

EBS 系统

EBS AP 双节点 DB RAC CLONE 操作手册

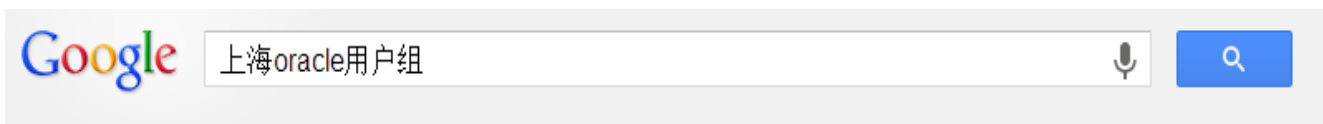
BY SHOUG. 王川

SH'OUG

SHANGHAI ORACLE USERS GROUP

上海ORACLE用户组

How to Find SHOUG?



[Web](#) [Images](#) [Maps](#) [Shopping](#) [More ▾](#) [Search tools](#)

About 5,960,000 results (0.36 seconds)

[上海Oracle用户组| SHOUG, 走近全系Oracle技术和数据库专家](#)

www.shoug.info/ [Translate this page](#)

SHOUG的全称是ShangHai Oracle Users Group, 中文为上海Oracle用户组。SHOUG的成员仅仅局限于上海地区吗? 上海是国际化大都市, 我们将以上海为中心, ...

You visited this page on 5/20/13.

[Oracle 12c新特性-ORACLE数据库数据恢复、性能优化、故障诊断来...](#)

www.askmaclean.com/archives/.../oracle/oracle-12c [Translate this page](#)

Feb 26, 2013 - 《Oracle 12c新特性》-作者: Maclean Liu, 首发于Ask Maclean中文Oracle博客. ... 手机: 13764045638, ORA-ALLSTARS Exadata用户组QQ群:23549328 ... Database 12c进入release发布的倒计时, 可能在今年7月在上海举行 ...

You've visited this page 4 times. Last visit: 4/25/13

应用场景

1、目的：

- 正式环境数据库突然崩溃且无法修复。
- 从备份恢复正式环境。

2、源环境：

- ERP 正式环境
- 4 个应用节点
- DATABASE 11.2.0. RAC

事前准备

- 1、准备 4 台服务器。
- 2、OS : OEL 5.7 64bit
- 3、正式环境应用节点 1 已完成预克隆，tar 包之后已上传到准备恢复的两台应用
- 4、两台应用已挂载一块共享存储，且格式为 VXFS.
- 5、另外两台服务器作为 RAC 数据库.
- 6、RAC 数据库已创建 CRS 和 DB。
- 7、原 RAC 的数据备份已上传到准备恢复的 RAC 1 上。

数据库层操作：RAC to RAC

- 1、 Create a [NEW_ORACLE_HOME]/appsutils/clone/pairsfile.txt text file with contents as shown below:

RAC 1

```
[root@erpdb1 ~]# su - oracle
```

```
[oracle@erpdb1 ~]$ cd /d01/prod/oracle/11.2.0/appsutil/clone/
```

```
[oracle@erpdb1 clone]$ vi pairsfile.txt
```

```
s_undo_tablespace=APPS_UNDOTS1
```

```
s_dbClusterInst=2
```

```
s_db_oh=/d01/prod/oracle/11.2.0
```

- 2、 Create Context File for Primary Node

```
切 换 Oracle 用 户 下 输 入 命 令 : perl adclonectx.pl  
contextfile=/d01/prod/oracle/11.2.0/appsutil/PROD1_ebsdb1.xml  
template=/d01/prod/oracle/11.2.0/appsutil/template/adxdbctx.tmp  
pairsfile=/d01/prod/oracle/11.2.0/appsutil/clone/pairsfile.txt initialnode
```

```
[oracle@erpdb1 bin]$ pwd
```

```
/d01/prod/oracle/11.2.0/appsutil/clone/bin
```

```
[oracle@erpdb1 bin]$ ls
```

```
adcfgclone.pl adchkutl.sh adclonectx.pl adclone.pl
```

```
[oracle@erpdb1 bin]$ perl adclonectx.pl contextfile=/d01/prod/oracle/11.2.0/appsutil/PROD1_ebsdb1.xml  
template=/d01/prod/oracle/11.2.0/appsutil/template/adxdbctx.tmp  
pairsfile=/d01/prod/oracle/11.2.0/appsutil/clone/pairsfile.txt initialnode
```

Copyright (c) 2002 Oracle Corporation

Redwood Shores, California, USA

Oracle Applications Rapid Clone

Version 12.0.0

adclonectx Version 120.23.12010000.1

Running:

```
/d01/prod/oracle/11.2.0/appstutil/clone/bin/./jre/bin/java -Xmx600M -classpath  
/d01/prod/oracle/11.2.0/appstutil/clone/bin/./jlib/ojdbc5.jar:/d01/prod/oracle/11.2.0/appstutil/clone/bin/./jlib/xmlpar  
serv2.jar:/d01/prod/oracle/11.2.0/appstutil/clone/bin/./jlib/java oracle.apps.ad.context.CloneContext -e  
/d01/prod/oracle/11.2.0/appstutil/PROD1_ebsdb1.xml -tmpl /d01/prod/oracle/11.2.0/appstutil/template/adxdbctx.tmp  
-pairsfile /d01/prod/oracle/11.2.0/appstutil/clone/pairsfile.txt -initialnode
```

Enter the APPS password : XXXXXXXXXX

Log file located at /d01/prod/oracle/11.2.0/appstutil/clone/bin/CloneContext_0708113741.log

Provide the values required for creation of the new Database Context file.

Target System Hostname (virtual or normal) [erpdb1] :

It is recommended that your inputs are validated by the program.

However you might choose not to validate them under following circumstances:

- If cloning a context on source system for a remote system.
- If cloning a context on a machine where the ports are taken and
you do not want to shutdown the services at this point.
- If cloning a context but the database it needs to connect is not available.

