Open Science Grid

OSG User Support Update

Area Coordinators Call

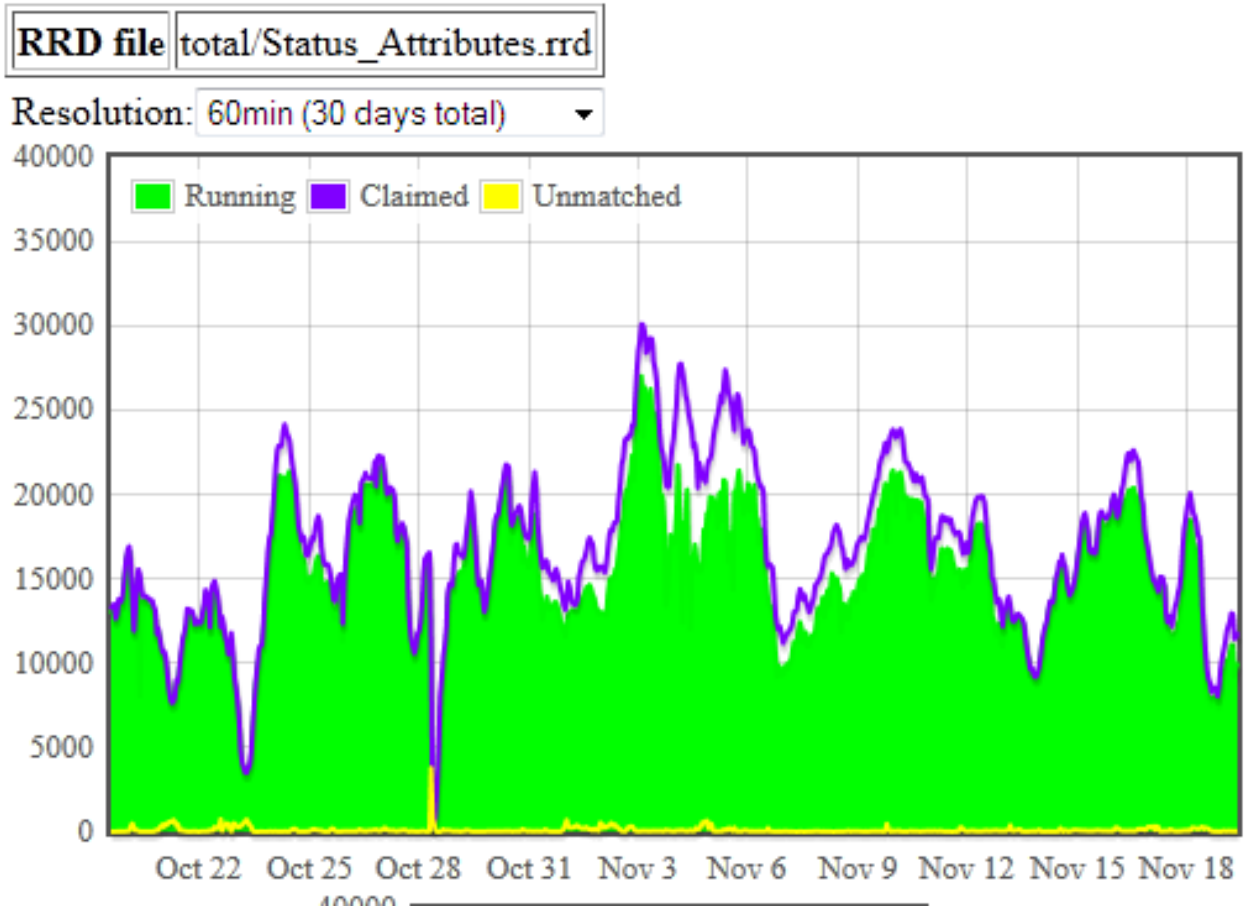
November 19, 2014

Chander Sehgal - FNAL

Recent Accomplishments

1. XD-Login node upgraded; new system has been performing very well (averaging >400K hours per day); demonstrated running at 30K cores simultaneously
2. Completed rationalized Field-of-Science designations in OIM for Open Facility projects to match NSF classification system
3. Moving forward with tutorial for Clemson ACI-REFs team in early December to identify more researchers who can use OSG
4. Developed a “sharing principles” draft for consideration by the consortium to enable greater opportunistic availability
5. Enabled several new sites to grow the opportunistic pool

