

SciOps+ENP September 2023

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The logo for Jefferson Lab, featuring the text "Jefferson Lab" in a bold, sans-serif font. A red swoosh underline is positioned beneath the word "Jefferson".

A Farm Storage Roadmap Proposal

- Focus on a key set of storage for the next generation
- /cache and /volatile expand with lifecycle replacement (in progress)
- Discussion: /work deprecation as a legacy area
 - merge /group and /work into a new, faster, flash based /project area
 - sorting of what belongs on /project, what belongs on /volatile, /cache
- Discussion: How is /volatile used?

filesystem	technology	Data Protection	deletion	Quota control	Total Scale	Note
/project	NVMe	Snapshot and nightly	user	group	1PB	dedup+lz4
/cache	Lustre	Write through to tape	auto	purging	5PB	status quo
/volatile	Lustre	TBD	auto	purging	5PB	
/home	NVMe	Snapshot and nightly	user	user	10TB	
/farm_out	NVMe	none	auto	user	10TB	stdout/err
/scratch	SSD	none	auto	slurm	1TB	Node local

Farm Notes

- Progress on the Alma9 farm continues. We will reach out to early testers shortly.
 - Working on full support for Apptainer and Podman container workflows, including examples
 - We have disabled SSL decryption on the farm and ifarm to facilitate this and other workflows that were tripped up by certificate trust issues.
 - Removing dependencies on /site and /apps (Jasmine and tools to be installed as RPM)
 - Containers are the legacy support mechanism; we can assist.
- farm14 will be decommissioned this fall for power and space reconfiguration in the HACS
 - farm14 nodes have lower memory to cpu than most nodes. They are the oldest, slowest, and
 - adding more 208VAC 50A circuits to increase power density in existing racks
- Reconfiguring Ethernet for farm nodes this fall
 - Switch replacement, increasing uplinks to remove ethernet bottlenecks