**Create UNDOTBS2 tablespace (if not already there)**

HEDWSTS example:

create BIGFILE undo tablespace UNDOTBS2 datafile '+DATA1' size 100G

HEPYSTS example:

create BIGFILE undo tablespace UNDOTBS2 datafile '+DATA1' size 100G

**Create redo threads 2**

HEPYSTS example:

**# check what is already in place**

SELECT group#, thread#, status, members FROM v$log;

GROUP# THREAD# STATUS MEMBERS

1 1 INACTIVE 2

2 1 INACTIVE 2

3 1 INACTIVE 2

4 1 INACTIVE 2

5 1 CURRENT 2

6 1 INACTIVE 2

**# check current log size**

select GROUP#,THREAD#,BYTES/1024/1024 as SIZE\_MB from v$log;

GROUP# THREAD# SIZE\_MB

1 1 5144

2 1 5144

3 1 5144

4 1 5144

5 1 5144

6 1 5144

# **Add redo logs with for thread 2**

ALTER DATABASE ADD LOGFILE thread 2 GROUP 7 ('+REDO1','+REDO2') SIZE 6144M BLOCKSIZE 4096;

ALTER DATABASE ADD LOGFILE thread 2 GROUP 8 ('+REDO1','+REDO2') SIZE 6144M BLOCKSIZE 4096;

ALTER DATABASE ADD LOGFILE thread 2 GROUP 9 ('+REDO1','+REDO2') SIZE 6144M BLOCKSIZE 4096;

ALTER DATABASE ADD LOGFILE thread 2 GROUP 10 ('+REDO1','+REDO2') SIZE 6144M BLOCKSIZE 4096;

ALTER DATABASE ADD LOGFILE thread 2 GROUP 11 ('+REDO1','+REDO2') SIZE 6144M BLOCKSIZE 4096;

ALTER DATABASE ADD LOGFILE thread 2 GROUP 12 ('+REDO1','+REDO2') SIZE 6144M BLOCKSIZE 4096;

alter database enable public thread 2;

HEDWSTS example:

**# check what is already in place**

SELECT group#, thread#, status, members FROM v$log;

GROUP# THREAD# STATUS MEMBERS

1 1 INACTIVE 2

2 1 CURRENT 2

3 1 INACTIVE 2

4 1 INACTIVE 2

5 1 INACTIVE 2

6 1 INACTIVE 2

**# check current log size**

select GROUP#,THREAD#,BYTES/1024/1024 as SIZE\_MB from v$log;

GROUP# THREAD# SIZE\_MB

1 1 600

2 1 600

3 1 600

4 1 600

5 1 600

6 1 600

# **Add redo logs with for thread 2**

ALTER DATABASE ADD LOGFILE thread 2 GROUP 7 ('+REDO1','+REDO2') SIZE 6144M BLOCKSIZE 4096;

ALTER DATABASE ADD LOGFILE thread 2 GROUP 8 ('+REDO1','+REDO2') SIZE 6144M BLOCKSIZE 4096;

ALTER DATABASE ADD LOGFILE thread 2 GROUP 9 ('+REDO1','+REDO2') SIZE 6144M BLOCKSIZE 4096;

ALTER DATABASE ADD LOGFILE thread 2 GROUP 10 ('+REDO1','+REDO2') SIZE 6144M BLOCKSIZE 4096;

ALTER DATABASE ADD LOGFILE thread 2 GROUP 11 ('+REDO1','+REDO2') SIZE 6144M BLOCKSIZE 4096;

ALTER DATABASE ADD LOGFILE thread 2 GROUP 12 ('+REDO1','+REDO2') SIZE 6144M BLOCKSIZE 4096;

alter database enable public thread 2;

