



Meetings and Events

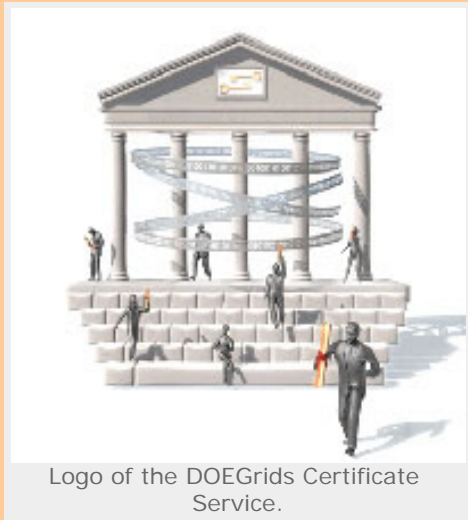
[SC|05 - Supercomputing 2005](#)
November 12 - 18, 2005

[HPDC Paper Deadline](#)
January 9, 2006

[OSG Consortium Meeting](#)
January 23 - 27, 2006

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Technical Group Report - Security



Security is an important part of making the OSG a reality. The OSG Security Technical Group includes site security representatives and people providing grid certificates through Certificate Authorities such as the DOEGrids CA that has issued most of the user, host and service certificates being used on OSG today. The Virtual Data Toolkit, which provides the basic middleware supported on the OSG, includes a base list of CAs that the OSG has agreed to support.

Working with other people involved in grid security, both here at home in the United States and internationally, is an important part of creating a secure infrastructure available to all. A recent success was announced at

From the Interim Executive Board

Dear OSG Consortium and friends,

As chair of the Interim Executive Board, I am thrilled to walk you through this first edition of our monthly newsletter. The objective of OSG News is to provide you, the participants and friends of the OSG Consortium, with a little bit of monthly news about events, metrics and executive board activities, augmented by short stories about the science on the OSG and reports from the technical groups and activities. The newsletter is rounded off by some news on activities with our partners, both inside and outside the United States.



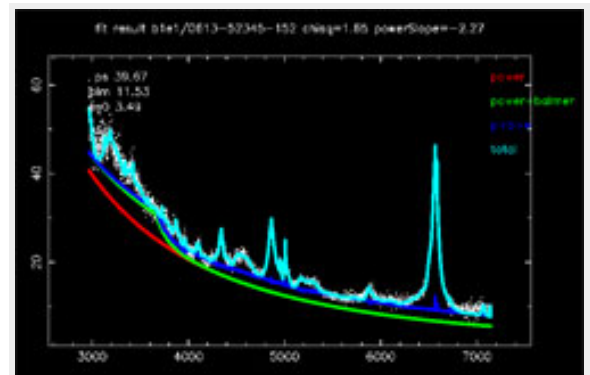
In the last couple of months, the IEB has engaged in a continuous review of the OSG Consortium's technical and collaboration-building progress. The way "stuff gets done" within the IEB is actually quite varied. It ranges from daily instant-messaging and phone chats among some of us, to lively email exchanges, to bi-weekly phone conferences. The driving issues at present are the preparations for the OSG 0.4 release and the process towards funding that would sustain the OSG for the next several years.

Sincerely,
Frank Wuerthwein, Chair of the OSG Interim Executive Board

OSG Applications - SDSS

We have recently ported a spectral analysis application using data from the Sloan Digital Sky Survey (SDSS) to run on OSG sites. Our current goal is to test genetic algorithms for new models of quasar spectra using linear fits with hundreds of variables.

Quasar spectra have large numbers of emission lines, and simultaneously fitting most or all of them to determine their presence and strength is a challenge. We first tune the algorithm to a large subset of quasar spectra, and then use the OSG to scan the entire SDSS quasar catalog with a set of 50,000 jobs.



Spectral analysis fit components. (Click on image for larger version.)

The jobs output the components of the fits, as shown in the spectrum above. The white dots are the data, the colored lines are components of the model and the light blue is the final model. The smooth components of the spectra, which are relatively easy to model, are shown by the blue and green lines. The spectrum shows that the model captures all of the emission lines quite well.

