl"
db_block_size	= 8192
compatible	= "11.2.0.0.0"
undo_tablespace	= "UNDOTBS1"
recyclebin	= "OFF"
remote_login_passwordfile	= "EXCLUSIVE"
db_domain	= ""
dispatchers	= "(PROTOCOL=TCP) (SERVICE=orclXDB)"
local_listener	= "LISTENER_ORCL"
audit_file_dest	= "/u01/app/oracle/admin/orcl/adump"
audit_trail	= "DB"
db_name	= "orcl"
open_cursors	= 300
diagnostic_dest	= "/u01/app/oracle"

Sun Sep 28 16:16:38 2014

PMON started with pid=2, OS id=26426

Sun Sep 28 16:16:38 2014

PSP0 started with pid=3, OS id=26428

Sun Sep 28 16:16:39 2014  
VKTM started with pid=4, OS id=26430 at elevated priority  
VKTM running at (1)millisec precision with DBRM quantum (100)ms  
Sun Sep 28 16:16:39 2014  
GEN0 started with pid=5, OS id=26434  
Sun Sep 28 16:16:39 2014  
DIAG started with pid=6, OS id=26436  
Sun Sep 28 16:16:39 2014  
DBRM started with pid=7, OS id=26438  
Sun Sep 28 16:16:39 2014  
DIA0 started with pid=8, OS id=26440  
Sun Sep 28 16:16:39 2014  
MMAN started with pid=9, OS id=26442  
Sun Sep 28 16:16:39 2014  
DBW0 started with pid=10, OS id=26444  
Sun Sep 28 16:16:39 2014  
LGWR started with pid=11, OS id=26446  
Sun Sep 28 16:16:39 2014  
CKPT started with pid=12, OS id=26448  
Sun Sep 28 16:16:39 2014  
SMON started with pid=13, OS id=26450  
Sun Sep 28 16:16:39 2014  
RECO started with pid=14, OS id=26452  
Sun Sep 28 16:16:39 2014  
MMON started with pid=15, OS id=26454  
starting up 1 dispatcher(s) for network address '(ADDRESS=(PARTIAL=YES)(PROTOCOL=TCP))'...  
Sun Sep 28 16:16:39 2014  
MMNL started with pid=16, OS id=26456  
starting up 1 shared server(s) ...  
ORACLE\_BASE from environment = /u01/app/oracle  
Sun Sep 28 16:16:58 2014  
ALTER DATABASE MOUNT  
Sun Sep 28 16:17:03 2014  
Successful mount of redo thread 1, with mount id 1387228411  
Database mounted in Exclusive Mode  
Lost write protection disabled  
Completed: ALTER DATABASE MOUNT  
Sun Sep 28 16:17:06 2014  
Shutting down instance (immediate)  
Shutting down instance: further logons disabled  
Stopping background process MMNL  
Stopping background process MMON  
License high water mark = 1  
All dispatchers and shared servers shutdown  
ALTER DATABASE CLOSE NORMAL  
ORA-1109 signalled during: ALTER DATABASE CLOSE NORMAL...

## ALTER DATABASE DISMOUNT

Shutting down archive processes

Archiving is disabled

Completed: ALTER DATABASE DISMOUNT

ARCH: Archival disabled due to shutdown: 1089

Shutting down archive processes

Archiving is disabled

ARCH: Archival disabled due to shutdown: 1089

Shutting down archive processes

Archiving is disabled

Sun Sep 28 16:17:10 2014

Stopping background process VKTM

Sun Sep 28 16:17:12 2014

Instance shutdown complete

Sun Sep 28 16:17:14 2014

Starting ORACLE instance (normal)

LICENSE\_MAX\_SESSION = 0

LICENSE\_SESSIONS\_WARNING = 0

Picked latch-free SCN scheme 3

Using LOG\_ARCHIVE\_DEST\_1 parameter default value as  
/u01/app/oracle/product/11.2.0.4/dbhome\_1/dbs/arch

Autotune of undo retention is turned on.

IMODE=BR

ILAT=167

LICENSE\_MAX\_USERS = 0

SYS auditing is disabled

Starting up:

Oracle Database 11g Enterprise Edition Release 11.2.0.3.0 - 64bit Production

With the Partitioning, OLAP, Data Mining and Real Application Testing options.

ORACLE\_HOME = /u01/app/oracle/product/11.2.0.4/dbhome\_1

System name: Linux

Node name: rhel6.5

Release: 2.6.32-431.el6.x86\_64

Version: #1 SMP Sun Nov 10 22:19:54 EST 2013

Machine: x86\_64

VM name: VMWare Version: 6

Using parameter settings in server-side spfile /u01/app/oracle/product/11.2.0.4/dbhome\_1/dbs/spfileorcl.ora

System parameters with non-default values:

processes	= 1000
shared_pool_size	= 252M
java_pool_size	= 252M
memory_target	= 1G
control_files	= "/u01/app/oracle/oradata/orcl/control01.ctl"
control_files	= "/u01/app/oracle/oradata/orcl/control02.ctl"
db_block_size	= 8192
compatible	= "11.2.0.0.0"

```
undo_tablespace      = "UNDOTBS1"
recyclebin            = "OFF"
remote_login_passwordfile= "EXCLUSIVE"
db_domain             = ""
dispatchers          = "(PROTOCOL=TCP) (SERVICE=orclXDB)"
local_listener        = "LISTENER_ORCL"
audit_file_dest       = "/u01/app/oracle/admin/orcl/adump"
audit_trail           = "DB"
db_name               = "orcl"
open_cursors          = 300
diagnostic_dest       = "/u01/app/oracle"
```

Sun Sep 28 16:17:17 2014

PMON started with pid=2, OS id=26627

Sun Sep 28 16:17:17 2014

PSP0 started with pid=3, OS id=26629

Sun Sep 28 16:17:18 2014

VKTM started with pid=4, OS id=26631 at elevated priority

VKTM running at (1)millisec precision with DBRM quantum (100)ms

Sun Sep 28 16:17:18 2014

GEN0 started with pid=5, OS id=26635

Sun Sep 28 16:17:18 2014

DIAG started with pid=6, OS id=26637

Sun Sep 28 16:17:18 2014

DBRM started with pid=7, OS id=26639

Sun Sep 28 16:17:18 2014

DIA0 started with pid=8, OS id=26641

Sun Sep 28 16:17:18 2014

MMAN started with pid=9, OS id=26643

Sun Sep 28 16:17:18 2014

DBW0 started with pid=10, OS id=26645

Sun Sep 28 16:17:18 2014

LGWR started with pid=11, OS id=26647

Sun Sep 28 16:17:18 2014

CKPT started with pid=12, OS id=26649

Sun Sep 28 16:17:18 2014

SMON started with pid=13, OS id=26651

Sun Sep 28 16:17:18 2014

RECO started with pid=14, OS id=26653

Sun Sep 28 16:17:18 2014

MMON started with pid=15, OS id=26655

starting up 1 dispatcher(s) for network address '(ADDRESS=(PARTIAL=YES)(PROTOCOL=TCP))'...

Sun Sep 28 16:17:18 2014

MMNL started with pid=16, OS id=26657

starting up 1 shared server(s) ...

ORACLE\_BASE from environment = /u01/app/oracle

Sun Sep 28 16:17:25 2014

ALTER DATABASE MOUNT

Sun Sep 28 16:17:29 2014

Successful mount of redo thread 1, with mount id 1387239701

Database mounted in Exclusive Mode

Lost write protection disabled

Completed: ALTER DATABASE MOUNT

Sun Sep 28 16:17:30 2014

ALTER DATABASE OPEN MIGRATE

Thread 1 opened at log sequence 3

Current log# 3 seq# 3 mem# 0: /u01/app/oracle/oradata/orcl/redo03.log

Successful open of redo thread 1

MTTR advisory is disabled because FAST\_START\_MTTR\_TARGET is not set

Sun Sep 28 16:17:31 2014

SMON: enabling cache recovery

[26688] Successfully online Undo Tablespace 2.

Undo initialization finished serial:0 start:38185014 end:38186274 diff:1260 (12 seconds)

Verifying file header compatibility for 11g tablespace encryption..

Verifying 11g file header compatibility for tablespace encryption completed

SMON: enabling tx recovery

Database Characterset is WE8MSWIN1252

Updating 11.2.0.1.0 NLS parameters in sys.props\$

-- adding 11.2.0.3.0 NLS parameters.

