### **Monitoring Primary, Physical Standby, and Snapshot Standby Databases**

Table-1: Sources of Information About Common Primary Database Management Actions

| **Primary Database Action** | **Primary Site Information** | **Standby Site Information** |
| --- | --- | --- |
| Enable or disable a redo thread | * Alert log * V$THREAD | Alert log |
| Display database role, protection mode, protection level, switchover status, fast-start failover information, and so forth | V$DATABASE | V$DATABASE |
| Add or drop a redo log file group | * Alert log * V$LOG * STATUS column of V$LOGFILE | Alert log |
| CREATE CONTROLFILE | Alert log | Alert log |
| Monitor Redo Apply | * Alert log * V$ARCHIVE\_DEST\_STATUS | * Alert log * V$ARCHIVED\_LOG * V$LOG\_HISTORY * V$MANAGED\_STANDBY |
| Change tablespace status | * V$RECOVER\_FILE * DBA\_TABLESPACES * Alert log | * V$RECOVER\_FILE * DBA\_TABLESPACES |
| Add or drop a data file or tablespace | * DBA\_DATA\_FILES * Alert log | * V$DATAFILE * Alert log |
| Rename a data file | * V$DATAFILE * Alert log | * V$DATAFILE * Alert log |
| Unlogged or unrecoverable operations | * V$DATAFILE * V$DATABASE | Alert log |
| Monitor redo transport | * V$ARCHIVE\_DEST\_STATUS * V$ARCHIVED\_LOG * V$ARCHIVE\_DEST * Alert log | * V$ARCHIVED\_LOG * Alert log |
| Issue OPEN RESETLOGS or CLEAR UNARCHIVED LOGFILES statements | Alert log | Alert log |
| Change initialization parameter | Alert log | Alert log |

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#### Using Views to Monitor Primary, Physical, and Snapshot Standby Databases

You can use dynamic performance views to monitor primary, physical standby, and snapshot standby databases.

The following dynamic performance views are discussed:

* V$DATABASE
* V$MANAGED\_STANDBY
* V$ARCHIVED\_LOG
* V$DATAGUARD\_STATUS
* V$ARCHIVE\_DEST

You can use the V$DATABASE view to display information about data protection, switchover status, and fast-start failover status.

The following query displays the data protection mode, data protection level, database role, and switchover status for a primary, physical standby or snapshot standby database:

SQL> SELECT PROTECTION\_MODE, PROTECTION\_LEVEL,DATABASE\_ROLE ROLE, SWITCHOVER\_STATUS FROM V$DATABASE;

The following query displays fast-start failover status:

SQL> SELECT FS\_FAILOVER\_STATUS "FSFO STATUS", FS\_FAILOVER\_CURRENT\_TARGET TARGET,FS\_FAILOVER\_THRESHOLD THRESHOLD,FS\_FAILOVER\_OBSERVER\_PRESENT "OBSERVER PRESENT"FROM V$DATABASE;

##### V$DATAGUARD\_PROCESS

The V$DATAGUARD\_PROCESS view displays one row for each Oracle Data Guard process that is currently running.

The V$DATAGUARD\_PROCESS view replaces the V$MANAGED\_STANDBY view which is deprecated as of Oracle Database 12*c* Release 2 (12.2.0.1) and may be desupported in a future release.

The following is an example query of this view:

SQL> SELECT ROLE, THREAD#, SEQUENCE#, ACTION FROM V$DATAGUARD\_PROCESS;

ROLE THREAD# SEQUENCE# ACTION

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RFS ping 1 9 IDLE

recovery apply slave 0 0 IDLE

recovery apply slave 0 0 IDLE

managed recovery 0 0 IDLE

recovery logmerger 1 9 APPLYING\_LOG

RFS archive 0 0 IDLE

RFS async 1 9 IDLE

##### V$MANAGED\_STANDBY

You can use the V$MANAGED\_STANDBY view to query Redo Apply and redo transport status on a physical standby database.

SQL> SELECT PROCESS, STATUS, THREAD#, SEQUENCE#,BLOCK#, BLOCKS FROM V$MANAGED\_STANDBY;

PROCESS STATUS THREAD# SEQUENCE# BLOCK# BLOCKS

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RFS ATTACHED 1 947 72 72

MRP0 APPLYING\_LOG 1 946 10 72

The sample output shows that a remote file server (RFS) process completed archiving a redo log file with a sequence number of 947 and that Redo Apply is actively applying an archived redo log file with a sequence number of 946. Redo Apply is currently recovering block number 10 of the 72-block archived redo log file.

##### V$ARCHIVED\_LOG

You can use the V$ARCHIVED\_LOG view to query information about archived redo log files that have been received by a physical or snapshot standby database from a primary database.

For example, issue the following query:

SQL> SELECT THREAD#, SEQUENCE#, FIRST\_CHANGE#,NEXT\_CHANGE# FROM V$ARCHIVED\_LOG;

THREAD# SEQUENCE# FIRST\_CHANGE# NEXT\_CHANGE#

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1 945 74651 74739

1 946 74739 74772

1 947 74772 74795

##### V$DATAGUARD\_STATUS

You can use the V$DATAGUARD\_STATUS view to display messages generated by Oracle Data Guard events that caused a message to be written to the alert log or to a server process trace file.

For example, issue the following query :

SQL> SELECT MESSAGE FROM V$DATAGUARD\_STATUS;

##### V$ARCHIVE\_DEST

You can query the V$ARCHIVE\_DEST view to show the status of each redo transport destination, and for redo transport destinations that are standby databases, the SCN of the last primary database redo applied at that standby database.

For example, issue the following query:

SQL> SELECT DEST\_ID, STATUS, APPLIED\_SCN FROM V$ARCHIVE\_DEST WHERE TARGET='STANDBY';

DEST\_ID STATUS APPLIED\_SCN

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2 VALID 439054

3 VALID 439054