

General Document of Technical issues during Patching and their Resolutions

Version	Date
Version 1.0	21 August 2021
Version 2.0	14 January 2022

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Note: -

- This document is valid only when patching was attempted using opatchauto though most cases are valid for manual patching steps also.
- The Document consider there are alternate solution of any issue in document and document should be used after logical approach.

Manual Patching steps: -

Supplemental Readme - Grid Infrastructure Release Update 12.2.0.1.x / 18c /19c (Doc ID 2246888.1)

A) Patching fail due to ORACLE_HOME not present in Oracle inventory.

Error:-

Issue came while applying patch on Oracle Home:- /opt/oracle/product/19/MT0_uat on one node of two node RAC (though patch was successfully applied on other node)

OPatchSession cannot load inventory for the given Oracle Home /opt/oracle/product/19/MT0_uat. Possible causes are:

No read or write permission to ORACLE_HOME/.patch_storage

Central Inventory is locked by another OUI instance

No read permission to Central Inventory

The lock file exists in ORACLE_HOME/.patch_storage

The Oracle Home does not exist in Central Inventory

UtilSession failed: RawInventory gets null OracleHomeInfo

Log file location: /opt/oracle/product/19/MT0_uat/cfgtoollogs/patch/patch2021-08-14_02-36-25AM_1.log

Identification of Problem:-

Check the Oracle home presence in Oracle inventory:-

Node 1 (where Patch was applied, Oracle home was present)

```
[oracle@ausyd26db02vcn1 /opt/oracle/oraInventory/ContentsXML>] cat inventory.xml | grep -i MT0_uat
```

```
<HOME NAME="OraDB19Home6" LOC="/opt/oracle/product/19/MT0_uat" TYPE="O" IDX="12"/>
```

```
<HOME NAME="OraDB12Home5" LOC="/opt/oracle/product/12.2.0/MT0_uat" TYPE="O"
IDX="13"/>
```

```
[oracle@ausyd26db02vcn1 /opt/oracle/oraInventory/ContentsXML>]
```

Node 2 (where error came during patching, Oracle home was missing in the inventory)

```
[oracle@ausyd26db02vcn2 /opt/oracle/oraInventory/ContentsXML>] cat inventory.xml | grep -i MT0_uat
```

```
<HOME NAME="OraDB12Home5" LOC="/opt/oracle/product/12.2.0/MT0_uat" TYPE="O"
IDX="13"/>
```

```
[oracle@ausyd26db02vcn2 /opt/oracle/oraInventory/ContentsXML>]
```

Resolution:-

Execute runInstaller to attach the missing home in Oracle inventory and execute the patch again.

```
cd $ORACLE_HOME/oui/bin
```

```
./runInstaller -silent -attachHome ORACLE_HOME="/opt/oracle/product/19/MT0_uat"  
ORACLE_HOME_NAME="OraDB19Home_MT"
```

B) Patch fails due to permission issue in the jdk directory (there could be other reasons as well)

Error:- Patch resume fails due to below error

oracle home /opt/oragrid/product/1220/grid has a platform Linux x86-64 that is not one of the supported platform for the given patch: [Generic Platform]

OPATCHAUTO-72009: Invalid ARU id for the platform.

OPATCHAUTO-72009: ARU id value not recognized as a valid id for the platform.

OPATCHAUTO-72009: Check system configuration.

OPatchAuto failed.

OPatchauto session completed at Fri Aug 13 09:51:15 2021

Time taken to complete the session 0 minute, 12 seconds

opatchauto failed with error code 42

Identification of Problem:-

OPatchauto fails due to replacement of jdk directory in ORACLE HOME/ GRID HOME, even in patch analyze the issue would not show up. Please make sure the directory and its contents has right permission or atleast execute permissions on the subdirectories and its contents (754 to be safer side)

Resolution:-

Lock the grid service again and restart the cluster. Start opatchauto from start.

As the root user execute:

```
cd /opt/oragrid/product/19.3.0/rdbms/install/
```

```
./rootadd_rdbms.sh
```

```
cd /opt/oragrid/product/19.3.0/crs/install/
```

```
./rootcrs.sh -postpatch
```

C) Cluster services unable to start due to patch issues giving Oracle Clusterware Release patch level (XXXXX) does not match Software patch level (XXXX).

Error:

Below error found during starting of cluster services post patching of grid.

```
[root@usdfw26db09vcn2 ~]# /opt/oragrid/product/19/grid/bin/crsctl start crs
CRS-6706: Oracle Clusterware Release patch level ('968217988') does not match Software patch
level ('3321908329'). Oracle Clusterware cannot be started.
CRS-4000: Command Start failed, or completed with errors.
```

Identification of Problem:-

Above issue normally comes when patching activity failed due to any issue leading the mismatch of patch directories.

Resolution:-

- a) Run the following command as the root user to complete the patching set up behind the scenes:

```
root@usdfw26db09vcn2:~# $GRID_HOME/bin/clscfg -localpatch
```

```
Creating OCR keys for user 'root', privgrp 'root'..
```

```
Operation successful.
```

- b) Run the following command as the root user to lock the GI home:

```
root@usdfw26db09vcn2:~# cd ../crs/install/
```

```
root@usdfw26db09vcn2:~# ./rootcrs.sh -lock
```

```
root@usdfw26db09vcn2:~# /opt/oragrid/product/19/grid/bin/crsctl start crs
```

D) Patch fails due to corruption in one-off patch of Grid Home

Error:- (Error came at one node of RAC though in other node patching activity completed without error)

Patch: /var/oracle/export/JULY2021_PSU/JUL2021_psu/GI_DB_COMBO_jul_19c/32895426/32904851
Log: /opt/oracle/product/19/db/cfgtoollogs/patchauto/core/patch/patch2021-08-14_04-16-36AM_1.log

Reason:

/var/oracle/export/JULY2021_PSU/JUL2021_psu/GI_DB_COMBO_jul_19c/32895426/32904851 is not required to be applied to oracle home /opt/oracle/product/19/db

OPATCHAUTO-72053: Analysis for the patches failed.

