

Table Topics

- Storage
- Virtual Communities/Orgs
- Bldg the campus case for funding
- National funding strategies
- Campus support models

Storage

- HPC and general filesystem issues
 - lot's-o-stuff
- Operations
 - lot's-o-stuff
- General
 - Encourage NSF to support pure storage acquisitions in addition to computational resources.
 - Is the petascale program supporting petascale storage?
 - Information life cycle management
 - application compatibility. Will data format be readable after 10 years? 100 years?
 - media survival. E.g., CD-R life may be less than expected
 - Transportability of TB+ data from one institution to another. E.g., faculty transfer to new university
 - Data security: ACLs, encryption, validation (e.g., timestamp and checksum).
 - Who's running clustered FS now?
 - IBRIX
 - CXFS
 - GPFS
 - GFS
 - Lustre
 - PVFS2
 - Other?

VO/VCComm

- International access issues
- IRB training
- IRB certification
- Auditor training
- Close ranks with AAMC
- Clinical trials as a special case
- .com mkt forces fixed the FLOPS, they won't fix collaboration. If it's required in the RFP - fund the grant or create an ecosystem that all can plug into, then make the req't

Campus Funding

- Central research computing (RC) staff can be paid by researchers
- Central RC staff work with incoming faculty on startup packages that include funding for RC infrastructure
- Boilerplate wording, covering services and facilities offered by RC center, can be used to include in grant applications to solicit funds to grow capacity in support of research grant
- Faculty can be advocates for institutional funding if RC staff develop personal relationships with them
- If staff might be lost due to grants ending, bridge funding might be available to support them until they can be redeployed on other projects (if they are part of centrally managed RC staff)
- Funding sources include central administration, institutional research foundations, grants, and external funding sources (e.g., Georgia Research Alliance which funds research that has strong potential for economic development in the state)
- Surveys of researchers can be used to demonstrate return on investment by asking how much grant funding was obtained as a direct result of investments in RC infrastructure
- Demonstrated reduction in total cost of ownership (including power, HVAC, space) by centrally managing and supporting RC infrastructure can bring additional dollars for growing central facility

Nat'l Funding

- Funding gap for campuses to provide systems large enough to get a level of production and a scaling environment to scale to track 2 or track 1 centers.
- Examine the relationship between campuses and track 2.
- We need to fund the support model at the campus level.
- Sustaining funding at the campus level.
- How do you build the cyber infrastructure to support the use of track 2 and track 1 centers.
- Where does networking expertise fit in with all of this?
- Software
- Consider cyber-infrastructure in a holistic way - people, middleware, hardware, networking.
- Would it make sense for the NSF to fund centers at 25 (50) universities - smaller than track 2 but bigger than departmental.

Campus support

- Faculty need a package deal to convince them to move to a new support model
- Challenge: some faculty assume grant overhead already goes to IT; there needs to be a common understanding between researchers and IT staff regarding what is "infrastructure"; assumptions are being made which leave both sides feeling cheated
- There needs to be more communication among IT support staff throughout the departments and central IT so a common understanding of the issues can be developed
- There needs to be better marketing to the community; everyone will feel better if they know they are part of something successful; maybe have user group meetings, an overall collaborative community
- Central administration (CIO's, provosts, VP's) have to buy in to the importance of HPC and of the cultural changes that need to happen on the campuses
- Institutions might want to consider working more closely with students to set up a training cycle for them in IT; need to carefully choose the students, need to understand what will motivate the students; IT might get some good employees after a certain number of years, employees who already understand enough about the research to have a common language to use with the researchers
- NSF is going to start requiring a "data standard" - this will have a big impact on NSF grants
- What are researchers willing to let IT support? While networking is (usually) ok, there are other gaps which IT needs to find and fill
- There should be solid requirements for when research must use central IT
- Specific points for NSF:
 - What are the NSF storage guidelines?
 - What does NFS recommend as good ways for leaders to facilitate culture change?
 - T.E.A.M. Training, Education, Awareness, Mentoring