

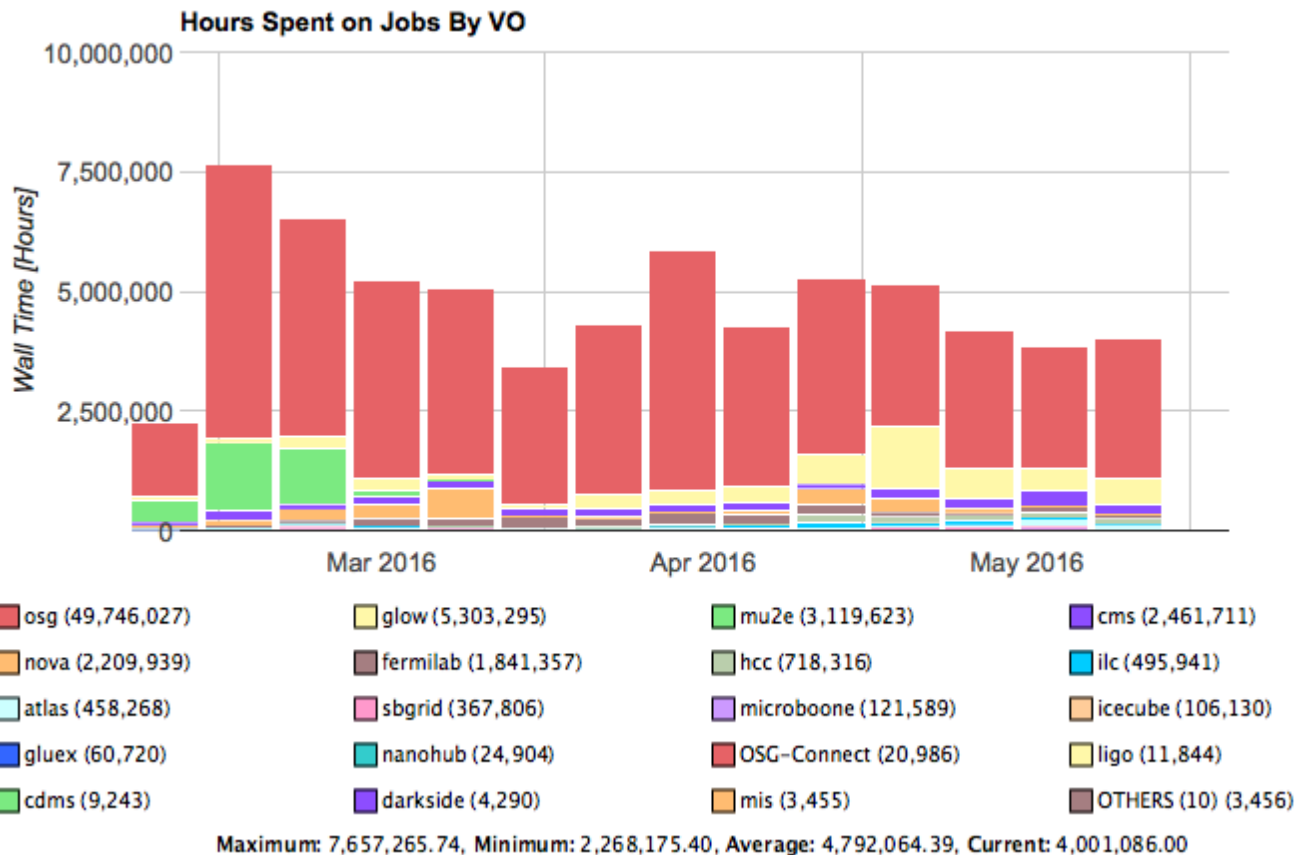
OSG Production Support

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OSG Area Coordinators Call
June 1, 2016