Stopping background process MMNL

Stopping background process MMON

Starting background process MMON

Starting background process MMNL

Sun Sep 28 16:17:40 2014

MMON started with pid=15, OS id=26690

ALTER SYSTEM enable restricted session;

Sun Sep 28 16:17:40 2014

MMNL started with pid=16, OS id=26692

ALTER SYSTEM SET \_system\_trig\_enabled=FALSE SCOPE=MEMORY;

Autotune of undo retention is turned off.

ALTER SYSTEM SET \_undo\_autotune=FALSE SCOPE=MEMORY;

ALTER SYSTEM SET undo\_retention=900 SCOPE=MEMORY;

ALTER SYSTEM SET aq\_tm\_processes=0 SCOPE=MEMORY;

ALTER SYSTEM SET enable\_ddl\_logging=FALSE SCOPE=MEMORY;

Resource Manager disabled during database migration: plan " not set

ALTER SYSTEM SET resource\_manager\_plan=" SCOPE=MEMORY;

ALTER SYSTEM SET recyclebin='OFF' DEFERRED SCOPE=MEMORY;

Resource Manager disabled during database migration

Sun Sep 28 16:17:41 2014

replication\_dependency\_tracking turned off (no async multimaster replication found)

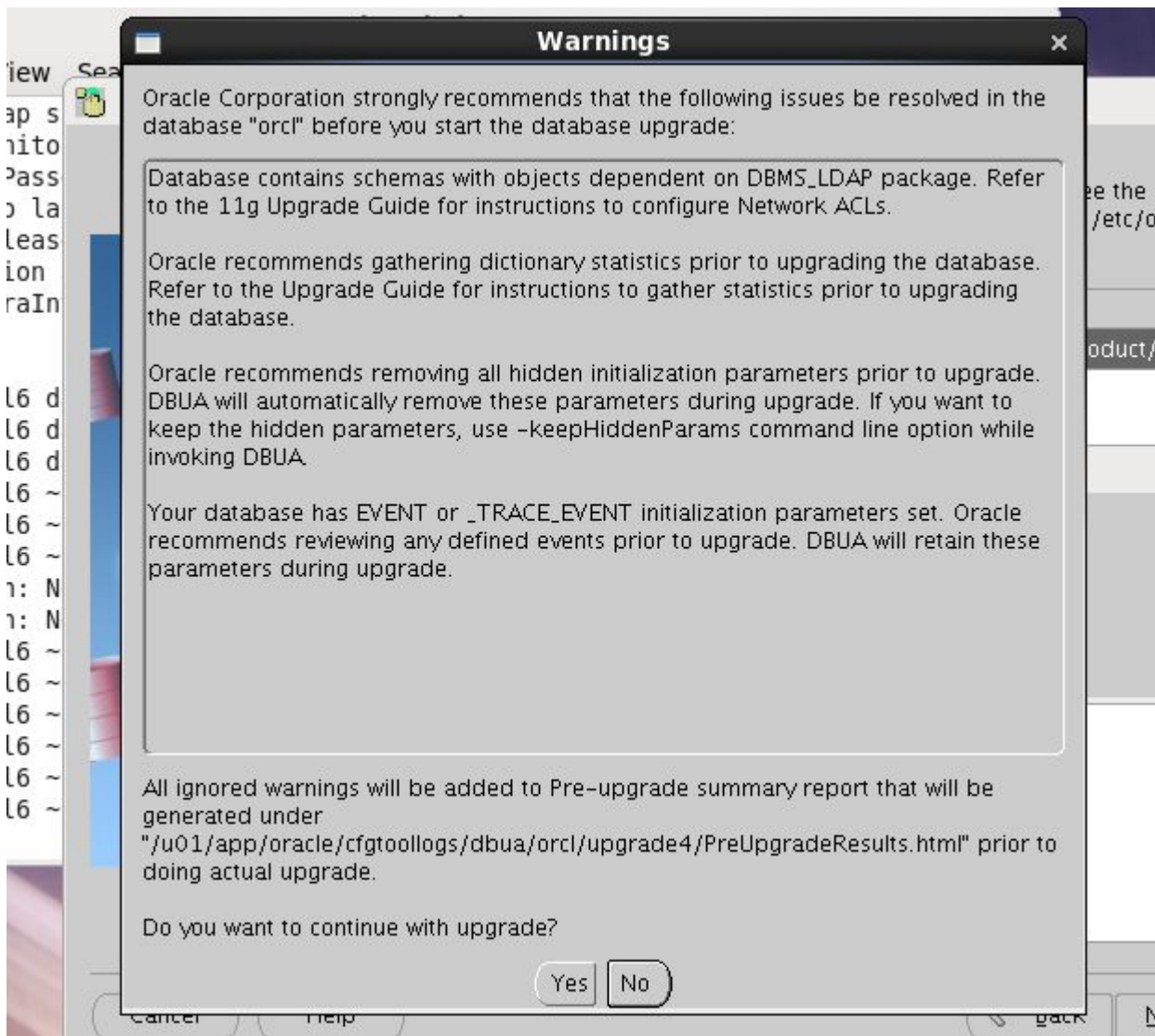
Completed: ALTER DATABASE OPEN MIGRATE

Sun Sep 28 16:17:44 2014

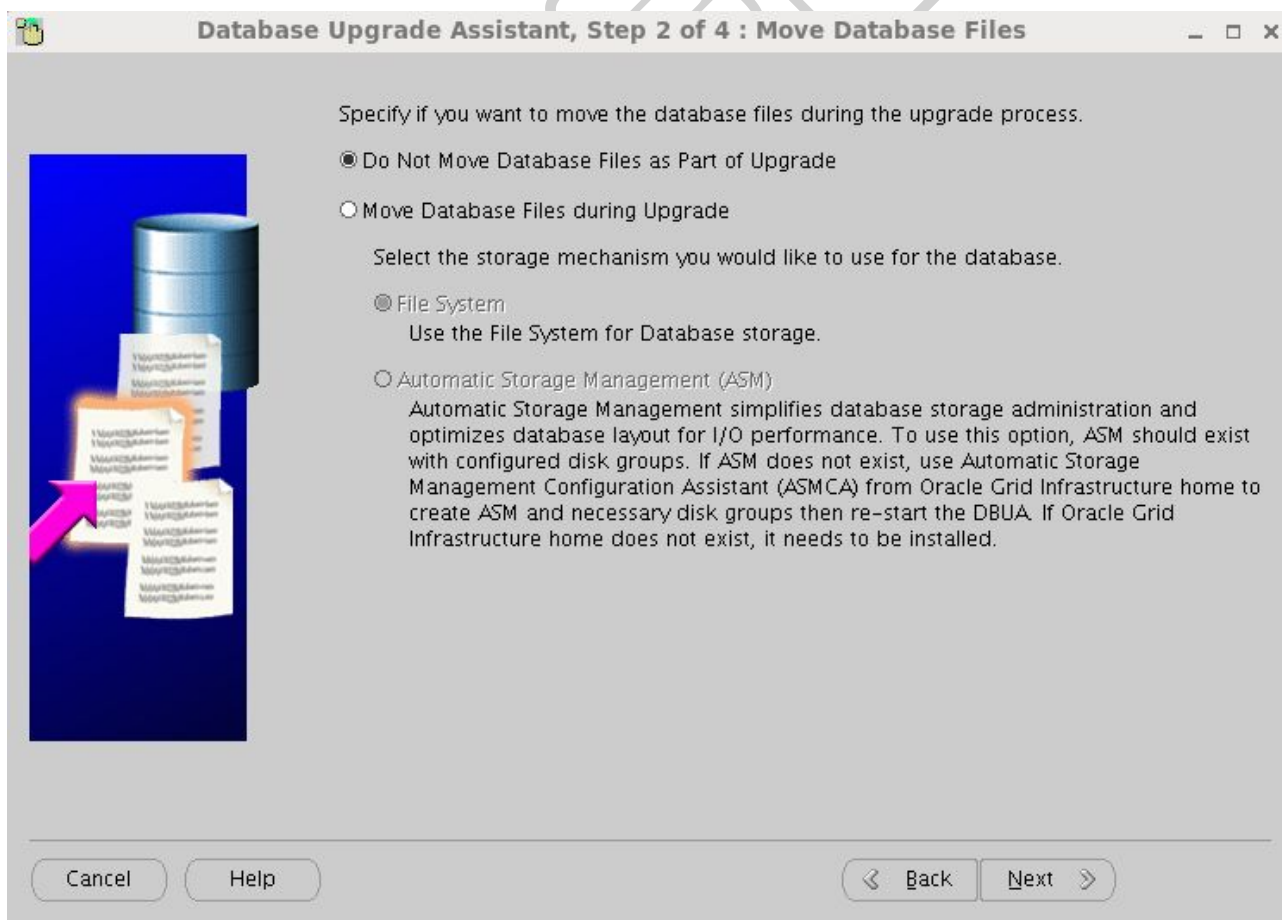
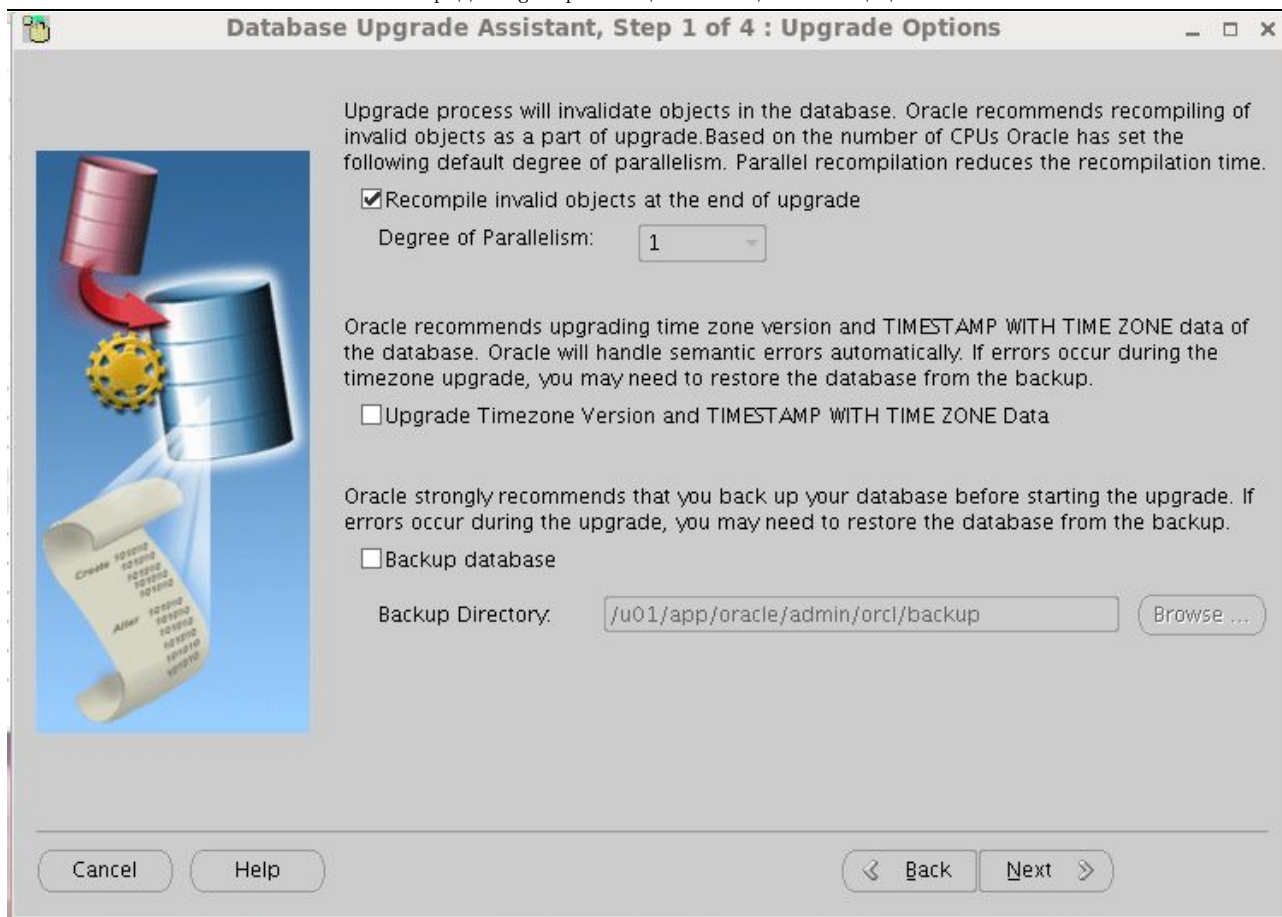
Starting background process CJQ0

Sun Sep 28 16:17:45 2014

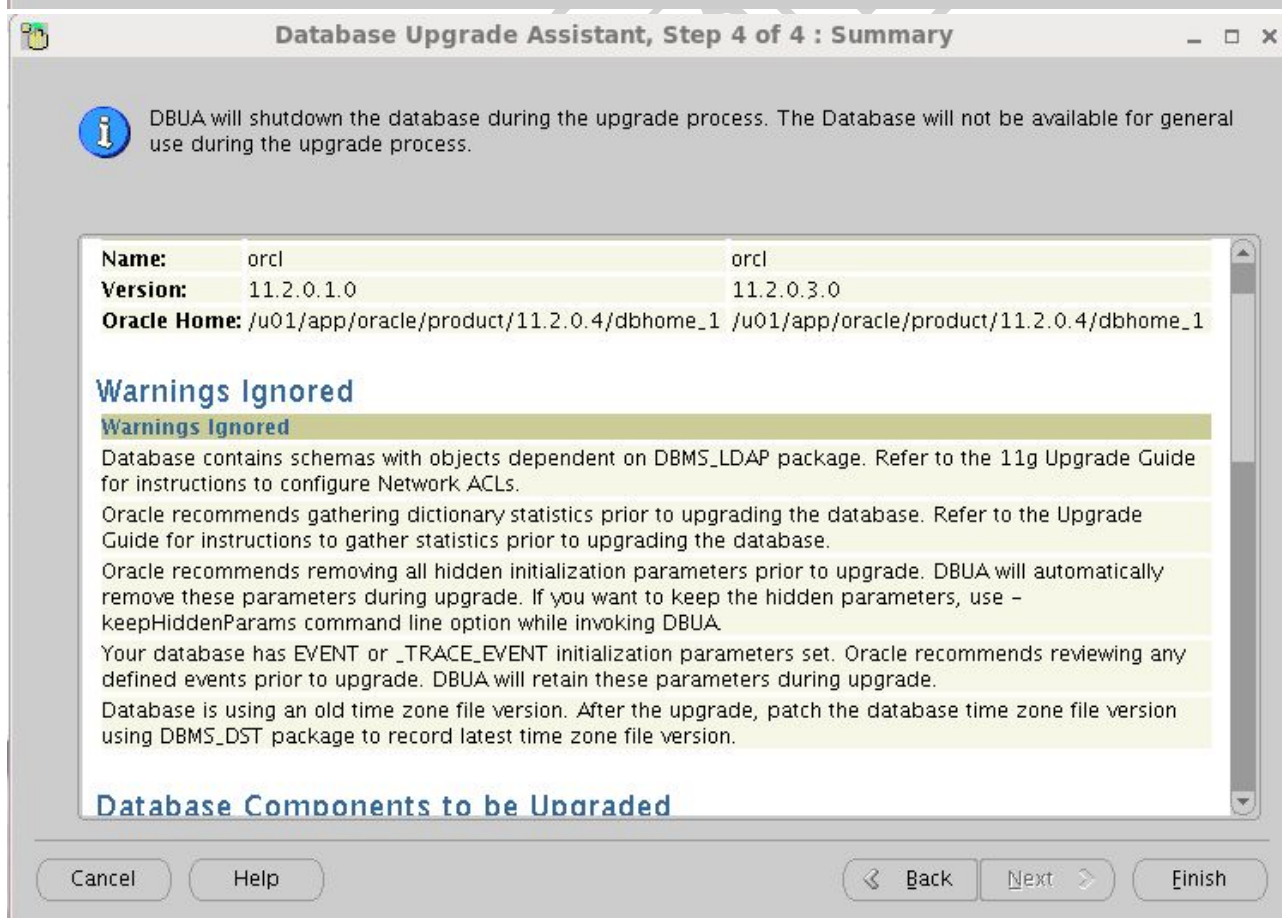
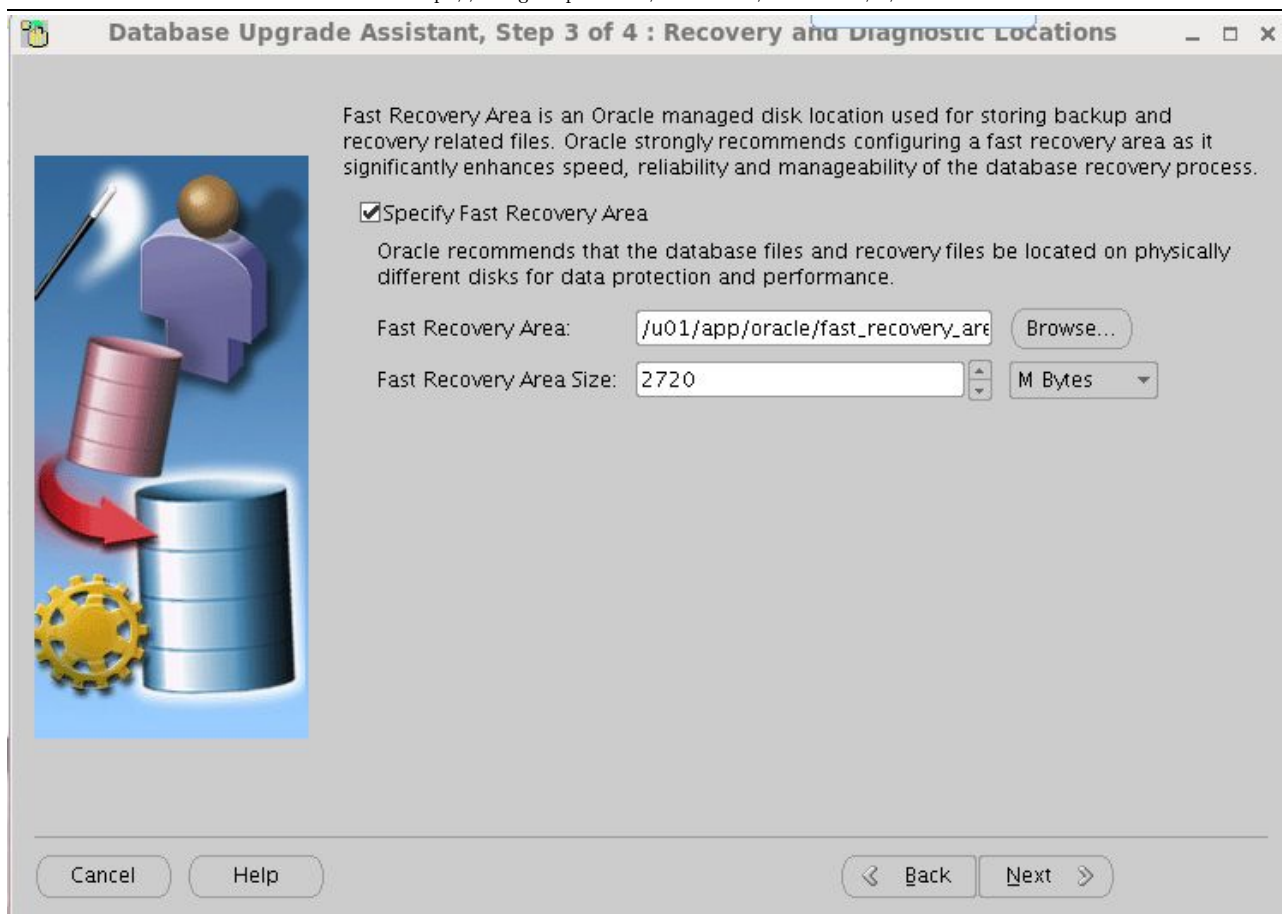
CJQ0 started with pid=20, OS id=26694



