



MAGIC Meeting Minutes

May 7, 2014

Attendees

Rich Carlson	DOE/SC
Ian Foster	ANL
Dan Katz	NSF
Ji Lee	NCO
Grant Miller	NCO
Lavanya Ranamakrish	LBNL

Action Items

Proceedings

This MAGIC Meeting was chaired by Rich Carlson of DOE/SC and Dan Katz of the NSF. Ian Foster of ANL discussed Globus and Globus Online including its new publication services.

Globus/ Globus Online

Globus was started about 15 years ago to provide services and tools for users to deal with big data transfers and sharing files simply, securely and rapidly from your storage systems. The user initiates a transfer request to the data source. Globus moves and synchs the files to the destination. Globus notifies the user of the transfer success. Globus enables sharing large data with any user or group without requiring any cloud storage.

Globus Statistics:

- Currently 15000 registered users
- 8000 active end points
- 3 billion files transferred
- 42.5 PB of data moved (April 15, 2014)

Some of the applications using Globus include:

- Structure and evolution of the universe, nature of dark energy, cosmological history of the universe
- Numerical simulation of severe storms for weather event responsiveness
- Pediatric brain research through genetic material analysis

Globus is increasingly used to build campus-wide data service. Typically Globus is deployed with a Science DMZ that isolates big data flows from internal organizational networking to avoid interference

Increasingly bigger data sets need broader data service deployments. Such larger data sets are associated with:

- Advanced light source
- Next generation genetic sequencers
- Light sheet microscopes
- LHC data

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- Astronomical data

Globus enables users to manage data as research requirements scale up or down.

2013-2014 Globus accomplishments include:

- General data sharing
- Improved user interface
- Globus connect server
- A management console to flight manage jobs
- Compatibility and interuse with Amazon S3 Web services
- Use by 85 universities

Globus provides other user services. Subscriptions provides priority support, a management console, mass storage system optimization, host shared endpoints and other services. Net+Globus provides discounted Globus provider subscriptions to Internet2 members. They are completing the service validation phase for this service.

Globus operates through its:

- Sharing service
- Transfer service
- Identity, group, profile management service
- Globus toolkit
- Globus connect

Globus will integrate with Amazon Web services and Galaxy to provide SaaS, PaaS and scalable IaaS

Globus data publication service

The Globus data publication service is a new capability that enables user to publish data, to describe the data (metadata), to assemble the data sets, curate the data set. A user of the published data can then search for the data and download it.

For the complete briefing please see: <http://www.slideshare.net/ianfoster/globus-status-and-publication-plans>

Other topics of interest

An April 18 DOE solicitation called for proposals on modeling for extreme scale workflows. We have been building infrastructure. What has this infrastructure provided? How do we define what the models are doing and how do you build better models for future science?

NSF also has the SI2 program that funds small scale software infrastructure. A solicitation for medium scale frameworks is due in June.

NSF issued a Dear Colleague letter to promote collaboration between SCI and SCE new models for software publication. They are seeking workshop proposals to get researchers collaborating and building a community.

Upcoming Meetings:

July 22-25, XSEDE, San Diego

July, NCAR: Data management for environmental and climate research. Speeding up data movement.

November, SC14, New Orleans: WISPE meeting focused on software

Next MAGIC Meetings:

June 4, 2014, 2:00-4:00 EDT, NSF

July 2, 2014, 2:00-4:00 EDT, NSF