MAGIC Meeting
March 7, 2012

Attendees

Gabrielle Allen	NSF
Sean Budreau	
Rich Carlson	DOE/SC
ShantenuJha	Rutgers
Dan Katz	Un of Chicago
KateKeahy	ANL
Mark Kraus	
MironLivny	ANL
Mark Luker	NCO
John McGee	RENCI
Don Middleton	UCAR
Grant Miller	NCO
Thomas Ndousse	DOE/SC
Mike Nelson	Georgetown Un.
Dane Skow	ANL
George Strawn	NCO
Michaela Taufer,	Un. of Delaware
Von Welch	Indiana Un.

Action Items

1. Mike Nelson will send notice to the MAGIC members of Internet Society events on regulation of the cloud.

Proceedings
This MAGIC meeting was chaired by Rich Carlson of DOE/SC and Gabrielle Allen of the NSF. The meeting focused on a review of the Poznan, Poland international meeting on Grid computing, the next decade. This review was organized and presented by Dan Katz.

Grid Computing, the Next Decade: Poznan Workshop Summary: Presentation by Dan Katz

- This workshop was held January 4-6, 2012 in Zakopane, Poland. The workshop URL is: http://www.gridlab.org/Meetings/Zakopane2012

The focus of the meeting was consideration of new levels of cooperation and integration of cyberinfrastructure efforts needed to support global science over the next decade.
- Who are the stakeholders
- What are \science needs
- What are global issues for cooperation and sharing
- Do we want a blueprint for CI for global science
- What are lessons-learned from the last decade

The meeting was organized into three breakout groups:
- Big Science
- Long-tail science
- New Grand Challenge communities

Big science has a large project budget providing collaboration among a large number of people generating an extremely large amount of data. Big science involves large complexity of instruments and involves long time-scales. It generally has a structured approach to work with end user requirements and requires long-term planning.

Planning for CI support for big science projects is difficult since most projects have a 3-5 year funding cycle with no commitment to long-term funding.

Long-tale science generally involves small ad hoc or spontaneous collaborations. They are associated with a specific user community, involve multidisciplinary research and are small in scale, < $1m. Usually no one is funded to gather community requirements. Their requirements usually involve data movement; metadata generation; data storage; data search; provenance; sharing; tagging; and analysis. XSEDE requirements are published at: http://www.xsede.org/publications

Grand Challenge communities address global scientific problems that are too large and diverse for a consortium of research groups, e.g., modeling and understanding gamma ray bursts, particle physics, gravitational science, or astronomy. Needs for supporting Grand Challenges include technical infrastructure, policies for intellectual property management and OpenAccess, support for social and cultural interactions, and regulations for data access, privacy…

The process for development of a blueprint for improved Grid capabilities includes:
- o minimal security assurances, identity management
- o data sharing policies
- o collaborative software development
- o campus bridging to international infrastructures
- o governance mechanisms
- o continued innovation, as illustrated by the rapid progress of commercial offerings
- o reuse and best practices

Big science identified that developing a blueprint would be very difficult but it would be worthwhile and economically beneficial. Small science identified a need for standardized interfaces or policies with a multi-level architecture. An infrastructure platform provides common interfaces to infrastructures. Platforms build on this to provide higher-level capabilities. Common services contribute to the platforms. Focus should be on solutions that are simple individually and which can be constructed into a larger capability by combining multiple simple solutions.

Grand Challenges communities can develop a blueprint through global community agreement on interfaces. Data, software, and research are drivers for developing a blueprint.

Actions needed include:
- Start a blueprint process for big science
- For small science survey small scientists to identify solutions that work, create an inspiring presentation on creating a shared vision, and, for the longer-term provide a simple-to-use workflow environment and a pervasive storage system.
- For Grand-Challenge communities create an international Charette-like process that consults with stakeholders. Earthcube is an example, on a small scale, of a successful charette process.

The workshop developed a proposal for a blueprint process to deal with:
- – security assurances, identity management
- – data sharing policies
- – collaborative software support

- campus bridging to international infrastructures
- governance mechanisms
- best practices
- reuse
- continued innovation

The complete briefing may be found at the NCO MAGIC Wiki at:
http://connect.nitrd.gov/nconitrdwiki/index.php/MAGIC

Discussion among the MAGIC members identified:
  - There are three threads to pursue
    -- Global commitment to a common infrastructure
    -- Build on the common infrastructure
    -- Address the development process to make the infrastructure process work better
  - There are people at NSF and the European Community supportive of this idea. The Asians are discussing their possible participation in this process
  - The Poznan meeting participants agreed to this process. They are now trying to broaden the community supporting this process.
  - Applications development people need to be engaged to support this process

For the April MAGIC Meeting, Manish Parashar is organizing a discussion topic of Integrating Cloud Infrastructure.

Upcoming Meetings of Interest
March 19, Securing the cloud, U.S. Institution of Peace
March 20, Lawful access to the cloud in Europe and the U.S., Georgetown University
April 10-12: Globus World Meeting
October: E-Science conference of IEEE, Chicago

AI: Mike Nelson will send notice to the MAGIC members of Internet Society events on regulation of the cloud.

Future MAGIC Meetings
April 4, 2:00-4:00, NSF, Room II-415
May 2, 2:00-4:00, NSF, Room II-415