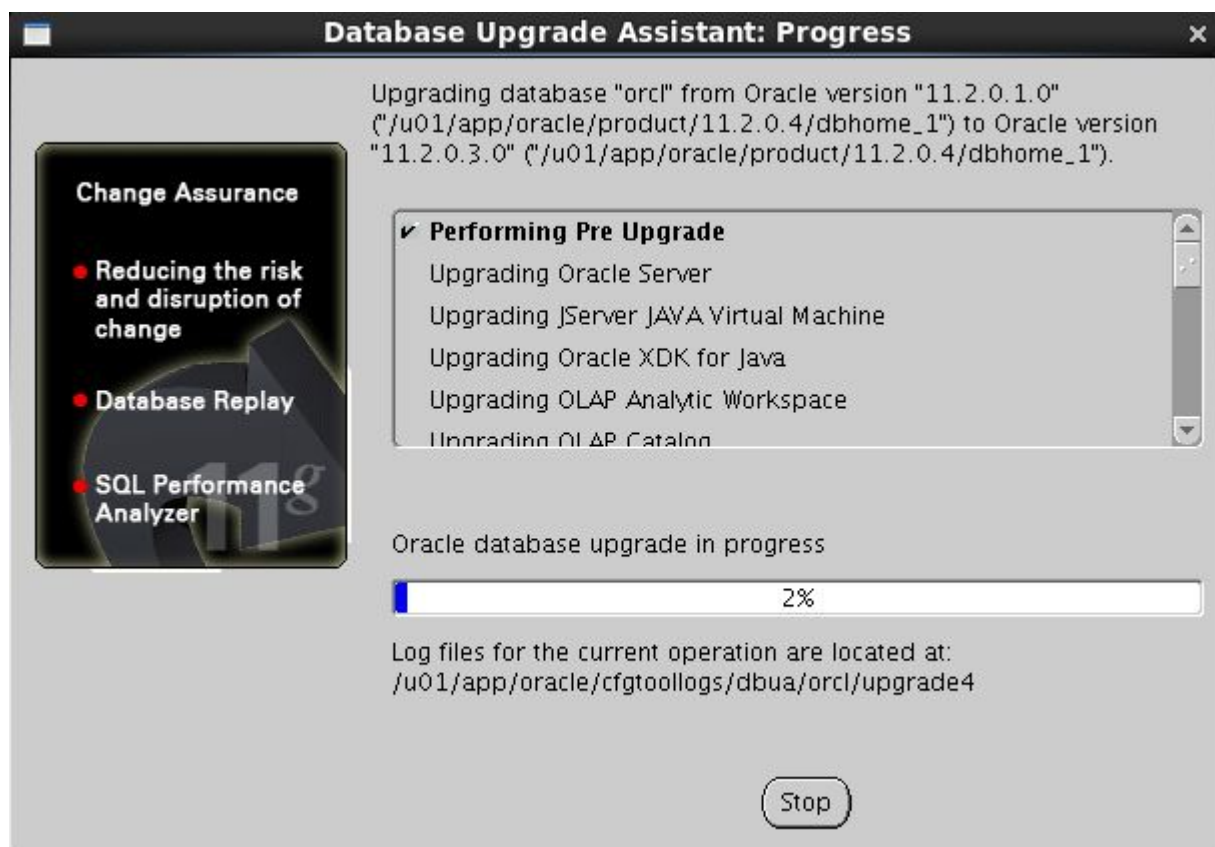
点击 YES, 后





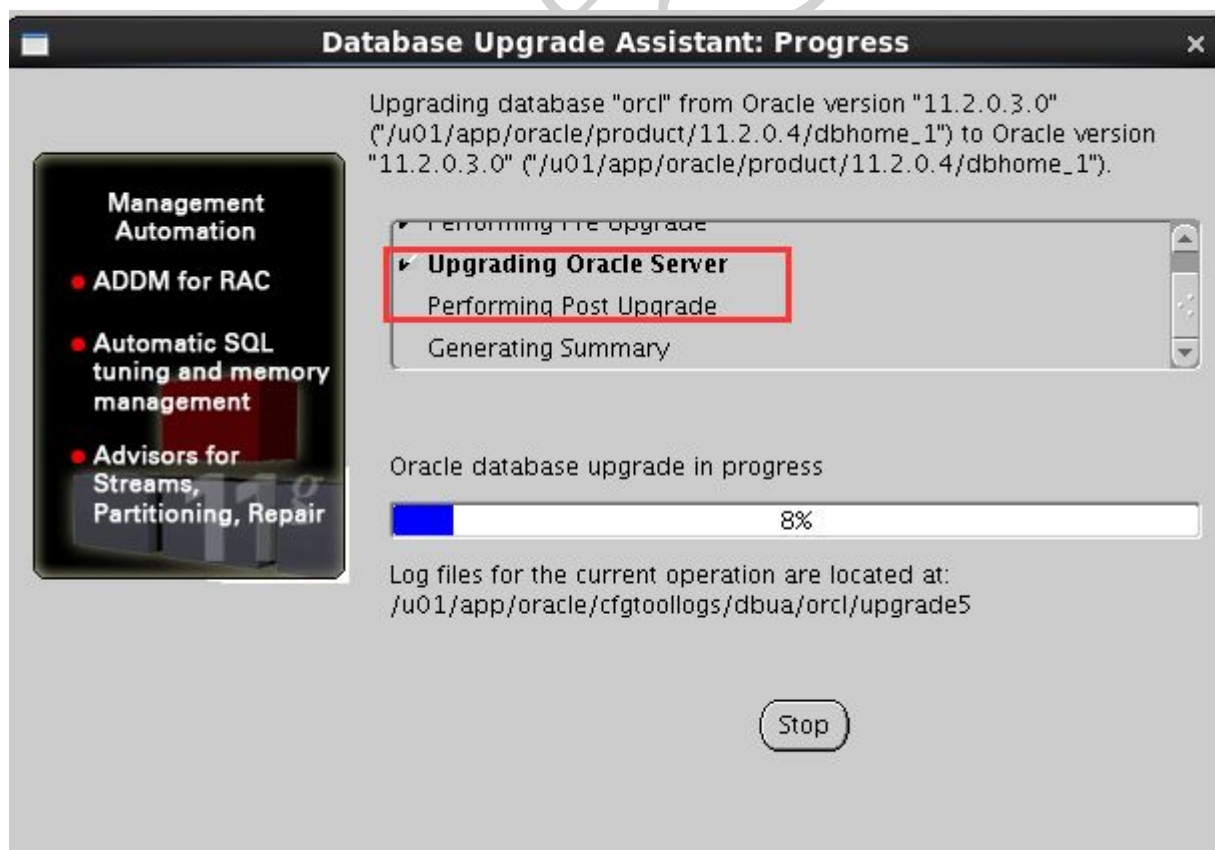






后边有报告，完成即可。

同样，如果升级过程中出现问题，我们可以关闭数据库后，重新运行 dbua 来重新升级上次失败的组件，如下图：



## 1.5.2 手动升级

### 1.5.2.1 第一步 utlu112i.sql

安装最新的 11.2 RDBMS 软件之后，用以前的 ORACLE\_HOME 中启动 11.2.0.1 实例，对正在运行的以前的实例执行 11.2.0.4 的 \$ORACLE\_HOME/rdbms/admin/utlu112i.sql 脚本，并将输出 spool 至一个文件。

```
[oracle@rhel6 database]$ sqlplus / as sysdba
```

```
SQL*Plus: Release 11.2.0.1.0 Production on Fri Sep 26 17:27:46 2014
```

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

```
Connected to:
```

```
Oracle Database 11g Enterprise Edition Release 11.2.0.1.0 - 64bit Production  
With the Partitioning, OLAP, Data Mining and Real Application Testing options
```

```
SQL> spool /home/oracle/utlu112i_log.log
```

```
SQL> @/u01/app/oracle/product/11.2.0.4/dbhome_1/rdbms/admin/utlu112i.sql
```

```
Oracle Database 11.2 Pre-Upgrade Information Tool 09-26-2014 17:28:37
```

```
Script Version: 11.2.0.3.0 Build: 001
```

```
.
```

```
*****
```

```
Database:
```

```
*****
```

```
--> name: ORCL
```

```
--> version: 11.2.0.1.0
```

```
--> compatible: 11.2.0.0.0
```

```
--> blocksize: 8192
```

```
--> platform: Linux x86 64-bit
```

```
--> timezone file: V11
```

```
.
```

```
*****
```

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

```
*****
```

```
--> SYSTEM tablespace is adequate for the upgrade.
```

```
.... minimum required size: 683 MB
```

```
--> SYSAUX tablespace is adequate for the upgrade.
```

```
.... minimum required size: 438 MB
```

```
--> UNDOTBS1 tablespace is adequate for the upgrade.
```

```
.... minimum required size: 400 MB
--> TEMP tablespace is adequate for the upgrade.
.... minimum required size: 60 MB
.

*****
Flashback: OFF
*****
*****

Update Parameters: [Update Oracle Database 11.2 init.ora or spfile]
Note: Pre-upgrade tool was run on a lower version 64-bit database.
*****

--> If Target Oracle is 32-Bit, refer here for Update Parameters:
WARNING: --> "sga_target" needs to be increased to at least 412 MB
.

--> If Target Oracle is 64-Bit, refer here for Update Parameters:
WARNING: --> "sga_target" needs to be increased to at least 596 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]
*****

-- No obsolete parameters found. No changes are required
.

*****
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
--> Oracle XDK for Java      [upgrade]  VALID
--> Oracle Workspace Manager  [upgrade]  VALID
--> OLAP Analytic Workspace   [upgrade]  VALID
--> OLAP Catalog             [upgrade]  VALID
--> EM Repository            [upgrade]  VALID
--> Oracle Text              [upgrade]  VALID
--> Oracle XML Database      [upgrade]  VALID
--> Oracle Java Packages     [upgrade]  VALID
--> Oracle interMedia        [upgrade]  VALID
--> Spatial                  [upgrade]  VALID
--> Expression Filter        [upgrade]  VALID
```

```
--> Rule Manager      [upgrade]  VALID
--> Oracle Application Express  [upgrade]  VALID
... APEX will only be upgraded if the version of APEX in
... the target Oracle home is higher than the current one.
--> Oracle OLAP API    [upgrade]  VALID
```

\*\*\*\*\*