OPATCHAUTO-72053: Command execution failed.

OPATCHAUTO-72053: Please check the summary for more details.

Identification of Problem:-

Checked the log file of patching

/opt/oracle/product/19/db/cfgtoollogs/patchauto/core/patch/patch2021-08-14_04-16-36AM_1.log

Found below error

Stack Description: oracle.opatch.opatchsdk.OPatchException: Unable to create patchObject

Possible causes are:

ORACLE_HOME/inventory/oneoffs/32904851 is corrupted.

Resolution:-

Issue got resolved after AFTER COPYING 32904851 from NODE 1 (location - /opt/oragrid/product/19/grid/inventory/oneoffs)

E) opatchauto apply due to permission issue on oui-patch.xml

Error:-

Patch: /var/oracle/export/JULY2021_PSU/JUL2021_psu/GI_DB_COMBO_jul_19c/32895426/32904851
Log: /opt/oragrid/product/19/grid/cfgtoollogs/patchauto/core/patch/patch2021-08-14_00-48-19AM_1.log

Reason: Failed during Patching: oracle.patch.patchsdk.OPatchException: ApplySession failed in system modification phase... 'ApplySession::apply failed: java.io.IOException: oracle.sysman.oui.patch.PatchException: java.io.FileNotFoundException: /opt/oragrid/orainventory/ContentsXML/oui-patch.xml (Permission denied)'

After fixing the cause of failure Run patchauto resume

]

OPATCHAUTO-68061: The orchestration engine failed.

OPATCHAUTO-68061: The orchestration engine failed with return code 1

OPATCHAUTO-68061: Check the log for more details.

OPatchAuto failed.

Identification of Problem:-

Check the logfile and found below issue:-

/opt/oragrid/product/19/grid/cfgtoollogs/patchauto/core/patch/patch2021-08-14_00-48-19AM_1.log

Log

===

[Aug 14, 2021 12:52:23 AM] [INFO] [OPSR-TIME] Saving patch 32904851 to inventory

[Aug 14, 2021 12:52:24 AM] [WARNING] OUI-67124: ApplySession failed in system modification phase... 'ApplySession::apply failed: java.io.

IOException: oracle.sysman.oui.patch.PatchException: java.io.FileNotFoundException: /opt/oragrid/orainventory/ContentsXML/oui-patch.xml (Permission denied)'

[Aug 14, 2021 12:52:24 AM] [INFO] Restoring "/opt/oragrid/product/19/grid" to the state prior to running NApply...

[Aug 14, 2021 12:52:24 AM] [INFO] Restoring files: copy recurse from /opt/oragrid/product/19/grid/.patch_storage/NApply/2021-08-14_00-49-42AM/backup to /opt/oragrid/product/19/grid

Resolution:-

SOLUTION NOTE - patchauto apply Results java.io.FileNotFoundException:

<orainventory>/ContentsXML/oui-patch.xml (Permission denied) Error in Non-OUI Nodes (Doc ID 2582139.1)

Solution - copied oui-patch.xml from node1 to node 2 and provided same ownership and permission and issue got resolved.

F) Patch cannot be applied due to patch conflict in one of its subset patch

Error:-

==Following patches FAILED in analysis for apply:

Patch: /var/oracle/export/APRIL_PSU/32540149/32507738

Log: /opt/oracle/product/1220/db/cfgtoollogs/patchauto/core/patch/patch2021-05-07_10-46-07AM_1.log

Reason: Failed during Analysis: CheckConflictAgainstOracleHome Failed, [Prerequisite Status: FAILED, Prerequisite output:

The details are:

Reason -

Superset Patch 32507738 has

Subset Patch 32228578 which has overlay patches [24921392] and these overlay patches conflict with Superset Patch

OPatch recommends any one of the following actions

- Please rebuild the superset patch to make sure it supersedes all the relevant patch(es) which are conflicting.

The rebuilt patch should contain bug fix [23738 ...

Identification of Problem:-

Check the screen log as well as logfile and found 24921392 patch is conflicts with 32228578 which is sub patch of DB RU 32507738 :-

Patch: /var/oracle/export/APRIL_PSU/32540149/32507738

Log: /opt/oracle/product/1220/db/cfgtoollogs/patchauto/core/patch/patch2021-05-07_10-46-07AM_1.log

/opt/oracle/product/1220/db/cfgtoollogs/patchauto/core/patch/patch2021-05-07_10-46-07AM_1.log

Reason: Failed during Analysis: CheckConflictAgainstOracleHome Failed, [Prerequisite Status: FAILED, Prerequisite output:

The details are:

