OSG Production Support

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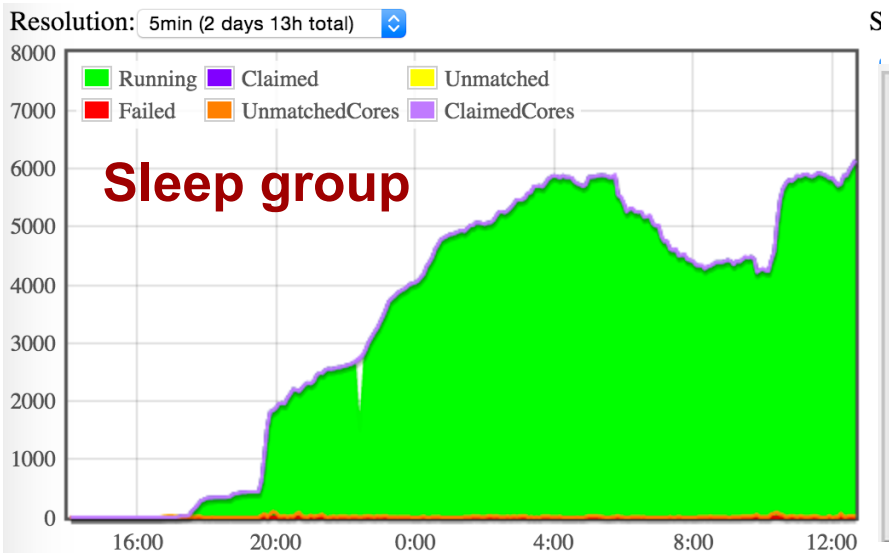
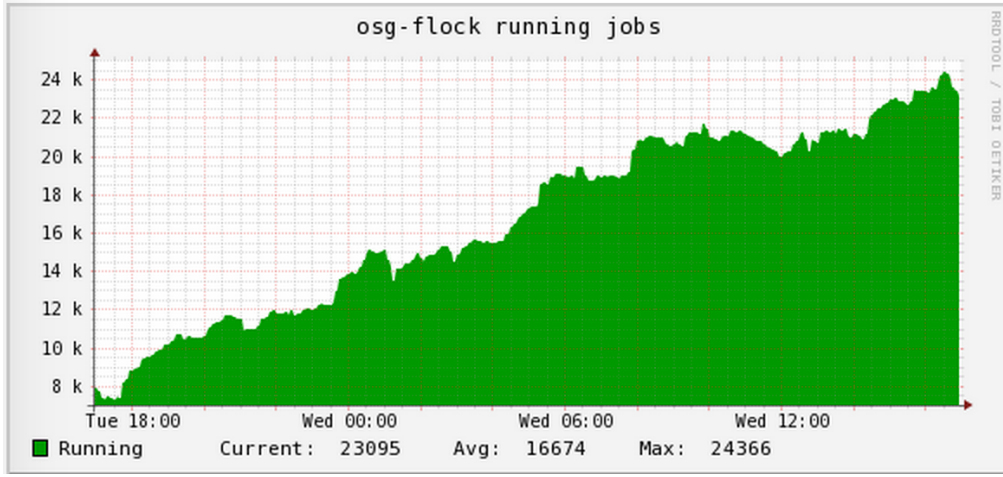
OSG Area Coordinators Call
September 23, 2015

Goal: opportunistic resources

- *Demonstrate 50k running jobs on OSG VO pool* [Nov 2015]
  - Planning to accomplish this via sleeper pools
  - Currently working on setup of one (UNL) others ready
- Begun setup this week
  - UCSD and Wisconsin pools being used as of this morning
  - Working on debugging problems with UNL pool

