Managing a Snapshot Standby Database

A snapshot standby database is a fully updatable standby database. It receives and archives redo data from a primary database, but does not apply it.

Redo data received from the primary database is applied when a snapshot standby database is converted back into a physical standby database, after discarding all local updates to the snapshot standby database.

A snapshot standby database typically diverges from its primary database over time because redo data from the primary database is not applied as it is received. Local updates to the snapshot standby database cause additional divergence. The data in the primary database is fully protected however, because a snapshot standby can be converted back into a physical standby database at any time, and the redo data received from the primary is then applied.

A snapshot standby database provides disaster recovery and data protection benefits that are similar to those of a physical standby database. Snapshot standby databases are best used in scenarios where the benefit of having a temporary, updatable snapshot of the primary database justifies increased time to recover from primary database failures.

Converting a Physical Standby Database into a Snapshot Standby Database

These steps describe how to convert a physical standby database into a snapshot standby database.

1. Stop Redo Apply, if it is active.
2. Ensure that the database is mounted, but not open.
3. Ensure that a fast recovery area has been configured. It is not necessary for flashback database to be enabled.
4. Issue the following SQL statement to perform the conversion

   ```
   SQL> ALTER DATABASE CONVERT TO SNAPSHOT STANDBY;
   ```

5. Open the snapshot standby in read/write mode by issuing the following SQL statement:
   ```
   SQL> ALTER DATABASE OPEN READ WRITE;
   ```

Using a Snapshot Standby Database

A snapshot standby database can be opened in read-write mode and is fully updatable.

A snapshot standby database has the following characteristics:

- A snapshot standby database cannot be the target of a switchover or failover. A snapshot standby database must first be converted back into a physical standby database before performing a role transition to it.

- A snapshot standby database cannot be the only standby database in a Maximum Protection Oracle Data Guard configuration.

Converting a Snapshot Standby Database into a Physical Standby Database

These steps describe how to convert a snapshot standby database into a physical standby database.

1. On an Oracle Real Applications Cluster (Oracle RAC) database, shut down all but one instance.
2. Ensure that the database is mounted, but not open.
3. Issue the following SQL statement to perform the conversion:

```
SQL> ALTER DATABASE CONVERT TO PHYSICAL STANDBY;
```