Reason -

Superset Patch 32507738 has

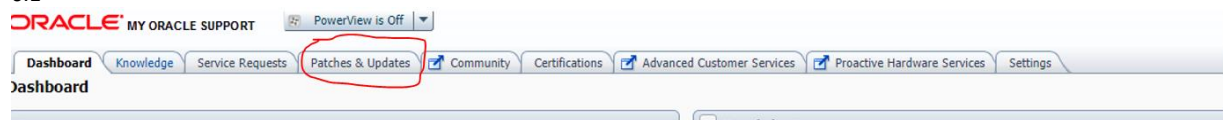
Subset Patch 32228578 which has overlay patches [24921392] and these overlay patches conflict with Superset Patch

-49-42AM/backup to /opt/oragrid/product/19/grid

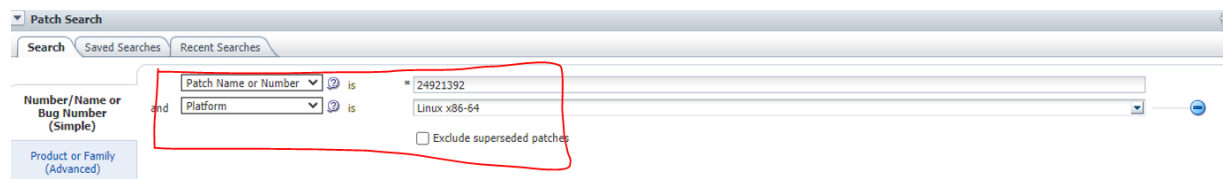
Resolution:-

1. login using oracle and set database home
2. cd \$ORACLE_HOME/OPatch
3. opatch rollback -id 24921392
4. Now analyze the Main patch: sudo /opt/oragrid/product/1220/grid/OPatch/patchauto apply /opt/oracle/patching/jul_psu/32540149 --analyze
5. Patch the new quarterly released RU: sudo /opt/oragrid/product/1220/grid/OPatch/patchauto apply /opt/oracle/patching/jul_psu/32540149
6. Download 24921392 patch from Oracle support.

6.1



6.2 Search 24921392 for OS platform (here it is Linux platform)



6.3 Search list would contain multiple patches for different versions/RU make sure to download the patch for the one which is sync with the latest RU set. Example as Grid/database is now patched with JULY2021 patch hence download 12.2.0.1.210720DBJUL2021RU (20 July 2021) and not 12.2.0.1.210420DBAPR2021RU (20 April 2021). If this single patch is not available for latest patch then we can ignore it.

Patch Search									
Patch Simple Search Results									
Filters: Patch Name or Number is 24921392; Platform is Linux x86-64;									
Patch Name	Description	Release	PL	RL	CI	F	Updated	Size	Download
24921392	CQ FAILED TO SPAWN SLAVE PROCESS KOCOREP: UNABLE TO SPAWN XQBQ SLAVE PROCESS (Patch)	12.2.0.1.210720DBJUL2021RU	L	N	64	E	2+ months ago	42.8 KB	Software
24921392	CQ FAILED TO SPAWN SLAVE PROCESS KOCOREP: UNABLE TO SPAWN XQBQ SLAVE PROCESS (Patch)	12.2.0.1.210420DBAPR2021RU	L	N	64	E	5+ months ago	42.8 KB	Software

7. apply 24921392 on top of existing patch using opatch apply <<patch_id>> (refer readme of the patch)

G) OJVM patch failed due to generic issue and Opatch was unable to restore Oracle home by itself after failed execution

Error:- (Error came at one node of RAC though in other node patching activity completed without error)

```
Is the local system ready for patching? [y|n]
y
User Responded with: Y
Backing up files...
Applying interim patch '32876380' to OH '/opt/oracle/product/19/db'

Patching component oracle.javavm.server, 19.0.0.0.0...

Patching component oracle.javavm.server.core, 19.0.0.0.0...

Patching component oracle.rdbms.dbscripts, 19.0.0.0.0...

Patching component oracle.rdbms, 19.0.0.0.0...

Patching component oracle.javavm.client, 19.0.0.0.0...
ApplySession failed in system modification phase... 'ApplySession::apply failed: java.io.IOException:
oracle.sysman.oui.patch.PatchException: java.io.FileNotFoundException: /opt/oragrid/orainventory/ContentsXML/oui-patch.xml
(Permission denied)'

Restoring "/opt/oracle/product/19/db" to the state prior to running NApply...

#### Stack trace of processes holding locks ####

Time: 2021-09-11_04-01-44AM
Command: oracle/patch/OPatch apply -invPtrLoc /opt/oracle/product/19/db/orainst.loc
Lock File Name: /opt/oragrid/orainventory/locks/_opt_oracle_product_19_db_writer.lock
StackTrace:
-----
java.lang.Throwable
  at oracle.sysman.oui.oit.OiitLockHeartbeat.writeStackTrace(OiitLockHeartbeat.java:193)
  at oracle.sysman.oui.oit.OiitLockHeartbeat.<init>(OiitLockHeartbeat.java:173)
  at oracle.sysman.oui.oit.OiitTargetLocker.getWriterLock(OiitTargetLocker.java:346)
  at oracle.sysman.oui.oit.OiitTargetLocker.getWriterLock(OiitTargetLocker.java:238)
  at oracle.sysman.oui.oic.OiicStandardInventorySession.acquireLocks(OiicStandardInventorySession.java:564)
  at oracle.sysman.oui.oic.OiicStandardInventorySession.initAreaControl(OiicStandardInventorySession.java:359)
  at oracle.sysman.oui.oic.OiicStandardInventorySession.initSession(OiicStandardInventorySession.java:332)
  at oracle.sysman.oui.oic.OiicStandardInventorySession.initSession(OiicStandardInventorySession.java:294)
  at oracle.sysman.oui.oic.OiicStandardInventorySession.initSession(OiicStandardInventorySession.java:243)
  at oracle.sysman.oui.patch.impl.HomeOperationsImpl.initialize(HomeOperationsImpl.java:107)
  at oracle.glcm.opatch.common.api.install.HomeOperationsShell.initialize(HomeOperationsShell.java:117)
  at oracle.opatch.ipm.IPMRWServices.addPatchCUP(IPMRWServices.java:134)
  at oracle.opatch.ipm.IPMRWServices.add(IPMRWServices.java:146)
  at oracle.opatch.ApplySession.apply(ApplySession.java:899)
```

```
at oracle.opatch.ApplySession.processLocal(ApplySession.java:4111)
at oracle.opatch.ApplySession.process(ApplySession.java:5093)
at oracle.opatch.ApplySession.process(ApplySession.java:4955)
at oracle.opatch.OPatchACL.processApply(OPatchACL.java:310)
at oracle.opatch.opatchutil.NApply.legacy_process(NApply.java:1429)
at oracle.opatch.opatchutil.NApply.legacy_process(NApply.java:372)
at oracle.opatch.opatchutil.NApply.process(NApply.java:352)
at oracle.opatch.opatchutil.OUSession.napply(OUSession.java:1136)
at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:62)
at sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)
at java.lang.reflect.Method.invoke(Method.java:498)
at oracle.opatch.UtilSession.process(UtilSession.java:355)
at oracle.opatch.OPatchSession.process(OPatchSession.java:2660)
at oracle.opatch.OPatch.process(OPatch.java:853)
at oracle.opatch.OPatch.main(OPatch.java:910)
```