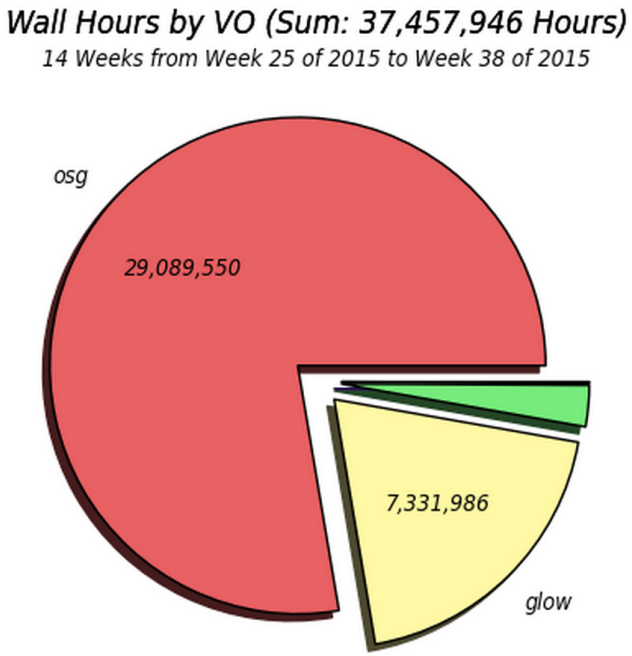


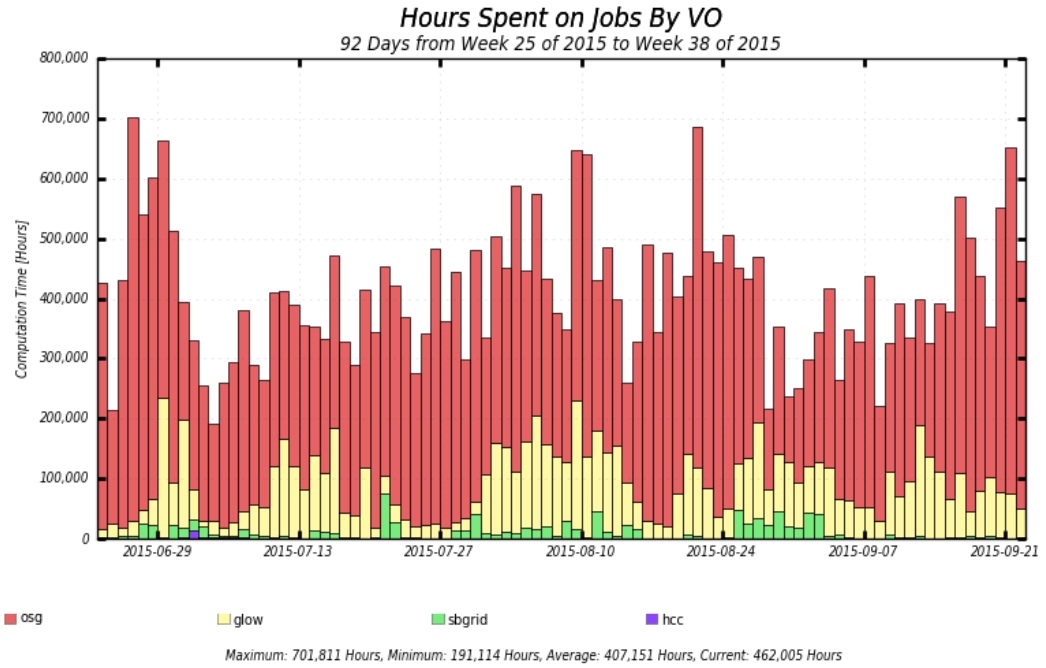
OSG VO Flock



Goal: opportunistic resources

- Is the OSG opportunistic pool demand-limited?
  - Not in the past ~3 months
- *Deliver at least 150M opportunistic hours in 12 months* [Jun 2016]
  - 37M hours in past 3 months for osg+glow+hcc+sbgrid
  - Another ~10M hours for mu2e