Do you want the inputs to be validated (y/n) [n] ? : y

Target Instance is RAC (y/n) [y] : y

Target System Database Name : dbaprod

Do you want the the target system to have the same port values as the source system (y/n) [y] ? : n

Target System Port Pool [0-99] : 5

Checking the port pool 5

done: Port Pool 5 is free

Report file located at /d01/prod/oracle/11.2.0/appstutil/out/portpool.lst

Complete port information available at /d01/prod/oracle/11.2.0/appstutil/out/portpool.lst

Provide information for the initial RAC node:

Host name [ebsdb1] :

Virtual Host name [null] : erpdb1-vip

Instance number [1] : 1

Private interconnect name [ebsdb1] : erpdb1-priv

Target System Base Directory : /d01/prod/oracle

Oracle OS User [oracle] :

Oracle OS Group [oinstall] :

Target System utl_file_dir Directory List : /d01/prod/oracle/temp

Number of DATA_TOP's on the Target System [4] : 1

Target System DATA_TOP Directory 1 : +DATA

Do you want to preserve the Display [0.0] (y/n) : n

Target System Display [erpdb1:0.0] :


```

Fixed Size                2230072 bytes
Variable Size             1409288392 bytes
Database Buffers         721420288 bytes
Redo Buffers              4947968 bytes

Starting restore at 08-JUL-13
allocated channel: ORA_DISK_1
channel ORA_DISK_1: SID=296 device type=DISK

channel ORA_DISK_1: copied control file copy
output file name=+DATA/dbaprod/controlfile_dbaprod.ctl
Finished restore at 08-JUL-13

database mounted
released channel: ORA_DISK_1

Recovery Manager complete.

```

RMAN 数据文件 恢复导入过程:

```

Starting restore at 08-JUL-13
using channel ORA_DISK_1
using channel ORA_DISK_2
using channel ORA_DISK_3
using channel ORA_DISK_4
using channel ORA_DISK_5

channel ORA_DISK_1: starting datafile backup set restore
channel ORA_DISK_1: specifying datafile(s) to restore from backup set
channel ORA_DISK_1: restoring datafile 00001 to +DATA
channel ORA_DISK_1: restoring datafile 00003 to +DATA
channel ORA_DISK_1: reading from backup piece /d01/backup/backup/data/stage/1e0e138d_1_1
channel ORA_DISK_2: starting datafile backup set restore
channel ORA_DISK_2: specifying datafile(s) to restore from backup set
channel ORA_DISK_2: restoring datafile 00352 to +DATA
channel ORA_DISK_2: restoring datafile 00396 to +DATA
channel ORA_DISK_2: reading from backup piece /d01/backup/backup/data/stage/1b0e138c_1_1
channel ORA_DISK_3: starting datafile backup set restore
channel ORA_DISK_3: specifying datafile(s) to restore from backup set
channel ORA_DISK_3: restoring datafile 00015 to +DATA
channel ORA_DISK_3: restoring datafile 00407 to +DATA
channel ORA_DISK_3: reading from backup piece /d01/backup/backup/data/stage/1c0e138c_1_1
channel ORA_DISK_4: starting datafile backup set restore
channel ORA_DISK_4: specifying datafile(s) to restore from backup set
channel ORA_DISK_4: restoring datafile 00013 to +DATA
channel ORA_DISK_4: restoring datafile 00404 to +DATA
channel ORA_DISK_4: reading from backup piece /d01/backup/backup/data/stage/1d0e138c_1_1
channel ORA_DISK_5: starting datafile backup set restore
channel ORA_DISK_5: specifying datafile(s) to restore from backup set
channel ORA_DISK_5: restoring datafile 00023 to +DATA
channel ORA_DISK_5: restoring datafile 00403 to +DATA
channel ORA_DISK_5: reading from backup piece /d01/backup/backup/data/stage/1g0e13cm_1_1

```

4、检查 TNS Listener has been started

```
$ ps -ef | grep tns | awk '{ print $9}'
```

正常情况:

错误情况:

5、检查数据库名称

```
SQL> select name from v$database;
```

NAME

PROD

6、重建控制文件

如果新的数据库名称和旧数据库一致，即旧名称没有更改，那么需要重建控制文件来更改名称。

- (1) 控制文件写入 trace 文件。

```
SQL> alter database backup controlfile to trace;
```

```
Database altered.
```

- (2) 找到生成的 trace。

```
SQL> show parameter user
```

NAME	TYPE	VALUE
license_max_users	integer	0
parallel_adaptive_multi_user	boolean	TRUE
redo_transport_user	string	
user_dump_dest	string	/d01/prod/oracle/11.2.0/log/di ag/rdbms/dbaprod/dbaprod1/trac e

- (3) 打开 trace 文件，写成创建新控制文件语句。

----重建控制文件：原环境控制文件-----

```
CREATE CONTROLFILE REUSE DATABASE "PROD" RESETLOGS ARCHIVELOG  
MAXLOGFILES 32  
MAXLOGMEMBERS 5  
MAXDATAFILES 512  
MAXINSTANCES 8  
MAXLOGHISTORY 14607  
LOGFILE  
GROUP 1 (
```

```
'+DATA/dbaprod/datafile/group_1.1.log',
'+DATA/dbaprod/datafile/group_1.2.log'
) SIZE 1000M BLOCKSIZE 512,
GROUP 2 (
'+DATA/dbaprod/datafile/group_2.1.log',
'+DATA/dbaprod/datafile/group_2.2.log'
) SIZE 1000M BLOCKSIZE 512,
GROUP 5 (
'+DATA/dbaprod/datafile/group_5.1.log',
'+DATA/dbaprod/datafile/group_5.2.log'
) SIZE 1000M BLOCKSIZE 512,
GROUP 7 (
'+DATA/dbaprod/datafile/group_7.1.log',
'+DATA/dbaprod/datafile/group_7.2.log'
) SIZE 1000M BLOCKSIZE 512
-- STANDBY LOGFILE
DATAFILE
'+DATA/dbaprod/datafile/system.263.820238497',
'+DATA/dbaprod/datafile/system.276.820239043',
'+DATA/dbaprod/datafile/system.257.820238493',
'+DATA/dbaprod/datafile/system.282.820239077',
'+DATA/dbaprod/datafile/system.268.820238739',
'+DATA/dbaprod/datafile/ctxd.301.820239337',
'+DATA/dbaprod/datafile/owapub.303.820239339',
'+DATA/dbaprod/datafile/apps_ts_queues.290.820239303',
'+DATA/dbaprod/datafile/odm.296.820239325',
'+DATA/dbaprod/datafile/olap.302.820239339',
'+DATA/dbaprod/datafile/sysaux.272.820238861',
'+DATA/dbaprod/datafile/apps_ts_tools.286.820239143',
'+DATA/dbaprod/datafile/system.260.820238493',
```

