

Implementing DDL Replication

Practice Overview

In this practice you will enable the DDL replication and perform testing on its functionality.

Note: the procedure described in this practice applies in Oracle GoldenGate 12c and Oracle Database 12c. Enabling DDL replication in earlier versions has a different procedure.



Enabling DDL Replication

1. Verify that the GGSCHEMA parameter is included in the GLOBALS file.

```
cat GLOBALS
```

2. Stop the Extract, Data Pump and Replicat.

3. Add the following parameter to the Extract and the Replicat parameter files.

```
DDL INCLUDE MAPPED
```

4. Start all the processes.

5. Login as HR to the db1 database and display the structure of the SAMPLE table.

```
SQL> desc HR.SAMPLE
```

6. Modify the structure of the table by adding a column to it as follows:

```
ALTER TABLE HR.SAMPLE ADD ( NOTES VARCHAR2(10));
```

7. Login as HRTRG to db2 and verify that the structure modification has been successfully replicated to the target database.

```
DESC HRTRG.SAMPLE
```

8. In db1, update the new columns in a record in the SAMPLE table.

```
UPDATE HR.SAMPLE SET NOTES='test' WHERE ID=1;  
COMMIT;
```

9. In db2, verify that the update has been replicated.

```
SELECT NOTES FROM HRTRG.SAMPLE WHERE ID=1 ;
```

Summary

In Oracle GoldenGate, enabling DDL replication is quite easy. By adding the proper parameters and restarting the processes, the functionality becomes up and running.



By the end of this practice, following are the code in each process parameter file:

```
Extract esrv1
INCLUDE /u01/app/oracle/product/ogg/dirprm/header.mac
UserIDAlias oggdb1
ALLOWDUPTARGETMAP
TRANLOGOPTIONS INTEGRATEDPARAMS (MAX_SGA_SIZE 250, PARALLELISM 3)
LOGALLSUPCOLS
ExtTrail ./dirdat/es
DDL INCLUDE MAPPED
Table HR.RTABLE;
Table HR.JOB_HISTORY;
Table HR.EMPLOYEES,
TOKENS ( TK-OSUSER = @GETENV ('GGENVIRONMENT' , 'OSUSERNAME'),
TK-HOST = @GETENV('GGENVIRONMENT' , 'HOSTNAME'));
Table HR.JOBS;
Table HR.DEPARTMENTS;
Table HR.LOCATIONS;
Table HR.REGIONS;
Table HR.SAMPLE;
TABLE HR.EVENTS, FILTER (@STREQ (EVENT, 'STOP EXTRACT' )), EVENTACTIONS (IGNORE
TRANS,STOP);
TABLE HR.EVENTS;
```

```
Extract psrv1
EncryptTrail AES256
RmtHost ggsrv2, MgrPort 7810
RmtTrail ./dirdat/rt
Passthru
Table HR.*;
```

```
Replicat rsrv2
INCLUDE /u01/app/oracle/product/ogg/dirprm/header.mac
DiscardFile ./dirrpt/rsrv2.dsc, Purge
UserIDAlias oggdb2
DDL INCLUDE MAPPED
MAP HR.SAMPLE, TARGET HRTRG.SAMPLE;
MAP HR.RTABLE, TARGET HRTRG.RTABLE ThreadRange (1-3, RID);
```