

Minutes
MAGIC Meeting
January 7, 2009, 2:00-4:00
NSF, Room 1150

Attendance:

Doug Baggett	NSF	dbaggett@nsf.gov
Kent Blackburn	LIGO	kent@ligo.caltech.edu
Lisa Childers	ANL	childers@mcs.anl.gov
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Don Petravick	DOE/HEP	Don.Petravick@science.doe.gov
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Susan Turnbull	DOE/SC	susan.turnbull@ascr.doe.gov

Action Items

Proceedings

This meeting of MAGIC was chaired by Susan Turnbull of DOE

Report on Perspectives on Distributed Computing: By Lisa Childers, ANL

The goals of this report were to capture, for distributed computing environments, the user perspective, to understand the requirements of the user community and to identify requirements for better meeting the needs of scientific communities. Information on user requirements and perspectives was carried out by interviewing thirty users. Three sections provided:

- User interview summaries
- Characterization of users by technology interactions
- Recommendations for technology developers and future studies

High level goals of users included:

- Conducting and promoting scientific research
- Expanding the community that can use specific resources
- Expanding the resources available to a specific community
- Satisfying user requirements for systems used to do science

High level issues of the users included:

- Diagnostics
- Reliability
- Technology adoption
- Specific technology issues
- Communication
- Other social issues, e.g., community awareness and collaboration

User satisfaction was determined for:

- IO libraries
- Security
- RLS
- MDS
- GRAM
- VM
- GridFTP
- Java WS core
- Installation/deployment

and other areas.

User types included:

- HPC scientists
- HPC domain specific developers
- General purpose HPC infrastructure providers
- General purpose HPC-technology developers

Recommendations included:

- Broaden the focus of component-centric development
- Develop unique approaches for engaging different user types
 - Provide a data movement product for HPC scientists who routinely move data
 - Enlist HPC domain-specific developers to translate generic technology concepts into domain-specific concepts
 - Partner with general-purpose infrastructure providers to refine requirements for reliability and multiple-use deployments
 - Partner with other general –purpose technology developers to build and document multicomponent examples

The full report may be found at: http://www.mcs.anl.gov/~childers/perspectives/ANL_MCS_CI_31_no-binding.pdf

Discussion among the MAGIC members identified that providing transparency is a critical issue for all users. Systems need to accommodate heterogeneity among sites. Standardization of tools and components facilitates transparency. A priority of the Globus platform is to provide debugging tools to solve operational problems. If problems are encountered it is important that users be able to resolve

what the problems are and how to solve those problems efficiently. Language barriers and semantics are serious issues.

Organizational Roundtable

BIRN: Mike Marron indicated that an award was recently made for support to the Bio-Informatics Research Network (BIRN) Program; \$5 million per year for 5 years. The award provides for a new software base for BIRN so that BIRN will be primarily software based. A transition will take place May 1, 2009 to the software-only infrastructure. The new system will be compatible with CaBIG also. BIRN is a bottom-up structure designed to facilitate multiple user groups. CaBIG is a top-down infrastructure with specific standards. Privilege management will be common between BIRN and CaBIG. There will be a network of networks. Some users will be on both BIRN and CaBIG.

CDIGS: CDIGS completed its annual report. The focus of the last year was on increasing reliability and scalability with customers and solidifying the software. Over the next year they will have the same focus plus setting up a data service and increasing the reliability of the technology.

OSG: OSG has a review next week. Issues include SSH attacks and improving software packaging for updates. There are currently 60 components in OSG. If you upgrade one component, generally you have to reinstall the entire software suite. Repackaging would allow updating one component at a time.

Shibboleth: 2008 is the 5th year in a row where Shibboleth users have doubled. There are currently 3 million users with 10 million expected this summer. Users are aware they are using federated identity management. NCCR and GSA are implementing new capabilities. Shibboleth is working with NIST to refine standards.

Global Grid Forum: Global Grid Forum papers include: What every Network Engineer Needs to know about the Grid and What every Grid Engineer need to know about the Network. They are very useful reference papers.

LIGO: Kent Blackburn. LIGO is preparing for an enhanced LIGO run at the beginning of May. Instrumentation is in-place for the start of data collection.

Meetings of Interest

Feb 1-6, College Station, Texas: Joint Techs Meeting: Internet2, DOE/ESSC/JET meetings

Feb 14, Chicago: Grid Computing and High Performance Computing: POC is Mike Nelson

Feb 9: Half day forum on End-to-end Performance Monitoring being prepared by the JET Team. It focuses on PerfSONAR.

Next MAGIC Meetings

February 4, 2:00-3:30, NSF, Room 1150

March 4, 2:00-3:30, NSF, Room 1150