'+DATA/dbaprod/datafile/apps_ts_tx_data.275.820238909',
'+DATA/dbaprod/datafile/apps_ts_tx_idx.262.820238497',
'+DATA/dbaprod/datafile/apps_ts_seed.281.820239063',
'+DATA/dbaprod/datafile/apps_ts_interface.295.820239323',
'+DATA/dbaprod/datafile/sysaux.288.820239247',
'+DATA/dbaprod/datafile/undotbs2.280.820239061',
'+DATA/dbaprod/datafile/tests.304.820239339',
'+DATA/dbaprod/datafile/tbs_test.297.820239325',
'+DATA/dbaprod/datafile/ccdata.299.820239337',
'+DATA/dbaprod/datafile/cux_data.266.820238499',
'+DATA/dbaprod/datafile/cux_idx.300.820239337',
'+DATA/dbaprod/datafile/system.291.820239319',
'+DATA/dbaprod/datafile/system.271.820238859',
'+DATA/dbaprod/datafile/portal.294.820239323',
'+DATA/dbaprod/datafile/system.279.820239061',
'+DATA/dbaprod/datafile/system.258.820238493',
'+DATA/dbaprod/datafile/system.284.820239141',
'+DATA/dbaprod/datafile/system.278.820239059',
'+DATA/dbaprod/datafile/apps_undots1.287.820239245',
'+DATA/dbaprod/datafile/apps_ts_tx_data.289.820239301',
'+DATA/dbaprod/datafile/apps_ts_tx_idx.277.820239045',
'+DATA/dbaprod/datafile/apps_ts_seed.273.820238863',
'+DATA/dbaprod/datafile/apps_ts_interface.270.820238845',
'+DATA/dbaprod/datafile/apps_ts_summary.264.820238499',
'+DATA/dbaprod/datafile/apps_ts_nologging.293.820239323',
'+DATA/dbaprod/datafile/apps_ts_archive.274.820238863',
'+DATA/dbaprod/datafile/apps_ts_queues.283.820239081',
'+DATA/dbaprod/datafile/apps_ts_media.269.820238843',
'+DATA/dbaprod/datafile/apps_ts_tx_data.292.820239321',
'+DATA/dbaprod/datafile/apps_ts_tx_data.267.820238739',

```

'+DATA/dbaprod/datafile/apps_ts_tx_idx.261.820238493',
'+DATA/dbaprod/datafile/apps_ts_tx_idx.265.820238499',
'+DATA/dbaprod/datafile/apps_ts_tx_idx.285.820239141',
'+DATA/dbaprod/datafile/apps_ts_tx_idx.298.820239335',
'+DATA/dbaprod/datafile/apps_ts_seed.259.820238493'

CHARACTER SET AL32UTF8

;

-- Configure RMAN configuration record 1

VARIABLE RECNO NUMBER;

EXECUTE :RECNO := SYS.DBMS_BACKUP_RESTORE.SETCONFIG('CONTROLFILE
AUTOBACKUP','ON');

-- Configure RMAN configuration record 2

VARIABLE RECNO NUMBER;

EXECUTE :RECNO := SYS.DBMS_BACKUP_RESTORE.SETCONFIG('DEVICE TYPE','DISK
PARALLELISM 5 BACKUP TYPE TO BACKUPSET');

-- Configure RMAN configuration record 3

VARIABLE RECNO NUMBER;

EXECUTE :RECNO := SYS.DBMS_BACKUP_RESTORE.SETCONFIG('MAXSETSIZE TO','2665 M');

-- Commands to re-create incarnation table

-- Below log names MUST be changed to existing filenames on

-- disk. Any one log file from each branch can be used to

-- re-create incarnation records.

-- ALTER DATABASE REGISTER LOGFILE '+DATA';

-- ALTER DATABASE REGISTER LOGFILE '+DATA';

-- Recovery is required if any of the datafiles are restored backups,

-- or if the last shutdown was not normal or immediate.

RECOVER DATABASE USING BACKUP CONTROLFILE

-- Create log files for threads other than thread one.

ALTER DATABASE ADD LOGFILE THREAD 2

GROUP 3 (

'+DATA/dbaprod/datafile/group_3.1.log',

```

```

'+DATA/dbaprod/datafile/group_3.2.log'
) SIZE 1000M BLOCKSIZE 512 REUSE,
GROUP 4 (
'+DATA/dbaprod/datafile/group_4.1.log',
'+DATA/dbaprod/datafile/group_4.2.log'
) SIZE 1000M BLOCKSIZE 512 REUSE,
GROUP 6 (
'+DATA/dbaprod/datafile/group_6.1.log',
'+DATA/dbaprod/datafile/group_6.2.log'
) SIZE 1000M BLOCKSIZE 512 REUSE,
GROUP 8 (
'+DATA/dbaprod/datafile/group_8.1.log',
'+DATA/dbaprod/datafile/group_8.2.log'
) SIZE 1000M BLOCKSIZE 512 REUSE;

-- Database can now be opened zeroing the online logs.

ALTER DATABASE OPEN RESETLOGS;

-- Commands to add tempfiles to temporary tablespaces.

-- Online tempfiles have complete space information.

-- Other tempfiles may require adjustment.

ALTER TABLESPACE TEMP1 ADD TEMPFILE '+DATA/dbaprod/tempfile/temp1.322.820239597'
      SIZE 1100M REUSE AUTOEXTEND ON NEXT 52428800  MAXSIZE 4096M;

ALTER TABLESPACE TEMP2 ADD TEMPFILE '+DATA/dbaprod/tempfile/temp2.323.820239599'
      SIZE 1024M REUSE AUTOEXTEND ON NEXT 52428800  MAXSIZE 4096M;

-- End of tempfile additions.

-----

-----更改为红色字体-----

CREATE CONTROLFILE REUSE SET DATABASE "DBAPROD" RESETLOGS NOARCHIVELOG
      MAXLOGFILES 32

