OSG User Support Update

Area Coordinators Call

January 21, 2015

Chander Sehgal - FNAL

Recent Accomplishments

1. Conducted tutorial for ACI-REFs team at Clemson; positive feedback

2. Developed a "sharing principle" update to OSG By-laws to enable greater opportunistic availability. Approved by OSG Council on January 14 – see OSG DocDB #70

3. Started working with GLOW to enable broader access to opportunistic cycles; developed an attack plan (but our contact at UW has left…)

4. Achieved OSG year3 goal of 100M hours of opportunistic cycles for vo=osg

5. Assisted Syracuse achieve their production targets for resource sharing with OSG

OSG Opportunistic Hours Trend
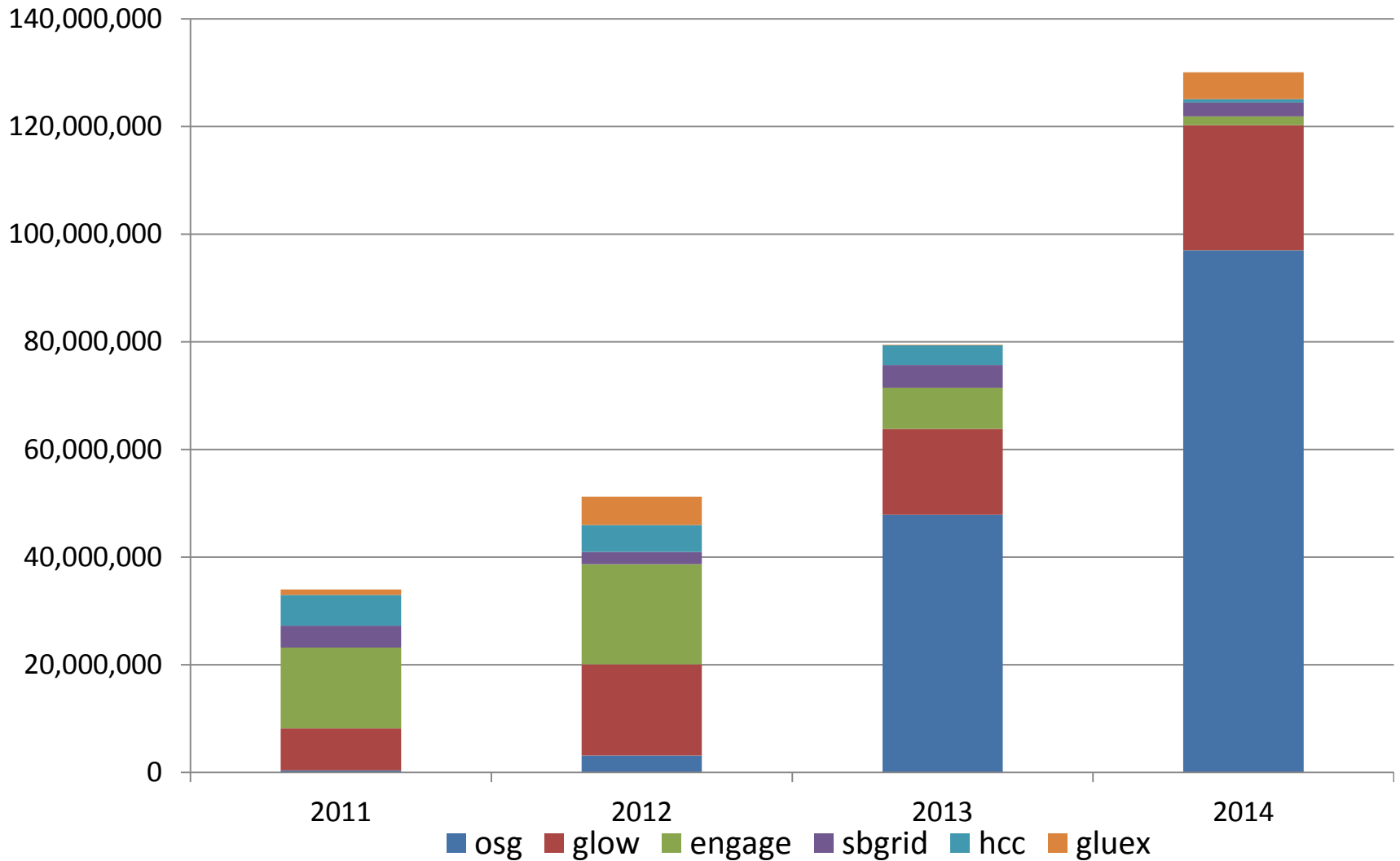
OSG Opportunistic Hours Trend

