LSN-MAGIC Tasking

Background: In the fall of each year, the Large Scale Networking (LSN) committee meets to define programmatic directions for itself and its MAGIC and JET subcommittees. To accomplish this, the LSN members will examine a list of topics appropriate for each subcommittee. The LSN chair(s) will then task each subcommittee chair(s) with a specific task or tasks from the appropriate topic list. The subcommittee chair(s) will then report back at the end of the year what actions it took to complete this/these task(s).

In FY 2011, the MAGIC subcommittee members identified the following potential topics. The purpose of this document is to refine these topics and identify specific outcomes that the MAGIC subcommittee members would accomplish in FY12 if tasked with this topic. Wherever possible, the goals should be measureable, achievable in a reasonable amount of time given the time limitations of the committee, specific, and should leverage the wider community’s effort.

1. Identity Management:
   1. Define a common set of Identity Management goals that can support the needs of multiple agencies, and make progress toward wide scale deployment in the R&E community, consistent with international agreements and US Government policy
   2. Identify the research challenges that, if solved, would lead to broader adoption of appropriate ID management tools and services or to enhancements in matching the security and /or levels of assurance of the ID management tools to the needs of particular portions of the R&E community
   3. Assist the agencies in defining a roadmap for integrate web based ID management with non-web based ID management, authentication and authorization systems, for example those used by command-line and/or automated scientific data processing jobs.
   4. Determine useful metrics for Identity Management, then promote these metrics in the community; report on the best/average value of the metric for common tools.
   5. Other ideas.
2. Cloud/Grid (C/G) Computing :
   1. Develop a common definition for scientific C/G computing.
   2. Identify the research challenges preventing the wide spread adoption of C/G computing by science communities.
   3. Define a set of criteria science communities can use to determine if C/G computing is right for them.
   4. Assist the agencies in defining a roadmap for creating sustainable multi-domain C/G computing ecosystems.
   5. Other ideas.
3. Middleware tools and services:
   1. Assist the agencies in developing a roadmap to move from simple tools to complex services.
   2. Identify missing frameworks, ontologies, and/or semantics that need to be developed to make middleware more useful.
   3. Identify the research challenges preventing the creation of sustainable middleware.
   4. Determine useful metrics for middleware tools and services, then promote these metrics in the community; report on the best/average value of the metric for common tools.
   5. Assist the agencies in defining a roadmap for evaluating the effectiveness of middleware tools and services.
   6. Other ideas.
4. Cyberinfrastructure:
   1. Assist the agencies in developing a roadmap for creating a coherent US CI linking Academic, Governmental, Industrial, and International institutions and networks.
   2. Define a common set of semantics and ontologies for CI.
   3. Develop guidance documentation to assist scientists in creating effective collaborative communities.
   4. Determine useful metrics for cyberinfrastructure, then promote these metrics in the community; report on the best/average value of the metric for common cyberinfrastructure elements.
   5. Other ideas.

The MAGIC subcommittee members should refine these topics to clarify the concepts, add in the missing elements, and begin thinking about specific actions that could be taken to demonstrate completion of an individual task. Initial discussions should take place on the MAGIC email list. Discussions during the Sept 6 meeting will focus on defining 3-5 specific subtopics that the MAGIC chairs will present to the LSN at the Sept 13, 2011 planning meeting.

Co-Chairs:

Gabrielle Allen

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