Performing a switchover

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# Performing a switchover

* This document is based on a switchover from SERVCDW\_P running as primary on hou-db01.hou.Nokia.no in Houston

To Calgary on SCSTGDG running as standby.

## **Preparatory Checks**

* **Verifying That the Standby Has Received all Redo:**

Perform these select on primary database

* SYS at SERVCDW\_P >select db\_unique\_name,protection\_mode,synchronization\_status,synchronized from v$archive\_dest\_status where db\_unique\_name != 'NONE';

DB\_UNIQUE\_NAME PROTECTION\_MODE SYNCHRONIZATION\_STATUS SYN

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SERVCDW MAXIMUM PERFORMANCE CHECK CONFIGURATION **NO**

Since we are running in MAXIMUM PERFORMANCE and synchronized is NO hence need to do

Some additional checks

**Check both sites parameters must be same especially archive parameters.**

## **On target standby database:**

* SYS at SCSTGDG >select client\_process,process,sequence#,status from v$managed\_standby;

CLIENT\_P PROCESS SEQUENCE# STATUS

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ARCH ARCH 14 CLOSING

ARCH ARCH 0 CONNECTED

ARCH ARCH 13 CLOSING

ARCH ARCH 11 CLOSING

ARCH ARCH 0 CONNECTED

**LGWR RFS 15 IDLE**

N/A MRP0 15 APPLYING\_LOG

ARCH RFS 0 IDLE

UNKNOWN RFS 0 IDLE

UNKNOWN RFS 0 IDLE

10 rows selected.

* The output from this command will show you the current sequence that the primary is sending,

As evidenced by the CLIENT\_PROCESS equal to LGWR, which is sequence 15 in our case.

## **Check the log status on primary:**

* SYS at SERVCDW >select thread#, sequence#, status from v$log;

THREAD# SEQUENCE# STATUS

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1 13 INACTIVE

1 14 INACTIVE

1. **15 CURRENT**

If the standby is not receiving the current redo, you cannot switchover;

## **Checking That the Apply is Caught Up**

The redo stream is current.

* **Check that redo has been applied to the standby;**

In case of physical standby we will set MRP0 line in the V$MANAGED\_STANDBY query like so:

LGWR RFS 15 IDLE

N/A MRP0 15 APPLYING\_LOG

Check that the MRP0 line is shown and with status APPLYING\_LOG. If status is

WAIT\_FOR\_GAP and WAIT\_FOR\_LOG you can’t switch over

## **Cancelling Jobs and Backups.**

Finally cancel all jobs on primary and Standby sites.

Find RMAN jobs

* SYS at SERVCDW >select process,operation,r.status,mbytes\_processed pct,s.status from v$rman\_status r, v$session s where r.sid=s.sid;
* select 'execute dbms\_scheduler.disable('||''''||owner||'.'||job\_name||''''||');' from dba\_scheduler\_jobs where enabled='TRUE';

PROCESS OPERATION STATUS PCT STATUS

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31718 BACKUP RUNNING 0 INACTIVE

31718 RMAN RUNNING 0 INACTIVE

SQL> select 'execute dbms\_scheduler.disable('||''''||owner||'.'||job\_name||''''||');' from dba\_scheduler\_jobs where enabled='TRUE';

'EXECUTEDBMS\_SCHEDULER.DISABLE('||''''||OWNER||'.'||JOB\_NAME||''''||');'

--------------------------------------------------------------------------------

execute dbms\_scheduler.disable('SYS.PURGE\_LOG');

execute dbms\_scheduler.disable('SYS.ORA$AUTOTASK\_CLEAN');

execute dbms\_scheduler.disable('SYS.DRA\_REEVALUATE\_OPEN\_FAILURES');

execute dbms\_scheduler.disable('SYS.BSLN\_MAINTAIN\_STATS\_JOB');

execute dbms\_scheduler.disable('SYS.RSE$CLEAN\_RECOVERABLE\_SCRIPT');

**Either cancel the job or wait until it has finished**

# **Switching over to Physical Standby**

## **Check SWITCHOVER\_STATUS in V$database on primary**

* SYS at SERVCDW >select switchover\_status from V$database;

SWITCHOVER\_STATUS

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TO STANDBY

If status is SESSIONS ACTIVE to the following query to find which sessions are active and fill it:

* SYS at SERVCDW >select program,type from v$session where type = 'USER';

PROGRAM TYPE

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sqlplus@fih5ex1dbadm01 (TNS V1-V3) USER

* When switchover status is “TO STANDBY” we can execute the switch over command
* SYS at SERVCDW >alter database commit to switchover to physical standby with session shutdown;

Database altered.

## **Check the alert log and see if you can see the lines**

*Switchover: Complete - Database shutdown required*

*Completed: alter database commit to switchover to physical standby with session shutdown*

## **Check the alert file on standby:**

*Identified End-Of-Redo (switchover) for thread 1 sequence 17 at SCN 0x9e0.dd0db417*

*Resetting standby activation ID 1660818583 (0x62fe1497)*

*Media Recovery End-Of-Redo indicator encountered*

## **Open database on standby side and make it primary**

* *SYS at SCSTGDG >alter database commit to switchover to primary with session shutdown;*

*Database altered.*

* *SYS at SCSTGDG >alter database open;*

*Database altered.*

* *SYS at SCSTGDG >shutdown immediate*

*Database closed.*

*Database dismounted.*

*ORACLE instance shut down.*

*SYS at SCSTGDG*

Change host /port for service\_name (SERVCDW) and in case of Kerberos database links the dblinks in OID/LDAP

## **Start recovery on Primary side and make it standby**

SYS at SERVCDW >shutdown immediate

SYS at SERVCDW >startup mount;

ORACLE instance started.

Total System Global Area 835104768 bytes

Fixed Size 2232960 bytes

Variable Size 306187648 bytes

Database Buffers 520093696 bytes

Redo Buffers 6590464 bytes

Database mounted.

SYS at SERVCDW >alter database recover managed standby database using current logfile disconnect;

Database altered.

## **On new primary database**

Sid SCSTGDG

sqldba

SYS at SCSTGDG >startup

## **Parameter modification**

* **C**hange OID/LDAP for SCSTGDG to reflect service\_names pointing to new server/port.
* Change orasids from S standby to P (only P databases that use primary/standby databases)
* Configure database to use arch catalog for log\_archive\_dest\_1 instead of use\_ db\_recovery\_file\_dest
* SYS at SCSTGDG>Alter system set log\_archive\_dest\_1 = ‘location=<archdirectory/arch<SID>.log’’;

## **Configure RMAN**

* CONFIGURE CHANNEL DEVICE TYPE 'SBT\_TAPE' PARMS 'ENV=(TDPO\_OPTFILE=/prog/oracle/admin/<SID>/rman /tdpo.opt
* BackupExclude for SID in WebDb to NO
* Run full backup of database
* Enable Kerberos if primary database is using in /etc/oratab.

Ask system responsible to check the application

**Update the information in webdb as per the standard. (Ref : Glossary : 1. Handling WebDb)**

Do final housekeeping. (Documented in doc “Failover to Physical Standby”)