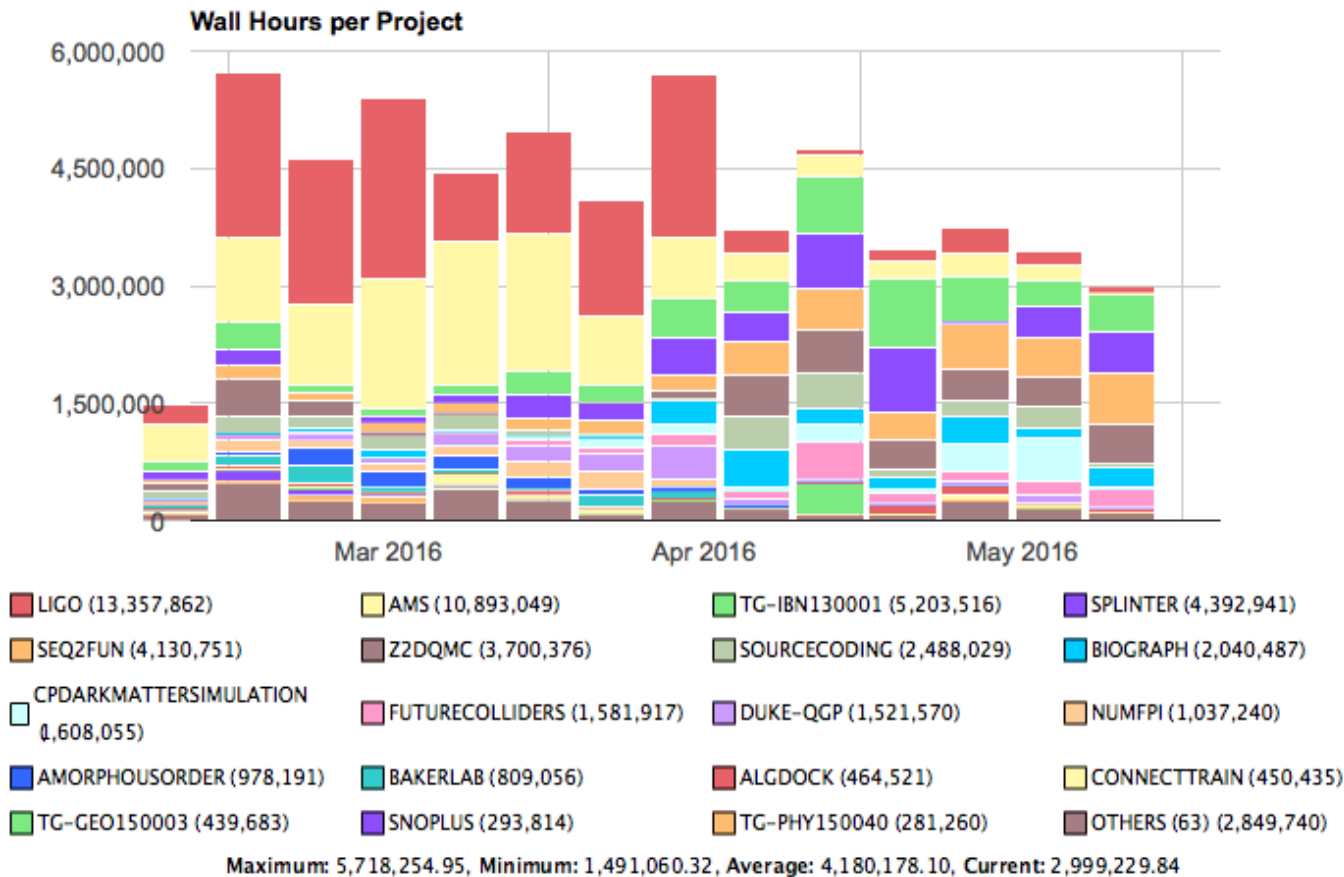
Opportunistic: past 3 months



- 67M hours across all VOs (fairly steady compared to previous period)
- OSG VO use has remained high even as AMS and LIGO wind down



“VOs” on OSG VO



- Two large “VOs” (LIGO and AMS) dominated the OSG VO flock early this year
- As they wind down, other users have filled in but not to the same level



Top opportunistic sites

Opportunistic Resources provided by the top 10 OSG Sites for the OSG Open Facility (2016-04-01 - 2016-5-31).

TOTAL WALL HOURS FOR THE OSG OPEN FACILITY: 30,066,535
PRIOR PERIOD HOURS: 25,419,961
TOP 10 SITES WALL HOURS: 25,532,291