OPatch failed to restore OH '/opt/oracle/product/19/db'. Consult OPatch document to restore the home manually before proceeding.

NApply was not able to restore the home. Please invoke the following scripts:

- restore.[sh,bat]
- make.txt (Unix only)

to restore the ORACLE_HOME. They are located under
"/opt/oracle/product/19/db/.patch_storage/NApply/2021-09-11_04-01-43AM"

UtilSession failed: ApplySession failed in system modification phase... 'ApplySession::apply failed: java.io.IOException:
oracle.sysman.oui.patch.PatchException: java.io.FileNotFoundException: /opt/oragrid/oralInventory/ContentsXML/oui-patch.xml
(Permission denied)'
Log file location: /opt/oracle/product/19/db/cfgtoollogs/patch/opatch/opatch2021-09-11_04-01-43AM_1.log

OPatch failed with error code 73

Identification of Problem:-

Checked the screen logs of patching and found permission issue. Though main idea of the given issue is how to restore the old oracle home manually from the steps which Oracle itself failed to rollback automatically.

/opt/oragrid/oralInventory/ContentsXML/oui-patch.xml (Permission denied)'

Running the opatch apply after changing permission of oui-patch.xml would also didn't work, as below

```
oracle@usdfw21db79vcn2:oltp22n2>opatch apply
Oracle Interim Patch Installer version 12.2.0.1.27
Copyright (c) 2021, Oracle Corporation. All rights reserved.
```

```
Oracle Home      : /opt/oracle/product/19/db
Central Inventory : /opt/oragrid/oralInventory
  from            : /opt/oracle/product/19/db/oralnst.loc
OPatch version   : 12.2.0.1.27
OUI version      : 12.2.0.7.0
Log file location : /opt/oracle/product/19/db/cfgtoollogs/patch/opatch/opatch2021-09-11_04-06-24AM_1.log
```

Verifying environment and performing prerequisite checks...

UtilSession failed: NApply was not able to get the list of patches to apply.
Log file location: /opt/oracle/product/19/db/cfgtoollogs/patch/opatch/opatch2021-09-11_04-06-24AM_1.log

Resolution:-

As Oracle itself has suggested to use the restore command created in one directory hence we would use below directory to restore Oracle Home again.

NApply was not able to restore the home. Please invoke the following scripts:

- restore.[sh,bat]
- make.txt (Unix only)

to restore the ORACLE_HOME. They are located under
"/opt/oracle/product/19/db/.patch_storage/NApply/2021-09-11_04-01-43AM"

Restoring Old Oracle Home

```
oracle@usdfw21db79vcn2:oltp22n2>cd /opt/oracle/product/19/db/.patch_storage/NApply/2021-09-11_04-01-43AM
oracle@usdfw21db79vcn2:oltp22n2>pwd
/opt/oracle/product/19/db/.patch_storage/NApply/2021-09-11_04-01-43AM
oracle@usdfw21db79vcn2:oltp22n2>./restore.sh
This script is going to restore the Oracle Home to the previous state.
It does not perform any of the following:
- Running init/pre/post scripts
- Oracle binary re-link
- Customized steps performed manually by user
Please use this script with supervision from Oracle Technical Support.
About to modify Oracle Home( /opt/oracle/product/19/db )
Do you want to proceed? [Y/N]
y
User responded with : Y
Restore script completed.
oracle@usdfw21db79vcn2:oltp22n2>pwd
/opt/oracle/product/19/db/.patch_storage/NApply/2021-09-11_04-01-43AM
oracle@usdfw21db79vcn2:oltp22n2>
```

