

NSF Campus Cyberinfrastructure Program PI Workshop

Panel Discussion: Science Engagement and the CI Engineer Role

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Good News, Bad News

- Grant received in September, 2015 and we received permission in late October, 2015 to file for a new position (type and person).
- We managed to hire a good person (in June, 2016) with enough of the background that we needed to teach the rest.
- Creating the first new position type in the middle of a state government wide hiring freeze led to approval discussions far above the university HR department level.



UW Science Network

- MX-480 Router with 100 Gbps connection to Internet2
 - Deployed nodes with PerfSONAR
 - Bandwidth and Latency checks
- Anonymous Data Transfer Nodes: 1 read, 1 write.
 - In GridFTP testing stage.
 - Used to gain insight into tuning 100 Gbps HCA
 - NVMe disk technology
- Condominium HPC storage system GridFTP DTNs uplinked at 40 Gbps, GPFS based filesystem.
- Peta-scale research data repository (petaLibrary) GridFTP DTNs uplinked at 40 Gbps, GPFS based filesystem.



CI Engineer Currently Working on...

- Serving published data from the petaLibrary.
 - Worked with UW Libraries / Digital Collections on the use of the petaLibrary for storing published data.
 - WYGIS data migration into the PetaLibrary and accessed on the UW Science Network.
- Globus: Set up and used different kinds of endpoints (server, personal, shared personal), and documented details about this, especially where they are not easily gleaned from online documentation.
 - Currently using this information in setting up Globus transfer ability between UW and Columbia University researchers.



CI Engineer Projects in Near Future...

- Globus training workshops for research groups (11/16).
- Remote control and data collection from UW remote telescopes. One already on UW Science Network, the other needs to be.
- Bioinformatics groups data dissemination and exchange.
- Make UW Science Network the default for data exchanges between outside world and UW Advanced Research Computing Cluster (ARCC).
- Advise multiple NCAR Wyoming Supercomputer Center research groups based at UW.



Long Term Issues

- How to guarantee the continuance of the CI Engineer position after the grant ends.
- Grow into a community based program and develop the skills needed to be successful *and* useful to researchers.
- Develop a reputation on campus for the CI Engineer providing quality benefits to individual research groups.
 - Once two groups are satisfied, many issues will resolve.
 - One group is insufficient.
 - Five+ groups identified and targeted for this academic year.