**Create SPFILE steps**

HEDWSTS example:

cd $DBS

sqlplus / as sysdba

create pfile from spfile;

shutdown immediate

exit

**!! No need to add new parameters at this point**

mv spfileHEDWSTS.ora spfileHEDWSTS.ora\_B4\_RAC

cp initHEDWSTS.ora initHEDWSTS.ora\_B4\_RAC

sqlplus / as sysdba

startup pfile=/oradb/app/oracle/product/19.22.0/db\_1/dbs/initHEDWSTS.ora;

create spfile='+CRSCONFIG' from PFILE='/oradb/app/oracle/product/19.22.0/db\_1/dbs/initHEDWSTS.ora';

shutdown immediate

startup

show parameter spfile

+CRSCONFIG/HEPYPRD\_XHEDWDBW2SCL/PARAMETERFILE/spfile.xxx

exit

srvctl config database -d HEDWSTS\_xhedwdbw2scl

HEPYSTS example:

cd $DBS

sqlplus / as sysdba

create pfile from spfile;

shutdown immediate

exit

**!! No need to add new parameters at this point**

mv spfileHEPYSTS.ora spfileHEPYSTS.ora\_B4\_RAC

cp initHEPYSTS.ora initHEPYSTS.ora\_B4\_RAC

sqlplus / as sysdba

startup pfile=/oradb/app/oracle/product/19.22.0/db\_1/dbs/initHEPYSTS.ora;

create spfile='+CRSCONFIG' from PFILE='/oradb/app/oracle/product/19.22.0/db\_1/dbs/initHEPYSTS.ora';

shutdown immediate

startup

show parameter spfile

+CRSCONFIG/HEPYPRD\_XHEPYDBW2SCL/PARAMETERFILE/spfile.xxx

exit

srvctl config database -d HEPYSTS\_xhepydbw2scl

**Copy the Oracle password file from NodeA to NodeB**

HEDWSTS example from NodeA:

scp /oradb/app/oracle/product/19.22.0/db\_1/dbs/orapwHEDWSTS xhedwdbw2bs:/oradb/app/oracle/product/19.22.0/db\_1/dbs/orapwHEDWSTS

HEPYSTS example from NodeA:

scp /oradb/app/oracle/product/19.22.0/db\_1/dbs/orapwHEPYSTS xhepydbw2bs:/oradb/app/oracle/product/19.22.0/db\_1/dbs/orapwHEPYSTS

**Set the REMOTE\_LISTENER parameter to the single client access name (SCAN) and port.**

**This should be already in place. Just verify.**

HEDWSTS example:

sqlplus / as sysdba

show parameter REMOTE\_LISTENER

## should be like below

xhedwdbw2s-scan:1551

exit

HEPYSTS example:

sqlplus / as sysdba

show parameter REMOTE\_LISTENER

## should be like below

xhepydbw2s-scan:1551

exit

**Configure the net service entries for the database and instances, and address entries for the LOCAL\_LISTENER for each instance and for the REMOTE\_LISTENER in the tnsnames.ora file, and copy the tnsnames.ora file to all nodes.**

**add EZCONNECT to $TNS\_ADMIN/sqlnet.ora on NodeA and NodeB (if not already there)**

HEPYSTS example:

Should be like below

view $TNS\_ADMIN/sqlnet.ora

NAMES.DIRECTORY\_PATH= (LDAP, TNSNAMES,EZCONNECT)

HEDWSTS example:

Should be like below

view $TNS\_ADMIN/sqlnet.ora

NAMES.DIRECTORY\_PATH= (LDAP, TNSNAMES,EZCONNECT)

**Add Oracle RAC One Node database and its instance-to-node mapping using SRVCTL**

HEDWSTS example:

ps -ef| grep pmon

srvctl stop database -d HEDWSTS\_xhedwdbw2scl

srvctl remove database -db HEDWSTS\_xhedwdbw2scl

srvctl add database -dbname HEDWSTS -db HEDWSTS\_xhedwdbw2scl -instance HEDWSTS -dbtype RACONENODE -server xhedwdbw2as,xhedwdbw2bs -oraclehome /oradb/app/oracle/product/19.22.0/db\_1 -spfile '+CRSCONFIG/HEDWSTS\_XHEDWDBW2SCL/PARAMETERFILE/spfile.xxx'

srvctl start database -d HEDWSTS\_xhedwdbw2scl

srvctl config database -d HEDWSTS\_xhedwdbw2scl

HEPYSTS example:

ps -ef| grep pmon

srvctl stop database -d HEPYSTS\_xhepydbw2scl

srvctl remove database -db HEPYSTS\_xhepydbw2scl

srvctl add database -dbname HEPYSTS -db HEPYSTS\_xhepydbw2scl -instance HEPYSTS -dbtype RACONENODE -server xhepydbw2as,xhepydbw2bs -oraclehome /oradb/app/oracle/product/19.22.0/db\_1 -spfile '+CRSCONFIG/HEPYSTS\_XHEPYDBW2SCL/PARAMETERFILE/spfile.xxx'

srvctl start database -d HEPYSTS\_xhepydbw2scl

srvctl config database -d HEPYSTS\_xhepydbw2scl

**Modify /etc/oratab (if not already there)**

HEPYSTS example:

