

# Juno vs. Luna

## Differences in LSF Configuration between Juno and Luna

1. We reserve ~12GB of RAM per host for the operating system and GPFS on Juno hosts.
2. On each jx## node (CentOS 7 with GPFS), 240GB of RAM is available for LSF jobs.
3. **When specifying RAM for LSF jobs, specify GB of RAM per task (slot) on Juno, unlike Luna where RAM is specified per job.**
4. All jobs must have `-W` (maximum execution Walltime) specified on Juno. Please do not use `-We` on Juno.
5. There is no `/swap` on CentOS 7 nodes. Memory usage is enforced by cgroups so jobs never swap. A job will be terminated if memory usage exceeds its LSF specification.
6. All Juno compute hosts have access to the Internet.
7. To check jobs which are DONE or have status EXIT, use `bhist -l JobID` or `bhist -n 0 -l JobID`. `bacct` is also available. `bjobs -l JobID` only shows RUNNING and PEND jobs.
8. The `bjobs` command can show jobs with DONE/EXIT status for 24 hours.  
Example: `bsub -w "post_done('JOB_A') -J 'JOB_B' ...` if JOB\_A was DONE 72 hours before JOB\_B was submitted, JOB\_B will never start.
9. There is no `iounits` resource on Juno.
10. Juno has an CMOPI and DEVEL SLAs. When CMOPI/DEVEL jobs are not filling those nodes, 100% of slots are available to non-CMOPI jobs with a duration under 90 minutes, 75% of slots are available to jobs under 6 hours and 50% of slots are available to jobs under 31 days.
11. Nodes assigned to other SLAs are available to non-SLA users for jobs up to 360 minutes.