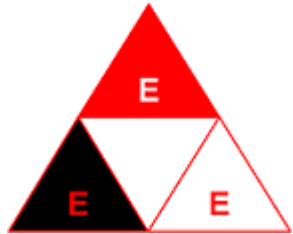


The Data Guard Broker: Why it is recommended



presented by

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Agenda

Using the Data Guard Broker for:

- Easy standby database creation
- DB Role Transitions
 - Boiled down to one simple command
- Monitoring the Data Guard Configuration
- Fast-Start Failover configuration

Creation of a Standby Database:

One special initialization parameter for Primary

```
[oracle@uhessel ~]$ cat initprima.ora

compatible='11.2.0.3'
control_files='/home/oracle/prima/control01.ctl'
db_block_size=8192
db_name='prima'
db_recovery_file_dest='/home/oracle/flashback'
db_recovery_file_dest_size=5g
dg_broker_start=true
diagnostic_dest='/home/oracle/prima'
remote_login_passwordfile='exclusive'
undo_management='auto'
undo_tablespace='undotbs1'
```

Creation of a Standby Database:

FEW special initialization parameters for Standby

```
[oracle@uhesse2 ~]$ cat initphyst.ora

compatible='11.2.0.3'
control_files='/home/oracle/physt/control01.ctl'
db_block_size=8192
db_name='prima'
db_unique_name=physt
db_file_name_convert='prima','physt'
dg_broker_start=true
log_file_name_convert='prima','physt'
db_recovery_file_dest='/home/oracle/flashback'
db_recovery_file_dest_size=5g
diagnostic_dest='/home/oracle/physt'
remote_login_passwordfile='exclusive'
undo_management='auto'
undo_tablespace='undotbs1'
```

Creation of a Standby Database: listener.ora on primary host

```
[oracle@uhessel ~]$ cat $ORACLE_HOME/network/admin/listener.ora

LISTENER =
  (DESCRIPTION_LIST =
    (DESCRIPTION =
      (ADDRESS = (PROTOCOL = TCP) (HOST = uhessel) (PORT = 1521))
    )
  )

SID_LIST_LISTENER =
  (SID_LIST =
    (SID_DESC =
      (GLOBAL_DBNAME = prima_DGMGRL)
      (ORACLE_HOME = /u01/app/oracle/product/11.2.0/db_1)
      (SID_NAME = prima)
    )
  )
```

Creation of a Standby Database: listener.ora on standby host

```
[oracle@uhesse2 ~]$ cat $ORACLE_HOME/network/admin/listener.ora

LISTENER =
  (DESCRIPTION_LIST =
    (DESCRIPTION =
      (ADDRESS = (PROTOCOL = TCP) (HOST = uhesse2) (PORT = 1521))
    )
  )

SID_LIST_LISTENER =
  (SID_LIST =
    (SID_DESC =
      (GLOBAL_DBNAME = physt_DGMGRL)
      (ORACLE_HOME = /u01/app/oracle/product/11.2.0/db_1)
      (SID_NAME = physt)
    )
  )
)
```

Creation of a Standby Database: tnsnames.ora on primary & standby host

```
PRIMA =
  (DESCRIPTION =
    (ADDRESS_LIST =
      (ADDRESS = (PROTOCOL = TCP) (HOST = uhesse1) (PORT = 1521))
    )
    (CONNECT_DATA =
      (SID = prima)
    )
  )
PHYST =
  (DESCRIPTION =
    (ADDRESS_LIST =
      (ADDRESS = (PROTOCOL = TCP) (HOST = uhesse2) (PORT = 1521))
    )
    (CONNECT_DATA =
      (SID = physt)
    )
  )
```


Creation of a Standby Database: The RMAN duplicate & preparation

```
[oracle@uhessel1 ~]$ scp
/u01/app/oracle/product/11.2.0/db_1/dbs/orapwprima
uhesse2:/u01/app/oracle/product/11.2.0/db_1/dbs/orapwphyst
[oracle@uhessel1 ~]$ ssh uhesse2 mkdir /home/oracle/physt
[oracle@uhessel1 ~]$ sqlplus sys/oracle@physt as sysdba
SQL> create spfile from pfile='/home/oracle/initphyst.ora';
startup nomount
connect sys/oracle@prima as sysdba
alter database add standby logfile '/home/oracle/prima/srl_g3.rdo'
size 100m;
alter database add standby logfile '/home/oracle/prima/srl_g4.rdo'
size 100m;
alter database add standby logfile '/home/oracle/prima/srl_g5.rdo'
size 100m;
[oracle@uhessel1 ~]$ rman target sys/oracle@prima auxiliary
sys/oracle@physt
RMAN> duplicate target database for standby from active database;
```

Creation of a Standby Database: The DG Broker configuration

- So easy that you don't need to memorize or look for the syntax!

```
[oracle@uhessel ~]$ dgmgrl sys/oracle@prima  
DGMGRL> help create  
DGMGRL> help add
```



DB Role Transitions: One command only with the Broker

- The DG Broker makes switchover/failover easy:

```
DGMGRL> switchover to physt;  
DGMGRL> failover to physt;
```



Easy way to monitor a Data Guard Configuration

- The DG Broker delivers basic monitoring

```
DGMGRL> show configuration;  
DGMGRL> show database physt;
```

Fast-Start Failover: DG Broker is required

- The observer should be started on a 3rd host

```
DGMGRL> enable fast_start failover;  
DGMGRL> start observer;
```



Thank you for your attention!