## to make sure DBNAME\_1 and DNAME\_2 added by agent to /etc/oratab

## if not added do that manually on **both NodeA and NodeB**

vi /etc/oratab

HEPYSTS\_1:/oradb/app/oracle/product/19.22.0/db\_1:N

HEPYSTS\_2:/oradb/app/oracle/product/19.22.0/db\_1:N

HEDWSTS example:

## to make sure DBNAME\_1 and DNAME\_2 added by agent to /etc/oratab

## if not added do that manually on **both NodeA and NodeB**

vi /etc/oratab

HEDWSTS\_1:/oradb/app/oracle/product/19.22.0/db\_1:N

HEDWSTS\_2:/oradb/app/oracle/product/19.22.0/db\_1:N

**Add/Modify spfile parameters**

HEDWSTS example:

. oraenv

HEDWSTS\_1

sqlplus / as sysdba

alter system set cluster\_database=TRUE scope=spfile;

alter system set UNDO\_TABLESPACE = 'UNDOTBS1' sid='HEDWSTS\_1' scope=spfile

alter system set UNDO\_TABLESPACE = 'UNDOTBS2' sid='HEDWSTS\_2' scope=spfile;

exit

srvctl stop database -d HEDWSTS\_xhedwdbw2scl

srvctl start database -d HEDWSTS\_xhedwdbw2scl

HEPYSTS example:

. oraenv

HEPYSTS\_1

sqlplus / as sysdba

alter system set cluster\_database=TRUE scope=spfile;

alter system set UNDO\_TABLESPACE = 'UNDOTBS1' sid='HEPYSTS\_1' scope=spfile

alter system set UNDO\_TABLESPACE = 'UNDOTBS2' sid='HEPYSTS\_2' scope=spfile;

exit

srvctl stop database -d HEPYSTS\_xhepydbw2scl

srvctl start database -d HEPYSTS\_xhepydbw2scl

**!! if any errors may need to change DGConnectIdentifier (may not apply here, keep just for reference)**

HEDWSTS example:

~~From Primary~~

~~dgmgrl /~~

~~show configuration~~

~~show database verbose 'HEDWSTS\_xhedwdbw2scl'~~

~~edit database 'HEDWSTS\_xhedwdbw2scl' set property DGConnectIdentifier = '(DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=xhedwdbw2s-scan.aetna.com)(PORT=1551))(CONNECT\_DATA=(service\_name=HEDWSTS\_xhedwdbw2scl)))'~~

HEPYSTS example:

~~dgmgrl /~~

~~show configuration~~

~~show database verbose ‘HEPYSTS\_xhepydbw2scl’~~

~~edit database 'HEPYSTS\_xhepydbw2scl' set property DGConnectIdentifier = '(DESCRIPTION=(ADDRESS=(PROTOCOL=TCP)(HOST=xhepydbw2s-scan.aetna.com)(PORT=1551))(CONNECT\_DATA=(service\_name=HEPYSTS\_xhepydbw2scl)))';~~

~~show database verbose ‘HEPYSTS\_xhepydbw2scl’~~

**Local listener changes**

HEDWSTS example:

srvctl setenv database -d HEDWSTS\_xhedwdbw2scl -envs "TNS\_ADMIN=$TNS\_ADMIN"

srvctl getenv database -d HEDWSTS\_xhedwdbw2scl

TNS\_ADMIN=/oradb/app/oracle/product/19.22.0/db\_1/network/admin

**Copy tnsnames.ora From NodeA to NodeB** (if not already there)

add to tnsnames.ora on NodeA (if not already there)

local\_listener = (ADDRESS = (PROTOCOL = TCP)(HOST = xhedwdbw2as)(PORT = 1521))

add to tnsnames.ora on NodeB (if not already there)

local\_listener = (ADDRESS = (PROTOCOL = TCP)(HOST = xhedwdbw2bs)(PORT = 1521))

sqlplus / as sysdba

alter system set local\_listener='local\_listener' scope= BOTH;

exit

HEPYSTS example:

