**How to setup a new live database on ASM 3Par**

**As root:**

lvcreate db02vg -n PRDTRD02DATA01 -L 300g

lvrename db02vg PRDTRD02DATA01 PRDTRD11DATA01

lvcreate db02vg -n PRDTRD11REDO01 -L 20g

lvcreate db02vg -n PRDTRD11REDO02 -L 20g

(PRD)[root@ld8prdsrv-db02 ~]# lvs

LV VG Attr LSize Pool Origin Data% Meta% Move Log Cpy%Sync Convert

backvol backvg -wi-ao---- 1.46t

PRDTRD11DATA01 db02vg -wi-a----- 300.00g

PRDTRD11REDO01 db02vg -wi-a----- 20.00g

PRDTRD11REDO02 db02vg -wi-a----- 20.00g

SUPEQD02DATA01 db02vg -wi-ao---- 1.17t

SUPEQD02REDO01 db02vg -wi-ao---- 20.00g

SUPEQD02REDO02 db02vg -wi-ao---- 20.00g

TSTDB02DATA db02vg -wi-ao---- 200.00g

lvcreate db02vg -n prdtradssuite -L 50g

mkfs.ext4 /dev/db02vg/prdtradssuite

cd /opt/contexts

mkdir prd-trads

mount /dev/db02vg/prdtradssuite /opt/contexts/prd-trads

chown oracle:oinstall prd-trads

cd prd-trads

mkdir splex

chown splex:splex splex

chmod g+w splex

mkdir tfs

chown tfsdata:tfsdata tfs

chmod g+w,g+s tfs

cd /tfs

ln -s /opt/contexts/prd-trads/tfs prd-trads

vi /etc/fstab

/dev/db02vg/prdtradssuite /opt/contexts/prd-trads ext4 defaults,noatime,async,\_netdev 0 0

**As oragrid:**

(PRD)[oragrid@ld8prdsrv-db02 ~]$ asmcmd

ASMCMD> lsdg

State Type Rebal Sector Block AU Total\_MB Free\_MB Req\_mir\_free\_MB Usable\_file\_MB Offline\_disks Voting\_files Name

MOUNTED EXTERN N 512 4096 4194304 1228800 390964 0 390964 0 N SUPEQD02\_DATA01/

MOUNTED EXTERN N 512 4096 1048576 20480 17173 0 17173 0 N SUPEQD02\_REDO01/

MOUNTED EXTERN N 512 4096 1048576 20480 17173 0 17173 0 N SUPEQD02\_REDO02/

MOUNTED EXTERN N 512 4096 1048576 204800 41181 0 41181 0 N TSTDB02DATA01/

We need to:

Create ASM disks

Create ASM disk groups

**As oracle:**

cd scripts

./GenerateDbBuildScripts.sh

Supply 3 parameters, e.g: 1st Param is the context (i.e. directory name), 2nd is ORACLE\_SID and 3rd is the ASM data file size in Gigabytes (choose any number for this third parameter on 3Par)

./GenerateDbBuildScripts.sh prd-trads PRDTRD11 10

Build scripts are in: /opt/contexts/prd-trads/oracle/admin/PRDTRD11/build

cd /opt/contexts/prd-trads/oracle/admin/PRDTRD11/build

cat BuildDB\_ForClone.sh

vi /etc/oratab

(add the PRDTRD11 database in there)

chmod u+x BuildDB\_ForClone.sh

./BuildDB\_ForClone.sh

(the SYS password will need to be the same as the source database – for cloning)

cat createASMDiskGroups.sql

(so we can see the ASM disk names which will be used above – as oragrid) e.g.:

CREATE DISKGROUP PRDTRD11\_DATA01 EXTERNAL REDUNDANCY

DISK 'ORCL:PRDTRD11\_DATA01'

ATTRIBUTE

'au\_size'='4M',

'compatible.asm'='11.2',

'compatible.rdbms'='11.2';

CREATE DISKGROUP PRDTRD11\_redo01

EXTERNAL REDUNDANCY

DISK 'ORCL:PRDTRD11\_REDO01'

ATTRIBUTE

'au\_size'='1M',

'compatible.asm'='11.2',

'compatible.rdbms'='11.2';

CREATE DISKGROUP PRDTRD11\_redo02

EXTERNAL REDUNDANCY

DISK 'ORCL:PRDTRD11\_REDO02'

ATTRIBUTE

'au\_size'='1M',

'compatible.asm'='11.2',

'compatible.rdbms'='11.2';