Goal: Intensity frontier

- *Deliver at least 10M opportunistic compute hours to mu2e* [Sep 2015]
  - **16.4M** opportunistic hours between 4/1 and 8/31 to mu2e
  - Averaging **850K hours/week** since May
- *Enable access of IF experiment data via Stashcache* [Sep 2015]
  - Intend to test NOvA flux file access via Stashcache in the coming weeks
- *Expand use of the OSG by the NOvA experiment to opportunistic sites* [Nov 2015]
  - Only minimal use of opportunistic resources by NOvA so far
  - Meeting with new production coordinator to discuss how we can help enable their use before next campaign (end of 2015)
- *Engage other IF experiments including those outside of FNAL to use the OSG infrastructure and tools* [Mar 2016]
  - In progress

Goal: LIGO

- *Establishment of submission infrastructure for LIGO at UCSD operated by OSG* [Jul 2015]
- *Establish the Georgia Tech PACE cluster as an OSG site to accept LIGO jobs submitted by [above] infrastructure* [July 2015]
  - These are complete for pilots and very simple payloads
  - LIGO analysis jobs not yet running (CVMFS-related and other issues being worked out)
- *Expand LIGO access to resources on HPC sites as well as opportunistic OSG sites* [Jan 2016]
- LIGO observing run began on 9/18

