Contribution ID: **220**   Type: **Oral presentation to parallel session**

Public Storage for the Open Science Grid

Tuesday 15 October 2013 13:52 (22 minutes)

The Open Science Grid (OSG) Public Storage project is focused on improving and simplifying the management of OSG Storage. Currently, OSG doesn't provide efficient means to manage public storage offered by participating sites. A Virtual Organization (VO) that relies on opportunistic storage has difficulties finding appropriate storage, verifying its availability, and monitoring its utilization. The involvement of the Production Manager, site administrators and VO support personnel is required to allocate or rescind storage space. One of the main requirements for Public Storage implementation is that it should use SRM or GridFTP protocols to access the Storage Elements(SE) provided by the OSG Sites and doesn't put any additional burden on sites. No new services related to Public Storage could be installed and run on OSG sites.

Opportunistic users also have difficulties in accessing the distributed storage during the execution of jobs. The typical users' data management workflow includes pre-staging common data on sites before a job's execution, then somehow storing output data produced by a job on a worker node for a subsequent download to a local institution. When the amount of data is significant, the only means to temporarily store the data is to upload it to one of the Storage Elements. In order to do that, a user's job should be aware of the storage location, availability, and free space. After a successful data upload, users should somehow keep track of the data's location for future access. In this presentation we proposed solutions for storage management and data handling issues in the OSG.

We are investigating the feasibility of using the integrated Rule-Oriented Data System (iRODS) developed at RENCI as a front-end service to the OSG SEs. The current architecture, state of deployment and performance test results will be discussed. We will also provide examples of current usage of the system by beta-users.

Author: Mrs LEVSHINA, Tanya (FERMILAB)

Co-author: Dr GURU, Ashu (University of Nebraska, Lincoln)

Presenter: Mrs LEVSHINA, Tanya (FERMILAB)

Session Classification: Distributed Processing and Data Handling B: Experiment Data Processing, Data Handling and Computing Models

Track Classification: Distributed Processing and Data Handling B: Experiment Data Processing, Data Handling and Computing Models