	2011	2012	2013	2014
VO				
osg **	400,568	3,168,025	47,931,106	97,009,409
glow	7,801,442	16,924,657	15,896,802	23,223,587
engage	15,011,328	18,610,782	7,673,167	1,680,835
sbgrid	4,046,324	2,271,005	4,194,011	2,558,192
hcc	5,741,379	5,017,649	3,693,243	639,626
gluex	998,031	5,257,905	106,317	4,942,329
Opportunistic Hours	33,999,072	51,250,023	79,494,646	130,053,978
Annual Growth Rate		51%	55%	64%
All OSG Hours	510,671,422	651,365,203	649,812,810	798,145,827
Opportunistic Percent	7%	8%	12%	16%

osg VO Breakdown				
	2011	2012	2013	2014
OSG-XD	0	2,129,345	24,948,630	45,326,731
OSG-Connect	0	0	541,167	6,478,164
OSG-Direct	400,568	1,038,680	22,441,309	45,204,514

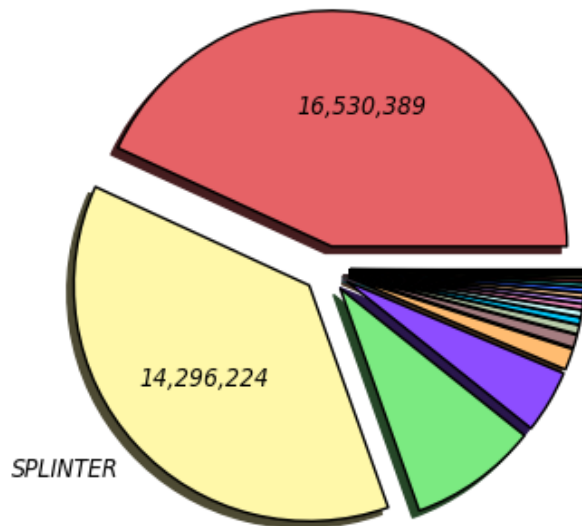** As of 21-jan-2015, OSG VO is >101M hours for last 12 months

OSG Open Facility for US Researchers
Last 91 days

Open Science Grid

Wall Hours by VO (Sum: 38,320,294 Hours)
92 Days from Week 42 of 2014 to Week 03 of 2015
TG-IBN130001

16,530,389

14,296,224

SPLINTER

■ TG-IBN130001 (16,530,390)	□ SPLINTER (14,296,225)	■ DUKE-QGP (3,393,356)	■ ALGDOCK (1,659,451)
■ PROTFOLDING (555,886)	■ ERRORSTUDY (338,612)	■ ATLAS-ORG-ANL (231,259)	■ TG-PHY120014 (182,205)
□ TG-CHE140110 (172,606)	■ UCHICAGO (146,168)	■ DETECTORDESIGN (134,206)	■ Other (130,639)
■ ICECUBE (130,059)	■ CENTAURSIM (106,325)	■ ATLAS-ORG-UCHICAGO (87,516)	□ BNL-PHENIX (79,787)
■ CONNECTTRAIN (55,696)	■ PHENO (40,856)	■ TG-CHE140094 (26,939)	■ RIT (22,113)

