

Note1: Please be advised that these are High Level Steps to apply CRS Bundle Patch-4 on 32-bit RHEL4 u8 in 10.2.0.4 CRS HOME. Some Editing may be needed.

Note2: Please make sure you database and CRS is already upgraded to 10.2.0.4 before you start working on CRS Bundle Patch-4.

Step-1: Apply Latest CPU Patches (July 15' 2011) to ORACLE_HOME

Login to Node1 as oracle and download July 15 '2011 CPU patches:

```
mkdir -p /u99/software/Patches/Jul11
cd /u99/software/Patches/Jul11

scp 192.168.0.223:/u99/software/Patches/Jul11/p12419249_10204_Linux-x86.zip .
unzip /u99/software/Patches/Jul11/p12419249_10204_Linux-x86.zip
```

Step-2: Down CRS Bundle Patch-4

Download CRS Bundle Patch # 8436582 from metalink and send to your server at the following location:
/u99/software/Patches/CRS_Bundle_Patch_4_Linux_32-bit

or

Copy the patches from 223 Server

```
mkdir -p /u99/software/Patches/CRS_Bundle_Patch_4_Linux_32-bit
cd /u99/software/Patches/CRS_Bundle_Patch_4_Linux_32-bit

scp 192.168.0.223:/u99/software/Patches/CRS_Bundle_Patch_4_Linux_32-bit/p8436582_10204_Linux-x86.zip .
unzip /u99/software/Patches/CRS_Bundle_Patch_4_Linux_32-bit/p8436582_10204_Linux-x86.zip
```

Step-3: Download Opatch version 10.2.0.5.1

Applying CRS Bundle Patch-4 requires 10.2.0.4.7 or higher version of opatch. Thus, we need to download the opatch 10.2.0.4.7 or higher. I have downloaded 10.2.0.5 to 223 server.

```
mkdir -p /u99/software/Patches/OPATCH_10.2.0.5.1/32-bit/
cd /u99/software/Patches/OPATCH_10.2.0.5.1/32-bit/

scp 192.168.0.223:/u99/software/Patches/OPATCH_10.2.0.5.1/32-bit/p6880880_102000_LINUX.zip .
```

Step-4: Send and unzip newest version of OPatch to ORACLE_HOME and CRS_HOME

```
# Copy OPatch 10.2.0.5.1 to ORACLE_HOME
cp /u99/software/Patches/OPATCH_10.2.0.5.1/32-bit/p6880880_102000_LINUX.zip $ORACLE_HOME

# Copy OPatch 10.2.0.5.1 to CRS_HOME
cp /u99/software/Patches/OPATCH_10.2.0.5.1/32-bit/p6880880_102000_LINUX.zip $ORA_CRS_HOME

#To backup original OPatch to ORACLE_HOME
mv $ORACLE_HOME/OPatch $ORACLE_HOME/OPatch.orig

#To backup original OPatch to CRS_HOME
mv $ORA_CRS_HOME/OPatch $ORA_CRS_HOME/OPatch.org

# Browse to ORACLE_HOME and unzip the new Opatch utility.
unzip p6880880_102000_LINUX.zip

#verify opatch version is shown as 10.2.0.5.1
opatch version
```

Step-5: Shutdown all Oracle related processes that is specific to ORACLE_HOME .

```
srvctl stop instance -d racDB -i racDB1
srvctl stop ASM -n linux1
srvctl stop nodeapps -n linux1
```

Step-6: Apply Latest CPU Patches

```
cd /u99/software/Patches/Jul11/12419249
opatch napply -skip_subset -skip_duplicate
```

at the end of the patches, opatch will prompt to start the patching on the remote node. But before confirm by pressing "Y", we need to make sure all oracle related processes (instances, asm, nodeapps) are **up on node1** and **down on node2**.. Open a new putty session and login to oracle on node2 and execute the following.

Start nodeapps, asm and instances on node1

```
srvctl start nodeapps -n linux1
srvctl start ASM -n linux1
srvctl start instance -d racDB -i racDB1
```

Stop nodeapps, asm and instances on node2

```
srvctl stop instance -d racDB -i racDB2
srvctl stop ASM -n linux2
srvctl stop nodeapps -n linux2
```

at this point, go back to the previous putty session where opatch is still waiting for a reply from a user. click "Y". Once the patch is done, start oracle processes on node2.

```
srvctl start nodeapps -n linux2
srvctl start ASM -n linux2
srvctl start instance -d racDB -i racDB2
```

Step-7: Post CPU Installation steps

From Node1,

```
export ORACLE_SID=racDB1
cd $ORACLE_HOME/rdbms/admin
sqlplus / as sysdba
SQL> STARTUP
SQL> @catbundle.sql cpu apply
SQL> @utlrp.sql
SQL> QUIT
```

Note: You need to do the above for all databases in the cluster. I only have a database called racDB, hence running the scripts in that database only.

Step-8: Recompiling Views in the Database

8.1 You may skip this section if you have recompiled views for this database during the installation of a previous CPU. Check if the recompilation is already performed, if the following sql returned any rows, this step is not required.

```
SQL> SELECT * FROM registry$history where ID = '6452863';
```

8.2 If the above SQL didn't return any rows, perform the following:

```
cd $ORACLE_HOME/cpu/view_recompile
sqlplus /nolog
SQL> CONNECT / AS SYSDBA
SQL> @recompile_precheck_jan2008cpu.sql
SQL> QUIT
```

8.3 If the database is in a RAC environment, run the view recompilation script as follows. Note that this script is run with the database in upgrade mode, which restricts connections as SYSDBA.

```
srvctl stop database -d racDB -i racDB
cd $ORACLE_HOME/cpu/view_recompile
sqlplus /nolog
SQL> CONNECT / AS SYSDBA
SQL> STARTUP NOMOUNT
SQL> ALTER SYSTEM SET CLUSTER_DATABASE=FALSE SCOPE=spfile;
SQL> SHUTDOWN
SQL> STARTUP UPGRADE
SQL> @view_recompile_jan2008cpu.sql
SQL> SHUTDOWN;
SQL> STARTUP NOMOUNT;
```

```
SQL> ALTER SYSTEM SET CLUSTER_DATABASE=TRUE SCOPE=spfile;  
SQL> QUIT
```

8.4 Restart the database:

```
srvctl start database -d racDB
```

8.5 Recompile invalid objects again and make sure nothing remains invalid.

```
cd $ORACLE_HOME/rdbms/admin  
sqlplus /nolog  
SQL> CONNECT / AS SYSDBA  
SQL> @utlrp.sql
```

Step-9 Verify Patches are applied.

```
opatch lsinventory -detail -oh $CRS_HOME #if you have CRS_HOME  
opatch lsinventory -detail -oh $ORACLE_HOME #if you have both ORACLE_HOME and CRS_HOME is shared in  
same home.
```

Step-10 Apply CRS Bundle Patches.

```
su - root  
cd /u99/software/Patches/CRS_Bundle_Patch_4_Linux_32-bit/8436582  
/u01/app/oracle/product/10.2.0/db_1/OPatch/opatch auto
```

Step-11 Fix Permissions (optional).

If you have any customozid scripts like I do (called crsstat), then change the permissions.

```
chmod 755 /u01/app/oracle/product/10.2.0/crs/bin/crsstat  
chown oracle:oinstall /u01/app/oracle/product/10.2.0/crs/bin/crsstat
```

Congratulations!!! You have just applied CRS Bundle Patch-4 to your ASM and database home.

--Moid Muhammad