

Research Computing Advisory Committee

Minutes July 1, 2013 (taken by Erik Deumens)

Present: Paul Avery, S. Bala Balachandar, Peter Barnes, Erik Deumens, Bill Farmerie, David Nessler, Dave Pokorney, Sanjay Ranka, Alberto Riva, Laurie Taylor

Updates

UF won a multiscale simulation center award from NNSA \$8M over 5 years. This the UF press release about the DOE NNSA award to UF with Prof. Bala as PI.

<http://news.ufl.edu/2013/06/28/nnsa-award/> and here is the NNSA press release <http://nnsa.energy.gov/mediaroom/pressreleases/psaap062713>

Bala and Sanjay describe the goals and scope of the project. The HPC center will be deeply involved in the new Center.

HiPerGator has been used by some early users and is scheduled to be available for general use starting July 8. Then there will be some reorganization of the older clusters in Larsen Hall to integrate them with the new system. The total system is scheduled to be ready for seamless use in September.

To avoid the problem of multiple levels of administration, Research Computing has been reorganized. Instead of all staff reporting to the associate director who reports to the director, all staff now reports to the director since June 18. In the new organization every staff member can be the lead of a project team with one, two, or three members. This will make Research Computing more nimble to respond to the many new needs that are emerging.

Erik reminds everyone to make sure that all departments know that tours of the new data center are impressive and are available to add to the visits of potential new faculty.

Discussion

The announcement of the Multi-scale Simulation Center resulted in a discussion about what makes Exascale different. The power demand with conventional technology does not scale, so new power efficient technologies need to be built and this will require changes in algorithms as well.

UF and Fermilab are leading a test to transfer data across the new 100 G link UF installed in January 2013 to show how the bandwidth can be used for science. Many institutions are interested and participating. Oak Ridge National Lab and University of Clemson are a few recent ones to join. Internet2 will provide coordination and communication.

UF is working on two storage projects: Storage in the cloud, currently Microsoft SkyDrive Pro is the leading candidate for storage for faculty that will allow ease of use and sharing like Dropbox.com but will also provide risk mitigation for the University when faculty store data in the cloud, which is something the consumer-level Dropbox service now used by many faculty members does not provide. This storage is for multi GB sizes. The second project is in conjunction with SSERCA and will offer storage for multiple TB sizes and will offer high-speed access to HiPerGator. The target date for these new systems is sometime this Fall.

Currently the HPC systems only provide Lustre file systems for scratch and NFS and CIFS for long term replicated storage. These two options will broaden the offering.

For research new storage paradigm like hadoop will also be investigated in addition and then implemented as a pilot.

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 August 5 at the usual location in NPB 2205 from 1:30 – 2: 30 pm.