**Installation**

**as oracle user**

- cd /home/oracle/OracleSoftware/12.2.1.1/Goldengate/

unzip fbo\_ggs\_Linux\_x64\_shiphome.zip

- cd /home/oracle/OracleSoftware/12.2.1.1/Goldengate/fbo\_ggs\_Linux\_x64\_shiphome/Disk1

mkdir -p /u01/app/oracle/product/12.2.0/ogg\_12.2.1.1

export ORACLE\_HOME=/u01/app/oracle/product/12.2.0/ogg\_12.2.1.1

./runInstaller

set software location = /u01/app/oracle/product/12.2.0/ogg\_12.2.1.1

choose 'start manager'

choose Oracle database home

- vi ~/.bash\_profile

export GG\_HOME=/u01/app/oracle/product/12.2.0/ogg\_12.2.1.1

export PATH=$PATH:/sbin:/usr/local/bin:/home/oracle/asm:/u01/app/oracle/script**:$GG\_HOME**

export LD\_LIBRARY\_PATH**=$GG\_HOME:$GG\_HOME/lib**:$LD\_LIBRARY\_PATH

alias gh='cd $GG\_HOME;pwd'

**Prepare database for Golden Gate**

- Enabling Minimum Database-level Supplemental Logging

Do this for each nonCDB and PDB level

Svrmgrl

SQL> alter session set container=TEST2; (PDB)

SQL> SELECT supplemental\_log\_data\_min, force\_logging FROM v$database;

SUPPLEME FORCE\_LOGGING

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NO NO

ALTER DATABASE ADD SUPPLEMENTAL LOG DATA;

ALTER DATABASE FORCE LOGGING;

SQL> SELECT supplemental\_log\_data\_min, force\_logging FROM v$database;

SUPPLEME FORCE\_LOGGING

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YES YES

ALTER SYSTEM SWITCH LOGFILE;

* **Create Golden Gate admin user:**

ggadmin for nonCDB, c##ggadmin for CDB

**For CDB**:

create user c##ggadmin identified by xxx default tablespace users;

grant create session, dba to c##ggadmin container=all;

execute dbms\_goldengate\_auth.grant\_admin\_privilege('C##GGADMIN',container=>'ALL',grant\_optional\_privileges=>'\*');

grant flashback any table to c##ggadmin;

alter session set container=TEST2;

alter pluggable database open;

**For nonCDB:**

create user ggadmin identified by xxx default tablespace users;

grant create session, dba to ggadmin;

execute dbms\_goldengate\_auth.grant\_admin\_privilege(‘GGADMIN’, grant\_optional\_privileges=>'\*');

grant flashback any table to ggadmin;

* **Make sure the tns entries for extract and replicate use dedicated server**.

pdb1=

(DESCRIPTION =

(ADDRESS = (PROTOCOL = TCP)(HOST = db12server01)(PORT = 1521))

(CONNECT\_DATA =

**(SERVER = DEDICATED)**

(SERVICE\_NAME = pdb1)

) )

* **Create Wallet and Credential Store on source and target**.

ggsci

* create wallet
* add masterkey
* info masterkey
* info masterkey version 1
* add credentialstore
* alter credentialstore add user ggadmin@src alias c##ggadmin (or ggadmin)
  + password : xxx

info credentialstore

copy dirwlt/cwallet.sso to all participated hosts

* **make sure flashback is on source**

select FLASHBACK\_ON from v$database;

alter database flashback on;

grant flashback any table to c##ggadmin; (CDB)

grant flashback any table to ggadmin; (nonCDB)

* **enable goldengate on source and target databases**

alter system set enable\_goldengate\_replication = true scope=both sid='\*';

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**Steps for change data capture:**

Extract group eoltp01, ggadmin user c##ggadmin,

Local extract trail : ./dirdat/lt

Data pump ‘epmp01’.

1. Edit eoltp01 param file
2. Dblogin useridalias c##ggadmin
3. Register extract eoltp01 database container(pdb\_name)
4. Add extract eoltp01, integrated tranlog, **begin now**

**(The trail will start with SCN#\_00)**

1. Add exttrail ./dirdat/lt, extract eoltp01, megabytes 100
2. Edit data pump ‘epmp01’ param file
3. Add extract epmp01, exttrailsource ./dirdat/lt
4. Add rmttrail ./dirdat/rt, extract epmp01, megabytes 100
5. **Start extract \*** (for eoltp01, epmp01)

**Steps for Direct initial Load:**

Source table src.A, extract group init\_load01

Target table tgt.A, replicate init\_repl01

1. Add trandata src.A
2. Edit param file for init\_load01
3. Get source database scn number (SCN#\_01)

**SELECT current\_scn from v$database;**

1. Finalize init\_load01 param file with returned SCN#\_01
2. Add extract group init\_load01
3. Edit replicate params for init\_repl01
4. Add replicate group init\_repl01
5. Start extract group init\_load01

**Steps for continuous change data delivery:**

Replicate group name: roltp01

1. Edit roltp01 param file
2. Dblogin useridalias c##ggadmin@pdb\_name (not CDB$ROOT)
3. Add replicate roltp01, integrated, exttrail ./dirdat/rt
4. Start replicate roltp01, **aftercsn SCN#\_01**

It’s after**csn** instead of after**scn**.

Use ‘start replicate roltp01’ after the first start.

**Note:** **SCN#\_00 🡪 SCN#\_01.**SCN#\_00 is earlier than SCN#\_01 so the replicat won’t miss any transactions.