Open Science Grid

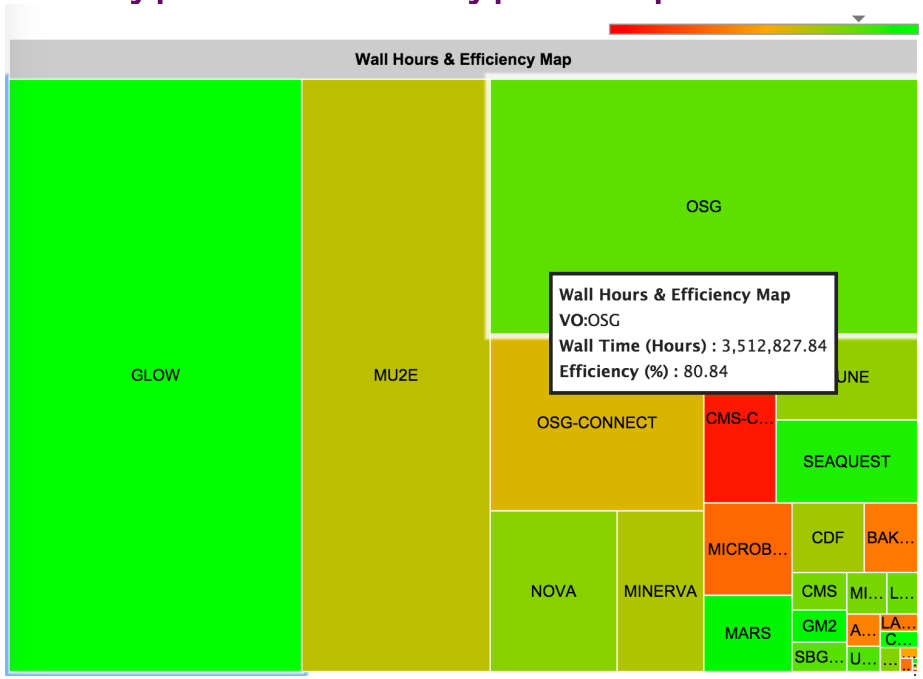
Goals: Cosmic and HPC

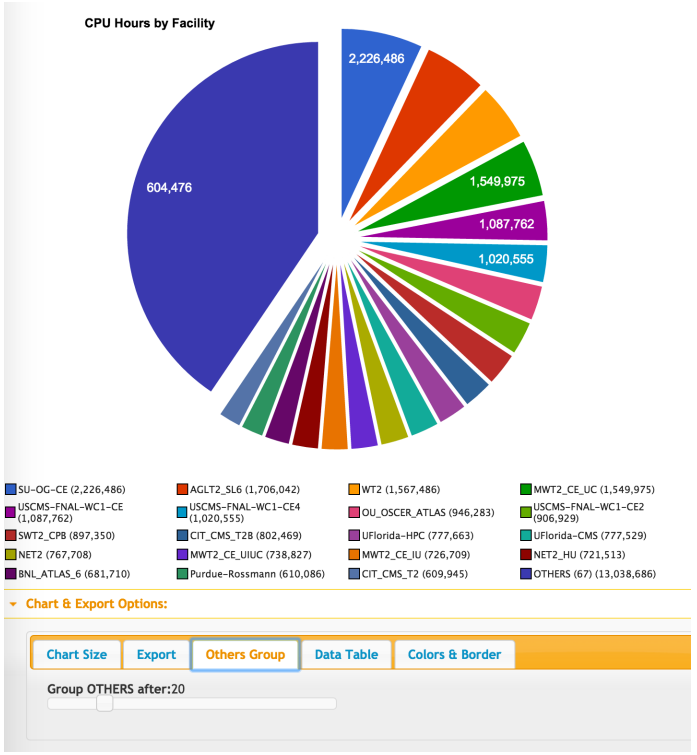
- *At-scale testing of opportunistic OSG resources for DES* [Sep 2015]
  - Not happened mainly because of DES memory requirements
  - Investigating multicore and UCSD bigmem queue for this now
- *Enable LSST computing on OSG* [Jan 2016]

- *Enable access to HPC resources via OSG-HPC-CE* [Dec 2015]
  - UCSD OSG staff and SDSC staff working out technical details to implement this on SDSC Comet
  - Two modes of operation envisioned: CE for allocation-based as well as true opportunistic “backfill”

Goals: Monitoring

- *Update, streamline, and improve Gratiaweb interface and output, including proper accounting of opportunistic resources and advanced graphing tools* [Mar 2016]
  - Implementing Google Charts-based plots for Gratiaweb
  - Treemaps plot showing efficiency now widely used
  - Prototypes of other types of plots available





Site integration status

From software team's site issues/support page

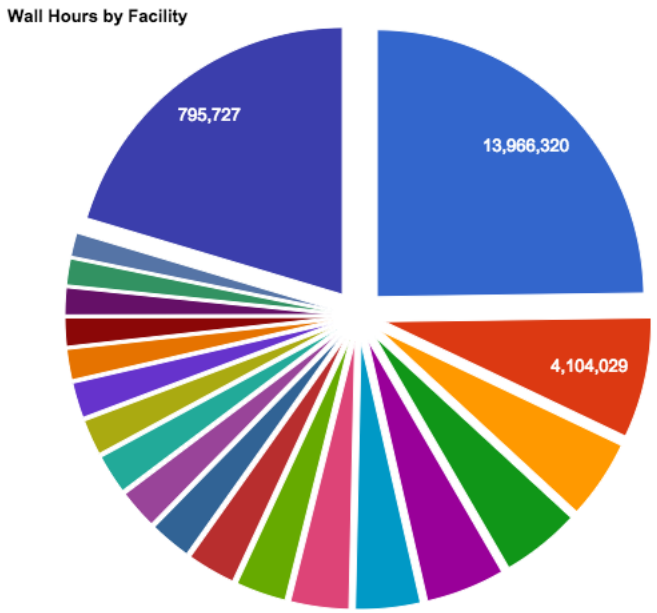
Site	Status	Main Contact	Ticket(s)	Last Updated
FIU	We got their CE in front of the NAT accepting and running remote jobs. Mengxing will be submitting a GOC ticket to start accepting test pilots.	Mengxing Cheng	N/A	9/21/15
Georgia Tech	After some troubleshooting with Patty and Dave Dykstra last week, we got CVMFS on the worker nodes working again, which let their users run simple jobs again.	Patty Carey Mehmet Belgin Peter Couvares	GOC	9/21/15
Clemson	Gratia/RSV graphs were having issues but after a reinstall of RSV, it looks like we may be all good here	Xizhou Feng Randy Martin	GOC	9/21/15
Michigan	Having issues with condor_ce_run from a remote host, waiting on response from admin	Bob Ball	GOC	9/21/15
MWT2	Jobs from Fermi are missing the OSG_* env variables	David Lesny	GOC	9/21/15
Texas A&M	SAM tests idling, BrianB suggested setting up a SYSTEM_PERIODIC_REMOVE as a workaround	Katrina Colletti	GOC	9/21/15
Harvard	Having issues installing osg-release, waiting for him to return from leave	Daniel Caunt	GOC	9/22/15