H) Datapatch verbose fails during its prerequisite step

Error:- Datapatch verbose fails during prerequisite step (there could be other reasons as well beyond mentioned below case, however the case is included as generic understanding on approach for troubleshooting)

```
oracle@gbbed24db04v:bfeutrc>/opt/oracle/product/19/db/OPatch/datapatch -verbose
SQL Patching tool version 19.12.0.0.0 Production on Sat Oct 2 13:08:28 2021
Copyright (c) 2012, 2021, Oracle. All rights reserved.
```

Log file for this invocation: /opt/oracle/base/cfgtoollogs/sqlpatch/sqlpatch_8149_2021_10_02_13_08_28/sqlpatch_invocation.log

```
Connecting to database...OK
Gathering database info...done
Bootstrapping registry and package to current versions...done
Error: prereq checks failed!
verify_queryable_inventory returned ORA-20001: Latest xml inventory is not loaded into table
Prereq check failed, exiting without installing any patches.
```

Please refer to MOS Note 1609718.1 and/or the invocation log
/opt/oracle/base/cfgtoollogs/sqlpatch/sqlpatch_8149_2021_10_02_13_08_28/sqlpatch_invocation.log
for information on how to resolve the above errors.

Identification of Problem:-

As mentioned in the opatch log the information should be available in invocation log file

/opt/oracle/base/cfgtoollogs/sqlpatch/sqlpatch_8149_2021_10_02_13_08_28/sqlpatch_invocation.log

However when checked the log file or the log location mentioned inside invocation log. Nothing specific found

[2021-10-02 13:08:28] Connecting to database...[2021-10-02 13:08:28] OK

[2021-10-02 13:08:28] Gathering database info...catcon::set_log_file_base_path: ALL catcon-related output will be written to

[/opt/oracle/base/cfgtoollogs/sqlpatch/sqlpatch_8149_2021_10_02_13_08_28/sqlpatch_catcon_catcon_8149.lst]

catcon::set_log_file_base_path: catcon: See

[/opt/oracle/base/cfgtoollogs/sqlpatch/sqlpatch_8149_2021_10_02_13_08_28/sqlpatch_catcon_*.log] files for output generated by scripts catcon::set_log_file_base_path: catcon: See

[/opt/oracle/base/cfgtoollogs/sqlpatch/sqlpatch_8149_2021_10_02_13_08_28/sqlpatch_catcon_*.lst] files for spool files, if any

Resolution:-

The thought behind the inclusion of the case is to highlight which patching at the binary level using opatch is independent of the database and is at software level however execution of datapatch is at DB level where object health of database is critical and hence alertlog of database would give better insight of the issue . Make sure TEMP, SYSTEM, SYSAUX tablespace have ample of space before datapatch execution. Here also clue of datapatch failure got from alert log as highlighted below.

Setting Resource Manager plan SCHEDULER[0x4D65]:DEFAULT_MAINTENANCE_PLAN via scheduler window

Setting Resource Manager plan DEFAULT_MAINTENANCE_PLAN via parameter

2021-10-02T12:31:26.214701+01:00

Unable to obtain current patch information due to error: 20001, ORA-20001: Latest xml inventory is not loaded into table

ORA-06512: at "SYS.DBMS_QOPATCH", line 2327

ORA-06512: at "SYS.DBMS_QOPATCH", line 854

ORA-06512: at "SYS.DBMS_QOPATCH", line 937

ORA-06510: PL/SQL: unhandled user-defined exception

ORA-06512: at "SYS.DBMS_QOPATCH", line 932

ORA-29913: error in executing ODCIEXTTABLEFETCH callout

ORA-25153: Temporary Tablespace is Empty

ORA-06512: at "SYS.DBMS_QOPATCH", line 919

ORA-06512: at "SYS.DBMS_QOPATCH", line 2286

ORA-06512: at "SYS.DBMS_QOPATCH", line 817

ORA-06512: at "SYS.DBMS_QOPATCH", line 2309

We added the tempfile on the database and datapatch executed fine then.

I) Datapatch verbose failed with undefined symbol: Perl_Gthr_key_ptr error

Error:- Datapatch verbose failed with undefined symbol: Perl_Gthr_key_ptr error

Identification of Problem:-

[oracle@ausyd26db01vcn1 /opt/oracle/product/12.1.0/TMS_UAT/OPatch>] ./datapatch -verbose

/opt/oracle/product/12.1.0/TMS_UAT/perl/bin/perl: symbol lookup error: /usr/lib64/perl5/auto/Cwd/Cwd.so: undefined symbol: Perl_Gthr_key_ptr

Resolution:-

unset the PERL5LIB env variable
set PATH=\$ORACLE_HOME/bin:\$PATH
and run datapatch verbose again

Reference document:-

12C Agent Install Failed With "perl: symbol lookup error:
/oracle/home/db/EBSPROD/11.1.0/perl/lib/5.8.3/x86_64-linux-thread-multi/auto/Cwd/Cwd.so:
undefined symbol: Perl_Tstack_sp_ptr" (Doc ID 1597155.1)

J) Unable to stop and start CRSD of Grid cluster post activity due to unavailable CRSD resource

Error:- Cluster unable to stop and start CRSD of Grid cluster post activity due to unavailable CRSD resource.