#### Miscellaneous Warnings

\*\*\*\*\*

WARNING: --> Database is using a timezone file older than version 14.  
.... After the release migration, it is recommended that DBMS\_DST package  
.... be used to upgrade the 11.2.0.1.0 database timezone version  
.... to the latest version which comes with the new release.

WARNING: --> Your recycle bin is turned on and currently contains no objects.  
.... Because it is REQUIRED that the recycle bin be empty prior to upgrading  
.... and your recycle bin is turned on, you may need to execute the command:

```
PURGE DBA_RECYCLEBIN
```

.... prior to executing your upgrade to confirm the recycle bin is empty.

WARNING: --> Database contains schemas with objects dependent on DBMS\_LDAP package.  
.... Refer to the 11g Upgrade Guide for instructions to configure Network ACLs.  
.... USER APEX\_030200 has dependent objects.

\*\*\*\*\*

#### Recommendations

\*\*\*\*\*

Oracle recommends gathering dictionary statistics prior to  
upgrading the database.

To gather dictionary statistics execute the following command  
while connected as SYSDBA:

```
EXECUTE dbms_stats.gather_dictionary_stats;
```

\*\*\*\*\*

Oracle recommends reviewing any defined events prior to upgrading.

To view existing non-default events execute the following commands  
while connected AS SYSDBA:

Events:

```
SELECT (translate(value,chr(13)||chr(10),' ')) FROM sys.v$parameter2
WHERE UPPER(name)='EVENT' AND isdefault='FALSE'
```

Trace Events:

```
SELECT (translate(value,chr(13)||chr(10),' ')) from sys.v$parameter2
WHERE UPPER(name) = '_TRACE_EVENTS' AND isdefault='FALSE'
```

Changes will need to be made in the init.ora or spfile.

\*\*\*\*\*

SQL> spool off

SQL> exit

Disconnected from Oracle Database 11g Enterprise Edition Release 11.2.0.1.0 - 64bit Production  
With the Partitioning, OLAP, Data Mining and Real Application Testing options  
[oracle@rhel6 database]\$

### 1. 5. 2. 2 第二步 DBUPGDIAG.SQL

[oracle@rhel6 share-D]\$ cd /tmp/

[oracle@rhel6 tmp]\$ ll dbupgdiag.sql

-rwxr-xr-x. 1 oracle oinstall 23931 Sep 26 17:43 dbupgdiag.sql

[oracle@rhel6 tmp]\$ pwd

/tmp

[oracle@rhel6 tmp]\$ sqlplus / as sysdba

SQL\*Plus: Release 11.2.0.1.0 Production on Fri Sep 26 17:44:31 2014

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

Connected to:

Oracle Database 11g Enterprise Edition Release 11.2.0.1.0 - 64bit Production  
With the Partitioning, OLAP, Data Mining and Real Application Testing options

SQL> @/tmp/dbupgdiag.sql

Enter location for Spooled output:

Enter value for 1: /home/oracle

26\_Sep\_2014\_0544 .log

orcl\_

\*\*\* Start of LogFile \*\*\*

Oracle Database Upgrade Diagnostic Utility 09-26-2014 17:44:54

=====  
Hostname  
=====

rhel6.5

=====  
Database Name  
=====

ORCL

=====  
Database Uptime  
=====

16:01 26-SEP-14

=====  
Database Wordsize  
=====

This is a 64-bit database

=====  
Software Version  
=====

Oracle Database 11g Enterprise Edition Release 11.2.0.1.0 - 64bit Production  
PL/SQL Release 11.2.0.1.0 - Production  
CORE 11.2.0.1.0 Production  
TNS for Linux: Version 11.2.0.1.0 - Production  
NLSRTL Version 11.2.0.1.0 - Production

