



Rolling Forward a Physical Standby Using Recover from Service

Customer: Guarantee Trust Bank plc Nigeria

Project: 19c Multitenant implementation and migration

Target: Refresh Physical standby database using incremental backup.

Technology: Active Data Guard, Ora net services, RMAN.

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1- Purpose of the article:

Refresh standby database after an outage or big gap between two sites.

2- Introduction:

In 12c and above, this procedure has been dramatically simplified. In 12c, you can use the RECOVER ... FROM SERVICE command to synchronize the physical standby database with the primary database. This command does the following:

- Creates an incremental backup containing the changes to the primary database. All changes to data files on the primary database, beginning with the SCN in the standby data file header, are included in the incremental backup.
- Transfers the incremental backup over the network to the physical standby database.
- Applies the incremental backup to the physical standby database.

This results in rolling forward the standby datafiles to the same point-in-time as the primary. However, since the standby controlfile still contains old SCN values (lower than the SCN values of the standby datafiles) to complete the synchronization of the physical standby database, the standby control file needs to be refreshed.

3- Prerequisites:

- The password files on the primary database and the physical standby database are identical.
- All datafiles and tablespaces are online at primary site.
- Valid connection between both sites.

4- Steps to refresh using recover from service:

- a. Place the physical standby database in MOUNT mode.
- b. Stop the managed recovery processes on the physical standby database.
- c. Start service recovery from rman at physical standby site:

```
recover database from service 'PRIMARY' noredo using compressed backupset;
```

- d. Match the SNCS of datafiles between Main and Physical standby using below statement:

```
select HXFIL File_num, substr(HXFNM,1,40), fhscn from x$kcvfh;
```

- e. Shutdown Physical standby and start it in no mount mode.
- f. Restore the standby control file by using the control file on the primary database using service PRIMARY.

From rman at physical standby:

```
RESTORE STANDBY CONTROLFILE FROM SERVICE 'PRIMARY';
```

- g. Mount DB.

h. Update the names of datafiles in standby control file.

From rman at physical standby:

```
catalog start with '+DATA'; --→ Type YES for prompt.
```

```
Switch database to copy;
```

5. Post steps after refresh:

- a. Drop standby logfile groups. (use:/home/oracle/script/drop_standby.sql).
- b. Clear Online logfile groups. (use:/home/oracle/script/c1.sql,c2.sql,cls.sql).
- c. Add standby logfile groups.(use:/home/oracle/script/add_standby.sql).

6. Start Media recovery service:

At Physical standby site:

Sqlplus / as sysdba

Alter database recover managed standby database disconnect from session;