# OSG User Support - Area Coordinators Report

<u>December 12, 2012</u>

On Behalf of

Marko Slyz Alex Zaytsev Tanya Levshina Gabriele Garzoglio Chander Sehgal

### Effective service delivery for all XSEDE Users of OSG (Rynge – Ongoing)

- 1. OSG continues to provide stable/reliable HTC compute resources to XSEDE users
  - a. System is stable and has >99.9% availability
  - b. System is also used for non-XSEDE users (incubator for members of new communities)
- 2. Usage for the OSG-XSEDE system has increased to about ~70K hours per week on average (we plan for 2M SUs per quarter which is ~150K hours per week). We currently have 19 active allocations (not counting Campus Champions and XSEDE staff); of these 5 are active users.
- 3. Provided guidance on rewriting/resubmitting an XSEDE allocation proposal; now successful in Dec 2012 XRAC
- 4. Gave two presentations at the Campus Workshop in Santa Cruz. One was about how to connect campus submit hosts with existing GlideinWMS frontends such as the OSG-XSEDE frontend. The other talk was about the OSG-XSEDE interface.
- 5. Provided general support for the system. We implemented an improved HTPC interface and the ability for jobs to target particular sites. Maintained the OSG-XSEDE interface and resolved various issues: 1) a mismatch between the XSEDE and OSG CA distributions and the OSG fetch-crl tool, and 2) an AMIE update which we did not hear about until data packages failed between XSEDE central database and the OSG-XSEDE machine.
- For more info contact Mats Rynge

### VO Information for osg

### **Computation Hours**

#### Hours Spent on Jobs By Facility Monitoring By Site 11 Weeks from Week 40 of 2012 to Week 50 of 2012 Accounting By Site 180,000 Accounting By VO Opportunistic Usage 160,000 Monitoring By VO 140,000 Other View Non-HEP VOs by vo 120,000 CMS T2 Sites by site CMS T2 Sites by vo 100,000 ATLAS T2 Sites by vo ATLAS T2 Sites by 80,000 Non-HEP VOs by 60,000 site WLCG Reporting 40,000 (overview) WLCG Reporting 20,000 (detailed) Developer Pages 2012-10-09 2012-10-16 2012-10-23 2012-10-30 2012-11-06 2012-11-13 2012-11-20 2012-11-27 2012-12-04 2012-12-11 Custom View SMU\_HPC Tusker MWT2 GridUNESP\_CENTRAL CMS\_T2 prairiefire MIT\_CMS red-gateway1 Nebraska red-gateway2 TTU-ANTAEUS Purdue-Steele UCSDT2 Other Purdue-Rossmann BNL\_ATLAS\_1 BNL\_ATLAS\_2 Firefly UCD cinvestav

Maximum: 160,686 , Minimum: 527.67 , Average: 73,879 , Current: 41,655

Navigation

Home ▼ Grid-wide View

# Achieve limited deployment of public storage using iRODS for one VO (Levshina - Nov 2012)

- 1. Low level of activity continues in support of limited deployment
- 2. Issues that need to be addressed.
  - I. IRODS hardware is old and unsuitable
  - II. Very sporadic usage of iRODS doesn't provide a clear picture of its usability
  - III. OASIS will provide a software distribution service; should we drop this functionality (pushing files to OSG\_APP) from our iRODS implementation?
- 3. Currently users can access OSG Public Storage in the following ways:
  - IV. Upload/download files from/to OSG SRM SEs to/from local machine via irods;
  - V. Upload/download files from/to OSG "Classic" SE to/from local machine via irods
    - a. to OSG\_DATA area
    - b. to OSG APP area
  - VI. They can upload tar files and use custom command to untar and register files with iRODS
  - VII. Submit jobs from osg-xsede portal that can:
    - a. access data from OSG\_APP, OSG\_DATA
    - b. download file from local or remote storage by querying info location from iRODS
    - c. upload file to local or remote storage directly and register file in iRODS
    - d. replicate file to all the resources in a specified group with one command (could be done asynchronously and notification will be sent when replication is done)
- 4. Need to schedule a gate review with Technology Investigations and Production to decide next steps for this technology
- For more info contact Tanya Levshina