```

MAXLOGMEMBERS 5
MAXDATAFILES 512
MAXINSTANCES 8
MAXLOGHISTORY 14607

LOGFILE

GROUP 1 (
 '+DATA/dbaprod/datafile/group_1.1.log',
 '+DATA/dbaprod/datafile/group_1.2.log'
) SIZE 1000M BLOCKSIZE 512,
GROUP 2 (
 '+DATA/dbaprod/datafile/group_2.1.log',
 '+DATA/dbaprod/datafile/group_2.2.log'
) SIZE 1000M BLOCKSIZE 512,
GROUP 5 (
 '+DATA/dbaprod/datafile/group_5.1.log',
 '+DATA/dbaprod/datafile/group_5.2.log'
) SIZE 1000M BLOCKSIZE 512,
GROUP 7 (
 '+DATA/dbaprod/datafile/group_7.1.log',
 '+DATA/dbaprod/datafile/group_7.2.log'
) SIZE 1000M BLOCKSIZE 512

-- STANDBY LOGFILE

DATAFILE

'+DATA/dbaprod/datafile/system.263.820238497',
'+DATA/dbaprod/datafile/system.276.820239043',
'+DATA/dbaprod/datafile/system.257.820238493',
'+DATA/dbaprod/datafile/system.282.820239077',
'+DATA/dbaprod/datafile/system.268.820238739',
'+DATA/dbaprod/datafile/ctxd.301.820239337',
'+DATA/dbaprod/datafile/owapub.303.820239339',

'+DATA/dbaprod/datafile/apps_ts_queues.290.820239303',
'+DATA/dbaprod/datafile/odm.296.820239325',
'+DATA/dbaprod/datafile/olap.302.820239339',
'+DATA/dbaprod/datafile/sysaux.272.820238861',
'+DATA/dbaprod/datafile/apps_ts_tools.286.820239143',
'+DATA/dbaprod/datafile/system.260.820238493',
'+DATA/dbaprod/datafile/apps_ts_tx_data.275.820238909',
'+DATA/dbaprod/datafile/apps_ts_tx_idx.262.820238497',
'+DATA/dbaprod/datafile/apps_ts_seed.281.820239063',
'+DATA/dbaprod/datafile/apps_ts_interface.295.820239323',
'+DATA/dbaprod/datafile/sysaux.288.820239247',
'+DATA/dbaprod/datafile/undotbs2.280.820239061',
'+DATA/dbaprod/datafile/tests.304.820239339',
'+DATA/dbaprod/datafile/tbs_test.297.820239325',
'+DATA/dbaprod/datafile/ccdata.299.820239337',
'+DATA/dbaprod/datafile/cux_data.266.820238499',
'+DATA/dbaprod/datafile/cux_idx.300.820239337',
'+DATA/dbaprod/datafile/system.291.820239319',
'+DATA/dbaprod/datafile/system.271.820238859',
'+DATA/dbaprod/datafile/portal.294.820239323',
'+DATA/dbaprod/datafile/system.279.820239061',
'+DATA/dbaprod/datafile/system.258.820238493',
'+DATA/dbaprod/datafile/system.284.820239141',
'+DATA/dbaprod/datafile/system.278.820239059',
'+DATA/dbaprod/datafile/apps_undots1.287.820239245',
'+DATA/dbaprod/datafile/apps_ts_tx_data.289.820239301',
'+DATA/dbaprod/datafile/apps_ts_tx_idx.277.820239045',
'+DATA/dbaprod/datafile/apps_ts_seed.273.820238863',
'+DATA/dbaprod/datafile/apps_ts_interface.270.820238845',
'+DATA/dbaprod/datafile/apps_ts_summary.264.820238499',


```
'+DATA/dbaprod/datafile/apps_ts_nologging.293.820239323',
'+DATA/dbaprod/datafile/apps_ts_archive.274.820238863',
'+DATA/dbaprod/datafile/apps_ts_queues.283.820239081',
'+DATA/dbaprod/datafile/apps_ts_media.269.820238843',
'+DATA/dbaprod/datafile/apps_ts_tx_data.292.820239321',
'+DATA/dbaprod/datafile/apps_ts_tx_data.267.820238739',
'+DATA/dbaprod/datafile/apps_ts_tx_idx.261.820238493',
'+DATA/dbaprod/datafile/apps_ts_tx_idx.265.820238499',
'+DATA/dbaprod/datafile/apps_ts_tx_idx.285.820239141',
'+DATA/dbaprod/datafile/apps_ts_tx_idx.298.820239335',
'+DATA/dbaprod/datafile/apps_ts_seed.259.820238493'
```

```
CHARACTER SET AL32UTF8
```

```
;
```

- (4) 将更改后的文件创建 SQL 脚本。
- (5) 更改数据库为单实例。

更改 pfile 的参数

```
cluster_database = false
```

- (6) 关闭数据库，然后启动数据库到 nomount 状态。

```
[oracle@erpdb1 oracle]$ sqlplus / as sysdba
```

```
SQL*Plus: Release 11.2.0.3.0 Production on Mon Jul 8 13:17:36 2013
```

```
Copyright (c) 1982, 2011, Oracle. All rights reserved.
```

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

```
SQL> startup nomount
```

```
ORACLE instance started.
```

```
Total System Global Area 1068937216 bytes
Fixed Size                2235208 bytes
Variable Size            427820216 bytes
Database Buffers        624951296 bytes
Redo Buffers             13930496 bytes
```

(7) 运行刚才创建的脚本。

```
SQL> startup nomount
```

```
ORACLE instance started.
```

```
Total System Global Area 1068937216 bytes
Fixed Size                2235208 bytes
Variable Size            432014520 bytes
Database Buffers        620756992 bytes
Redo Buffers             13930496 bytes
```

```
SQL> show parameter cluster
```

NAME	TYPE
-----	-----
VALUE	

cluster_database	boolean
FALSE	
cluster_database_instances	integer
1	
cluster_interconnects	string

```
SQL>
```

```
SQL>
```

```
SQL> @vi.sql
```

Control file created.

- (8) 加入第二个节点实例日志组。

```
SQL> ALTER DATABASE ADD LOGFILE THREAD 2
```

```
2   GROUP 3 (  
3     '+DATA/dbaprod/datafile/group_3.1.log',  
4     '+DATA/dbaprod/datafile/group_3.2.log'  
5   ) SIZE 1000M BLOCKSIZE 512 REUSE,  
6   GROUP 4 (  
7     '+DATA/dbaprod/datafile/group_4.1.log',  
8     '+DATA/dbaprod/datafile/group_4.2.log'  
9   ) SIZE 1000M BLOCKSIZE 512 REUSE,  
10  GROUP 6 (  
11   '+DATA/dbaprod/datafile/group_6.1.log',  
12   '+DATA/dbaprod/datafile/group_6.2.log'  
13  ) SIZE 1000M BLOCKSIZE 512 REUSE,  
14  GROUP 8 (  
15   '+DATA/dbaprod/datafile/group_8.1.log',  
16   '+DATA/dbaprod/datafile/group_8.2.log'  
17  ) SIZE 1000M BLOCKSIZE 512 REUSE;
```

Database altered.