**Now back as oragrid:**

asmcmd

ASMCMD> lsdsk

Path

ORCL:SUPEQD02\_DATA01

ORCL:SUPEQD02\_REDO01

ORCL:SUPEQD02\_REDO02

ORCL:TSTDB02\_DATA01

exit

We are going to create the disks:

ll /dev/db02vg/\*

Note: PRDTRD11\_DATA01 is from the createASMDiskGroups.sql above

Note: the device from ll /dev/db02vg/\*

sudo /etc/init.d/oracleasm createdisk PRDTRD11\_DATA01 /dev/db02vg/PRDTRD11DATA01

sudo /etc/init.d/oracleasm createdisk PRDTRD11\_REDO01 /dev/db02vg/PRDTRD11REDO01

sudo /etc/init.d/oracleasm createdisk PRDTRD11\_REDO02 /dev/db02vg/PRDTRD11REDO02

cd sql

sqlasm (this is an alias)

@/opt/contexts/prd-trads/oracle/admin/PRDTRD11/build/createASMDiskGroups.sql

To show the results:

@GetASMdiskgroups.sql

@GetASMdisks.sql

**Now to clone the prd-trads.**

Lets start up the listener on the target.

**As oragrid:**

lsnrctl status to get the location of the listener.ora file

Add a new SID DESC

And reload the listener

**As oracle:**

cd $TNS\_ADMIN

vi tnsnames.ora

add new database with hostname

**On Source database as oracle:**

cd $TNS\_ADMIN

vi tnsnames.ora

add new database with hostname

**On Source database as splex:**

Now become splex on the source so we can setup capture.

As splex:

cd ~/env

choose a new port (not needed for firewall yet) – see shareplex manager for a free one

copy pre-existing env

cp PRDTRD01\_splex\_2128.env PRDTRD01\_splex\_2138.env

change the ports and possibly SP\_SYS\_PRODDIR for new version of splex e.g. export SP\_SYS\_PRODDIR=/opt/splex/app/splex\_9.1

now make file u+x

and set the env

. PRDTRD01\_splex\_2138.env

cdspbin

now run ora\_setup

./ora\_setup

Follow instructions in S:\QuestTools\SharePlex\9.1.3\Shareplex\_Install\_version\_9.3.docx

Note: the empty folder structure for SP\_SYS\_VARDIR=/opt/contexts/prd-trads/splex/var\_2138 you may need to get this from another server. In prd-trads we did this to get a copy: tar -cf var\_2138\_empty\_9.1.tar var\_2138

Now go to: cd /opt/contexts/prd-trads/splex

And copy an existing var\_????/config/ PRDTRD01\_config\_20180928\_01 to the new var\_???? folder

vi new config file and check contents. Especially the destination: Last parameter, we changed to: [ld8prdsrv-db02@o.PRDTRD11](mailto:ld8prdsrv-db02@o.PRDTRD11)

In folder: cd /opt/contexts/prd-trads/splex/admin

the actual env files should exist. If actual file is in ~/env file then move actual file to /opt/contexts/prd-trads/splex/admin and create a symbolic link. Now in admin folder:

cp PRDTRD01\_splex\_2138.env PRDTRD01\_splex\_start\_2138.sh

i.e. create the start script. vi this script and uncomment the last line (./sp\_cop -u${SP\_COP\_TPORT}\_${ORACLE\_SID} &)

cd ~/start

ln –s /opt/contexts/prd-trads/splex/admin/PRDTRD01\_splex\_start\_2138.sh

to create a link to the start file.

These files are used by ~/scripts/start\* and shut\*

Now start sp\_cop by

cd ~/start

./PRDTRD01\_splex\_start\_2138.sh

Hit enter

cop

shows you the sp\_cop instances running.

Now cdspbin

./sp\_ctrl

status (cop and cmd&ctrl should be running)

list config (should show two configs – both inactive)

verify config PRDTRD01\_config\_20181001\_01

activate config PRDTRD01\_config\_20181001\_01 nolock

(only use the “nolock” option for this type as we are now about to export/copy the database).

Also:

stop export

so it does not continue to ping the unavailable destination.

