Contribution ID: **14** Type: **Oral**

Grid Storage Interoperability Now!

Wednesday 13 February 2008 14:00 (20 minutes)

SRM and SRB are traditionally the two “islands” in Grid data, achieving interoperability only amongst themselves. We now show data being transferred between SRMs and SRBs, effectively making SRBs available (with some restrictions) as a Storage Element to gLite-based Grids. The main use case is to enable data sharing between such Grids - files are copied from one to the other and can be registered in transfer catalogues. Rather than using simple tools, the use case calls for using gLite’s advanced data management tools.
This work has been done as a contribution to the OGF GIN (Grid Interoperability Now) activities, and as it builds heavily on gLite, it is a suitable activity for the EGEE user forum.

3. Impact

SRM is used by gLite-based Grids as an interface to Storage Elements - indeed gLite has its own implementation, the Disk Pool Manager, DPM. SRMs in the WLCG collaboration together manage tens of petabytes of data (according to the information systems). SRB are used by many “data grids” by, eg. TeraGrid and many national Grids. Being able to transfer data between these two worlds opens up the possibility of analysing existing SRB data on gLite resources. Conversely, we can also make SRM data available to the Globus-based Grids that traditionally analyse data held in SRB, but that is already less difficult.
The important aspect of this work is that it builds on existing tools and requires no development effort. It is Grid Interoperability Now!

If demonstration is requested please explain what visual or interactive aspects of the contribution necessitate a demonstration rather than a presentation or poster?

We can show three windows on a screen, one with files in the SRM, one with an updated view of files in the SRB, and a third window which is used to run the transfer commands. This will also show how quickly the transfers happen.

URL for further information:

http://www.gridpp.ac.uk/wiki/SRM_SRB_interoperability

4. Conclusions / Future plans

We show how gLite advanced data management tools can be used to manage data not only in SRM, but also from SRBs which are made available as Storage Elements to gLite based Grids. Interoperability is achieved now, with no additional development efforts.

Provide a set of generic keywords that define your contribution (e.g. Data Management, Workflows, High Energy Physics)

Data management, SRM, SRB, interoperability, GIN.

1. Short overview

Using gLite data management tools, we demonstrate data transfers between a Storage Element with a Storage Resource Manager (SRM) interface and a Storage Resource Broker.

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