OSG Open Facility – Cores Used

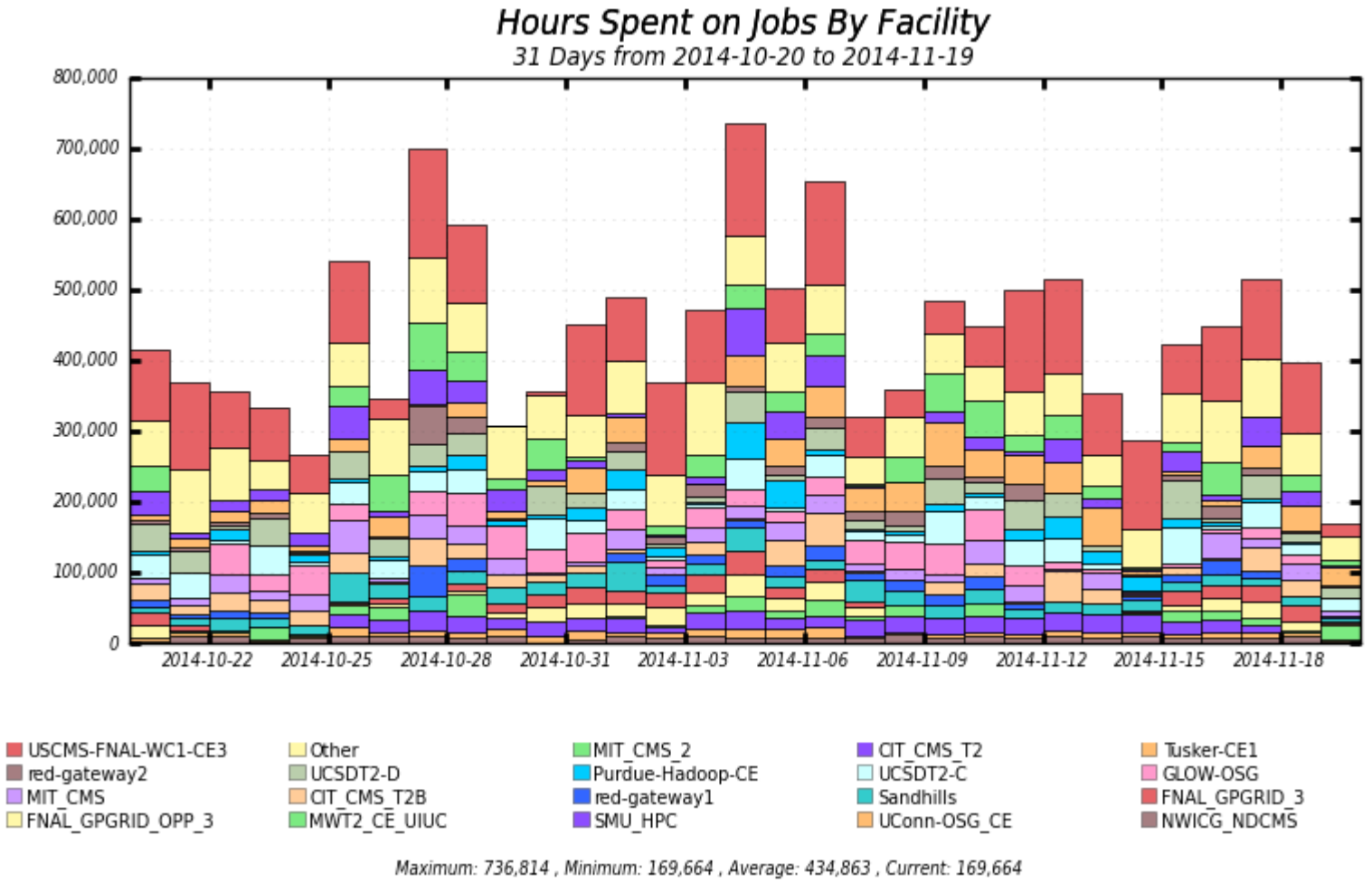


Select elements to plot:

