

Research Computing Advisory Committee

Minutes Aug 5, 2013 (taken by Erik Deumens)

Present: Sophia Acord, Mike Conlon, Erik Deumens, Rob Ferl, Felix Liu, Lauren McIntyre, David Nessler, Alberto Riva

Updates

1. Legislative Budget Requests submitted to the BOG with forms attached
 - a. One for statewide collaborative research data storage system to be built by SSERCA. This will provide storage systems for at UF, FSU, USF, UCF, and FIU. A matching request to FL DoE from UM will ask for a similar chunk at UM. The UF system will be housed in the UF datacenter .
 - b. One for a quantum computer DWave System Two coded for discrete optimization problems. This system will also be housed in the UF datacenter. This system is not your usual computer: It requires a weekly supply of liquid Nitrogen and liquid Helium.
2. Campus network agreement to move to a new architecture that will improve experience for researchers. The architecture calls for the creation of network environments so that users will be primarily assigned to a network based on their role and activities rather than based on what building they happen to be in to do that work. Three network environments are envisioned initially:
 - a. Academic, very much like the main campus today
 - b. Staff, for people doing the enterprise work for the University
 - c. Health, very much like the HealthNet todayThe timeline is estimated for completion by June 2014. The CTRB will be implemented as a pilot first around Dec 2013.

Discussion

1. While the committee was very appreciative of the work that was accomplished with the new campus network architecture, there were a few members expressing serious concerns about the existing network performance. Their complaint was on both the main campus and the AHC network; they said performance is actually worse outside of HealthNet in buildings like Fifield Hall and Bartram-Carr. They complained specifically about
 - a. bandwidth, slow to download things from websites, and
 - b. latency, applications that run on data stored on a shared network drive timing out.

They related that the problems have been reported and that network engineers have seen the bad performance, which is sometimes hard because the problems are not persistent, but come and go. They expressed concern that 90% of the people on campus are struggling daily with what they call slow networks, as compared to what they have at home. One said that the network was much better performing at Purdue when she was there a few weeks ago. Maybe the new network architecture will allow for better performance monitoring.

Can UF set up some test servers on campus like there are on the Internet that people can use to run a speed-test from any device on campus and that gives a uniform report that can be submitted with a problem report?

2. Is anyone aware of plans by UF teams to submit a proposal to the NIH BD2K <http://bd2k.nih.gov/#sthash.Nlvz1ynF.dpbs>
3. Research Computing has a well-defined set of services
 - a. Compute cores and scratch storage for HPC and HTC
 - b. Long term replicated storage
 - c. High performance network transfers
 - d. Training
 - e. Consulting

We are now receiving numerous requests for what can be called Big Data Processing (BDP)

- a. Storage for collaborative research with an easy interface such as that provided by Dropbox, and other cloud service providers
- b. Web servers with web applications share research data and offer compute services
- c. Big data analytics with Hadoop-style file systems
- d. Virtual machine provisioning for special software needs, virtual apps
- e. Virtual machines and virtual networks for research experimentation by computer and network science and engineering students

Organization

The web site has been updated and now shows the meeting schedule through the fall 2013 at <http://www.it.ufl.edu/governance/advisorycommittees/researchcomputing.html>.

Next meeting will be on the unusual day of Tuesday September 3 (Monday is Labor Day) at the usual location in NPB 2205 from 1:30 – 2: 30 pm.