

MAGIC Meeting  
June 1, 2011, 2:00-4:00

**Attendance:**

Linda Akli	SURA
Bob Bohn	NIST
Shane Canon	NERSC
Rich Carlson	DOE
Susan Coughlin	ANL
Gary Crane	SURA
Dan Gunter	LBL
Shantenau Jha	LSU
Dan Katz	University of Chicago
Kate Keahey	Argonne National Lab
Ken Klingenstein	Internet2
Archit Kulshrestha	Indiana University
Miron Livny	Un. of Wisconsin
Paul Love	NCO
Ernie Lucier	NCO
Mark Luker	NCO
David Martin	ANL
Stu Martin	ANL
Grant Miller	NCO
Jarek Nabrzyski	Notre Dame University
Mike Nelson	Georgetown U.
Ruth Pordes	FNAL
Joel Replogle	OGF
Don Riley	Un. of Maryland
Alan Sills	Texas Tech university
George Strawn	NCO
Jay Unger	vDesk Service Inc.
Dean Williams	LL labs

**Action Items**

1. Alan Sill will send MAGIC a message requesting MAGIC members to work on Federal scientific use cases for the NIST Version 2.0 Cloud Computing Reference Model. Volunteers could work at the upcoming OGF32 meeting in Salt Lake City.
2. If you have comments or suggestions for changing the Version 4 Reinvigorating MAGIC document, please send them to Grant Miller at: [miller@nitrd.gov](mailto:miller@nitrd.gov)
3. Grant Miller will contact Ken Freeman of NASA to attend MAGIC meetings
4. Grant Miller will seek to identify a paper on software sustainability to circulate to MAGIC.

5. Kate Keahey will consider the feasibility of putting together a panel on challenge topics for cloud computing for the July 6 MAGIC meeting

### **Proceedings**

This meeting of MAGIC was chaired by Rich Carlson of DOE.

### **The Road to Cloud Standards via a Reference Architecture: Bob Bohn of NIST**

Cloud computing has reached a degree of technological maturity with significant economic investment. It is standards driven for data portability, service interoperability, security, and cloud-to-cloud interaction. The U.S. government needs a reference architecture as a starting point for developing standards for cloud computing services.

This reference architecture should accommodate:

- Service models: Software as a service, platform as a service and infrastructure as a service
- Deployment models: Public, private, community, and hybrid
- Essential characteristics: On demand self-service, broad network access, resource pooling, rapid elasticity, and measured service

The NIST cloud computing reference architecture includes:

- Cloud consumer
- Cloud Provider
- Cloud broker
- Cloud Carrier
- Cloud Auditor/independent assessor of security, privacy, and performance

NIST is developing a taxonomy for cloud computing to encompass its significant concepts and to enable users to understand the context of all labels used. Examples of labels defined include cloud service provider, cloud service management, public cloud, and data portability.

NIST is currently developing Version 2.0 of the NIST Cloud Computing Reference Architecture and Version 2.0 of the NIST Cloud Computing Taxonomy. The taxonomy will define security and privacy and SaaS taxonomy to reflect US government business use cases.

The NIST Cloud Computing Home page is given at; <http://www.nist.gov/itl/cloud>

For the complete briefing see:

<http://www.nitrd.gov/Subcommittee/lsn/magic/material/The%20Road%20to%20Cloud%20Standards%20via%20a%20Reference%20Architecture.pdf>

Discussion among the MAGIC members identified that:

- SCIM is providing reference standards for identity management
- The business use cases should be carefully documented. OGF32 can serve as a forum for filling out templates to define business use cases for cloud computing
- MAGIC could help NIST by working on Version 2.0 Reference Model

- MAGIC could help NIST by filling out templates for Federal scientific use cases. Volunteers included Miron Livny, Kate Keahey, and Jarek Nabrzyski.

AI: Alan Sill will send MAGIC a message requesting MAGIC members to work on Federal scientific use cases for the NIST Version 2.0 Cloud Computing Reference Model. Volunteers could work at the upcoming OGF32 meeting in Salt Lake City.

### **Reinvigorating MAGIC**

Comments on the document for reinvigorating MAGIC were received and incorporated in the latest version of the document (Version 4).

AI: If you have comments or suggestions for changing the Version 4 Reinvigorating MAGIC document, please send them to Grant Miller at: [miller@nitr.gov](mailto:miller@nitr.gov)

Discussion among the MAGIC members indicated that:

- MAGIC needs to provide value added to its participants
- We need to identify a broader community to solicit their cooperation, needs and ideas. DOJ and DOS have collaborated to develop schema to establish interoperability under the NIEM cooperation.
- We need to develop position paper documents that can solicit broad community interest
- The Reinvigorating MAGIC document should address drivers; what impacts MAGIC has.
- MAGIC provides cross-agency information sharing for interagency planning and direction which provides increased effectiveness of research programs.
- NASA should be encouraged to participate in MAGIC
- A difficult and ubiquitous topic is software sustainability
- MAGIC should develop a panel of 4-5 individuals to discuss software sustainability
- A possible topic for MAGIC could be discussion of lessons learned from Amazon and Microsoft donations of cloud computing to science projects.

AI: Grant Miller will contact Ken Freeman of NASA to attend MAGIC meetings

AI: Grant Miller will seek to identify a paper on software sustainability to circulate to MAGIC.

AI: Kate Keahey will consider the feasibility of putting together a panel on challenge topics for cloud computing for the July 6 MAGIC meeting

### **Meetings of Interest**

- OGF 32: July 15-18 Salt Lake City
- HPDC 2011, June 8-11 San Jose Convention Center
- July 10-14 SciDAC, Denver
- July 7-8 IEEE Cloud Computing Forum, Washington, DC

**Next MAGIC Meetings**

July 6, 2:00-4:00, NSF, Room II-415

August 3, 2:00-4:00, NSF, Room II-415