**Now go back onto the target as oracle:**

. ~/setenv for new database

ll $ORACLE\_HOME/dbs

to get the actual full path file

sqlsys (an alias)

create spfile='/opt/contexts/prd-trads/oracle/admin/PRDTRD11/pfile/spfilePRDTRD11.ora' from pfile;

startup nomount

exit

cd ~/alertlogs

create a symbolic link to the alert log (this is just for ease of use to find it in future)

cd /opt/contexts/prd-trads/oracle/admin/PRDTRD11/build

rman target SYS/<sys password>@PRDTRD01 auxiliary SYS/<sys password, must match “target”>@PRDTRD11

**The target is the original database**

**The auxiliary is the new database to be created.**

Then:

@Duplicate\_PRDTRD01\_to\_PRDTRD11.rman

exit

Make sure the output is spooled to file (it should do it by default). Then at the end find the all important scn: grep scn /opt/contexts/prd-trads/oracle/admin/PRDTRD11/build/Duplicate\_PRDTRD01\_to\_PRDTRD11\_00.out

**Now setup splex on the target (i.e. the database you have just created)**

**As splex:**

cd /opt/contexts/prd-trads/splex/

mkdir admin

cd admin

vi PRDTRD11\_splex\_2138.env

Be careful to check what the SP\_SYS\_HOST\_NAME, ORACLE\_SID and SPLEX\_ORACLE\_ACOUNT are set to

cd ~/env

ln -s /opt/contexts/prd-trads/splex/admin/PRDTRD11\_splex\_2138.env

cd /opt/contexts/prd-trads/splex/admin

cp PRDTRD11\_splex\_2138.env PRDTRD11\_splex\_2138\_start.sh

vi PRDTRD11\_splex\_2138\_start.sh

and uncomment the last line

cd ~/start

ln -s /opt/contexts/prd-trads/splex/admin/PRDTRD11\_splex\_2138\_start.sh

Now set the environment:

. ~/env/PRDTRD11\_splex\_2138.env

You will get an error: -bash: cd: /opt/splex/app/splex\_9.1/bin: No such file or directory

cd ~/app/software/SharePlex/9.1.3/b38/

Now follow instructions in S:\QuestTools\SharePlex\9.1.3\Shareplex\_Install\_version\_9.3.docx

To run the tpm file. i.e. get the tar file, untar it and then run the .tpm file

Once this has installed then reapply the environment (which should work without error)

. ~/env/PRDTRD11\_splex\_2138.env

cdspbin

**As oracle:**

This is a target database and new as well. Copied from an existing database with perhaps a different version of splex installed. So let us delete all the existing splex users:

sqlsys

select username from all\_users where username like '%SPLEX%';

drop user <splex username> cascade;

exit

**As splex:**

From above

. ~/env/PRDTRD11\_splex\_2138.env

cdspbin

Now run ora\_setup to create the splex oracle user (using a bequeath connection)

The user will be “SPLEX” because this is the target this should match SPLEX\_ORACLE\_ACOUNT in the spenv

./ora\_setup

There are instructions in S:\QuestTools\SharePlex\9.1.3\Shareplex\_Install\_version\_9.3.docx to assist

Now we want to start cop, stop post, set the params, start export (on source), and then reconcile before we start post.

cd /opt/contexts/prd-trads/splex/admin/

./PRDTRD11\_splex\_2138\_start.sh

Hit enter to get back to command prompt

cdspbin

./sp\_ctrl

stop post

stop post

This should error, but at least it confirms post is not working.

**Now as splex on source database:**

In sp\_ctrl

start export

**Back as splex on target database:**

In sp\_ctrl set the parameters, as these may be needed in the future when it is a source database

set param SP\_XPT\_KEEPALIVE 1

set param SP\_SYS\_SPM\_UNIX\_TIME 1

set param SP\_OCT\_REPLICATE\_SEQUENCES 0

sp\_ctrl (ld8prdsrv-db02:2138)> qstatus

Queues Statistics for ld8prdsrv-db02

Name: prd-trads-sp1 (o.PRDTRD01-o.PRDTRD11) (Post queue)

Number of messages: 824739 (Age 0 min; Size 1269 mb)

Backlog (messages): 824739 (Age 0 min)

sp\_ctrl (ld8prdsrv-db02:2138)> help reconcile

Resynchronize ongoing replication with results of a hot backup/copy;

Post process must be stopped; use according to documented SharePlex procedure.

Usage: reconcile queue quename for datasrc-datadst

[seq number] [scn number] [lsn number] [to flush] [on host]

reconcile queue prd-trads-sp1 for o.PRDTRD01-o.PRDTRD11 scn 110975279520

start post

exit