=====  
Compatibility  
=====

Compatibility is set as 11.2.0.0.0

=====  
Archive Log Mode  
=====

Database log mode	No Archive Mode
Automatic archival	Disabled
Archive destination	/u01/app/oracle/product/11.2.0/dbhome_1/dbs/arch
Oldest online log sequence	1
Current log sequence	2

=====

Auditing Check

=====

NAME	TYPE	VALUE
audit_file_dest	string	/u01/app/oracle/admin/orcl/audmp
audit_sys_operations	boolean	FALSE
audit_syslog_level	string	
audit_trail	string	DB

=====

Cluster Check

=====

NAME	TYPE	VALUE
cluster_database	boolean	FALSE
cluster_database_instances	integer	1

DOC>#####

DOC>

DOC> If CLUSTER\_DATABASE is set to TRUE, change it to FALSE before

DOC> upgrading the database

DOC>

DOC>#####

DOC>#

=====

Tablespace and the owner of the aud\$ table

=====

OWNER	TABLESPACE_NAME
SYS	SYSTEM

=====

count of records in the sys.aud\$ table where dbid is null- Standard Auditing

=====

count of records in the system.aud\$ when dbid is null, Std Auditing with OLS or DV installed

select count(\*) from system.aud\$ where dbid is null

\*

ERROR at line 1:

ORA-00942: table or view does not exist

count of records in the sys.fga\_log\$ when dbid is null, Fine Grained Auditing

0

Oracle Label Security is installed or not

Oracle Label Security is NOT installed at database level

Number of AQ Records in Message Queue Tables

SYS - ALERT\_QT - 0

SYS - AQ\$ MEM\_MC - 0

SYS - AQ\_EVENT\_TABLE - 0

SYS - AQ\_PROP\_TABLE - 0

SYS - KUPC\$DATAPUMP\_QUETAB - 0

SYS - SCHEDULER\$ \_EVENT\_QTAB - 0

SYS - SCHEDULER\$ REMDB\_JOBQTAB - 0

SYS - SCHEDULER\_FILEWATCHER\_QT - 0

SYS - SYSS\$SERVICE\_METRICS\_TAB - 0

SYSMAN - MGMT\_LOADER\_QTABLE - 0

SYSMAN - MGMT\_NOTIFY\_INPUT\_QTABLE - 0

SYSMAN - MGMT\_NOTIFY\_QTABLE - 0

SYSMAN - MGMT\_PAF\_MSG\_QTABLE\_1 - 0

SYSMAN - MGMT\_PAF\_MSG\_QTABLE\_2 - 0



SYSMAN - MGMT\_TASK\_QTABLE - 27  
SYSTEM - DEF\$\_AQCALL - 0  
SYSTEM - DEF\$\_AQERROR - 0  
WMSYS - WM\$EVENT\_QUEUE\_TABLE - 0

=====

Time Zone version

=====

11

=====

Local Listener

=====

LISTENER\_ORCL

=====

Default and Temporary Tablespaces By User

=====

USERNAME	TEMPORARY_TABLESPACE	DEFAULT_TABLESPACE
SYS	TEMP	SYSTEM
SYSTEM	TEMP	SYSTEM
OUTLN	TEMP	SYSTEM
MGMT_VIEW	TEMP	SYSTEM
FLows_FILES	TEMP	SysAUX
MDSYS	TEMP	SysAUX
ORDSYS	TEMP	SysAUX
EXFSYS	TEMP	SysAUX
DBSNMP	TEMP	SysAUX
WMSYS	TEMP	SysAUX
APPQOSSYS	TEMP	SysAUX
APEX_030200	TEMP	SysAUX
OWBSYS_AUDIT	TEMP	SysAUX
ORDDATA	TEMP	SysAUX
CTXSYS	TEMP	SysAUX
ANONYMOUS	TEMP	SysAUX
SYSMAN	TEMP	SysAUX
XDB	TEMP	SysAUX
ORDPLUGINS	TEMP	SysAUX
OWBSYS	TEMP	SysAUX

SI_INFORMTN_SCHEMA	TEMP	SYSAUX
OLAPSYS	TEMP	SYSAUX
SCOTT	TEMP	USERS
ORACLE_OCM	TEMP	USERS
XS\$NULL	TEMP	USERS
MDDATA	TEMP	USERS
DIP	TEMP	USERS
APEX_PUBLIC_USER	TEMP	USERS
SPATIAL_CSW_ADMIN_USR	TEMP	USERS
SPATIAL_WFS_ADMIN_USR	TEMP	USERS

=====

Component Status

=====

Comp ID	Component	Status	Version	Org_Version	Prv_Version
AMD	OLAP Catalog	VALID	11.2.0.1.0		
APEX	Oracle Application Express	VALID	3.2.1.00.10		
APS	OLAP Analytic Workspace	VALID	11.2.0.1.0		
CATALOG	Oracle Database Catalog Views	VALID	11.2.0.1.0		
CATJAVA	Oracle Database Java Packages	VALID	11.2.0.1.0		
CATPROC	Oracle Database Packages and Types	VALID	11.2.0.1.0		
CONTEXT	Oracle Text	VALID	11.2.0.1.0		
EM	Oracle Enterprise Manager	VALID	11.2.0.1.0		
EXF	Oracle Expression Filter	VALID	11.2.0.1.0		
JAVAVM	JServer JAVA Virtual Machine	VALID	11.2.0.1.0		
ORDIM	Oracle Multimedia	VALID	11.2.0.1.0		
OWB	OWB	VALID	11.2.0.1.0		
OWM	Oracle Workspace Manager	VALID	11.2.0.1.0		
RUL	Oracle Rules Manager	VALID	11.2.0.1.0		
SDO	Spatial	VALID	11.2.0.1.0		
XDB	Oracle XML Database	VALID	11.2.0.1.0		
XML	Oracle XDK	VALID	11.2.0.1.0		
XOQ	Oracle OLAP API	VALID	11.2.0.1.0		

=====

List of Invalid Database Objects Owned by SYS / SYSTEM

=====

Number of Invalid Objects

-----

There are no Invalid Objects

```
DOC>#####
DOC>
DOC> If there are no Invalid objects below will result in zero rows.
DOC>
DOC>#####
DOC>#
```

no rows selected

=====

List of Invalid Database Objects

=====

Number of Invalid Objects

-----

There are no Invalid Objects

```
DOC>#####
DOC>
DOC> If there are no Invalid objects below will result in zero rows.
DOC>
DOC>#####
DOC>#
```

no rows selected

=====

Count of Invalids by Schema

=====

=====

Identifying whether a database was created as 32-bit or 64-bit

=====

```
DOC>#####
DOC>
DOC> Result referencing the string 'B023' ==> Database was created as 32-bit
DOC> Result referencing the string 'B047' ==> Database was created as 64-bit
DOC> When String results in 'B023' and when upgrading database to 10.2.0.3.0
```

DOC> (64-bit) , For known issue refer below articles

DOC>

DOC> Note 412271.1 ORA-600 [22635] and ORA-600 [KOKEIIX1] Reported While

DOC> Upgrading Or Patching Databases To 10.2.0.3

DOC> Note 579523.1 ORA-600 [22635], ORA-600 [KOKEIIX1], ORA-7445 [KOPESIZ] and

DOC> OCI-21500 [KOXSIHREAD1] Reported While Upgrading To 11.1.0.6

DOC>

DOC>#####

DOC>#

## Metadata Initial DB Creation Info

-----

B047 Database was created as 64-bit

=====

Number of Duplicate Objects Owned by SYS and SYSTEM

=====

Counting duplicate objects ....

COUNT(1)

-----

4

=====

Duplicate Objects Owned by SYS and SYSTEM

=====

Querying duplicate objects ....

OBJECT\_NAME

OBJECT\_TYPE

SUBOBJECT\_NAME

OBJECT\_ID

-----

AQ\$\_SCHEDULES TABLE 5612

AQ\$\_SCHEDULES\_PRIMARY INDEX 5613

DBMS\_REPCAT\_AUTH PACKAGE 8435

DBMS\_REPCAT\_AUTH PACKAGE BODY 11896

DOC>

DOC>#####

DOC>

DOC> If any objects found please follow below article.

DOC> Note 1030426.6 How to Clean Up Duplicate Objects Owned by SYS and SYSTEM schema

DOC> Read the Exceptions carefully before taking actions.

