

# **Cameron Harr**

## **Supported Projects: DTN, CSS File System**

**Quarterly Report for April 1, 2016 – June 30, 2016**

### **Quarterly Synopsis:**

The arrival of CMIP6 data is expected to necessitate 10x-25x times the amount of storage capacity. Mr. Harr spent considerable time this quarter planning the new storage procurement, including ascertaining technical requirements, evaluating multiple vendors, negotiating pricing to match a year-to-year grant-oriented budget, and working with LLNL Computation facilities to plan for placement of the system.

Additionally, Mr. Harr worked to bring the AIMS DTN servers up to new certificate standards for use with Globus GridFTP.

### **Quarterly Accomplishments:**

- Evaluated file system solutions including NFS, Lustre, and GPFS to see which would best match our budget, technical, and staffing requirements. GPFS was chosen as the best solution due to ease of administration and expansion.
- Evaluated GPFS “appliance” solutions from IBM, DDN, and Seagate to choose best solution based on technical needs (primarily expansion options) and the ability to match our year-to-year budget allocations.
- Created RFP for bidding process on storage solution. Ultimately, a sole-source contract was discovered that allowed purchase of the DDN system through a retailer without a bidding process. As the DDN GS12K was the only solution that met all the solution’s needs, DDN was ultimately selected as the vendor of choice and a purchase order was placed June 29.
- Worked with LC staff and Computation Facilities staff to locate a site for the new storage system. The task was complicated by the fact that the current data center for the Science DMZ is scheduled for decommission before the end-of-life of the new storage system, as well as due to the system weight exceeding the data center floor capabilities.
- Configured and tested Synnda transfer software on new “ingest” DTN nodes.
- Updated operating system software on DTN nodes.
- Researched new Globus certificate security requirements and requested new certificates.
- Attended bi-weekly ICNWG conference calls

### **Next Quarter’s Roadmap:**

- Finalize location of incoming CSS file system
- Install, configure, test, and integrate new CSS file system with existing, relevant, AIMS systems.