- [x] Running jobs
- [ ] Matched running
- [ ] Glideins at Collector
- [x] Glideins claimed by jobs
- [x] Glideins not matched
- [ ] Idle jobs
- [ ] Requested idle glideins
- [ ] ReqMaxRun

Averaging over 18K cores for the last 30 days

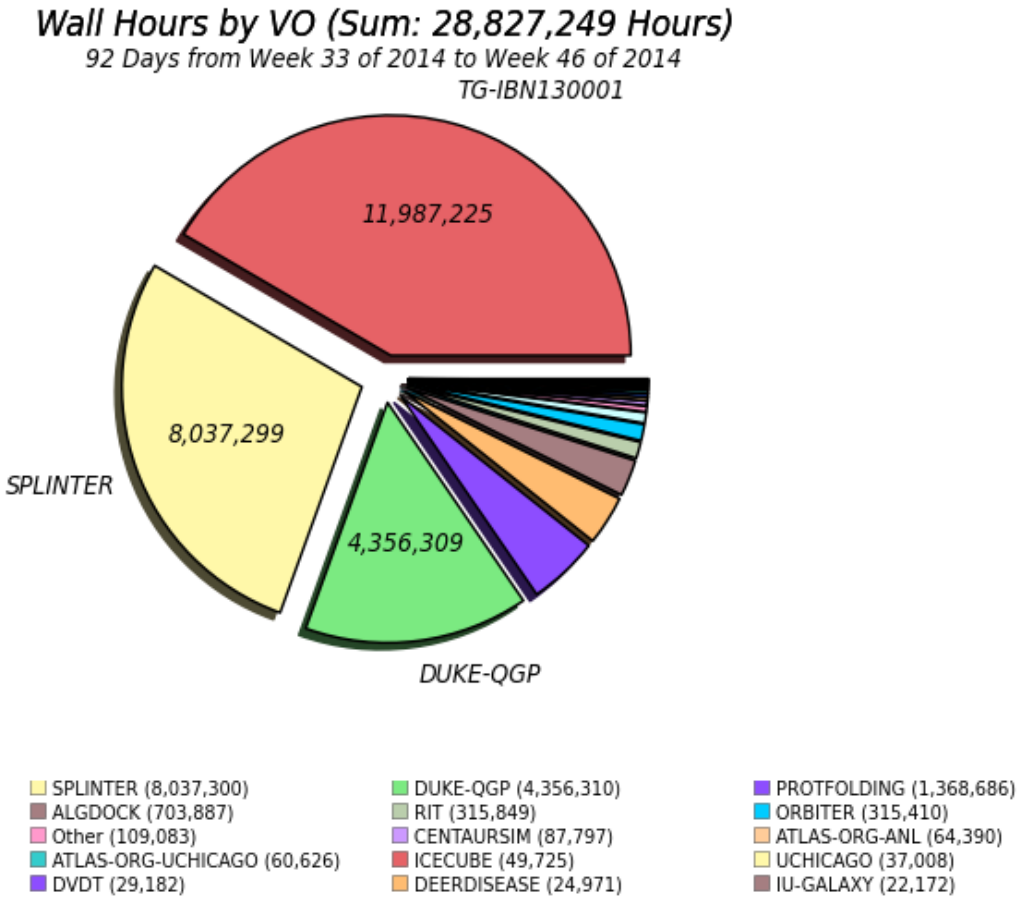
OSG VO Wall Hours



Key Initiatives

1. Move iRODS from FNAL to GOC; but iRODS 4 is very different than what we are currently using (significant integration work needed)
   a. Should we continue or abandon in favor of another solution?
   b. Are there any other viable solutions for data movement for smaller VOs?
2. Research opportunistic eco-system and grow opportunistic pool; attempt to develop models of "currently available" capacity – how to assess currently available cores
3. Tutorials with ACI-REFs project to identify more researchers
4. Better documentation on how a new site can join as a resource provider
5. Effective service delivery for XSEDE Users of OSG. Identify and implement methods for growing XSEDE user base via XRACs (4 awards were issued at September 2014 XRAC meeting)
6. Develop priority management system in OSG Open Facility (e.g. Krieger's request to OSG Council)