"In the end, precise measurements of the emission lines provided by the genetic algorithm will allow us to understand more about the connection of the supermassive blackhole at the heart of the quasars with the galaxies they

the 15th Global Grid Forum in Boston—the formation of the International Grid Trust Federation that defines the policies and standards for grid identity management. The IGTF, which comprises members representing 61 organizations and covers 50 countries and regions, will ensure that consistent policies and standards for grid authentication are agreed to and applied across all grids, and that users with certificates issued by U.S. authorities can negotiate access to resources in Europe, Asia and beyond.

Bob Cowles, Co-Chair Security Technical Group
Dane Skow, Co-chair Deployment Activity

Resources Accessible to the OSG



Monitoring from the Grid Operations Center. (Click on image for larger version.)

Courtesy Bockjoo Kim, University of Florida

The number of resources now accessible to the OSG has increased from 40 at the opening in July to 52. Not all of the resources, especially the Storage Services, show "green" all the time, but this does not mean they cannot be used. Bockjoo Kim, Alex Sim, the Indiana Grid Operations Center and the storage support groups are working to determine the best monitoring tests to be used.

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inhabit," says Jim Annis, who is waiting for the results.

The spectral analysis jobs are now running on 11 OSG sites. The main change made to the existing programs was to ensure that the data get to the jobs efficiently and that there is enough space on each OSG site. Each job lasts about one hour and is CPU bound, with input data of about one megabyte and output data of about two megabytes per job. The throughput is about 1000 jobs per day; less than five percent fail and are resubmitted. Jobs are sometimes held for reasons that are not well understood, and we must also account for sites that go down. The status of the jobs on these sites is monitored and the information stored in a MySQL database.

name	host	status	ncpu	submitted	staging	running
CIT_CMS_PC	tier2b.cacr.caltech.edu	0	120	24	0	24
FNAL_GPFARM	fngp-osg.fnal.gov	0	60	8	0	8
CRASE-CCR-ACDC	acdc.ccr.buffalo.edu	0	300	12	0	12
Purdue-ITaP	osg.rcac.purdue.edu	-1	300	41	41	0
USCMS-FNAL-WC1-CE	cmsosgce.fnal.gov	0	60	12	0	12
UTA-DPCC	atlas.dpcc.uta.edu	0	60	12	0	12
UMadisonCMS	cmsgrid02.hep.wisc.edu	-1	100	0	0	0
UMilwaukee	nest.phys.uwm.edu	0	15	3	0	3
VAMPIRE-Vanderbilt	vampire.accre.vanderbilt.edu	-1	200	0	0	0
CRASE-CCR-U2	u2-grid.ccr.buffalo.edu	-1	30	3	0	3
TTU_ANTAEUS	antaeus.hpc.ttu.edu	0	100	6	0	6

Spectral analysis jobs running on OSG sites. (Click on image for larger version.)

Nickolai Kuropatkin and Jim Annis, Fermilab

OSG Deployment Activity

The OSG deployment activity is responsible for collecting the needs of the research groups using the OSG and gathering the plans from all the Technical Groups and Activities aimed at fulfilling those needs. As part of the deployment activity, we define what capabilities will be provided and supported as part of the common infrastructure, and ensure that the necessary effort is available and milestones can be met. At the moment we are trying to agree on the function set of the OSG 0.4 release.



There is a lot of work being done in parallel towards this release. Several sites on the Integration Test Bed are testing GT4 GRAM with the rest of the system, we are working toward a first version of an actual accounting system, and site administrators are determined to provide better guidelines for managing space local to a compute cluster. Version 1.3.7 of the Virtual Data Toolkit, the first to support the Web services GT4 Gram, is now released, which allows us to build the OSG integration cache that depends on it. We know that there will need to be more frequent releases of VDT and the ITB over the next few months as new features are added—more about some of these in next month's OSG News.

Ruth Pordes, Co-Chair Deployment Activity