SITE	INSTITUTION (ORG)	RECENT PERIOD RANK	RECENT PERIOD HOURS	PRIOR PERIOD RANK	PRIOR PERIOD HOURS
SU-OG	SU OrangeGrid	1	9,783,456	1	5,845,296
USCMS-FNAL-WC1	Fermi National Accelerator Laboratory (USCMS Tier 1)	2	3,287,240	6	1,555,423
UCSDT2	University of California San Diego (USCMS Tier 2)	3	2,541,760	2	2,552,046
Clemson-Palmetto	Clemson University's primary HPC resource	4	2,400,959	4	1,825,735
MIT_CMS	Massachusetts Institute of Technology (USCMS Tier 2)	5	2,129,925	10	934,555
Hyak	University of Washington Information Technology	6	1,201,614	5	1,639,289
CIT_CMS_T2	Caltech (USCMS Tier2)	7	1,156,112	7	1,535,239
MWT2	University of Chicago, Indiana University, University of Illinois, Urbana-Campaign (USATLAS Midwest Tier 2)	8	1,153,334	3	1,894,305
Nebraska	The Holland Computing Center at the University of Nebraska-Lincoln (USCMS Tier2)	9	1,110,456	9	1,252,419
GPGGrid	Fermi National Accelerator Laboratory (Campus Grid gateway)	10	767,435	22	171,709



Allocation-based HPC

- So far LIGO has been the most active user on HPC (Stampede) via OSG
- CMS now has a startup allocation (Stampede and Comet) and MINOS has an institutional allocation at Stampede by way of UT Austin
- However, things are currently on hold
 - Some of the LIGO jobs filled up \$HOME at Stampede
 - Trying to reconfigure GRAM-CE at Stampede so logs are written to \$SCRATCH
 - SDSC not yet ready to pass on allocations from OSG
 - Opportunistic jobs still run fine on the dev rack
- Long-term: a ticketing system that can link OSG and XSEDE tickets is vital
 - Currently relying on Mats to help obtain XSEDE support



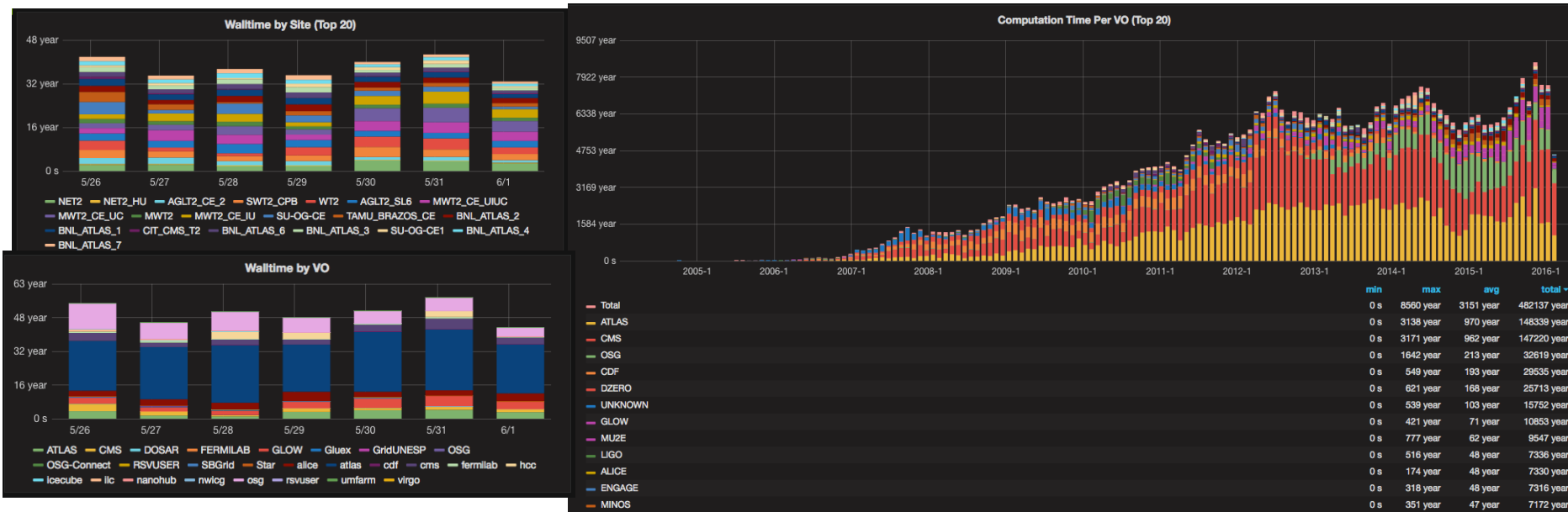
Opportunistic use by LHC

- ATLAS has been running a wide range of OSG sites steadily for the past 6 months, albeit at a very small rate
 - Peaking at 140k hours/week
- CMS recently demonstrated being able to run O(1k) jobs on opportunistic sites (SU-OG, AGLT2, MWT2) and are considering moving this into a production mode
- One OSG VO project (“Cpdarkmattersimulation”) is running a full CMS software suite to generate private MC samples
 - Runs on all OSG VO sites with CVMFS, 1.5M hours in the past month
- Demand for computing at ATLAS and CMS has not outstripped available resources but opportunistic OSG could be useful for peak provisioning as higher luminosity runs of LHC are underway this year



