Non-supported Oracle data types

● Abstract data types (ADT) with scalar, LOBs, VARRAYS, nested tables, and/or REFsANYDATA

● ANYDATASET

● ANYTYPE

● BFILE

● MLSLABEL

● ORDDICOM

● ROWID

● TIMEZONE\_ABBR

● URITYPE

● UROWID

=======================

System Requirements and Preinstallation Instructions

1.1 Installation Overview

download

p18680382\_1121022\_Linux-x86-64.zip

1.2 Verifying Certification and System Requirements

goldengate1121-cert-matrix-1522269.xls：

OGG Core    11.2.1.0.0+    x64    Red Hat EL 5 (UL3+)    64    "Oracle 11.2.0.1+

"    1. For Red Hat EL 5 (UL3+) on Oracle VM, minimum update level required is Red Hat EL 5 (UL3+) on Oracle VM 2.1.2+

1.3 Operating System Requirements

    Memory Requirements

        users need not change the default Oracle GoldenGate memory management configuration.CACHEMGR

    Disk Requirements

        The product ZIP file requires 1.0GB when extracted.

        Oracle GoldenGate 11g requires 1.55GB.

        Temporary Disk Requirements CACHEMGR 》CACHESIZE

    Network

    Operating System Privileges

        useradd -u 1501 -g oinstall -G dba,oper,asmdba ogg

        passwd ogg

        mkdir -p /u03/ogg

        chown ogg:oinstall /u03 -R

    Setting Library Paths for Dynamic Builds on UNIX

        # ogg set

        export PATH=/u03/ogg:$ORACLE\_HOME/bin:$PATH

        export LD\_LIBRARY\_PATH=/u03/ogg:$ORACLE\_HOME/lib

    Installing the Oracle GoldenGate Files

        chown ogg:oinstall /u03/ogg/p18680382\_1121022\_Linux-x86-64.zip

        unzip p18680382\_1121022\_Linux-x86-64.zip

        tar -xvf fbo\_ggs\_Linux\_x64\_ora11g\_64bit.tar

        ./GGSCI

        CREATE SUBDIRS

        EXIT

注意：./ggsci: error while loading shared libraries: libnnz11.so: cannot open shared object file: No such file or directory

需要绝对路径指出$ORACLE\_HOME/lib

=====================

Installing Classic Oracle GoldenGate

3.1 Setting ORACLE\_HOME and ORACLE\_SID

set the ORACLE\_HOME and ORACLE\_SID environment variables at the system level. If you cannot set them that way, use the following SETENV statements in the parameter file of every Extract and Replicat group that will be connecting to the instance.

        # oracle set by jason

        export ORACLE\_SID=orcl

        export ORACLE\_BASE=/u02/app/oracle

        export ORACLE\_HOME=$ORACLE\_BASE/product/11.2.0/dbhome\_1

        export ORACLE\_UNQNAME=orcl

        export PATH=$PATH:$HOME/bin:$ORACLE\_HOME/bin

        and

        SETENV (ORACLE\_HOME = "/u02/app/oracle/product/11.2.0/dbhome\_1")

        SETENV (ORACLE\_SID = "orcl")

3.2 Database Requirements

    Oracle Databases must be in ARCHIVELOG mode so that Extract can process the log files.

        alter database archivelog;

        ALTER SYSTEM SWITCH LOGFILE;

    Ensure that your database has SUPPLEMENTAL LOGGING enabled.

        ALTER DATABASE ADD SUPPLEMENTAL LOG DATA;

        SELECT SUPPLEMENTAL\_LOG\_DATA\_MIN FROM V$DATABASE;

force logging???

=================================

3 Configuring Manager and Network Communications   --源端和目标端

3.2 Assigning Manager a Port for Local Communication

PORT 7809   --default

3.3 Maintaining Ports for Remote Connections through Firewalls

DYNAMICPORTLIST 7830-7835, 7839  --default

3.5 Using the Recommended Manager Parameters

AUTOSTART ER \*

AUTORESTART ER \*, RETRIES 5, WAITMINUTES 5

PURGEOLDEXTRACTS /u03/ogg/dirdat/s\*, USECHECKPOINTS, MINKEEPHOURS 2

STARTUPVALIDATIONDELAY 10

3.6 Creating the Manager Parameter File

EDIT PARAMS MGR

eg:

PORT 7809

DYNAMICPORTLIST 7810-7820, 7830

AUTOSTART ER \*

AUTORESTART ER \*, RETRIES 5, WAITMINUTES 5

PURGEOLDEXTRACTS /u03/ogg/dirdat/so\*, USECHECKPOINTS, MINKEEPHOURS 2

STARTUPVALIDATIONDELAY 10

注意：ERROR   OGG-01224  Address already in use

同一机器上启动两个mgr进程（一主一备情况）端口不能一致

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13 Configuring Online Change Synchronization

