

# MAGIC Meeting

## August 4, 2010, 2:00-4:00

### Proceedings

This meeting of MAGIC was coordinated by Grant Miller of the NCO.

### Presentation on Shibboleth and Federation: The Second Decade

Scott Cantor of Ohio State University gave a presentation on Shibboleth and Federation. The full presentation may be found at:

<http://www.nitrd.gov/Subcommittee/lsn/magic/index.aspx>

Shibboleth was initiated in 1999; SAML 1.1 was fielded in 2001 and Shibboleth 1.3 was fielded in 2004. Shibboleth 3.0 is planned for 2011.

Federated web authentication is provided by multiple standards and specifications. Federated attribute exchange is developed but implementations are less mature. Assurance is not defined for attribute exchange. Federation of non-web protocols have not converged on solution parameters or usability criteria. There are many federations throughout national RE sectors. There is a need for development of best-practices because federating applications still requires significant work by developers.

In the future, consent-based federation needs to move policy, trust, and decisions to the users in order to scale federation. Acceptance of this approach is likely to vary by regulatory regime, organization and culture. Resources have a high value to the user but a low value to the organization.

Non-web federation has many possible approaches, all of them with drawbacks.

- Launch and coordinate with a browser (SASL, OAuth)
- Pure SAML using SASL/GSS
- Moonshot (<http://www.project-moonshot.org/>)
- PAM with OTP
- Use of a certificate

Beta-level Shibboleth code is available to address multi-tier HTTP applications. It uses a federated version of CAS proxy tickets. A significant simplification for developers is expected in subsequent releases.

Interfederation beyond national and regional boundaries is needed. Many technical issues have been solved but policy and coordination issues remain.

In Clouds using Security as a Service (SaaS) you authenticate to get to your own resources. In a Federated Service you authenticate to get to someone else's resources. Industry is moving to OAuth which leaves a lot of details to be defined.

Multiple national Federations depend on Shibboleth code. Governance needs to be expanded (beyond I2) to ensure long-term evolution of Shibboleth.

### MAGIC Recommended Focus Areas for FY2011

The MAGIC members discussed focus topics for MAGIC for FY 2011 to suggest to the LSN Annual Planning Meeting of September 14, 2011. These suggestions include continuing MAGIC's focus on Cloud Computing. In this area MAGIC should address the trusted cloud and open standards. Identify technology enabling better auditing for

data access: who is accessing data, where is the data going? This will require looking within the cloud.

MAGIC members also suggested focusing on economics, incentives, and social science research on the uptake and deployment of new technologies and standards.

Security and trust are critical issues. NIH spends hundreds of millions of dollars to enable Web services but use of these services relies on security, trust, privacy, and authorization. How do we provide these to support the Web services. The Bio-Informatics Research Network (BIRN) developed software to enable the forming of virtual groups. BIRN is funding a separate community services award to address how to identify user requirements, develop policies and enable users to better use the capabilities.

**National Strategy for Trusted identities Cyberspace (NSTIC): See <http://www.nstic.ideascale.com/>**

This draft strategy, referred to as the National Strategy for Trusted Identities in Cyberspace, focuses on the protection of the identity of each party to an online transaction and the identity of the underlying infrastructure that supports it. This Strategy seeks to improve cyberspace for everyone – individuals, private sector, and governments – who conduct business online.

### **Roundtable Discussions**

#### **Earth System Grid: Dane Skow**

The ESG is planning to release its next federation software around August 15. They are gearing up for CMIP5 data sets. Federation is hosted by ESG sites at gateways, including NCAR and a UK site.

#### **CEDPS: Steve Tuecke**

CEDPS is implementing a GLOBUS file transfer service for improved end-to-end service. They are implementing a new software service model and will install it at NERSC in a few weeks. They are replacing SDP with a faster alternative.

#### **CDIGS: Steve Tuecke**

CDIGS released version 5.2 to provide fixes and updates for access to other grids. CDIGS is moving to native packaging.

#### **TeraGrid: Dan Katz**

The TeraGrid 2010 conference is currently being held in Pittsburgh with about 425 attendees. Foy 2011 TeraGrid is considering a joint meeting (TG'11) with either DOE (SciDAC) or DOD user group or both.

New TeraGrid resources are anticipated and include:

- PSC – Large shared memory SGI UV -512 8-core Nehalem EX – 32TB memory in 8 cabinets
- SDSC – 100TF Cluster- 324 nodes – 4 8-core Magny-cours – 2GB/core – 53TB flash memory – designed for jobs of ~1024 cores and longer running time(2weeks)

- TACC – 302TF – 1888 Dell blades – 2 Westmere 6 core processors – 2GB/core – Shared with two other sponsors – TRAC allocation 75M hours – additional to NSF funded researchers to up to 90M hours.
- NICS – Run Cray XT-4 Athena for 12 months – Still a very productive resource at 166TF – 18K cores - excellent interconnect – optimize for capacity jobs
- NICS – Augment Kraken by 144TF – 18TB memory – Added resources enable scheduling of smaller core count jobs – Good co- scheduling with Athena.

### **Identity Management and Access Control: Ken Klingenstein**

Shibboleth Silver has been certified by the iCAM community. iCAM is oriented toward the consumer workspace so it provides a popup every time data is requested which is user unfriendly.

### **DOE: Rich Carlson**

DOE has completed its solicitations for this year. Announcements of awards are being sent out this week. The solicitation focused on projects that integrated middleware and networking

### **Magellan: David Martin**

Magellan is addressing how to carry out research in a cloud environment; how do you provide machine resources, where do you provide resources; how do you provide access to resources; how do you perform research on the clusters? Magellan clusters are currently operating at Argonne and NERSC. Argonne has allocated time to 23 projects. Ubuntu software is being used. Argonne held a joint meeting with NERSC to provide close coordination. NERSC is more advanced in storage capability; Argonne has implemented Eucalyptus. Currently security precludes tight coupling between the NERSC and Argonne facilities.

### **Meetings:**

July 27 NTIA held an all-day meeting on cyber-security based on their Notice of Inquiry on cyber-security.

### **Next MAGIC Meetings**

September 1, 2:00-4:00, NSF

October 6, 2:00-4:00, NSF