New site/CE

- NOvA-only sites: SMU new CE running, JINR in progress
- Initial contact: Hawaii, MIT, Wichita State, Wyoming

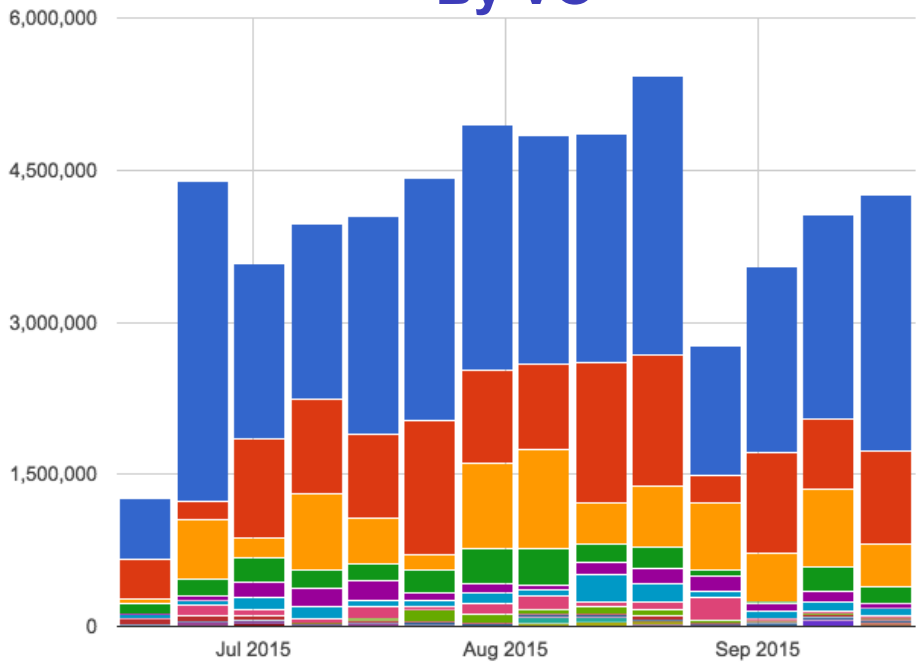
Opportunistic usage

By Site



SU-OG-CE (13,966,320)
CIT_CMS_T2B (4,104,029)
UCSDT2-D (2,700,238)
Tusker-CE1 (2,700,008)
Purdue-Hadoop-CE (2,697,221)
UCSDT2-B (2,209,569)
CIT_CMS_T2 (1,992,934)
red-gateway1 (1,710,753)
MIT_CMS (1,643,520)
FNAL_GPGRID_3 (1,420,581)
USCMS-FNAL-WC1-CE3 (1,345,889)
UConn-OSG_CE (1,345,059)
red-gateway2 (1,213,225)
FNAL_GPGRID_OPP_3 (1,205,729)
BNL_ATLAS_2 (1,039,868)
FNAL_GPGRID_QUOTA_3 (964,858)
SMU_HPC (921,477)
FNAL_GPGRID_2 (892,891)
UFlorida-CMS (803,393)
OTHERS (48) (11,488,976)

