Set Primary Database Initialization Parameters

On the primary database, you define initialization parameters that control redo transport services while the database is in the primary role.

Database	DB_UNIQUE_NAME	Oracle Net Service Name
Primary	chicago	chicago
Physical standby	boston	boston

```
DB_NAME=chicago

DB_UNIQUE_NAME=chicago

LOG_ARCHIVE_CONFIG='DG_CONFIG=(chicago,boston)'

CONTROL_FILES='/arch1/chicago/control1.ctl',
'/arch2/chicago/control2.ctl'

LOG_ARCHIVE_DEST_1=

 'LOCATION=USE_DB_RECOVERY_FILE_DEST

  VALID_FOR=(ALL_LOGFILES,ALL_ROLES)

  DB_UNIQUE_NAME=chicago'

LOG_ARCHIVE_DEST_2=

 'SERVICE=boston ASYNC

  VALID_FOR=(ONLINE_LOGFILES,PRIMARY_ROLE)

  DB_UNIQUE_NAME=boston'

REMOTE_LOGIN_PASSWORDFILE=EXCLUSIVE

LOG_ARCHIVE_FORMAT=%t_%s_%r.arc
```

The following shows the additional standby role initialization parameters on the primary database. These parameters take effect when the primary database is transitioned to the standby role.

```
FAL_SERVER=boston

DB_FILE_NAME_CONVERT='/boston/','/chicago/'

LOG_FILE_NAME_CONVERT='/boston/','/chicago/'

STANDBY_FILE_MANAGEMENT=AUTO
```

Parameter	Recommended Setting
DB_NAME	On a primary database, specify the name used when the database was created. On a physical standby database, use the DB_NAME of the primary database.
DB_UNIQUE_NAME	Specify a unique name for each database. This name stays with the database and does not change, even if the primary and standby databases reverse roles.
LOG_ARCHIVE_CONFIG	The DG_CONFIG attribute of this parameter must be explicitly set on each database in an Oracle Data Guard configuration to enable full Oracle Data Guard functionality. Set DG_CONFIG to a text string that contains the DB_UNIQUE_NAME of each database in the configuration, with each name in this list separated by a comma.
CONTROL_FILES	Specify the path name for the control files on the primary database. It is recommended that a second copy of the control file is available so an instance can be easily restarted after copying the good control file to the location of the bad control file.
LOG_ARCHIVE_DEST_n	Specify where the redo data is to be archived on the primary and standby systems. • LOG_ARCHIVE_DEST_1 archives redo data generated by the primary database from the local online redo log files to the local archived redo log files in /arch1/chicago/. • LOG_ARCHIVE_DEST_2 is valid only for the primary role. This destination transmits redo data to the remote physical standby destination boston. **Note:** If a fast recovery area was configured (with the DB_RECOVERY_FILE_DEST initialization parameter) and you have not explicitly configured a local archiving destination with the LOCATION attribute, Oracle Data Guard automatically uses the LOG_ARCHIVE_DEST_1 initialization parameter (if it has not already been set) as the default destination for local archiving.
REMOTE_LOGIN_PASSWORDFILE	This parameter must be set to EXCLUSIVE or SHARED if a remote login password file is used to authenticate administrative users or redo transport sessions.

Parameter	Recommended Setting
LOG_ARCHIVE_FORMAT	Specify the format for the archived redo log files using a thread (%t), sequence number (%s), and resetlogs ID (%r).
FAL_SERVER	Specify the Oracle Net service name of the FAL server (typically this is the database running in the primary role). When the Chicago database is running in the standby role, it uses the Boston database as the FAL server from which to fetch (request) missing archived redo log files if Boston is unable to automatically send the missing log files.
DB_FILE_NAME_CONVERT	Specify the path name and filename location of the standby database data files followed by the primary location. This parameter converts the path names of the primary database data files to the standby data file path names. This parameter is used only to convert path names for physical standby databases. Multiple pairs of paths may be specified by this parameter.
LOG_FILE_NAME_CONVERT	Specify the location of the standby database online redo log files followed by the primary location. This parameter converts the path names of the primary database log files to the path names on the standby database. Multiple pairs of paths may be specified by this parameter.
STANDBY_FILE_MANAGEMENT	Set to AUTO so when data files are added to or dropped from the primary database, corresponding changes are made automatically to the standby database.

The following table provides a brief explanation about the parameter settings shown in that have different settings from the primary database.

