

HPC Documentation Consolidation & Modernization

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Objectives

We must gather documentation sources, unify them and deploy them in an easily navigable, portable, authenticated, version-tracked solution for our networks.

“Documentation: because in the future you won’t remember how any of this works.”
- Everyone

Methods

- Replaced all-in-one monolithic (VM) system with smaller, independent services.
- Set up automatic building and updating (CI/CD).
- Switched from older technology (Ruby Jekyll) to Golang Hugo (a faster tool) for creating our documentation site.
- Added request handling (Golang Echo webserver) with temporary storage (Redis).
- Created persistent storage (PVC).

Results

- Eliminated single point of failure (VM)
- Automated Git workflows maintaining version synchronization.
- Enhanced stability & reliability
- Simplified maintenance

Future work

Integrate HPC documentation into the database powering LANL's HPC AI assistant. This assistant supports LANL HPC-related questions. i.e. “What is Chicoma?”