- (9) 打开数据库。

```
SQL> ALTER DATABASE OPEN RESETLOGS;
```

Database altered.

```
SQL> ALTER TABLESPACE TEMP1   TEMPFILE '+DATA/dbaprod/tempfile/temp1.322.820239597'  
      SIZE 1100M REUSE AUTOEXTEND ON NEXT 52428800   MAXSIZE 4096M;
```

Tablespace altered.

```
SQL>      ALTER      TABLESPACE      TEMP2      ADD      TEMPFILE  
'+DATA/dbaprod/tempfile/temp2.323.820239599'
```

```
SIZE 1024M REUSE AUTOEXTEND ON NEXT 52428800 MAXSIZE 4096M;
```

Tablespace altered.

(10) 以上语句在 trace 中存在。

(11) 再次关闭数据库，更改 pfile 文件的参数 cluster_database = true。

(12) 再次打开数据库。

7、加入新创建的环境变量，然后运行 AutoConfig

```
[oracle@erpdb1 dbaprod1_erpdb1]$ adautocfg.sh
```

```
Enter the APPS user password:
```

8、在数据库第二个节点操作。

在第一个节点压缩 appsutil 并传到第二个节点解压。

```
[oracle@erpdb1 11.2.0]$ zip -r appsutil_node1.zip appsutil
```

```
[oracle@erpdb2 11.2.0]$ unzip -o appsutil_node1.zip
```

9、二节点更改 appsutils/clone/pairsfile.txt

事先在一节点查询二节点 UNDOTS 名称

```
SQL> select TABLESPACE_NAME from dba_tablespaces;
```

```
TABLESPACE_NAME
```

```
-----
```

```
SYSTEM
```

```
CTXD
```

```
OWAPUB
```

```
TEMP1
```

```
ODM
```

```
PORTAL
```

```
APPS_UNDOTS1
```

```
APPS_TS_TX_DATA
```

```
APPS_TS_TX_IDX
```

```
APPS_TS_SEED
```

```
APPS_TS_INTERFACE
```

```
TABLESPACE_NAME
-----
APPS_TS_SUMMARY
APPS_TS_NOLOGGING
APPS_TS_ARCHIVE
APPS_TS_QUEUES
APPS_TS_MEDIA
OLAP
SYSAUX
APPS_TS_TOOLS
TEMP2
UNDOTBS2
TESTS
```

```
TABLESPACE_NAME
-----
TBS_TEST
CCDATA
CUX_DATA
CUX_IDX
```

26 rows selected.

```
[oracle@erpdb2 clone]$ vi pairsfile.txt
```

```
s_undo_tablespace=UNDOTBS2
```

```
s_dbClusterInst=2
```

```
s_db_oh=/d01/prod/oracle/11.2.0
```

10、 Create a Context File for the Secondary Node

事前在一节点清空 clone 前的节点信息

```
SQL> exec fnd_conc_clone.setup_clean;
```

```
PL/SQL procedure successfully completed.
```

```
[oracle@erpdb1 dbaprod1_erpdb1]$ adautocfg.sh
```

```
SQL> select node_name from fnd_nodes;
```

```
NODE_NAME
```

```
-----
```

```
ERPDB1
```

开始生成还原二节点的 context 文件。

```
[oracle@erpdb2 bin]$ perl adclonectx.pl contextfile=/d01/prod/oracle/11.2.0/appsutil/dbaprod1_erpdb1.xml  
template=/d01/prod/oracle/11.2.0/appsutil/template/adxdbctx.tmp  
pairsfile=/d01/prod/oracle/11.2.0/appsutil/clone/pairsfile.txt addnode
```

Copyright (c) 2002 Oracle Corporation

Redwood Shores, California, USA

Oracle Applications Rapid Clone

Version 12.0.0

adclonectx Version 120.23.12010000.1

Running:

```
/d01/prod/oracle/11.2.0/appsutil/clone/bin/./jre/bin/java -Xmx600M -classpath  
/d01/prod/oracle/11.2.0/appsutil/clone/bin/./jlib/ojdbc5.jar:/d01/prod/oracle/11.2.0/appsutil/clone/bin/./jlib/xmlpar  
serv2.jar:/d01/prod/oracle/11.2.0/appsutil/clone/bin/./jlib/java oracle.apps.ad.context.CloneContext -e  
/d01/prod/oracle/11.2.0/appsutil/dbaprod1_erpdb1.xml -tpl  
/d01/prod/oracle/11.2.0/appsutil/template/adxdbctx.tmp -pairsfile  
/d01/prod/oracle/11.2.0/appsutil/clone/pairsfile.txt -addnode
```

Enter the APPS password : ExRAuCXc8UZr

Log file located at /d01/prod/oracle/11.2.0/apputil/clone/bin/CloneContext_0708141530.log

Provide the values required for creation of the new Database Context file.

Target System Hostname (virtual or normal) [erpdb2] : erpdb2

It is recommended that your inputs are validated by the program.

However you might choose not to validate them under following circumstances:

- If cloning a context on source system for a remote system.
- If cloning a context on a machine where the ports are taken and you do not want to shutdown the services at this point.
- If cloning a context but the database it needs to connect is not available.

Do you want the inputs to be validated (y/n) [n] ? : y

Target Instance is RAC (y/n) [y] : y

Please provide the details to connect to one of live RAC nodes

Host name of the live RAC node : erpdb1

Domain name of the live RAC node : dba.com

Database SID of the live RAC node : dbaprod1

Listener port number of the live RAC node : 1526

Provide information for the new Node:

Host name : erpdb2

Virtual Host name : erpdb2-vip

Instance number : 2

Private interconnect name : erpdb2-priv

Current Node:

Host Name : erpdb2

SID : dbaprod2

Instance Name : dbaprod2

Instance Number : 2

Instance Thread : 2

Undo Table Space:

Listener Port : 1526

Target System Base Directory : /d01/prod/oracle

Oracle OS User [oracle] :

Oracle OS Group [oinstall] :

Target System utl_file_dir Directory List : /d01/prod/oracle/temp

Number of DATA_TOP's on the Target System [4] : 1

Target System DATA_TOP Directory 1 : +DATA

Do you want to preserve the Display [erpdb1:0.0] (y/n) : n

Target System Display [erpdb2:0.0] :

Creating the new Database Context file from :

/d01/prod/oracle/11.2.0/appsutil/template/adxdbctx.tmp

The new database context file has been created :

/d01/prod/oracle/11.2.0/appsutil/dbaprod2_erpdb2.xml

Log file located at /d01/prod/oracle/11.2.0/appsutil/clone/bin/CloneContext_0708141530.log

contextfile=/d01/prod/oracle/11.2.0/appsutil/dbaprod2_erpdb2.xml

Check Clone Context logfile /d01/prod/oracle/11.2.0/appsutil/clone/bin/CloneContext_0708141530.log for details.