HEPYSTS\_1> srvctl setenv database -d HEPYSTS\_xhepydbw2scl -envs "TNS\_ADMIN=$TNS\_ADMIN"

xhepydbw2as.aetna.com (oracle) HEPYSTS\_1::/home/oracle

HEPYSTS\_1> srvctl getenv database -d HEPYSTS\_xhepydbw2scl

HEPYSTS\_xhepydbw2scl:

TNS\_ADMIN=/oradb/app/oracle/product/19.22.0/db\_1/network/admin

**Copy tnsnames.ora From NodeA to NodeB** (if not already there)

add to tnsnames.ora on NodeA (if not already there)

local\_listener = (ADDRESS = (PROTOCOL = TCP)(HOST = xhepydbw2as)(PORT = 1521))

add to tnsnames.ora on NodeB (if not already there)

local\_listener = (ADDRESS = (PROTOCOL = TCP)(HOST = xhepydbw2bs)(PORT = 1521))

sqlplus / as sysdba

alter system set local\_listener='local\_listener' scope= BOTH;

exit

**dg broker files relocation to ASM**

HEDWSTS example:

dgmgrl /

show configuration;

show database verbose 'HEDWSTS\_xhedwdbw2scl'

DGMGRL> disable database 'HEDWSTS\_xhedwdbw2scl';

From Node A

alter system set dg\_broker\_start=false;

alter system set dg\_broker\_config\_file1 = '+DATA1/HEDWSTS\_xhedwdbw2scl/DATAGUARDCONFIG/dr1HEDWSTS\_xhed

dbw2scl.dat' sid='\*';

alter system set dg\_broker\_config\_file2 = '+DATA1/HEDWSTS\_xhedwdbw2scl/DATAGUARDCONFIG/dr2HEDWSTS\_xhed

dbw2scl.dat' sid='\*';

alter system set dg\_broker\_start=true;

dgmgrl /

show configuration;

show database verbose 'HEDWSTS\_xhedwdbw2scl'

DGMGRL> enable database 'HEDWSTS\_xhedwdbw2scl';

HEPYSTS example:

dgmgrl /

DGMGRL> show configuration;

show database verbose 'HEPYSTS\_xhepydbw2scl'

DGMGRL> disable database 'HEPYSTS\_xhepydbw2scl';

From NodeA

alter system set dg\_broker\_start=false;

alter system set dg\_broker\_config\_file1 = '+DATA1/HEPYSTS\_XHEPYDBW2SCL/DATAGUARDCONFIG/dr1HEPYSTS\_xhepydbw2scl.dat' sid='\*';

alter system set dg\_broker\_config\_file2 = '+DATA1/HEPYSTS\_XHEPYDBW2SCL/DATAGUARDCONFIG/dr2HEPYSTS\_xhepydbw2scl.dat' sid='\*';

alter system set dg\_broker\_start=true;

DGMGRL> show configuration;

show database verbose 'HEPYSTS\_xhepydbw2scl'

DGMGRL> enable database 'HEPYSTS\_xhepydbw2scl';

**Relocate password file to ASM**

HEPYSTS example:

cd /oradb/app/oracle/product/19.22.0/db\_1/dbs

+ASM1> asmcmd -p

ASMCMD [+] > mkdir  +CRSCONFIG/HEPYSTS\_XHEPYDBW2SCL/PASSWORD

ASMCMD [+] > pwcopy /oradb/app/oracle/product/19.22.0/db\_1/dbs/orapwHEPYSTS '+CRSCONFIG/HEPYSTS\_XHEPYDBW2SCL/PASSWORD/orapwHEPYSTS'

