

# CS Gold Spring Semester Start & End procedures

## ***Data Guard Checklist***

The CS Gold nightly system processes do a check of Data Guard and send an email to the system administrator if it appears that the Primary and Standby instances are not properly synchronized. You should not rely solely on the presence or lack of this email to ensure that Data Guard is operating properly. You should perform a daily check to ensure the most recent ARCHIVE\_LOG has been applied to the Standby instance using the following SQL statement:

```
SQL> select * from v$archived_log where applied = 'YES' and
completion_time>sysdate-1 order by name;
```

Please reference the Data Guard Checklist below. Any errors you discover should be addressed immediately.

**This will work for Data Guard on CS Gold® 4.2.x or 5.0.x with RMAN. If Data Guard is running under a 4.1 schema, only 1–5 are valid (there is another method of Syncing the Primary to the Standby).**

**You must issue these commands from the Standby database (either pcAnywhere to the Standby or go to that box).**

- 1. Connect to the Standby instance from a GoldServer command prompt**
  - a. C:\> sqlplus /nolog
  - b. SQL> connect sys as sysdba
  - c. Enter your sys password
  - d. SQL> set lines 9999
  - e. SQL> set tab off
  
- 2. Check for archive gaps**
  - a. SQL> select \* from v\$archive\_gap;
    - i. If you get no rows selected, there are no gaps; go to step 13.
    - ii. If you get a number, then the Standby is behind.
  
- 3. Check for MRP0 process and restart it, if necessary**
  - a. SQL> select \* from v\$managed\_standby;
    - i. If you see the MRP0 process listed, go to step 4.
  - b. SQL> alter database recover managed standby database disconnect from session;
  - c. SQL> select \* from v\$managed\_standby;
    - i. You should now see the MRP0 process listed.
  
- 4. Check for archive gaps again**
  - a. SQL> select \* from v\$archive\_gap;
    - i. This should be counting up now from the value in step 2.
    - ii. You can run this about every 30 seconds and it should be on to the next file.
    - iii. When the Standby has caught up, you will get no rows selected; go to step 13.
    - iv. If this value is not changing, the ARC file may no longer be available; go to step 5.

5. **Copy ARC file from Primary DB**
  - a. Go to E:\oracle\ora92\rdbms\
  - b. Look for the file number given in step 2a or 4a above.
    - i. If the file is there, copy it to the same place on the Standby DB, then go to step 4.
    - ii. If the file is not there, you need to do a full resync.
  
6. **Backup Primary instance from a GoldServer command prompt**
  - a. C:\> rman
  - b. RMAN> connect target sys/syspassword@orclprimary  
connected to target database: ORCL (DBID=1032832255)
    - i. Substitute your sys password for *syspassword* above.
  - c. RMAN> connect catalog rman/rcatusr@rcatprimary  
connected to recovery catalog database
  - d. RMAN> backup database include current controlfile for standby;
  - e. RMAN> backup archivelog all;
  - f. RMAN> exit
  
7. **Transfer backup files to Standby DB**
  - a. Newly created backup files are in the gold\_backup\orcl directory on the Primary database.
    - i. This is usually %csg\_backup%\orcl.
  - b. Copy those files to the same directory on the Standby DB.
  
8. **Verify production and RCAT databases are started and open on the Standby Database**
  - a. Look in Services for OracleServiceRCAT, OracleServiceRESA, and OracleServiceORCL.
  
9. **Start Standby instance but do not mount it**
  - a. C:\> sqlplus /nolog
  - b. SQL> connect sys as sysdba
  - c. Enter your sys password
  - d. SQL> shutdown immediate
  - e. SQL> startup nomount
  
10. **Resync databases**
  - a. C:\> RMAN
  - b. RMAN> connect target sys/syspassword@orclprimary  
connected to target database: ORCL (DBID=1032832255)
    - i. Substitute your sys password for *syspassword* above.
  - c. RMAN> connect auxiliary sys/syspassword  
connected to auxiliary database: ORCL (not mounted)
    - i. Substitute your sys password for *syspassword* above.
  - d. RMAN> connect catalog rman/rcatusr@rcatprimary  
connected to recovery catalog database
  - e. RMAN> duplicate target database for standby dorecover nofilenamecheck;
  - f. RMAN> exit  
Recovery Manager complete.
  
11. **Shutdown and restart Standby instance**
  - a. C:\> sqlplus /nolog
  - b. SQL> connect sys as sysdba
  - c. Enter your sys password
  - d. SQL> shutdown immediate;
  - e. SQL> startup nomount
  - f. SQL> alter database mount standby database;

- g. SQL> alter database recover managed standby database disconnect from session;

**12. Standby should now be fully synced and operational and may apply any ARCs that have been created during this downtime**

- a. SQL> select \* from v\$archive\_gap;
- b. Within a couple of minutes, you should get no rows selected.

**13. Final check**

- a. SQL> select \* from v\$archived\_log;
  - i. The last applied ARC file is listed.
  - ii. If you do not see the files that are physically present represented in this table and the files need to be applied, you will need to register them by hand. This is the mechanism for doing so. This command is issued while connected to the Standby instance.

```
ALTER DATABASE REGISTER PHYSICAL LOGFILE  
'E:\ORACLE\ORA92\RDBMS\STANDBY\ARC10636.001';
```

At that point, this file should change from APPLIED=NO to APPLIED=YES, as long as it is the next item to process. This leads us to the next set of checks.

On the Standby in the D:\oracle\oradata\orcl\trace directory you will see an mrp0xxxxx.trc file. This file will show us the true gap if for some reason the select \* from v\$archive\_gap comes back without a gap. We will need to make sure these files are moved to the Standby and that these files have been registered into the v\$archived\_log table.

- b. Verify the number listed in step 13a above matches the last ARC file that was used in the E:\oracle\ora92\RDBMS\ directory on the Primary.
  - i. Note that the current ARC will not be applied until the Primary instance moves on the next ARC, at which point the previous ARC is free to be written to the Standby.

**14. Additional Useful Commands . . .**

- a. Restarting the send of the REDO files from the Primary to the Standby
  - i. If the physical log files are not moving from one server to the other, you may need to issue these commands from the Primary while logged in as SYS to restart the process.

```
ALTER SYSTEM SET LOG_ARCHIVE_DEST_2='SERVICE=orclstandby LGWR  
ASYNC=20480 REOPEN=15 MAX_FAILURE=10 NET_TIMEOUT=30  
NOAFFIRM' SCOPE=BOTH;  
ALTER SYSTEM SET LOG_ARCHIVE_DEST_STATE_2=ENABLE  
SCOPE=BOTH;  
ALTER SYSTEM ARCHIVE LOG CURRENT;
```

**If anything falls outside of the process as written here, contact the Help Desk for assistance at (866) 789-2977.**