11、 Configure NEW ORACLE_HOME

```
[oracle@erpdb2 bin]$ perl adcfgclone.pl dbTechStack /d01/prod/oracle/11.2.0/appsutil/dbaprod2_erpdb2.xml
```

完成之后会报状态：1 的错误，属于正常情况，在以下目录运行以下语句启动监听。

```
[oracle@erpdb2 dbaprod2_erpdb2]$ pwd
```

```
/d01/prod/oracle/11.2.0/appsutil/scripts/dbaprod2_erpdb2
```

```
[oracle@erpdb2 dbaprod2_erpdb2]$ ./addlnctl.sh start prod
```

12、 应用环境变量文件。

```
[oracle@erpdb2 11.2.0]$ ./dbaprod2_erpdb2.env
```

13、 Modify [SID]_APPS_BASE.ora 的控制文件

如果与一节点一致，就不用修改。

Edit the [SID]_APPS_BASE.ora file and change the control file parameter to reflect the correct control file location on the shared storage. This will be the same value as in the [SID]_APPS_BASE.ora on the target system primary node which was just created.

- 14、 二节点启动数据库，然后检查数据库实例 ID 是否一致。

```
SQL> select inst_id from gv$instance;
```

```
INST_ID
-----
      2
      1
```

- 15、 修改一/二节点的 CONTEXT_FILE 文件。

```
<DB_LISTENER oa_var="s_db_listener">DBAPROD</DB_LISTENER>
```

- 16、 首先在二节点运行 autoconfig。

```
[oracle@erpdb2 dbaprod2_erpdb2]$ adautocfg.sh
```

Enter the APPS user password:

```
The log file for this session is located at:
/d01/prod/oracle/11.2.0/appstutil/log/dbaprod2_erpdb2/07081441/adconfig.log
```

AutoConfig is configuring the Database environment...

AutoConfig will consider the custom templates if present.

```
Using ORACLE_HOME location : /d01/prod/oracle/11.2.0
```

```
Classpath : ./d01/prod/oracle/11.2.0/jdbc/lib/ojdbc5.jar:/d01/prod/oracle/11.2.0/appstutil/java
/xmlparserv2.jar:/d01/prod/oracle/11.2.0/appstutil/java:/d01/prod/oracle/11.2.0/jlib/netcfg.jar:/d01/prod/oracle/11.2.
0/jlib/ldapjclnt11.jar
```

```
Using Context file : /d01/prod/oracle/11.2.0/appstutil/dbaprod2_erpdb2.xml
```

Context Value Management will now update the Context file

```
Updating Context file...COMPLETED
```

Attempting upload of Context file and templates to database...COMPLETED

Updating rdbms version in Context file to db112

Updating rdbms type in Context file to 64 bits

Configuring templates from ORACLE_HOME ...

AutoConfig completed successfully.

17、 再到一节点运行 autoconfig。

```
[oracle@erpdb1 dbaprod1_erpdb1]$ adautocfg.sh
```

18、 再次在二节点运行 autoconfig。

```
[oracle@erpdb2 dbaprod2_erpdb2]$ adautocfg.sh
```

19、 检查两个节点的 listener.ora tnsnames.ora 是否正确。

20、 检查数据库是否正常能够启动。

应用层操作:

- 1、将两个应用节点的 inst 文件夹移除。

```
[applmgr@erpap1 comn]$ cd /d01/orig/prod/applmgr
```

```
[applmgr@erpap1 applmgr]$ ls
```

```
applsfc  apps  inst
```

```
[applmgr@erpap1 applmgr]$ mv inst/ inst_OLD
```

- 2、在一节点运行 clone 还原

```
[applmgr@erpap1 applmgr]$ unset CLASSPATH
```

```
[applmgr@erpap1 applmgr]$ cd /d01/orig/prod/applmgr/apps/apps_st/comn/clone/bin
```

```
[applmgr@erpap1 bin]$ perl adcfgclone.pl appsTier
```

Copyright (c) 2002 Oracle Corporation

Redwood Shores, California, USA

Oracle Applications Rapid Clone

Version 12.0.0

adcfgclone Version 120.31.12010000.8

Enter the APPS password :

Running:

```
/d01/orig/prod/applmgr/apps/apps_st/comn/clone/bin/./jre/bin/java -Xmx600M -cp
/d01/orig/prod/applmgr/apps/apps_st/comn/clone/jlib/java:/d01/orig/prod/applmgr/apps/apps_st/comn/clone/jlib/x
mlparserv2.jar:/d01/orig/prod/applmgr/apps/apps_st/comn/clone/jlib/ojdbc14.jar
oracle.apps.ad.context.CloneContext -e
/d01/orig/prod/applmgr/apps/apps_st/comn/clone/bin/./context/apps/CTXORIG.xml -validate -pairsfile
/tmp/adpairsfile_20867.lst -stage /d01/orig/prod/applmgr/apps/apps_st/comn/clone 2> /tmp/adcfgclone_20867.err;
echo $? > /tmp/adcfgclone_20867.res
```

Log file located at /d01/orig/prod/applmgr/apps/apps_st/conn/clone/bin/CloneContext_0708145740.log

Provide the values required for creation of the new APPL_TOP Context file.