HEPYSTS\_1> srvctl config database -d HEPYSTS\_xhepydbw2scl

Database unique name: HEPYSTS\_xhepydbw2scl

Database name: HEPYSTS

Oracle home: /oradb/app/oracle/product/19.22.0/db\_1

Oracle user: oracle

Spfile: +CRSCONFIG/HEPYSTS\_XHEPYDBW2SCL/PARAMETERFILE/spfile.257.1172661525

**Password file:**

Domain:

Start options: open

Stop options: immediate

Database role: PRIMARY

Management policy: AUTOMATIC

Server pools:

Disk Groups: REDO1,REDO2,DATA1,CRSCONFIG,ARCH

Mount point paths:

Services: HEPYSTS\_APP

Type: RACOneNode

Online relocation timeout: 30

Instance name prefix: HEPYSTS

Candidate servers: xhepydbw2as,xhepydbw2bs

OSDBA group: dba

OSOPER group: oper

Database instances: HEPYSTS\_1

CSS critical: no

CPU count: 0

Memory target: 0

Maximum memory: 0

Default network number for database services:

Database is administrator managed

HEPYSTS\_1::/oradb/app/oracle/product/19.22.0/db\_1/dbs

HEPYSTS\_1> srvctl modify database -d HEPYSTS\_xhepydbw2scl -pwfile '+CRSCONFIG/HEPYSTS\_XHEPYDBW2SCL/PASSWORD/orapwHEPYSTS'

HEPYSTS\_1::/oradb/app/oracle/product/19.22.0/db\_1/dbs

srvctl stop database -d HEPYSTS\_xhepydbw2scl

srvctl start database -d HEPYSTS\_xhepydbw2scl

HEPYSTS\_1> srvctl config database -d HEPYSTS\_xhepydbw2scl

**Password file: should have ASM location now**

HEDWSTS example:

cd /oradb/app/oracle/product/19.22.0/db\_1/dbs

+ASM1> asmcmd -p

ASMCMD [+] > mkdir  +CRSCONFIG/HEDWSTS\_XHEDWDBW2SCL/PASSWORD

ASMCMD [+] > pwcopy /oradb/app/oracle/product/19.22.0/db\_1/dbs/orapwHEDWSTS '+CRSCONFIG/HEDWSTS\_XHEDWDBW2SCL/PASSWORD/orapwHEDWSTS'

HEDWSTS\_2> srvctl config database -d HEDWSTS\_xhedwdbw2scl

Database unique name: HEDWSTS\_xhedwdbw2scl

Database name: HEDWSTS

Oracle home: /oradb/app/oracle/product/19.22.0/db\_1

Oracle user: oracle

Spfile: +CRSCONFIG/HEDWSTS\_XHEDWDBW2SCL/PARAMETERFILE/spfile.258.1172571733

**Password file:**

Domain:

Start options: open

Stop options: immediate

Database role: PRIMARY

Management policy: AUTOMATIC

Server pools:

Disk Groups: REDO1,REDO2,DATA1,CRSCONFIG,ARCH

Mount point paths:

Services: HEDWSTS\_APP

Type: RACOneNode

Online relocation timeout: 30

Instance name prefix: HEDWSTS

Candidate servers: xhedwdbw2as,xhedwdbw2bs

OSDBA group: dba

OSOPER group: oper

Database instances: HEDWSTS\_2

CSS critical: no

CPU count: 0

Memory target: 0

Maximum memory: 0

Default network number for database services:

Database is administrator managed

HEDWSTS\_1::/oradb/app/oracle/product/19.22.0/db\_1/dbs

HEDWSTS\_1> srvctl modify database -d HEDWSTS\_xhedwdbw2scl -pwfile '+CRSCONFIG/HEDWSTS\_XHEDWDBW2SCL/PASSWORD/orapwHEDWSTS'

HEDWSTS\_1::/oradb/app/oracle/product/19.22.0/db\_1/dbs

srvctl stop database -d HEDWSTS\_xhedwdbw2scl

srvctl start database -d HEDWSTS\_xhedwdbw2scl

HEDWSTS\_1> srvctl config database -d HEDWSTS\_xhedwdbw2scl

**Password file: should have ASM location now**

**Listener port changes steps and service configuration**

See **Listener\_and\_Service\_v2\_stress.doc** for more details.