CRS-2791: Starting shutdown of Oracle High Availability Services-managed resources on 'aumel21db08vcn1'
CRS-2673: Attempting to stop 'ora.crsd' on 'aumel21db08vcn1'
CRS-2790: Starting shutdown of Cluster Ready Services-managed resources on server 'aumel21db08vcn1'
CRS-2679: Attempting to clean 'ora.FINAUP.lsnr' on 'aumel21db08vcn1'

Identification of Problem:-

Command failed: /opt/oragrid/product/12.2.0.1/perl/bin/perl -I/opt/oragrid/product/12.2.0.1/perl/lib -
I/opt/oragrid/product/12.2.0.1/patchautocfg/db/dbtmp/bootstrap_aumel21db08vcn1/patchwork/crs/install
/opt/oragrid/product/12.2.0.1/patchautocfg/db/dbtmp/bootstrap_aumel21db08vcn1/patchwork/crs/install/rootcrs.pl -prepatch
Command failure output:
Using configuration parameter file:
/opt/oragrid/product/12.2.0.1/patchautocfg/db/dbtmp/bootstrap_aumel21db08vcn1/patchwork/crs/install/crsconfig_params
The log of current session can be found at:
/opt/oracle/crsdata/aumel21db08vcn1/crsconfig/crspatch_aumel21db08vcn1_2021-12-17_10-29-29PM.log
Oracle Clusterware active version on the cluster is [12.2.0.1.0]. The cluster upgrade state is [ROLLING PATCH]. The cluster active
patch level is [3695109050].
CRS-2791: Starting shutdown of Oracle High Availability Services-managed resources on 'aumel21db08vcn1'
CRS-2673: Attempting to stop 'ora.crsd' on 'aumel21db08vcn1'
CRS-2790: Starting shutdown of Cluster Ready Services-managed resources on server 'aumel21db08vcn1'
CRS-2679: Attempting to clean 'ora.FINAUP.lsnr' on 'aumel21db08vcn1'
CRS-5013: Agent "ORAAGENT" failed to start process "/opt/oracle/product/12.1.0/ebs/bin/lsnrctl" for action "clean": details at
"(:CLSN000008:)" in "/opt/oracle/diag/crs/aumel21db08vcn1/crs/trace/crsd_oraagent_oracle.trc"
CRS-5013: Agent "ORAAGENT" failed to start process "/opt/oracle/product/12.1.0/ebs/bin/lsnrctl" for action "check": details at
"(:CLSN000008:)" in

Resolution:-

When checked the server side (as below) we found there was no resource / listener running as FINAUP.lsnr (which as per process should be running as 12.1 but cluster is now upgraded to 12.2) and all Listener from GRID are from 12.2 version itself. Hence FINAUP.lsnr is the stale resource and can be removed from the CRSD registry.

```
oracle 8922 1 0 Jan01 ? 00:07:35 /opt/oragrid/product/12.2.0.1/bin/tnslsnr ASMNET1LSNR_ASM -no_crs_notify -inherit
oracle 8954 1 0 Jan01 ? 00:00:37 /opt/oragrid/product/12.2.0.1/bin/tnslsnr LISTENER -no_crs_notify -inherit
oracle 8956 1 0 Jan01 ? 00:01:07 /opt/oracle/product/12.1.0/TMS/bin/tnslsnr SUAUP -no_crs_notify -inherit
oracle 21440 1 0 Jan01 ? 00:00:48 /opt/oragrid/product/12.2.0.1/bin/tnslsnr MGMTLSNR -no_crs_notify -inherit
oracle 21698 1 0 Jan01 ? 00:04:03 /opt/oragrid/product/12.2.0.1/bin/tnslsnr LISTENER_SCAN3 -no_crs_notify -inherit
oracle 21771 1 0 Jan01 ? 00:04:29 /opt/oragrid/product/12.2.0.1/bin/tnslsnr LISTENER_SCAN2 -no_crs_notify -inherit
oracle 29733 21927 0 22:45 pts/4 00:00:00 grep tns
```

Step to delete resource

```
[oracle@aumel21db08vcn1 /opt/oragrid/product/12.2.0.1/bin>] crsctl delete res ora.FINAUP.lsnr -
unsupported
```

K) ORA15081: I/O operation to a disk error after OS/DB patching

Error:- Database started getting ORA-15081 I/O operation to a disk error after OS/GRID patching

```
SQL> select name,open_mode,database_role from v$database;
select name,open_mode,database_role from v$database
*
ERROR at line 1:
ORA-00204: error in reading (block 1, # blocks 1) of control file
ORA-00202: control file:
'+DG_DATAOLTP/CGARAUP_DR/CONTROLFILE/current.2186.1075170417'
ORA-15081: failed to submit an I/O operation to a disk
```

Identification of Problem:-

Logout from oracle/oragrid OS user and login with individual OS id. Check the Vormetric logs using below command. Please note error would only be shown in log when vormetric services i.e. start time if ps -ef | grep vmd agent is before cluster services (i.e. VMD services should always start first before Database Grid services).