Target System Hostname (virtual or normal) [erpap1] :

Target System Database SID : dbaprod1

Target System Database Server Node [erpap1] : erpdb1

Target System Database Domain Name [dba.com] : dba.com

Target System Base Directory : /d01/orig/prod/applmgr

Target System Tools ORACLE_HOME Directory [/d01/orig/prod/applmgr/apps/tech_st/10.1.2] :

Target System Web ORACLE_HOME Directory [/d01/orig/prod/applmgr/apps/tech_st/10.1.3] :

Target System APPL_TOP Directory [/d01/orig/prod/applmgr/apps/apps_st/appl] :

Target System COMMON_TOP Directory [/d01/orig/prod/applmgr/apps/apps_st/conn] :

Target System Instance Home Directory [/d01/orig/prod/applmgr/inst] :

Target System Root Service [enabled] :

Target System Web Entry Point Services [enabled] :

Target System Web Application Services [enabled] :

Target System Batch Processing Services [enabled] :

Target System Other Services [disabled] :

Do you want to preserve the Display [ebsap2:0.0] (y/n) : n

Target System Display [erpap1:0.0] :

Do you want the the target system to have the same port values as the source system (y/n) [y] ? : n

Target System Port Pool [0-99] : 5

Checking the port pool 5

done: Port Pool 5 is free

Report file located at /d01/orig/prod/applmgr/inst/apps/dbaprod1_erpap1/admin/out/portpool.lst

Complete port information available at /d01/orig/prod/applmgr/inst/apps/dbaprod1_erpap1/admin/out/portpool.lst

UTL_FILE_DIR on database tier consists of the following directories.

1. /usr/tmp
2. /d01/prod/oracle/temp
3. /d01/prod/oracle/11.2.0/apputil/outbound/dbaprod1_erpdb1
4. /usr/tmp

Choose a value which will be set as APPLPTMP value on the target node [1] : 2

Do you want to reset custom variable settings(y/n) [n] : y

Value for c_calmtop[/d01/orig/prod/applmgr/apps/apps_st/appl/calm/12.0.0] :

3、在二节点运行 clone 还原。

```
[applmgr@erpap2 applmgr]$ unset CLASSPATH
```

```
[applmgr@erpap2 applmgr]$ cd /d01/orig/prod/applmgr/apps/apps_st/conn/clone/bin
```

```
[applmgr@erpap2 bin]$ perl adcfgclone.pl appsTier
```

Copyright (c) 2002 Oracle Corporation

Redwood Shores, California, USA

Oracle Applications Rapid Clone

Version 12.0.0

adcfgclone Version 120.31.12010000.8

Enter the APPS password :

Running:

```
/d01/orig/prod/applmgr/apps/apps_st/conn/clone/bin/./jre/bin/java -Xmx600M -cp  
/d01/orig/prod/applmgr/apps/apps_st/conn/clone/jlib/java:/d01/orig/prod/applmgr/apps/apps_st/conn/clone/jlib/x  
mlparserv2.jar:/d01/orig/prod/applmgr/apps/apps_st/conn/clone/jlib/ojdbc14.jar  
oracle.apps.ad.context.CloneContext -e  
/d01/orig/prod/applmgr/apps/apps_st/conn/clone/bin/./context/apps/CTXORIG.xml -validate -pairsfile  
/tmp/adpairsfile_9003.lst -stage /d01/orig/prod/applmgr/apps/apps_st/conn/clone 2> /tmp/adcfgclone_9003.err;  
echo $? > /tmp/adcfgclone_9003.res
```

Log file located at /d01/orig/prod/applmgr/apps/apps_st/conn/clone/bin/CloneContext_0708153010.log

Provide the values required for creation of the new APPL_TOP Context file.

Target System Hostname (virtual or normal) [erpap2] :

Target System Database SID : dbaprod1

Target System Database Server Node [erpap2] : erpdb1

Target System Database Domain Name [dba.com] : dba.com

Target System Base Directory : /d01/orig/prod/applmgr

Target System Tools ORACLE_HOME Directory [/d01/orig/prod/applmgr/apps/tech_st/10.1.2] :

Target System Web ORACLE_HOME Directory [/d01/orig/prod/applmgr/apps/tech_st/10.1.3] :

Target System APPL_TOP Directory [/d01/orig/prod/applmgr/apps/apps_st/appl] :

Target System COMMON_TOP Directory [/d01/orig/prod/applmgr/apps/apps_st/comm] :

Target System Instance Home Directory [/d01/orig/prod/applmgr/inst] :

Target System Root Service [enabled] :

Target System Web Entry Point Services [enabled] :

Target System Web Application Services [enabled] :

Target System Batch Processing Services [enabled] :

Target System Other Services [disabled] :

Do you want to preserve the Display [ebsap2:0.0] (y/n) : n

Target System Display [erpap2:0.0] :

Do you want the the target system to have the same port values as the source system (y/n) [y] ? : n

Target System Port Pool [0-99] : 5

Checking the port pool 5

done: Port Pool 5 is free

Report file located at /d01/orig/prod/applmgr/inst/apps/dbaprod1_erpap2/admin/out/portpool.lst

Complete port information available at /d01/orig/prod/applmgr/inst/apps/dbaprod1_erpap2/admin/out/portpool.lst

UTL_FILE_DIR on database tier consists of the following directories.

1. /usr/tmp
2. /d01/prod/oracle/temp
3. /d01/prod/oracle/11.2.0/appsutil/outbound/dbaprod1_erpdb1
4. /usr/tmp

Choose a value which will be set as APPLPTMP value on the target node [1] : 2

Do you want to reset custom variable settings(y/n) [n] : y

Value for c_calmtop[/d01/orig/prod/applmgr/apps/apps_st/appl/calm/12.0.0] :

- 4、在两个节点给 applmgr 用户的环境变量加入 env 文件指向。
- 5、检查两个节点的 \$TNS_ADMIN 下 tnsnames.ora 内容是否正确。是否有指向 RAC。
- 6、然后两个节点分别 autofig

