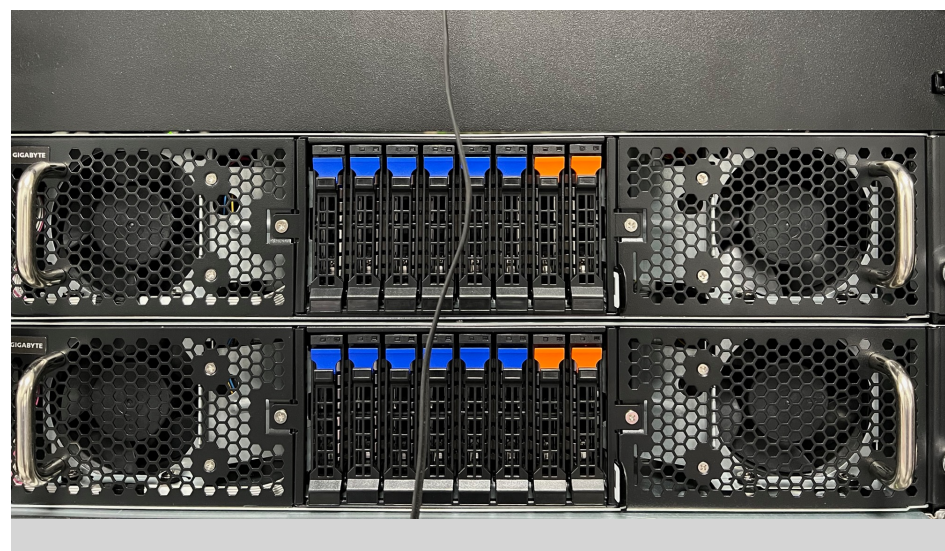


SciOps + ENP April 2024

At right: Two NVIDIA A800 GPU Servers, front view with fans and NVMe storage



Bryan Hess

Monday, April 1, 2024

Jefferson Lab

 U.S. DEPARTMENT OF ENERGY | Office of Science

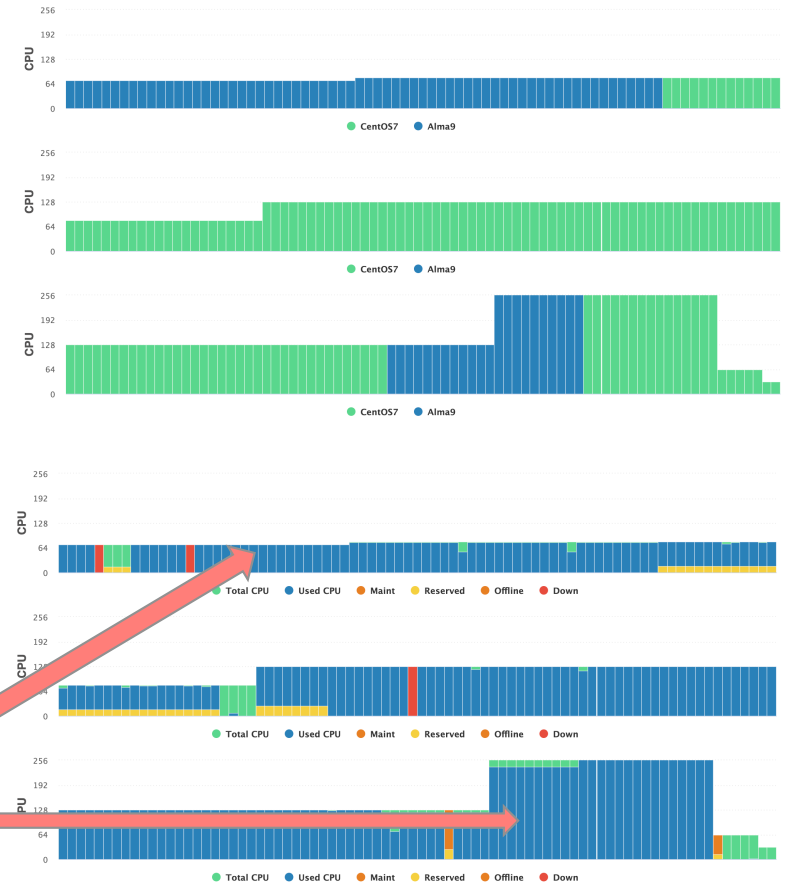


Alma9 Transition Status

- 33% of job slots
- 38% of nodes
- A new set of nodes is upgraded each week.
- Alma9 Nodes are now running jobs for more than one group
- Knowledge Base Articles
 - [Using EL9 Farm Nodes](#)
 - [EL9 Known Issues](#)
 - [Upgrade Announcement from March](#)

Alma 9 Nodes running jobs

Currently the batch farm is being migrated to Alma9. At present there are 88 Alma9 nodes and 151 CentOS7 nodes. Over the next few months all the nodes will be migrated to Alma9.