Parameter	Recommended Setting
DB_UNIQUE_NAME	Specify a unique name for this database. This name uniquely identifies this database, and does not change even if the primary and standby databases reverse roles.
CONTROL_FILES	Specify the path name for the control files on the standby database. The example in this topic shows how to specify the path name for two control files. Oracle recommends that you ensure a copy of the control file is available, so that if a control file is corrupted, an instance can be easily restarted after copying the good control file to the location of the bad control file.

Parameter	Recommended Setting
DB_FILE_NAME_CONVERT	Specify the path name and filename location of the primary database data files, followed by the standby location. The CONTROL_FILES parameter converts the path names of the primary database data files to the standby data file path names.
LOG_FILE_NAME_CONVERT	Specify the location of the primary database online redo log files followed by the standby location. This parameter converts the path names of the primary database log files to the path names on the standby database.
LOG_ARCHIVE_DEST_*n*	Specify where the redo data is to be archived. In the example in this topic, the following destinations are specified: • LOG_ARCHIVE_DEST_1 archives redo data received from the primary database to archived redo log files in /arch1/boston/. • LOG_ARCHIVE_DEST_2 is currently ignored, because this destination is valid only for the primary role. If a switchover occurs, and this instance becomes the primary database, then this parameter specification provides the path to transmit redo data to the remote Chicago destination. **Note:** If a fast recovery area was configured (using the DB_RECOVERY_FILE_DEST initialization parameter), and you have not explicitly configured a local archiving destination with the LOCATION attribute, then Oracle Data Guard automatically uses the LOG_ARCHIVE_DEST_1 initialization parameter (if it has not already been set) as the default destination for local archiving.
FAL_SERVER	Specify the Oracle Net service name of the FAL (fetch archive log) server for a standby database. Typically, this service name is for the database running in the primary role. When the Boston database is running in the standby role, it uses the Chicago database as the FAL server from which to fetch (request) missing archived redo log files, if Chicago is unable to automatically send the missing log files.

The AFFIRM attribute is used to specify that redo received from a redo source database is not acknowledged until it has been written to the standby redo log.

The NOAFFIRM attribute is used to specify that received redo is acknowledged without waiting for received redo to be written to the standby redo log.

The DB_UNIQUE_NAME attribute is used to specify the DB_UNIQUE_NAME of a redo transport destination. The DB_UNIQUE_NAME attribute must be specified if the LOG_ARCHIVE_CONFIG database initialization parameter has been defined and its value includes a DG_CONFIG list.

If the DB_UNIQUE_NAME attribute is specified, its value must match one of the DB_UNIQUE_NAME values in the DG_CONFIG list. It must also match the value of the DB_UNIQUE_NAME database initialization parameter at the redo transport destination. If either match fails, an error is logged and redo transport is not possible to that destination.

The VALID_FOR attribute is used to specify when redo transport services transmits redo data to a redo transport destination. Oracle recommends that the VALID_FOR attribute be specified for each redo transport destination at every site in an Oracle Data Guard configuration so that redo transport services continue to send redo data to all standby databases after a role transition, regardless of which standby database assumes the primary role.

The REOPEN attribute is used to specify the minimum number of seconds between automatic reconnect attempts to a redo transport destination that is inactive because of a previous error.

The COMPRESSION attribute is used to specify that redo data is transmitted to a redo transport destination in compressed form. Redo transport compression can significantly improve redo transport performance on network links with low bandwidth and high latency.

Redo transport compression is a feature of the Oracle Advanced Compression option. You must purchase a license for this option before using the redo transport compression feature.

The following example uses all of the LOG_ARCHIVE_DEST_*n* attributes described in this section. A DB_UNIQUE_NAME has been specified for both destinations, as has the use of compression. If a redo transport fault occurs at either destination, then redo transport attempts to reconnect to that destination, but not more frequently than once every 60 seconds.

```
DB_UNIQUE_NAME=BOSTON
LOG_ARCHIVE_CONFIG='DG_CONFIG=(BOSTON,CHICAGO,HARTFORD)'
LOG_ARCHIVE_DEST_2='SERVICE=CHICAGO ASYNC NOAFFIRM
VALID_FOR=(ONLINE_LOGFILE,
PRIMARY_ROLE) REOPEN=60 COMPRESSION=ENABLE  DB_UNIQUE_NAME=CHICAGO'
LOG_ARCHIVE_DEST_STATE_2='ENABLE'
LOG_ARCHIVE_DEST_3='SERVICE=HARTFORD SYNC AFFIRM NET_TIMEOUT=30
VALID_FOR=(ONLINE_LOGFILE,PRIMARY_ROLE) REOPEN=60 COMPRESSION=ENABLE
DB_UNIQUE_NAME=HARTFORD'
LOG_ARCHIVE_DEST_STATE_3='ENABLE'
```