OSG Project Wall Hours Usage



Last quarter usage rate is >100M hours per year

Top Concerns

1. Need a solution that can handle data coordination with jobs at sites for OSG Open Facility users (read files ~30GB and write files ~1GB)
2. Some sites just don't see much benefit to themselves to enable opportunistic access; or it is too much work
3. We need to do better at getting out the message to researchers who can benefit by having access to OSG DHTC
4. With the growth of OSG-Connect our administration and accounting systems are unable to integrate across these two separate but related "networks" ➔ Blueprint meeting on Dec 1

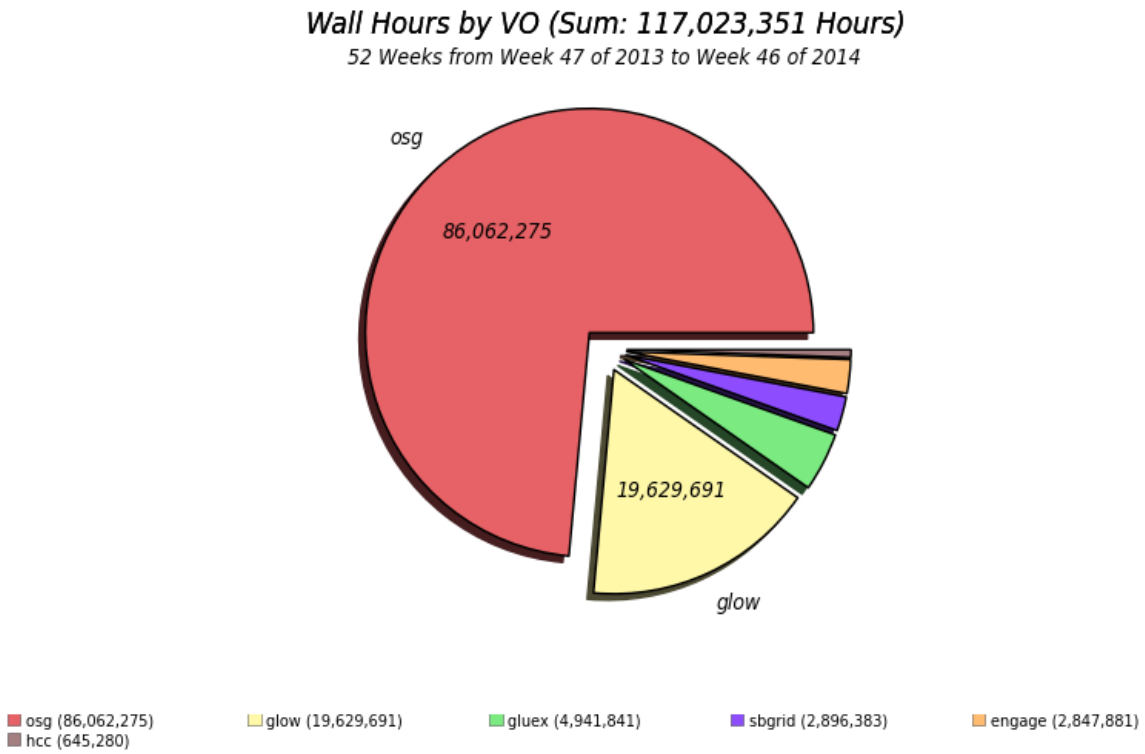
The platform is adequate; we need more users!

