If patching **failed on Node 2** but was **successful on Node 1**, you need to investigate the differences between the two nodes. Here’s a structured approach to troubleshoot and resolve the issue in an **Oracle 2-node RAC** environment:

**1. Check Patch Log Files on Node 2**

* The first step is to analyze the opatch logs on Node 2:
* tail -f $ORACLE\_HOME/cfgtoollogs/opatch/opatch\*.log
* Look for specific **error messages** or **failed steps**.

**2. Verify Opatch Version Consistency**

* Ensure that both nodes have the same OPatch version:
* $ORACLE\_HOME/OPatch/opatch version
* If the versions are different, update OPatch on Node 2.

**3. Check Patch Inventory on Both Nodes**

* Compare the patch inventory between both nodes:
* $ORACLE\_HOME/OPatch/opatch lsinventory
* If Node 2 is missing any previous patches, it might cause conflicts.

**4. Verify Software Ownership and Permissions**

* Ensure that **ownership and permissions** are correct on Node 2:
* ls -ld $ORACLE\_HOME
* ls -ld $GRID\_HOME
* The owner should be **oracle** (for RDBMS) and **grid** (for GI).
* If permission issues are found, correct them:
* chown -R oracle:oinstall $ORACLE\_HOME
* chmod -R 775 $ORACLE\_HOME

**5. Check Cluster Synchronization and Interconnect**

* If patching fails due to a **cluster communication issue**, check CRS status:
* crsctl check cluster
* crsctl stat res -t
* If Node 2 is **partially online or experiencing interconnect issues**, try restarting the node.

**6. Verify File System Space on Node 2**

* Ensure that **sufficient space** is available:
* df -h
* If space is low, free up space before retrying.

**7. Validate Oracle Processes on Node 2**

* Ensure that necessary Oracle services are running before applying the patch:
* ps -ef | grep pmon
* ps -ef | grep crs
* If services are not running, restart them:
* srvctl stop nodeapps -n node2
* srvctl start nodeapps -n node2

**8. Check /etc/oratab and /etc/hosts Differences**

* Verify that the **oratab** file is correctly configured:
* cat /etc/oratab
* Ensure that **/etc/hosts** has the correct IP addresses for both nodes.

**9. Check for Patch Conflicts on Node 2**

* Run the conflict check to see if an existing patch is causing the issue:
* $ORACLE\_HOME/OPatch/opatch prereq CheckConflictAgainstOHWithDetail -ph ./patch\_location/

**10. Check Running Sessions or Locks**

* If any sessions or background processes are blocking patching, find them:
* SELECT blocking\_session, sid, serial#, event
* FROM v$session WHERE state = 'WAITING';
* Kill blocking sessions if necessary:
* ALTER SYSTEM KILL SESSION 'sid,serial#' IMMEDIATE;

**11. Rollback and Reapply the Patch on Node 2**

If the patch is **partially applied** on Node 2, rollback and retry:

$ORACLE\_HOME/OPatch/opatch rollback -id <Patch\_ID>

$ORACLE\_HOME/OPatch/opatch apply

**12. Restart Node 2 and Retry Patching**

* If all else fails, restart Node 2 and retry:
* shutdown -r now

**Final Step: Verify Patch Application on Both Nodes**

* Once the patch is applied, check the patch status:
* $ORACLE\_HOME/OPatch/opatch lsinventory

**Summary of Actions to Check**

| **Check** | **Command** |
| --- | --- |
| Review Patch Logs | tail -f $ORACLE\_HOME/cfgtoollogs/opatch/opatch\*.log |
| Compare OPatch Versions | $ORACLE\_HOME/OPatch/opatch version |
| Check Patch Inventory | $ORACLE\_HOME/OPatch/opatch lsinventory |
| Verify Ownership & Permissions | ls -ld $ORACLE\_HOME |
| Check Cluster & Interconnect | crsctl check cluster |
| Ensure Sufficient Space | df -h |
| Validate Running Oracle Services | `ps -ef |
| Check /etc/oratab & /etc/hosts | cat /etc/oratab |
| Check Patch Conflicts | $ORACLE\_HOME/OPatch/opatch prereq CheckConflictAgainstOHWithDetail -ph ./patch\_location/ |
| Kill Blocking Sessions | ALTER SYSTEM KILL SESSION 'sid,serial#' IMMEDIATE; |
| Rollback & Reapply Patch | $ORACLE\_HOME/OPatch/opatch rollback -id <Patch\_ID> |

Would you like help analyzing a specific log file or error message?