Command (check the highlighted error and its corresponding path):-

```
sudo cat /var/log/vormetric/vmd.log
```

```
2022-01-14 19:19:35.289 [CGP] [ERROR] [51268] [CGP2602E] [ALARM] Policy[AUSYD26DB02CL_NonProd_Policy] User[oracle,uid=600000014,euid=600000014 (User Not
Authenticated)] (sqlplus[pid=51264,uid=600000014,euid=600000014] : ksh93[pid=76382,uid=600000014,euid=600000014] : sudo[pid=76381,uid=0,euid=0] :
sudo[pid=76206,uid=0,euid=0] : ksh93[pid=75874,uid=609633453,euid=609633453]]) Process[/opt/oracle/product/19/MT0_dgd/bin/oracle] Action[write_file]
Res[/dev/xvdb1/] Key[AUSYD26DB02CL_Std_Key] Effect[DENIED Code (1A,2U,3M)]
2022-01-14 19:19:35.289 [CGP] [ERROR] [51268] [CGP2602E] [ALARM] Policy[AUSYD26DB02CL_NonProd_Policy] User[oracle,uid=600000014,euid=600000014 (User Not
Authenticated)] (sqlplus[pid=51264,uid=600000014,euid=600000014] : ksh93[pid=76382,uid=600000014,euid=600000014] : sudo[pid=76381,uid=0,euid=0] :
sudo[pid=76206,uid=0,euid=0] : ksh93[pid=75874,uid=609633453,euid=609633453]]) Process[/opt/oracle/product/19/MT0_dgd/bin/oracle] Action[read_file]
Res[/dev/xvdb1/] Key[AUSYD26DB02CL_Std_Key] Effect[DENIED Code (1A,2U,3M)]
2022-01-14 19:21:13.160 [CGP] [ERROR] [51268] [CGP2602E] [ALARM] Policy[AUSYD26DB02CL_NonProd_Policy] User[oracle,uid=600000014,euid=600000014 (User Not
Authenticated)] (sqlplus[pid=51264,uid=600000014,euid=600000014] : ksh93[pid=76382,uid=600000014,euid=600000014] : sudo[pid=76381,uid=0,euid=0] :
sudo[pid=76206,uid=0,euid=0] : ksh93[pid=75874,uid=609633453,euid=609633453]]) Process[/opt/oracle/product/19/MT0_dgd/bin/oracle] Action[write_file]
Res[/dev/xvdb1/] Key[AUSYD26DB02CL_Std_Key] Effect[DENIED Code (1A,2U,3M)]
```

```
2022-01-14 19:21:13.160 [CGP] [ERROR] [51268] [CGP2602E] [ALARM] Policy[AUSYD26DB02CL_NonProd_Policy] User[oracle,uid=600000014,euid=600000014 (User Not
Authenticated)] (sqlplus[pid=51264,uid=600000014,euid=600000014] : ksh93[pid=76382,uid=600000014,euid=600000014] : sudo[pid=76381,uid=0,euid=0] :
sudo[pid=76206,uid=0,euid=0] : ksh93[pid=75874,uid=609633453,euid=609633453])) Process[/opt/oracle/product/19/MT0_dgd/bin/oracle] Action[read_file]
Res[/dev/xvdb1/] Key[AUSYD26DB02CL_Std_Key] Effect[DENIED Code (1A,2U,3M)]
2022-01-14 19:21:13.160 [CGP] [ERROR] [51268] [CGP2602E] [ALARM] Policy[AUSYD26DB02CL_NonProd_Policy] User[oracle,uid=600000014,euid=600000014 (User Not
Authenticated)] (sqlplus[pid=51264,uid=600000014,euid=600000014] : ksh93[pid=76382,uid=600000014,euid=600000014] : sudo[pid=76381,uid=0,euid=0] :
sudo[pid=76206,uid=0,euid=0] : ksh93[pid=75874,uid=609633453,euid=609633453])) Process[/opt/oracle/product/19/MT0_dgd/bin/oracle] Action[write_file]
Res[/dev/xvdb1/] Key[AUSYD26DB02CL_Std_Key] Effect[DENIED Code (1A,2U,3M)]
```

Resolution:-

As we see from above logs /opt/oracle/product/19/MT0_dgd/bin/oracle path is not added to vormetric encryption hence Check with Vormetric team i.e.

#MA GL Vormetric <MAGLVormetric@mercer.com> → Marsh Environment
#MercerSecurity-LTITeam@mercer.com and #Mercer Security Engineering MercerSecurityEngineering@mercer.com → Mercer Environment

To reassign the server to host again. In case the Vormetric services are restarted then cluster services also need to bounce as start time of Vormetric services should be before Grid Services.

L) Datapatch verbose failed due to LOGMINER trigger in the database

Error:- Datapatch verbose failed due to LOGMINER trigger in the database (LOGMINER trigger name may differ)

```
[2021-11-23 07:08:49] Validating logfiles...[2021-11-23 07:08:54] done
[2021-11-23 07:08:54] Patch 33192793 apply (pdb CDB$ROOT): WITH ERRORS
[2021-11-23 07:08:54] logfile:
/opt/oracle/cfgtoollogs/sqlpatch/33192793/24462514/33192793_apply_INCCC1Q_CDBROOT_2021Nov23_07_03_13.log[2021-11-23 07:08:54] (errors)
[2021-11-23 07:08:54] -> Error at line 224: script rdbms/admin/backport_files/bug_31926848_apply.sql
[2021-11-23 07:08:54] - ORA-04088: error during execution of trigger 'SYS.LOGMNRGGC_TRIGGER'
[2021-11-23 07:08:54] - ORA-00604: error occurred at recursive SQL level 1
[2021-11-23 07:08:54] - ORA-04068: existing state of packages has been discarded
[2021-11-23 07:08:54] - ORA-04061: existing state of package body "SYS.LOGMNR_DICT_CACHE" has been
[2021-11-23 07:08:54] - invalidated
[2021-11-23 07:08:54] - ORA-06512: at "SYS.LOGMNR_DDL_TRIGGER_PROC", line 142
[2021-11-23 07:08:54] - ORA-04065: not executed, altered or dropped package body
[2021-11-23 07:08:54] - "SYS.LOGMNR_DICT_CACHE"
[2021-11-23 07:08:54] - ORA-06508: PL/SQL: could not find program unit being called:
[2021-11-23 07:08:54] - "SYS.LOGMNR_DICT_CACHE"
[2021-11-23 07:08:54] - ORA-06512: at "SYS.LOGMNR_DDL_TRIGGER_PROC", line 111
[2021-11-23 07:08:54] - ORA-06512: at line 2
```

Identification of Problem:-

On checking individual logfile it was found datapatch was trying to modify internal logminer table which due to trigger was unable to do hence datapatch failed with error.