User Support Team

Name	Institution	%FTE
Alex Zaytsev	BNL	10%
Mats Rynge	ISI	50%
Emelie Harstad	Nebraska	50%
Marko Slyz	FNAL	60%
Tanya Levshina	FNAL	25%
Bo Jayatilaka	FNAL	75%
Chander Sehgal	FNAL	30%
TOTAL		3.0

OSG Opportunistic Eco-system

Usage by “opportunistic VOs” for last 12 months



Likely to reach 120M hours in December 2014

OSG-Direct users Nov 2013 to Oct 2014

Project Name	PI	Institution	Field of Science	Wall Hours
SPLINTER	Robert Quick	Indiana University	Medical Sciences	15,666,718
Duke-QGP	Steffen A. Bass	Duke University	Nuclear Physics	5,535,031
RIT	P. Stanislaw Radziszowski	Rochester Institute of Technology	Computer and Information Science	3,655,333
DetectorDesign	John Strologas	University of New Mexico	Medical Sciences	1,570,377
UPRRP-MR	Steven Massey	Universidad de Puerto Rico (UPRRP)	Bioinformatics	1,192,529
Pheno	Stefan Hoeche	SLAC	High Energy Physics	1,108,623
UMich	Paul Wolberg	University of Michigan	Microbiology	812,616
IU-GALAXY	Robert Quick	Indiana University	Bioinformatics	582,339
EIC	Tobias Toll	Brookhaven National Laboratory	High Energy Physics	366,878
DeerDisease	Lene Jung Kjaer	Southern Illinois University	Biological Sciences	120,889
HL-LHC-TP	Meenakshi Narain	Brown University	High Energy Physics	90,870
BNLPET	Martin Purschke	Brookhaven National Laboratory	Medical Sciences	38,819
SoyKB	Dong Xu	University of Missouri	Plant Biology	31,766
dVdT	Ewa Deelman	University of Southern California	Computer and Information Science	29,185
P0-LBNE	Maxim Potekhin	Brookhaven National Laboratory	High Energy Physics	18,334
OSG-Staff	Chander Sehgal	Fermilab	Computer and Information Science	4,340
Total				30,824,647

OSG-XD users Nov 2013 to Oct 2014

Project Name	PI	Institution	Field of Science	Wall Hours
TG-IBN130001	Donald Krieger	University of Pittsburgh	Biological Sciences	38,654,495
TG-DMR130036	Emanuel Gull	University of Michigan	Materials Science	831,275
TG-PHY120014	Qaisar Shafi	University of Delaware	Physics and astronomy	387,308
TG-MCB100109	Lillian Chong	University of Pittsburgh	Molecular and Structural Biosciences	172,313
TG-CHE130091	Paul Siders	University of Minnesota; Duluth	Chemistry	106,212
TG-CHE130103	Jeremy Moix	Massachusetts Institute of Technology	Chemistry	61,330
TG-MCB090163	Michael Hagan	Brandeis University	Molecular and Structural Biosciences	51,333
TG-OCE130029	Yvonne Chan	University of Hawaii; Manoa	Ocean Sciences	38,392
TG-IRI130016	Joseph Cohen	University of Massachusetts; Boston	Information Robotics and Intelligent Systems	20,401
TG-TRA120014	Pol Llovet	Montana State University	Evolutionary Sciences	19,479
TG-IBN130008	Jorden Schossau	Michigan State University	Biological Sciences	16,857
TG-OCE140013	Yvonne Chan	University of Hawaii; Manoa	Ocean Sciences	6,054
TG-DEB140008	Robert Toonen	University of Hawaii; Manoa	Biological Sciences	4,148
TG-MCB120070	Joseph Hargitai	Albert Einstein College of Medicine	Molecular and Structural Biosciences	378
TG-TRA120041	Hanning Chen	George Washington University	Computer and Information Science	231
TG-CHE140094	John Stubbs	University of New England	Chemistry	118
TG-SEE140006	Sheila Kannappan	University of North Carolina; Chapel Hill	Physics and astronomy	46
TG-PHY110015	Pran Nath	Northeastern University	Physics and astronomy	37
TG-MCB140160	David Rhee	Albert Einstein College of Medicine	Molecular and Structural Biosciences	25
TG-CDA100013	Mark Reed	University of North Carolina; Chapel Hill	Mathematical Sciences	6
TG-CCR120041	Luca Clementi	San Diego Supercomputer Center	Computer and Information Science	5
TG-CCR130001	Ruth Marinshaw	Stanford University	Training	2
Total				40,370,444