

**Minutes**  
**MAGIC Meeting**  
**May 7, 2008, 2:00-4:00**  
**NSF, Room 1150**

**Attendance:**

Doug Baggett	NSF	<a href="mailto:dbaggett@nsf.gov">dbaggett@nsf.gov</a>
Dan Fraser	ANL	<a href="mailto:fraser@mcs.anl.gov">fraser@mcs.anl.gov</a>
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Miron Livny	OSG	<a href="mailto:miron@cs.wisc.edu">miron@cs.wisc.edu</a>
Mark Luker	Educause	<a href="mailto:mluker@educause.edu">mluker@educause.edu</a>
Ernest McDuffie	NCO	<a href="mailto:mcduffie@nitrd.gov">mcduffie@nitrd.gov</a>
Grant Miller	NCO	<a href="mailto:miller@nitrd.gov">miller@nitrd.gov</a>
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Susan Turnbull	DOE/SC	<a href="mailto:susan.turnbull@ascr.doe.gov">susan.turnbull@ascr.doe.gov</a>

**Proceedings:**

This meeting of MAGIC was chaired by Kevin Thompson of the NSF.

**Action Items**

1. Grant Miller will talk to Kevin Thompson of the NSF to identify the NSF managers for LHC (Mary Goldberg) and ESG and to see if they will attend the MAGIC meetings.
2. Grant Miller will send contact information for network expertise individuals to the MAGIC email list.
3. Grant Miller will contact Heather Boyles to discuss international connectivity and connectivity agreements at the September MAGIC Meeting
4. Grant Miller will talk to Kevin Thompson about a MAGIC agenda for connectivity and storage.
5. Susan Turnbull will send Grant Miller information on several conferences this fall for forwarding to the MAGIC members.

**Proceedings**

**NSF Programs**

Ed Seidel has joined the NSF as the new Director of CyberInfrastructure. NSF is interested in initiating an SDCI initiative in FY2010 to continue the accomplishments of the former NMI initiative.

**Grid Roundtable**

## **CDIGS and FEDS**

CDIGS released Version 4.2 of the Globus toolkit and they are correcting bugs in the software as they are found. Version 4.2 provides a major advance in specifications for interoperability configuration and testing enabling closer cooperation with European partners.

The Globus World meeting was held recently. Kate Cusic gave a visionary presentation on cloud computing.

Feds is being improved to enable an open source EC2 capability. The new capabilities enable any cluster to use EC2 capability. It is being used for interoperability testing. It supports multiple clients. Users are invited to join the cloud and to use it.

FEDS has several Grid FTP successes. Working with the advanced photon source at Argonne Laboratory, FEDS was able to transmit data from Argonne to Australia at 30 times faster than standard FTP. An application to Germany was able to maintain 80 Mbps sustained throughput.

Microsoft is offering SilverLight software to users to make Olympics coverage available to users. It uses Microsoft specific software so it is not an open standard. With EC2 clouds are enabled but every application has its own flavor software so EC2 instantiations are not interoperable. The Federal government should consider how to provide incentives for people to use standardized EC2 software. S

## **OSG, Miron Livny**

OSG is supporting about 350-450,000 hours of usage per day primarily by a few applications with large data distribution requirements. LHC will provide a significant increase in usage of OSG. Reliability reporting is being coordinated by the WLCG. Sites run the OSG functional testing software. The results are uploaded to the OSG that collects multiple site functionality information that is then forwarded to international collaborations such as the WLCG.

OSG looked at its structure to identify how it identifies deficiencies and opportunities for improvement with the intention of improving its capabilities. The main stakeholders in OSG are currently LHC and LIGO. Some additional applications are coming in through local and regional collaborations such as NYSGrid. The primary users (hours of use) are in the physics community.

LHC Gridfest will demonstrate OSG capabilities at the IBM booth in early October in CERN.

## **DOE Collaboratory Programs**

Susan Turnbull is working for DOE/SC to implement collaboratories. The OSG, Earth Systems Grid (ESG) and FED are cooperating. ESG is supporting an assessment by the Intergovernmental Panel for Climate Change (IPCC). The data volumes are extremely large. Lawrence Livermore performed much of the analysis and they are moving to a distributed architecture. They also recently collaborated with ESSC to discuss distributed processing, storage and common interests. ESG data rates are currently outpacing LHC data rates.

OSG is qualifying sites to be a node on the ESG. They are developing policies and rules for access to data and for prioritizing users.

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ESG implements multiple levels of federation to provide access by researchers of many different levels of trust, mirroring of core data at multiple sites and providing access to site specific data. ESG is seeking a single sign-on approach. They are also using existing Globus identification. Deployment of ESG security has been modest so far. ESG wants to create a common view of the ES data.

### **Shibboleth**

Microsoft is adopting the technology for federated identification. The Gartner Group is also interested in implementing Federated identification.

DOD HSPD12 cards are being used in federations. They are deploying LOA4 security.

In-Common is being increasingly used. NSF is joining In Common.

Liberty Alliance is interested in inter-federation. There is a kickoff meeting in three weeks among, Norway, Sweden, and the U.S.

### **Educause**

Educause is carrying out strategic planning in four areas:

- CyberInfrastructure
- Teaching and Learning
- Managing the enterprise
- Evolving role of IT management and leadership

Educause hosted discussions among CIOs of CASC, universities, and supercomputer sites. They are discussing how to potentially support an NSF GENI infrastructure requirement. They are also discussing fiber issues such as:

- Who owns it?
- How does the IT community on-campus interface with the science community to identify requirements and architectures?
- How do you provide technical support and management of leading-edge networking for science applications?

### **JET Technical Expertise**

The JET has identified networking engineering expertise to be made available to advanced science applications using networking to help them troubleshoot their networks, identify and rectify bottlenecks, and to tune the network performance for the application when local NOC resources have been exhausted. Three individuals have been identified as first points of contact for this expertise and include:

Rich Carlson, Internet2: [rcarlson@internet2.edu](mailto:rcarlson@internet2.edu)

Matt Mathis: Pittsburgh Supercomputing Center: [mathis@psc.edu](mailto:mathis@psc.edu)

Brian Tierney: Lawrence Berkeley Laboratory: [BLTierney@es.net](mailto:BLTierney@es.net)

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### **Proposals for MAGIC Topics**

#### Transatlantic Connectivity

The MAGIC members expressed an interest in learning about the connectivity and connectivity coordinations/collaborations that are taking place to support large-scale science applications such as LHC, LIGO, and ESG. Storage for international cooperations is also an issue for discussion

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MAGIC should consider whether they should cover Distributed collaborations and cloud computing. Discussion among the MAGIC members indicated this should be within the purview of MAGIC.

### **Meetings**

September 16, Expedition Workshop all day at the NSF: Identify learning and education programs from across all Federal agencies of the government

August 27 workshop on GENI: Coordination with university CIOs on how to interface science and experimental networking with campus infrastructure

AI: Susan Turnbull will send Grant Miller information on several conferences this fall for forwarding to the MAGIC members.

### **Next MAGIC Meetings**

September 3, 2:00-3:30, NSF, Room 1150

October 1, 2:00-3:30, NSF, Room 1150