Initial Synchronization

13.2 Choosing Names for Processes and Files

进程：不要以数字结尾，report文件不好找

文件：trail文件 2字符+9位数字 ./dirdat/aa000000002

13.3 Creating a Checkpoint Table

replicat 使用，在目标库中，确保异常中断后应用的起始点及事务只应用一次

》创建一个检查点表   --目标库

》创建应用用户！！！！！！！！！！！！！！！！！！

sql> create user oggt identified by oggt;

sql> grant connect,resource,dba to oggt;

ggsci> dblogin userid oggt password oggt

ggsci> ADD CHECKPOINTTABLE oggt.ckpt

》指定默认检查点表

EDIT PARAMS ./GLOBALS

CHECKPOINTTABLE oggt.ckpt

》添加应用进程时指定使用检擦点表

ADD REPLICAT ... CHECKPOINTTABLE goldengate.ckpt

13.4 Creating an Online Extract Group

》创建抽取用户！！！！！！！！！！！！！！！！！！

sql> create user oggs identified by oggs;

sql> grant connect,resource,dba to oggs;

》添加抽取进程

add extract extfull, tranlog,begin now

13.5 Creating a Trail

》添加抽取进程产生的trail文件信息

ADD EXTTRAIL /u03/ogg/dirdat/sr, EXTRACT extfull, MEGABYTES 50

alter EXTTRAIL /u03/ogg/dirdat/sr, EXTRACT extfull, MEGABYTES 200

13.6 Creating a Parameter File for Online Extraction

》添加抽取进程参数

EDIT PARAMS name

eg

EDIT PARAMS extfull

EXTRACT extfull

SETENV (ORACLE\_HOME = "/u02/app/oracle/product/11.2.0/dbhome\_1")

SETENV (ORACLE\_SID = "orcl")

SETENV (NLS\_LANG = "AMERICAN\_AMERICA.ZHS16GBK")

--ddl include mapped

TRANLOGOPTIONS DBLOGREADER

USERID oggs, PASSWORD oggs

EXTTRAIL /u03/ogg/dirdat/sr

--SEQUENCE test.seq\_test;

TABLE test.\*;

单独配置datapump extract

add extract dpfull exttrailsource /u03/ogg/dirdat/sr   --添加trail文件1

alter extract dpfull exttrailsource /u03/ogg/dirdat/sr

add rmttrail /u04/ogg/dirdat/tg, extract dpfull, MEGABYTES 50  --添加trail文件2

EDIT PARAMS dpfull

EXTRACT dpfull

SETENV (ORACLE\_HOME = "/u02/app/oracle/product/11.2.0/dbhome\_1")

SETENV (ORACLE\_SID = "orcl")

SETENV (NLS\_LANG = "AMERICAN\_AMERICA.ZHS16GBK")

PASSTHRU

RMTHOST 192.168.6.31, MGRPORT 7810

RMTTRAIL /u04/ogg/dirdat/tg

--SEQUENCE test.seq\_test;

TABLE test.\*;

#######################

add extract extf, tranlog,begin now

ADD EXTTRAIL /u03/ogg/dirdat/ss, EXTRACT extf, MEGABYTES 50  --不需要

add rmttrail /u04/ogg/dirdat/tt, extract extf, MEGABYTES 50

EXTRACT extf

SETENV (ORACLE\_HOME = "/u02/app/oracle/product/11.2.0/dbhome\_1")

SETENV (ORACLE\_SID = "orcl")

SETENV (NLS\_LANG = "AMERICAN\_AMERICA.ZHS16GBK")

--ddl include mapped

TRANLOGOPTIONS DBLOGREADER

USERID oggs, PASSWORD oggs

EXTTRAIL /u03/ogg/dirdat/ss

--SEQUENCE test.seq\_test;

RMTHOST 192.168.6.31, MGRPORT 7810

RMTTRAIL /u04/ogg/dirdat/tt

--SEQUENCE test.seq\_test;

TABLE test.\*;

#############################

13.7 Creating an Online Replicat Group

应用模式有或多种

Classic

Coordinated

Integrated

我们用的是classic

应用用户！！！！！！！！！！！！！！！！！！！！！！

add replicat repfull, exttrail /u04/ogg/dirdat/tg, CHECKPOINTTABLE oggt.ckpt

13.8 Creating a Parameter File for Online Replication

EDIT PARAMS repfull

eg

REPLICAT repfull

SETENV (ORACLE\_HOME = "/u02/app/oracle/product/11.2.0/dbhome\_1")