### **Top Concerns**

- 1. Accounting and monitoring tools in glideinWMS environment are weak; new graphs are being developed by Ashu and may help. We don't understand the availability of opportunistic cycles in OSG; some VOs (e.g. GlueX and Engage) have no trouble accessing >100K hours per day whereas others seem to struggle achieving those levels
- 2. We see an increasing demand for job submission from systems based on gLite WMS (SuperB, Belle, ILC). We have little internal knowledge of gLite WMS. The current experience is that debugging problems is very hard. For example, even with the appropriate technical experts from gLite WMS and OSG all together, we made slow progress on debugging a firewall-related issue for SuperB at Caltech.
- 3. The cumulative number of sites and communities engaged is increasing. While some are now reasonably independent, others are not fully functional and not very responsive to our periodic contacts. Having a "proactive" approach in following up with all these parties is becoming increasingly onerous. We may need to reset our expectations and devise new follow-up methods to better align with customer plans.

# **Recent Status for "new" Communities**

- 1. DES: Set up software to support running two DES pipelines on OSG (Fermigrid). This mainly included software changes to make it "relocatable" in the file tree, wrapper scripts to run the job, and also a gridftp setup for the scientist end users. Supported user in running for 86k hours (as of 12/10). Now helping to adapt other DES software to run with fewer dependencies and enable execution on OSG at Fermigrid. This work is a collaboration between OSG User Support and Fermilab Grid & Cloud Computing.
- 2. BNLPET -- A test of submitting a batch of 250 BNL PET jobs was performed (Martin Purschke et al.); confirmation was obtained on the BNL PET team's readiness to run production jobs within the OSG environment (probably in Jan 2013)
- 3. PNNL -- Their CE is installed and now fully operational; running jobs for ILC and Belle. Now discussing PNNL focus for the future. Planning to run MC jobs for Belle II in 2013. Belle is using Dirac (which is based on gLite see concerns section) like ILC and the concern is that job submission from Dirac to OSG has shown a slow job dispatching cycles for ILC -- unclear if the problem is in Dirac or OSG. Discussing data transfer challenge for Belle II from KEK to PNNL; they expect a need for a sustainable 2 Gb/s throughput and are planning to use FTS for data flow control.
- 4. SLAC Phenomenology: They have not run in the last six weeks, but may again after the New Year. They wrote a newsletter article for us. Using iRODS to distribute their data to sites.
- 5. EIC (BNL) Helped the BNL EIC tam (Tobias Toll et al.) to migrate to the new iRODS based input data distribution mechanism for the EIC production jobs (work still in progress). Pending next round of production
- 6. SuperB: Their funding has been reduced, but the need for computing may still be the same. SuperB can submit real jobs for testing at Fermilab and SLAC. Currently debugging firewall-related submission problems at Caltech.

Progress may be slowed down by the fact that Steven Lo (Caltech admin) is transitioning his responsibilities as he is transferring out of the HEP group. The collaboration may want to run a MC production challenge in January.

- 7. LSST: started the transition of the NWICG FE at Purdue to the LSST VO for MC submission. Purdue admins are coordinating with Factory admins. Currently, Purdue is reinstalling the submit machine.
- 8. NEES: the "Bridge to the future" proposal for another production campaign on OSG has been approved by NEES. For this campaign, we have the goal of using NEESHub as a submission platform and integrate the output from OSG with the NEES archive.
- 9. iPlant: resumed the discussion for an integration with their portal. TACC personnel is getting certificates.
- 10.SAGA Using OSG public storage and glideinWMS as back-end to their portal. Ran test jobs successfully; in the last week they have started using this interface more heavily.
- 11.UMD: Still having problems getting CE to work; providing support along with OSG Site Support.
- 12.NDSU: They've started the OSG CE installation, but progress is slow; need to follow-up.