Accounting

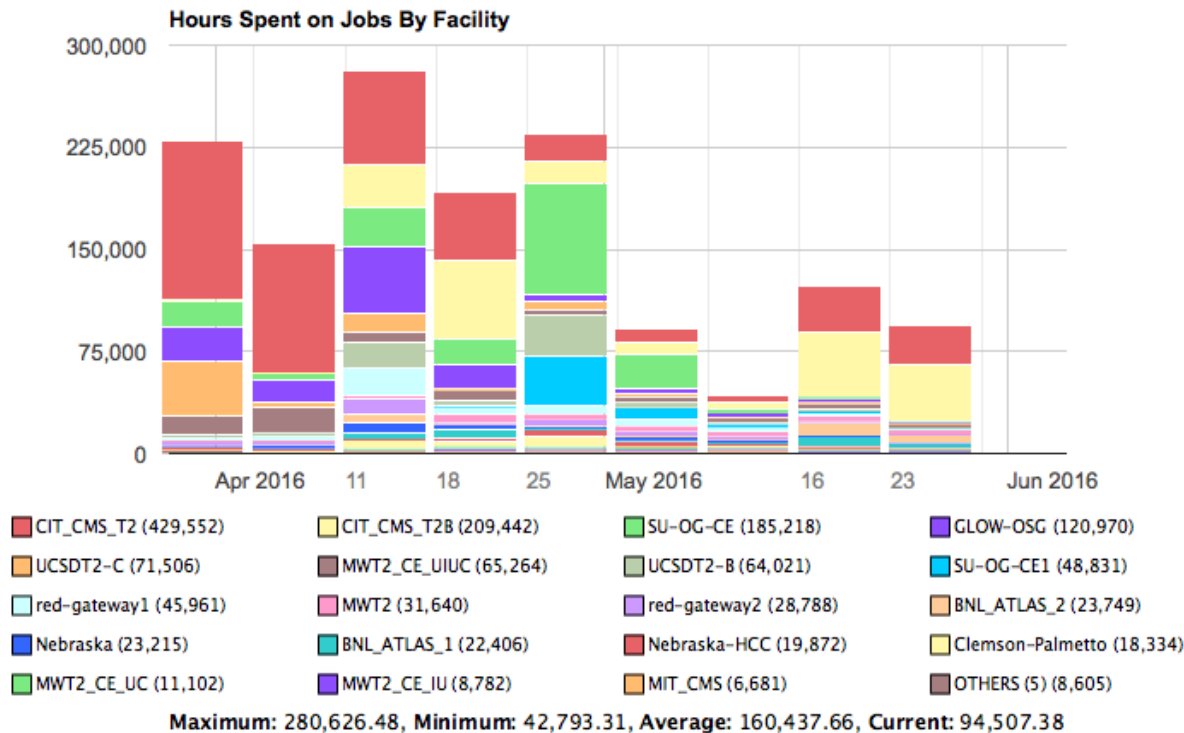
- GRACC project well underway
 - Elasticsearch ingesting records by way of Gratia replica DB
 - Preliminary Kibana-based visualization at gracc.opensciencegrid.org
 - Plan to have “preprod” demonstration in July
 - Full functionality by September





Fermilab experiments

- Fermilab VO use outside of Fermilab continues to decline
 - Even lower eliminated semi-dedicated resources at Caltech for NOvA
 - Part of this is sociological
 - Hope to address this more at the FIFE workshop in 3 weeks





Other VOs

- IceCube now accessing 6-7 sites in Europe consistently by way of GLOW frontend and OSG factory
 - Also continuing to make use of GPU resources at HCC (53k hours in the past year)
- LIGO successfully running on a few VIRGO (European) sites
 - Also expanding OSG jobs to other LIGO workflows
- SBGrid continuing to test using OSG Connect to enable their users
 - Some additional software installed in OASIS
 - Having regular meetings with them