SETENV (ORACLE\_SID = "orcl")

SETENV (NLS\_LANG = "AMERICAN\_AMERICA.ZHS16GBK")

--ddl include mapped

USERID oggt, PASSWORD oggt

-- SUPPRESSTRIGGERS is for Oracle 10.2.0.5 & later patches, and for Oracle 11.2.0.2 and later 11gR2 versions

DBOPTIONS SUPPRESSTRIGGERS,DEFERREFCONST

ASSUMETARGETDEFS

DISCARDFILE /u04/ogg/dirrpt/repfull.dsc,purge

MAP test.\*, TARGET test2.\*;

#############

add replicat repf, exttrail /u04/ogg/dirdat/tt, CHECKPOINTTABLE oggt.ckpt

13.8 Creating a Parameter File for Online Replication

EDIT PARAMS repfull

eg

REPLICAT repf

SETENV (ORACLE\_HOME = "/u02/app/oracle/product/11.2.0/dbhome\_1")

SETENV (ORACLE\_SID = "orcl")

SETENV (NLS\_LANG = "AMERICAN\_AMERICA.ZHS16GBK")

--ddl include mapped

USERID oggt, PASSWORD oggt

-- SUPPRESSTRIGGERS is for Oracle 10.2.0.5 & later patches, and for Oracle 11.2.0.2 and later 11gR2 versions

DBOPTIONS SUPPRESSTRIGGERS,DEFERREFCONST

ASSUMETARGETDEFS

DISCARDFILE /u04/ogg/dirrpt/repf.dsc

MAP test.\*, TARGET test2.\*;

#################

==========================

schema级别补充日志：

DBLOGIN USERID oggs PASSWORD oggs

DBLOGIN USERID system PASSWORD oracle

ADD SCHEMATRANDATA test

------------------------------------

表级别补充日志：

DBLOGIN USERID PASSWORD

ADD TRANDATA schema.table\_name

ADD TRANDATA schema.\*

===================

-----基础数据

0.启动mgr及抓取传输进程

1.从源端取一次scn号

select current\_scn from v$database;       --1138076

2.按照上面查询出的scn导出数据

create directory exp as '/home/oracle/';

expdp  sys/\*\*\*\*\*\* directory=exp  dumpfile=test%U.dmp logfile=test0405.log schemas=test  parallel=1 flashback\_scn=1138076

3.将dmp文件传输到目标端：

scp  /home/oracle/test01.dmp [oracle@186.168.100.222:/home/oracle](mailto:oracle@186.168.100.222:/home/oracle)

目标端：

1.导入数据

impdp sys/\*\*\*\*\*\* directory=exp dumpfile=test01.dmp  exclude=statistics

2.收集统计信息

exec dbms\_stats.gather\_table\_stats(OWNNAME => 'TEST', TABNAME => 'TEST', CASCADE => TRUE);

3.启动应用进程

start mgr

start repfull, aftercsn 1138076               ---源端取到的scn

=========================

Configure

安装DDL对象(源端)：

1.赋权

GRANT EXECUTE ON utl\_file TO oggs;   --可以看一下utl\_file是什么东西

2.为DDL对象指定一个表空间。(GGS\_DDL\_HIST 和 GGS\_MARKER)

alter user oggs default tablespace OGG\_TBS;

3.在GLOBALS文件中，输入以下参数：

GGSCHEMA goldengate   --DDL用户名

4.切换到ogg安装路径

cd /ggs

5.停掉所有的数据库连接，并阻止新的连接

6.以sysdba身份连接到数据库，用以在sys下创建触发器

7.运行脚本：

@marker\_setup.sql

@ddl\_setup.sql

@role\_setup.sql

8.授权给ogg抽取用户

GRANT GGS\_GGSUSER\_ROLE TO oggs;   ---默认role为GGS\_GGSUSER\_ROLE

9.启用DDL触发器：

@ddl\_enable.sql

禁用DDL触发器

@ddl\_disable.sql

extract和replicat  添加ddl参数！

ddl include mapped

安装对sequence的支持FLUSH SEQUENCE：

需要在源端及目标端执行以下：

7. 在SQL\*Plus中执行以下命令（源端和目标端）：

@sequence.sql

goldengate

8. 源端执行：

GRANT EXECUTE on goldengate.updateSequence TO oggs;

9. 目标端执行:

GRANT EXECUTE on goldengate.replicateSequence TO oggt;

10.源端执行：

alter table sys.seq$ add supplemental log data (primary key) columns;

extract和replicat添加sequence参数

sequence TMISUSER.\*;