DOC>

DOC>#####

DOC>#

=====

Password protected roles

=====

DOC>

DOC>#####

DOC>

DOC> In version 11.2 password protected roles are no longer enabled by default so if

DOC> an application relies on such roles being enabled by default and no action is

DOC> performed to allow the user to enter the password with the set role command, it

DOC> is recommended to remove the password from those roles (to allow for existing

DOC> privileges to remain available). For more information see:

DOC>

DOC> Note 745407.1 : What Roles Can Be Set as Default for a User?

DOC>

DOC>#####

DOC>#

Querying for password protected roles ....

Password protected Role

Assigned by default to user

-----

OWB\$CLIENT

OWBSYS

SPATIAL\_CSW\_ADMIN

SPATIAL\_CSW\_ADMIN\_USR

=====

JVM Verification

=====

=====

Checking Existence of Java-Based Users and Roles

=====

DOC>

DOC>#####

DOC>

DOC> There should not be any Java Based users for database version 9.0.1 and above.

DOC> If any users found, it is faulty JVM.

DOC>

```
DOC>#####  
DOC>#
```

## User Existence

-----  
No Java Based Users

```
DOC>  
DOC>#####  
DOC>  
DOC> Healthy JVM Should contain Six Roles.  
DOC> If there are more or less than six role, JVM is inconsistent.  
DOC>  
DOC>#####  
DOC>#
```

## Role

-----  
There are 6 JAVA related roles

Roles

## ROLE

-----  
JAVA\_DEPLOY  
JAVAUSERPRIV  
JAVAIDPRIV  
JAVASYSPRIV  
JAVADEBUGPRIV  
JAVA\_ADMIN

=====  
List of Invalid Java Objects owned by SYS  
=====

There are no SYS owned invalid JAVA objects

```
DOC>  
DOC>#####  
DOC>  
DOC> Check the status of the main JVM interface packages DBMS_JAVA  
DOC> and INITJVMAUX and make sure it is VALID.  
DOC>
```

DOC> If there are no Invalid objects below will result in zero rows.

DOC>

DOC>#####

DOC>#

no rows selected

DOC>

DOC>#####

DOC>

DOC> If the JAVAVM component is not installed in the database (for

DOC> example, after creating the database with custom scripts), the

DOC> next query will report the following error:

DOC>

DOC> select dbms\_java.longname('foo') "JAVAVM TESTING" from dual

DOC> \*

DOC> ERROR at line 1:

DOC> ORA-00904: "DBMS\_JAVA"."LONGNAME": invalid identifier

DOC>

DOC> If the JAVAVM component is installed, the query should succeed

DOC> with 'foo' as result.

DOC>

DOC>#####

DOC>#

JAVAVM TESTING

-----  
foo

=====

Oracle Multimedia/InterMedia status

=====

.  
Oracle Multimedia/interMedia is installed and listed with the following version: 11.2.0.1.0 and status: VALID  
.

Checking for installed Database Schemas...

ORDSYS user exists.

ORDPLUGINS user exists.

MDSYS user exists.

SI\_INFORMTN\_SCHEMA user exists.

ORDDATA user exists.  
.

Checking for Prerequisite Components...

JAVAVM installed and listed as valid

XDK installed and listed as valid

XDB installed and listed as valid

Validating Oracle Multimedia/interMedia...(no output if component status is valid)

PL/SQL procedure successfully completed.

\*\*\* End of LogFile \*\*\*

Upload db\_upg\_diag\_orcl\_26\_Sep\_2014\_0544.log from "/home/oracle" directory

SQL> exit

Disconnected from Oracle Database 11g Enterprise Edition Release 11.2.0.1.0 - 64bit Production

With the Partitioning, OLAP, Data Mining and Real Application Testing options

/u01/app/oracle/product/11.2.0.4/dbhome\_1/rdbms/admin/utlrb.sql

### 1.5.2.3 第三步 备份

禁用所有批处理和 cron 作业，然后执行数据库的完整备份。

### 1.5.2.4 第四步 干净的关闭数据库

[oracle@rhel6 ~]\$ sqlplus / as sysdba

SQL\*Plus: Release 11.2.0.1.0 Production on Sun Sep 28 09:11:46 2014

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

Connected to:

Oracle Database 11g Enterprise Edition Release 11.2.0.1.0 - 64bit Production

修德 博学 求实 创新



With the Partitioning, OLAP, Data Mining and Real Application Testing options

```
SQL> exit
```

Disconnected from Oracle Database 11g Enterprise Edition Release 11.2.0.1.0 - 64bit Production

With the Partitioning, OLAP, Data Mining and Real Application Testing options

```
[oracle@rhel6 ~]$ sqlplus / as sysdba
```

SQL\*Plus: Release 11.2.0.1.0 Production on Sun Sep 28 09:16:52 2014

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

Connected to:

Oracle Database 11g Enterprise Edition Release 11.2.0.1.0 - 64bit Production

With the Partitioning, OLAP, Data Mining and Real Application Testing options

```
SQL> shutdown immediate;
```

Database closed.

Database dismounted.

ORACLE instance shut down.

```
SQL> exit
```

Disconnected from Oracle Database 11g Enterprise Edition Release 11.2.0.1.0 - 64bit Production

With the Partitioning, OLAP, Data Mining and Real Application Testing options

```
[oracle@rhel6 ~]
```

```
[oracle@rhel6 ~]$ sqlplus / as sysdba

SQL*Plus: Release 11.2.0.1.0 Production on Sun Sep 28 09:11:46 2014

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

Connected to:
Oracle Database 11g Enterprise Edition Release 11.2.0.1.0 - 64bit Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options

SQL> exit
Disconnected from Oracle Database 11g Enterprise Edition Release 11.2.0.1.0 - 64bit Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options
[oracle@rhel6 ~]$ sqlplus / as sysdba

SQL*Plus: Release 11.2.0.1.0 Production on Sun Sep 28 09:16:52 2014

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

Connected to:
Oracle Database 11g Enterprise Edition Release 11.2.0.1.0 - 64bit Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options

SQL> shutdown immediate;
Database closed.
Database dismounted.
ORACLE instance shut down.
SQL> exit
Disconnected from Oracle Database 11g Enterprise Edition Release 11.2.0.1.0 - 64bit Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options
[oracle@rhel6 ~]$
```

