INDIANA UNIVERSITY

4d – Disk Storage

Action Item Template Response

General Action Item Information

Lead Division/Office: Research Technologies
Action Item Number: 4d
Action Item Short Name: Disk Storage
Dependencies with other EP Action Items:
Implementation leader (name & email): Steve Simms (ssimms@indiana.edu), Dave Hancock (dyhancoc@indiana.edu), Kurt A Seiffert (seiffert@indiana.edu), Matt Link (mrlink@indiana.edu)

I. DESCRIBE YOUR PLANS FOR IMPLEMENTING THIS ACTION.

The Data Capacitor (DC) was designed to be a large pool of high-speed, high-performance spinning disk storage. Replacing the old Data Capacitor hardware will allow UITS to continue to serve those customers that we have empowered, while opening the door to new customers with increased size and data rates. Currently we have submitted a grant to the National Science Foundation (NSF) for a Data Capacitor refresh (DC2). If we win the award, then the new Data Capacitor installation will be paid for. The NSF proposal for the DC2 will increase the current size of the DC from roughly 1PB to 2.4PB in PY1 and add an additional 2.4PB in PY2. This will be over a four-fold increase in capacity. If not, then it will be crucial to continue providing the functionality that the Data Capacitor provides in both capacity and performance. Research Database Server storage replacement enables large-scale database research that's uniquely supported by Research Technologies. Since undergoing the HIPAA certification process, UITS has positioned itself to greatly expand services for sensitive data including electronic protected health information that is essential to supporting the IU School of Medicine. Needs of life sciences, medical, and geographical information systems (GIS) researchers are ever expanding, and additional storage is critical in keeping pace with demand and providing the latest environments for researchers. The Research File System (RFS) offers a ubiquitous storage solution for researchers and collaborators here at IU and across the globe. It supports more modest capacity needs by being accessible from a desktop, a supercomputer, or a remote field station in Africa or Central America. Dedicated project space enables researchers to collaborate on a single file system accessible from virtually any location. Integration with the secure massive data storage system supports a variety of research workflows and data life cycle requirements.

II. WHAT ARE THE POLICY AND PRACTICE IMPLICATIONS OF YOUR PLANS

None.

III. IDENTIFY STAKEHOLDERS.

Faculty and other local researchers at Indiana University campuses, researchers using national cyberinfrastructure such as the TeraGrid and Open Science Grid, and international research

partners like ZIH at the Technical University of Dresden all take advantage of the incredible data rates and storage capacities of the Data Capacitor.

- Research community
  - Faculty
  - Graduate students
  - Laboratories
  - National and international research collaborations
- Creative activities communities
- Library and archival Communities
- Outreach and community engagement