

Cameron Harr

Supported Projects: DTN, CSS File System

Quarterly Report for Jan. 1, 2017 – Mar. 31, 2017

Quarterly Synopsis:

Mr. Harr largely spent Q1 2017 getting ready for EGF data replication, including readying the file systems for data transfers and helping to manage tasks for various team members to meet readiness deadlines with the Synda test federation.

Quarterly Accomplishments:

- Tested and tuned the css03 file system with a larger block size and better block allocation scheme.
- Performed major update of cssfs system, migrating VMs from CentOS 6 to CentOS 7, facilitating easier transitions in the future.
- Upgraded GPFS to latest version 4.2.2.
- Installed GPFS on ~22 various AIMS servers to natively mount GPFS.
- Created and configured users for new Jira issue-tracking project, AIMS, to assign responsibility for and track tasks related to the Synda test federation.
- Transferred 688TB of CMIP5 data that resided on legacy CSS01 and CSS02 file systems.
- Researched GPFS compression and subsequently compressed the aforementioned CMIP5 data down to 415TB, saving 40% usage.
- Set up Synda node for test federation and worked with Jeff Painter to help him access the Synda node, run queries, and perform various Synda maintenance tasks.
- Participated in numerous email discussions between ESGF sites to help with issues or to show progress.

Next Quarter's Roadmap:

- Transfer additional data from legacy CSS01 and CSS02 file systems to the CSS03 file system as it becomes evident. (So far, all identified data has been transferred.)
- Continue to assign and/or help supervise ESGF replication tasks for the AIMS team.
- Configure aimsdtn nodes as necessary to meet ESGF replication needs.
- Perform system updates on GPFS I/O nodes.
- Work with DDN to procure new hardware to expand cssfs system.