#### 1.5.2.5 第五步 配置目标 11.2.0.3 ORACLE\_HOME

1. 拷贝\$ORACLE\_HOME/dbs 至 新目录 /u01/app/oracle/product/11.2.0.4/dbhome\_1/dbs/
2. 拷贝\$ORACLE\_HOME/network/admin 至 新目录  
/u01/app/oracle/product/11.2.0.4/dbhome\_1/network/admin/

```
[oracle@rhel6 ~]$ cd $ORACLE_HOME/dbs
[oracle@rhel6 dbs]$ ll
total 3580
-rw-r-----. 1 oracle oinstall 3635200 Jul 20 17:50 arch1_32_852154753.dbf
-rw-rw----. 1 oracle oinstall    1544 Sep 26 17:14 hc_DBUA0.dat
-rw-rw----. 1 oracle oinstall    1544 Sep 28 09:17 hc_orcl.dat
-rw-r--r--. 1 oracle oinstall   2851 May 15 2009 init.ora
-rw-r-----. 1 oracle oinstall    982 Jul 21 14:28 initorclasm.ora
-rw-r-----. 1 oracle oinstall    24 Jul 20 17:46 lkORCL
-rw-r-----. 1 oracle oinstall   1536 Sep 26 16:00 orapworcl
-rw-r-----. 1 oracle oinstall   2560 Sep 28 09:10 spfileorcl.ora
```

```
[oracle@rhel6 dbs]$ pwd
/u01/app/oracle/product/11.2.0/dbhome_1/dbs
[oracle@rhel6 dbs]$ ll /u01/app/oracle/product/11.2.0.4/dbhome_1/dbs/
total 4
-rw-r--r--. 1 oracle oinstall 2851 May 15 2009 init.ora
[oracle@rhel6 dbs]$ cp * /u01/app/oracle/product/11.2.0.4/dbhome_1/dbs/
[oracle@rhel6 dbs]$ ll /u01/app/oracle/product/11.2.0.4/dbhome_1/dbs/
total 3580
-rw-r-----. 1 oracle oinstall 3635200 Sep 28 09:31 arch1_32_852154753.dbf
-rw-r-----. 1 oracle oinstall 1544 Sep 28 09:31 hc_DBUA0.dat
-rw-r-----. 1 oracle oinstall 1544 Sep 28 09:31 hc_orcl.dat
-rw-r--r--. 1 oracle oinstall 2851 Sep 28 09:31 init.ora
-rw-r-----. 1 oracle oinstall 982 Sep 28 09:31 initorclasm.ora
-rw-r-----. 1 oracle oinstall 24 Sep 28 09:31 lkORCL
-rw-r-----. 1 oracle oinstall 1536 Sep 28 09:31 orapworcl
-rw-r-----. 1 oracle oinstall 2560 Sep 28 09:31 spfileorcl.ora
[oracle@rhel6 dbs]$ cd ..
[oracle@rhel6 dbhome_1]$ cd network/admin/
[oracle@rhel6 admin]$ ll
total 24
-rw-r--r--. 1 oracle oinstall 497 Jul 20 17:38 listener.ora
-rw-r--r--. 1 oracle oinstall 981 Jul 20 17:02 listener.ora_bk
drwxr-xr-x. 2 oracle oinstall 4096 May 18 17:01 samples
-rw-r--r--. 1 oracle oinstall 187 May 7 2007 shrept.lst
-rw-r--r--. 1 oracle oinstall 203 Jul 19 22:33 sqlnet.ora
-rw-r--r--. 1 oracle oinstall 1318 Sep 26 16:01 tnsnames.ora
[oracle@rhel6 admin]$ cp -R * /u01/app/oracle/product/11.2.0.4/dbhome_1/network/admin/
[oracle@rhel6 admin]$
```

```
export EDITOR=vi
export ORACLE_SID=orcl
export ORACLE_BASE=/u01/app/oracle
export ORACLE_HOME=$ORACLE_BASE/product/11.2.0/dbhome_1
export LD_LIBRARY_PATH=$ORACLE_HOME/lib:/usr/lib
export PATH=$ORACLE_HOME/bin:$PATH
```

```
export EDITOR=vi
export ORACLE_SID=orcl
export ORACLE_BASE=/u01/app/oracle
export ORACLE_HOME=$ORACLE_BASE/product/11.2.0.4/dbhome_1
export LD_LIBRARY_PATH=$ORACLE_HOME/lib:/lib:/usr/lib
export PATH=$ORACLE_HOME/bin:$PATH
export TNS_ADMIN=$ORACLE_HOME/network/admin
```

```
export EDITOR=vi
export ORACLE_SID=orcl
export ORACLE_BASE=/u01/app/oracle
```

```
export ORACLE_HOME=$ORACLE_BASE/product/11.2.0.4/dbhome_1
export LD_LIBRARY_PATH=$ORACLE_HOME/lib:/lib:/usr/lib
export PATH=$ORACLE_HOME/bin:$PATH
export TNS_ADMIN=$ORACLE_HOME/network/admin
```

```
[oracle@rhel6 ~]$ vi .bash_profile
[oracle@rhel6 ~]$ source .bash_profile
[oracle@rhel6 ~]$
```

```
[oracle@rhel6 ~]$ vi /etc/oratab
[oracle@rhel6 ~]$ more /etc/oratab
#
# This file is used by ORACLE utilities.  It is created by root.sh
# and updated by the Database Configuration Assistant when creating
# a database.
#
# A colon, ':', is used as the field terminator.  A new line terminates
# the entry.  Lines beginning with a pound sign, '#', are comments.
#
# Entries are of the form:
#   $ORACLE_SID:$ORACLE_HOME:<N|Y>:
#
# The first and second fields are the system identifier and home
# directory of the database respectively.  The third field indicates
# to the dbstart utility that the database should, "Y", or should not,
# "N", be brought up at system boot time.
#
# Multiple entries with the same $ORACLE_SID are not allowed.
#
#
prcl:/u01/app/oracle/product/11.2.0.4/dbhome_1:N
[oracle@rhel6 ~]$
```

```
*.memory_target=1024M
java_pool_size=250M
shared_pool_size=250M
```

```
*.audit_file_dest='/u01/app/oracle/admin/orcl/adump'
*.audit_trail='db'
*.compatible='11.2.0.0.0'
*.control_files='/u01/app/oracle/oradata/orcl/control01.ctl','/u01/app/oracle/oradata/orcl/control02.ctl'
*.db_block_size=8192
*.db_domain=''
*.db_name='orcl'
*.diagnostic_dest='/u01/app/oracle'
*.dispatchers='(PROTOCOL=TCP) (SERVICE=orclXDB)'
*.local_listener='LISTENER_ORCL'
*.open_cursors=300
*.processes=150
*.remote_login_passwordfile='EXCLUSIVE'
*.undo_tablespace='UNDOTBS1'
*.memory_target=1024M
java_pool_size=250M
shared_pool_size=250M
```

### 1.5.2.6 第六步 开始升级

```
sqlplus " / as sysdba "
SQL> spool /tmp/upgrade.log
SQL> startup upgrade
SQL> set echo on
SQL> @$ORACLE_HOME/rdbms/admin/catupgrd.sql;
SQL> spool off
SQL> Shutdown immediate
```

catupgrd.sql 该脚本花费时间较长, 大约 30 分钟

```
DOC>#####
DOC>#####
DOC>
DOC> The above sql script is the final step of the upgrade. Please
DOC> review any errors in the spool log file. If there are any errors in
DOC> the spool file, consult the Oracle Database Upgrade Guide for
DOC> troubleshooting recommendations.
DOC>
DOC> Next restart for normal operation, and then run utlrrp.sql to
DOC> recompile any invalid application objects.
DOC>
DOC> If the source database had an older time zone version prior to
DOC> upgrade, then please run the DBMS_DST package. DBMS_DST will upgrade
DOC> TIMESTAMP WITH TIME ZONE data to use the latest time zone file shipped
DOC> with Oracle.
DOC>
DOC>#####
DOC>#####
DOC>#
SQL>
SQL> Rem Set errorlogging off
```

```
SQL> SET ERRORLOGGING OFF;
SQL>
SQL> REM END OF CATUPGRD.SQL
SQL>
SQL> REM bug 12337546 - Exit current sqlplus session at end of catupgrd.sql.
SQL> REM          This forces user to start a new sqlplus session in order
SQL> REM          to connect to the upgraded db.
SQL> exit
Disconnected from Oracle Database 11g Enterprise Edition Release 11.2.0.3.0 - 64bit Production
With the Partitioning, OLAP, Data Mining and Real Application Testing options
```

日志压缩后仍然很大，这里就不贴出来了。。。。

### 1.5.2.7 验证

```
[oracle@rhel6 admin]$ sqlplus / as sysdba

SQL*Plus: Release 11.2.0.3.0 Production on Sun Sep 28 10:56:16 2014

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Connected to an idle instance.

SQL> startup
ORACLE instance started.

Total System Global Area 1068937216 bytes
Fixed Size 2235208 bytes
Variable Size 973079736 bytes
Database Buffers 88080384 bytes
Redo Buffers 5541888 bytes
Database mounted.
Database opened.
SQL> @/u01/app/oracle/product/11.2.0.4/dbhome_1/rdbms/admin/utlu112s.sql
.
Oracle Database 11.2 Post-Upgrade Status Tool 09-28-2014 10:59:11
.
Component Current Version Elapsed Time
Name Status Number HH:MM:SS
.
Oracle Server
. VALID 11.2.0.3.0 00:14:09
JServer JAVA Virtual Machine
```

.	VALID	11.2.0.3.0	00:05:55
Oracle Workspace Manager			
.	VALID	11.2.0.3.0	00:00:44
OLAP Analytic Workspace			
.	VALID	11.2.0.3.0	00:00:51
OLAP Catalog			
.	VALID	11.2.0.3.0	00:01:09
Oracle OLAP API			
.	VALID	11.2.0.3.0	00:00:41
Oracle Enterprise Manager			
.	VALID	11.2.0.3.0	00:03:35
Oracle XDK			
.	VALID	11.2.0.3.0	00:00:41
Oracle Text			
.	VALID	11.2.0.3.0	00:00:39
Oracle XML Database			
.	VALID	11.2.0.3.0	00:03:05
Oracle Database Java Packages			
.	VALID	11.2.0.3.0	00:00:30
Oracle Multimedia			
.	VALID	11.2.0.3.0	00:04:49
Spatial			
.	VALID	11.2.0.3.0	00:02:22
Oracle Expression Filter			
.	VALID	11.2.0.3.0	00:00:14
Oracle Rules Manager			
.	VALID	11.2.0.3.0	00:00:12
Oracle Application Express			
.	VALID	3.2.1.00.10	
Gathering Statistics			
.			00:03:09
Total Upgrade Time: 00:42:58			

PL/SQL procedure successfully completed.

SQL>