Alter table SYS.logmnr_col\$ modify (property NUMBER)

```

*
ERROR at line 1:
ORA-04088: error during execution of trigger 'SYS.LOGMNRGGC_TRIGGER'
ORA-00604: error occurred at recursive SQL level 1
ORA-04068: existing state of packages has been discarded
ORA-04061: existing state of package body "SYS.LOGMNR_DICT_CACHE" has been
invalidated
ORA-06512: at "SYS.LOGMNR_DDL_TRIGGER_PROC", line 142
ORA-04065: not executed, altered or dropped package body
"SYS.LOGMNR_DICT_CACHE"
ORA-06508: PL/SQL: could not find program unit being called:
"SYS.LOGMNR_DICT_CACHE"
ORA-06512: at "SYS.LOGMNR_DDL_TRIGGER_PROC", line 111
ORA-06512: at line 2

```

Resolution:-

- 1) Disable trigger as found from error log.

```
alter trigger LOGMNRGGC_TRIGGER disable ;
```

- 2) Compile the objects in the database again.
- 3) Rerun the datapatch verbose.
- 4) Enable the trigger again.

M) Grid cluster state is in ROLLING PATCH state post patching

Error:- Grid cluster state is in ROLLING PATCH state post patching

```

[oracle@aumel21db17vcn1 /opt/oracle/bin>] . ./ASM1
[oracle@aumel21db17vcn1 /opt/oracle/bin>] crsctl query crs activeversion -f
Oracle Clusterware active version on the cluster is [19.0.0.0.0]. The cluster upgrade state is [ROLLING PATCH]. The cluster
active patch level is [3331580692].
[oracle@aumel21db17vcn1 /opt/oracle/bin>] crsctl query crs softwarepatch
Oracle Clusterware patch level on node aumel21db17vcn1 is [3331580692].
[oracle@aumel21db17vcn1 /opt/oracle/bin>]
asmcmd
ASMCMD> showclusterstate
In Rolling Patch

[oracle@aumel21db17vcn2 /opt/oracle/bin>] crsctl query crs activeversion -f
Oracle Clusterware active version on the cluster is [19.0.0.0.0]. The cluster upgrade state is [ROLLING PATCH].The cluster
active patch level is [3331580692].
[oracle@aumel21db17vcn2 /opt/oracle/bin>]
[oracle@aumel21db17vcn2 /opt/oracle/bin>] crsctl query crs softwarepatch
Oracle Clusterware patch level on node aumel21db17vcn2 is [2471091579].
[oracle@aumel21db17vcn2 /opt/oracle/bin>]
[oracle@aumel21db17vcn2 /opt/oracle/bin>]
[oracle@aumel21db17vcn2 /opt/oracle/bin>] asmcmd

```



```
ASMCMD> showclusterstate  
In Rolling Patch  
ASMCMD>
```

Same output can also be identified through SQLPLUS from ASM

```
SELECT SYS_CONTEXT('SYS_CLUSTER_PROPERTIES', 'CLUSTER_STATE') FROM DUAL;
```

```
SYS_CONTEXT('SYS_CLUSTER_PROPERTIES','CLUSTER_STATE')
```

*-----
In Rolling Patch*

Identification of Problem:-

Normally the issue occurs when opatch used in cluster nodes are different from each other. The solution lies if both nodes are in ROLLING STATE or only one and further if patches are same in both nodes or different. Check opatch lspatches is same for both nodes perform below.

Resolution:-

Option A)

- 1) From ASM environment run
`ALTER SYSTEM STOP ROLLING PATCH`
OR
From cluster environment run

`$GI_HOME/bin/crsctl stop rollingpatch`
- 2) As root user,
`$GRID_HOME/crs/install/rootcrs.sh -prepatch`
`$GRID_HOME/crs/install/rootcrs.sh -postpatch`

Option B (if A doesn't work)

As Root user:-

- a) `$GRID_HOME/bin/clscfg -localpatch`

Run the following command as the root user to lock the GI home:

- b) `$GRID_HOME/crs/install/rootcrs.sh -lock`
- c) `$GRID_HOME/bin/crsctl start crs`

Option C : Follow reference metalinks

Reference Metalinks:-

Software Patch Mismatch After Applying Bundle Patch or PSU on Grid Home and the Cluster Upgrade State is [ROLLING PATCH] (Doc ID 2176790.1)

[OCI] Scale-up Failed in DBCS With ORA-15032: not all alterations performed, ORA-15137: The ASM cluster is in rolling patch state (Doc ID 2681040.1)
Opatch version was different across nodes which causes GI Patching was stuck in state [ROLLING PATCH] (Doc ID 2199275.1)