GSM-CG Charter

Group Abbreviation:
gsm-cg
Group Name:
Grid Storage Management
Area:
Community Affairs

Group Leadership:
Chair
Jens Jensen, Rutherford Appleton Laboratory, <jens.jensen#stfc.ac.uk> Chair
Timur Perelmutov, Fermi National Accelerator Laboratory, <timur#fnal.gov> Chair
(replace # with @ for email address)

Group Summary:
The group concerns the Storage Resource Manager (SRM) protocol. The group welcomes participation of any individual, organisation, or grid who/which run, uses, or are interested in running or using, storage resources which are grid enabled via SRM.

Charter Focus/Purpose and Scope:

* Ensure that projects can safely implement SRM since the protocol is a standard.
* Ensure that other communities can have a say in the management of the protocol, to ensure that it is not a closed community.
* In particular, the group will aim to improve uptake of the protocol in applications areas outside high energy physics;
* Feedback from user communities and implementations;

Problems addressed by the group:
* If a user pushes through "interpretations" of the protocol or changes to the implementations, these can be discussed in an open process. These changes can be both beneficial in the sense of implementing optional functionality, or harmful in the sense of breaking interoperation or functionality used by other user groups. In either case, these changes need communicating to other users, or, ideally, to get their input before the change is made.
* Lots of ad-hoc lists with ad-hoc memberships popping up, discussing a specific topic related to the use of SRM, and then becoming very quiet.
* Clients were to some extent built against the implementations rather than against the specification. If a server changes some aspect of the implementation, it may break clients even if the change is within the specification.

Opportunities:
* Many resources are provided with very large capacity and performance, for the specific use of the particle physics community. Globally, there are hundreds of petabytes managed or made available via SRM. By promoting the use of SRM outside high energy physics, resources can be shared more effectively, to the benefit of everyone. For example, the EGEE project has provided many excellent examples of non-physics users using SRM. Many funding bodies promote sharing resources between research communities. By promoting the use of SRM to other communities, the impact of existing work is increased.
* The group's members collectively manage hundreds of petabytes of data. Their expertise

is highly relevant to other users of high performance or high capacity storage.
* Other groups in OGF look at storage, or areas related to data storage, or interoperating storage. GSM-CG will collaborate with them to ensure they have the expertise they need.

What is in scope:
* Anything concerning the use, implementation, or interpretation of the SRM protocols (whether version 1.1, 2.2, or 3.0, or any other version).
* Provide an open forum enabling implementers, deployers, and users to share experiences with each other.
* Should there be more interest in 3.0, the group is responsible for creating a working group which will take 3.0 forward to a full OGF standard.

Exit strategy:
The group will no longer be needed:
* The group is no longer needed (when the problems and opportunities described above are no longer relevant.)

Seven Questions:

1. Is the scope of the proposed group sufficiently focused?
Yes. The focus of the group is the Storage Resource Manager (SRM) web services protocol,

2. Are the topics that the group plans to address clear and relevant for the Grid research, development, industrial, implementation, and/or application user community?
Yes. Among key stakeholders are multinational grids such as the EGEE and OpenScienceGrid. SRM, being the interface to the storage components, and storage being an essential part of grids and grid interoperability.

3. Will the formation of the group foster (consensus-based) work that would not be done otherwise?
Yes. This group provides an open forum to address the issues described in this charter.

4. Do the group's activities overlap inappropriately with those of another OGF group or to a group active in another organization such as IETF or W3C?
No, there is no inappropriate overlap. There is no other standards body managing the SRM protocol. No other standards body manages a Grid interface to storage like SRM. The OGF's focus on grids and related technology makes it the right standards body for SRM.

5. Are there sufficient interest and expertise in the group's topic, with at least several people willing to expend the effort that is likely to produce significant results over time?
Yes, the group combines, ratifies, and disseminates the work of some of the leading storage experts from scientific storage service providers.

6. Does a base of interested consumers (e.g., application developers, Grid system implementers, industry partners, end-users) appear to exist for the planned work?
Yes, there are currently at least six different interoperable implementations in the world using the SRM 2.2 protocol. Combined, they provide access to multiple petabytes to the grids.

7. Does the OGF have a reasonable role to play in the determination of the technology?
Yes, in providing international contacts and coordination with various labs and industry groups. OGF is also the standards organisation for closely related protocols (e.g. data transfer and information), so the OGF has a significant role to play.

Group Status:
Active

Public Description (for print & web site):
SRM is the Storage Resource Manager protocol, a control protocol allowing grids to access storage systems ranging from a single disk to mass storage systems with several large tape robots. The interface is web services based, and provides functionality to query the data transfer protocols, reserve spaces, manage file staging, etc.
The protocol has at least six different independent implementations, it is being used by OpenScienceGrid (www.opensciencegrid.org) and grids supported by the European Middleware Initiative (www.eu-emi.eu). The security features in the protocol have proved important in managing finance (stock market) data, biomedical images, and data for drug discovery. Together, hundreds of petabytes of storage capacity across the world is accessible via the SRM protocol.
This community group focuses on the implementations, deployment, use, and management of grid storage using the SRM protocol. It brings together experts from across the world, but also welcomes newcomers to grid storage.