RAC 注册 db

1、 spfile 创建 pfile。

2、 如下修改 pfile。

```
*._b_tree_bitmap_plans=FALSE# Required 11i setting
*._fast_full_scan_enabled=FALSE
*._like_with_bind_as_equality=TRUE
*._optimizer_autostats_job=false# Turning off auto statistics
*._sort_elimination_cost_ratio=5
*._system_trig_enabled=true
*._TRACE_FILES_PUBLIC=FALSE
*.aq_tm_processes=1
*.AUDIT_SYS_OPERATIONS=TRUE
*.cluster_database=true
*.cluster_database_instances=2
*.compatible='11.2.0'
*.control_files='+DATA/cntrl01.dbf','+DATA/cntrl02.dbf','+DATA/cntrl03.dbf'
*.cursor_sharing='EXACT'# Required 11i setting
*.db_block_checking='FALSE'
*.db_block_checksum='TRUE'
*.db_block_size=8192
*.db_files=512# Max. no. of database files
*.db_name='dbaprod'
dbaprod1.diagnostic_dest='/d01/prod/oracle/11.2.0/admin/dbaprod1_erpdb1'
dbaprod2.diagnostic_dest='/d01/prod/oracle/11.2.0/admin/dbaprod2_erpdb2'
*.dml_locks=10000
dbaprod1.instance_name='dbaprod1'
dbaprod2.instance_name='dbaprod2'
dbaprod1.instance_number=1
```

dbaprod2.instance_number=2

*.job_queue_processes=2

dbaprod1.local_listener='dbaprod1_LOCAL'

dbaprod2.local_listener='dbaprod2_LOCAL'

*.log_archive_dest_1='LOCATION=+DATA/archive'

*.log_archive_format='%t_%s_%r.dbf'

*.log_buffer=10485760

*.log_checkpoint_interval=100000

*.log_checkpoint_timeout=1200# Checkpoint at least every 20 mins.

*.log_checkpoints_to_alert=TRUE

*.max_dump_file_size='20480'# trace file size

*.nls_comp='binary'# Required 11i setting

*.nls_date_format='DD-MON-RR'

*.nls_length_semantics='BYTE'# Required 11i setting

*.nls_numeric_characters=',.'

*.nls_sort='binary'# Required 11i setting

*.nls_territory='america'

*.o7_dictionary_accessibility=FALSE#MP

*.olap_page_pool_size=4194304

*.open_cursors=600# Consumes process memory, unless using MTS.

*.optimizer_secure_view_merging=false

*.OS_AUTHENT_PREFIX=""

*.parallel_max_servers=8

*.parallel_min_servers=0

*.pga_aggregate_target=1G

*.plsql_code_type='INTERPRETED'# Default 11i setting

*.plsql_optimize_level=2# Required 11i setting

*.processes=400# Max. no. of users x 2

*.remote_listener='dbaprod_REMOTE'

*.sec_case_sensitive_logon=FALSE

*.service_names='dbaprod'

*.session_cached_cursors=500

*.sessions=400# 2 X processes

*.sga_target=4G

*.shared_pool_reserved_size=40M

*.shared_pool_size=400M

*.SQL92_SECURITY=TRUE

dbaprod1.thread=1

dbaprod2.thread=2

*.undo_management='AUTO'# Required 11i setting

dbaprod1.undo_tablespace='APPS_UNDOTS1'# Required 11i setting

dbaprod2.undo_tablespace='UNDOTBS2'

*.utl_file_dir='/usr/tmp', '/d01/prod/oracle/temp'

*.workarea_size_policy='AUTO'# Required 11i setting

- 3、用修改的 pfile 创建 ASM spfile。

```
SQL> create spfile='+DATA/spfiledbaprod.ora' from pfile='/d01/prod/oracle/11.2.0/dbs/pfile_dbaprod.ora';
```

- 4、分别在两个节点停止数据库。

- 5、在一节点删除 spfile

```
[oracle@erpdb1 dbs]$ rm -rf spfiledbaprod1.ora
```

```
[oracle@erpdb1 dbs]$ cp initdbaprod1.ora initdbaprod1.ora.back
```

```
[oracle@erpdb1 dbs]$ >initdbaprod1.ora
```

```
[oracle@erpdb1 dbs]$ vi initdbaprod1.ora
```

```
spfile='+DATA/spfiledbaprod.ora'
```

- 6、在一节点启动数据库。

```
[oracle@erpdb1 dbs]$ sqlplus / as sysdba
```

```
SQL*Plus: Release 11.2.0.3.0 Production on Mon Jul 8 16:11:53 2013
```

```
Copyright (c) 1982, 2011, Oracle. All rights reserved.
```

Connected to an idle instance.

SQL> startup nomount

ORACLE instance started.

Total System Global Area 4275781632 bytes

Fixed Size 2235208 bytes

Variable Size 671089848 bytes

Database Buffers 3590324224 bytes

Redo Buffers 12132352 bytes

SQL> show parameter pfile

NAME	TYPE

VALUE	

spfile	string
+DATA/spfiledbaprod.ora	

7、在二节点如下操作。

```
[oracle@erpdb2 dbs]$ cp initdbaprod2.ora initdbaprod2.ora.back
```

```
[oracle@erpdb2 dbs]$ >initdbaprod2.ora
```

```
[oracle@erpdb2 dbs]$ vi initdbaprod2.ora
```

```
spfile='+DATA/spfiledbaprod.ora'
```

```
[oracle@erpdb2 dbs]$ sqlplus / as sysdba
```

SQL*Plus: Release 11.2.0.3.0 Production on Mon Jul 8 16:15:15 2013

Copyright (c) 1982, 2011, Oracle. All rights reserved.

Connected to an idle instance.

```
SQL> startup nomount
```

ORACLE instance started.

Total System Global Area 4275781632 bytes

Fixed Size 2235208 bytes

Variable Size 671089848 bytes

Database Buffers 3590324224 bytes

Redo Buffers 12132352 bytes

```
SQL> show parameter pfile
```

NAME	TYPE

VALUE	

spfile	string
+DATA/spfiledbaprod.ora	

8、在两个节点分别启动数据库。

9、在一节点注册 CRS

```
[oracle@erpdb1 dbs]$ srvctl add database -d dbaprod -o $ORACLE_HOME -p +DATA/spfiledbaprod.ora
```

```
[oracle@erpdb1 dbs]$ srvctl add instance -d dbaprod -i dbaprod1 -n erpdb1
```

```
[oracle@erpdb1 dbs]$ srvctl add instance -d dbaprod -i dbaprod2 -n erpdb2
```

10、重启数据库和监听。

11、启动应用。

SHOUG 成员 – 王川



王川 重庆长安铃木汽车有限公司 – 高级 IT 主管

10 年合资企业工作经验，5 年 IT 开发经验

- EBS 系统 IT 项目组主管，负责项目管理 (INV/MRP/PO/AP/AR)。
- 公司系统运维、ORACLE 数据库 DBA , EBS 系统 DBA (安装、日常维护、补丁安装)。
- W - MES 系统项目管理。
- biec 系统实施，负责技术团队