If Oracle 2-node RAC patching is fast for the first 30 minutes and then slows down, it indicates a potential bottleneck that occurs later in the process. Here are the key areas to check and steps to resolve the issue:

**1. Check CPU, Memory, and Load Average**

* Monitor system resources on both nodes using:
* top
* vmstat 5 10
* iostat -x 5 10
* If CPU is high or memory is low, consider tuning the environment.

**2. Check Disk I/O Performance**

* Use iostat or sar to check for disk slowdowns:
* iostat -x 5 10
* Look for high %util or long await times, which indicate storage delays.

**3. Check ASM Performance (if using ASM for storage)**

* Check ASM disk performance:
* select group\_number, name, total\_mb, free\_mb from v$asm\_diskgroup;
* Use asmcmd to check disk status:
* asmcmd lsdsk -G DATA

**4. Check Network Performance**

* Ensure network interfaces are not overloaded:
* netstat -i
* Check RAC interconnect performance:
* mpstat -P ALL 5

**5. Check RAC Cluster Interconnect**

* If cluster interconnect is congested, it can slow down patching.
* Use crsctl to check interconnect status:
* oifcfg getif

**6. Check Opatch Logs for Any Hanging Steps**

* Review the patch log for long-running steps:
* tail -f $ORACLE\_HOME/cfgtoollogs/opatch/opatch\*.log
* Look for delays in **copying files, linking binaries, or re-compilation**.

**7. Check Database Sessions for Blocking**

Run: SELECT blocking\_session, sid, serial#, wait\_class, event FROM v$session WHERE state = 'WAITING';

* Identify if any session is blocking critical patching tasks.

**8. Check for Slow Grid Infrastructure Operations**

* If the slowdown happens when Grid Infrastructure (GI) is being patched, monitor CRS logs:
* tail -f /u01/app/grid/diag/crs/\*/crs/log/crsd.log

**9. Check Patch Conflict Issues**

* Before applying a patch, check for conflicts:
* opatch prereq CheckConflictAgainstOHWithDetail -ph ./patch\_location/

**10. Check CPU Governor and Power Management**

* If patching slows down after 30 minutes, CPU throttling may be happening.
* Check CPU frequency scaling:
* cat /sys/devices/system/cpu/cpu\*/cpufreq/scaling\_governor
* Set it to **performance mode**:
* echo performance | tee /sys/devices/system/cpu/cpu\*/cpufreq/scaling\_governor

**Possible Solutions**

* If **disk I/O is high**, move temporary files to a different mount.
* If **network is slow**, ensure interconnect traffic is using a dedicated network.
* If **CPU throttling is an issue**, set CPU to performance mode.
* If **blocking sessions exist**, kill the problematic session.
* If **patch conflicts are detected**, resolve them before applying the patch.

Would you like a more detailed breakdown based on your specific environment?