Alma9 Miscellaneous Topics

- /tmp is mounted noexec; We now use /scratch for \$TMPDIR, which is larger

```
bhess@ifarm180302 ~ $ echo $TMPDIR
/scratch/bhess
```

- Some .cshrc files have failed on Alma9 because of the non-existence of /apps or /site. There are work-arounds for this. One example:

```
if ( -e /site/env/syscshrc ) then
    source /site/env/syscshrc
endif
```

Farm-Local Home directory Option

- Can be requested on a per-user basis (opt-in) for early access
- Helpful for cases where more quota is needed (e.g. Jupyter Users, pip installs, etc.)
- Starting Quota is 25GB
- Farm-Local /home will not be cross-mounted on other systems
- Path is /farm/home/<username>
- Both /farm/home or CUE /u/home:
 - Are backed up
 - Include .snapshot directories
 - Are not for high I/O loads from many farm nodes at one (use Lustre /volatile or /cache)

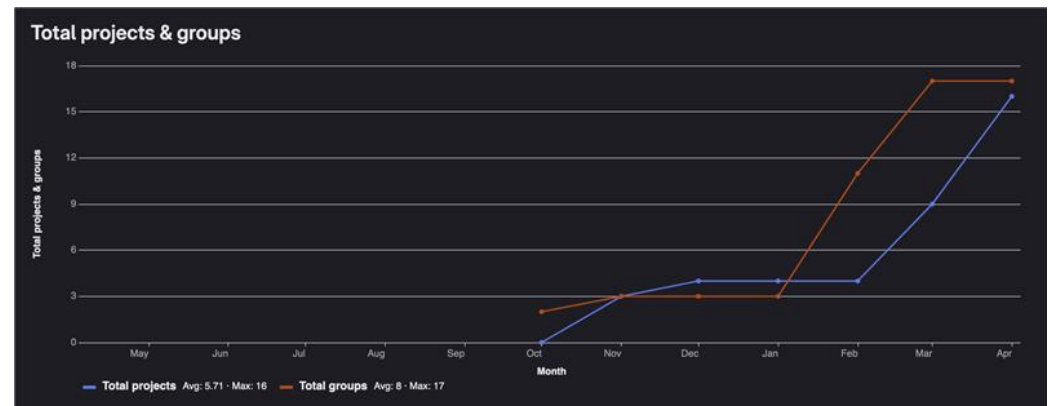
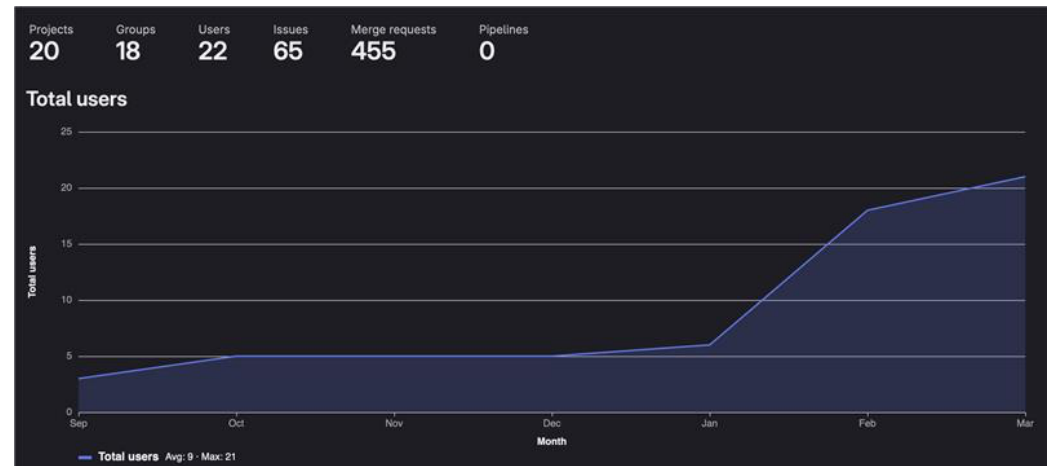
Hardware Deployment Updates

- Two ifarm Nodes have been ordered. Delivery expected this month
 - Same CPUs as farm23 nodes
 - much larger local /scratch area
 - these will become ifarm2401 and ifarm2401 running Alma9
 - The other farm nodes will be retired when the last CentOS 7 farm node is retired.
- Two new GPU nodes (with NVIDIA A800 GPUs)
 - Systems are racked up. Being networked and built.
- Lustre 24 Installation
 - All Hardware on site, racked up, networked, and powered.
 - Initial installation and configuration pass completed.
 - Performance benchmarking underway
- NVMe storage evaluation [No status change – queued behind other work]



code.jlab.org - Status

- Awaiting Cybersecurity review for off-site access
- Accepting early access users
- We are watching the back-end storage needs to see what the growth looks like
- Please let us know what can be clarified.



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- Other Topics?