By VO

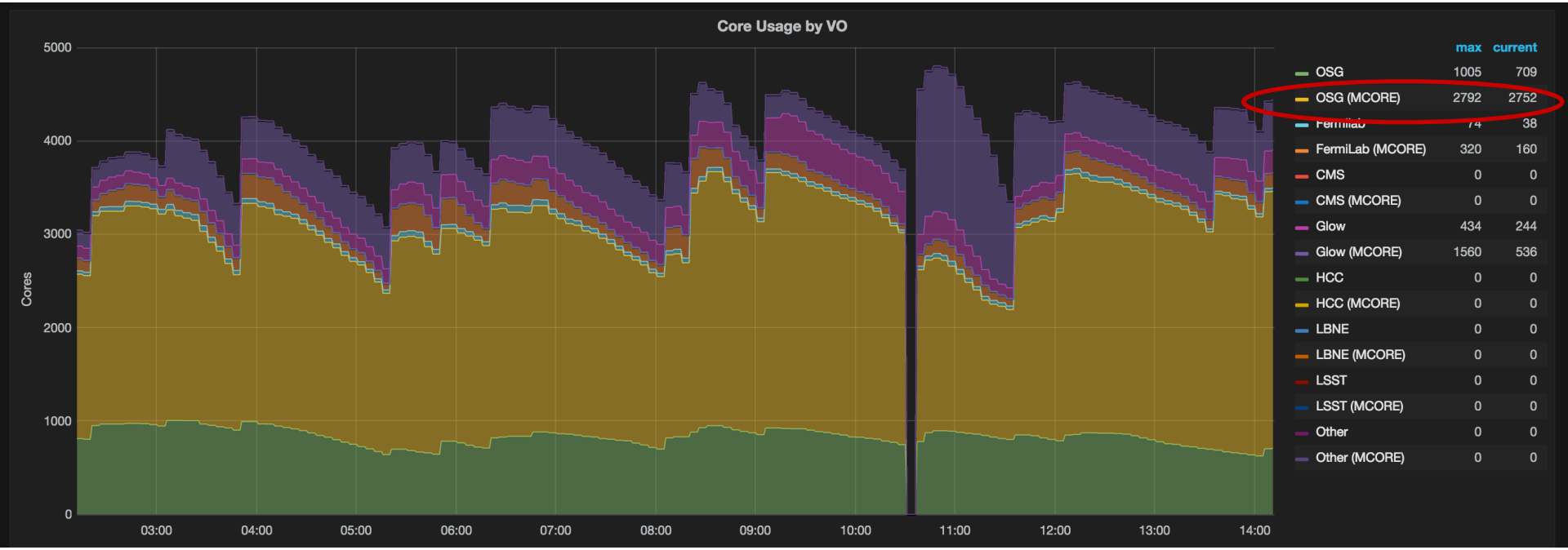


osg (29,089,551)
mu2e (11,957,917)
glow (7,331,987)
dune (2,631,064)
cdf (1,470,587)
cms (1,338,651)
sbgrid (1,005,331)
ilc (437,594)
nova (314,630)
des (210,963)
atlas (134,003)
alice (117,503)
UCSD (109,730)
seaquest (60,502)
nees (36,082)
hcc (29,302)
OSG-Connect (17,487)
fermilab (15,815)
numix (10,569)
OTHERS (25) (47,285)

- Past 3 months. All VOs
  - **52M** hours (subtract DUNE and CDF from plots)

Multicore

- Understanding what multicore resources are available on the OSG
- Currently OSG VO does this via a separate group
  - Running at Nebraska and Hyak
- Expanding onto other sites (e.g. ATLAS/CMS T2 sites)
- Starting with MWT2 this week



Other ongoing/areas of concern

- Accounting accuracies involving login01.osgconnect.net
  - Actual sites running CPU not getting credit in record
- Support-related issues for Bestman?
  - PNNL ticket https://ticket.grid.iu.edu/25276

- Areas of concern
  - Cosmic (DES) not showing progress
  - LIGO effort behind schedule but making progress
  - Site integration process continues to be slow