Last quarter usage rate is >150M hours per year

OSG-XD usage in 2014

Project Name	PI	Institution	Field of Science	Wall Hours
TG-IBN130001	Donald Krieger	University of Pittsburgh	Biological Sciences	43,832,099
TG-DMR130036	Emanuel Gull	University of Michigan	Materials Science	816,052
TG-PHY120014	Qaisar Shafi	University of Delaware	Physics and astronomy	332,824
TG-CHE130091	Paul Siders	University of Minnesota; Duluth	Chemistry	83,353
TG-CHE140110	John Stubbs	University of New England	Chemistry	67,108
TG-OCE130029	Yvonne Chan	University of Hawaii; Manoa	Ocean Sciences	36,738
TG-MCB090163	Michael Hagan	Brandeis University	Molecular and Structural Biosciences	35,589
TG-CHE140094	John Stubbs	University of New England	Chemistry	27,009
TG-CHE130103	Jeremy Moix	Massachusetts Institute of Technology	Chemistry	24,461
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	14,411
TG-OCE140013	Yvonne Chan	University of Hawaii; Manoa	Ocean Sciences	6,055
TG-DEB140008	Robert Toonen	University of Hawaii; Manoa	Biological Sciences	4,147
TG-CHE140098	Paul Siders	University of Minnesota; Duluth	Chemistry	2,263
TG-DMR140072	Adrian Maestro	University of Vermont	Materials Science	2,068
TG-MCB100109	Lillian Chong	University of Pittsburgh	Molecular and Structural Biosciences	2,054
TG-MCB120070	Joseph Hargitai	Albert Einstein College of Medicine	Molecular and Structural Biosciences	378
TG-MCB140160	David Rhee	Albert Einstein College of Medicine	Molecular and Structural Biosciences	149
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-CDA100013	Mark Reed	University of North Carolina; Chapel Hill	Mathematical Sciences	6
TG-CCR120041	Luca Clementi	San Diego Supercomputer Center	Computer and Information Science	3
TG-CCR130001	Ruth Marinshaw	Stanford University	Training	2
Total				45,326,730

OSG-Direct usage 2014

Project Name	PI	Institution	Field of Science	Wall Hours
SPLINTER	Robert Quick	Indiana University	Medical Sciences	24,039,788
Duke-QGP	Steffen A. Bass	Duke University	Nuclear Physics	6,661,506
RIT	P. Stanislaw Radziszowski	Rochester Institute of Technology	Computer and Information Science	3,655,333
DetectorDesign	John Strologas	University of New Mexico	Medical Sciences	1,608,401
Pheno	Stefan Hoeche	SLAC	High Energy Physics	1,149,479
UPRRP-MR	Steven Massey	Universidad de Puerto Rico (UPRRP)	Bioinformatics	918,016
UMich	Paul Wolberg	University of Michigan	Microbiology	508,368
IU-GALAXY	Robert Quick	Indiana University	Bioinformatics	491,700
EIC	Tobias Toll	Brookhaven National Laboratory	High Energy Physics	215,995
DeerDisease	Lene Jung Kjaer	Southern Illinois University	Biological Sciences	131,937
HL-LHC-TP	Meenakshi Narain	Brown University	High Energy Physics	90,870
BNLPET	Martin Purschke	Brookhaven National Laboratory	Medical Sciences	46,549
SoyKB	Dong Xu	University of Missouri	Plant Biology	45,143
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	4,140
UNC-RESOLVE-photometry	David Stark	UNC Chapel Hill	Physics and astronomy	26
Total				39,614,768

Key Initiatives

1. Continue to research opportunistic eco-system and grow opportunistic pool for fermilab, glow, and osg VOs

2. Continue tutorials with ACI-REFs project to identify more researchers; Utah or Hawaii next?

3. Effective service delivery for XSEDE Users of OSG. Resolve XdMod issues which misreport: 1) total number of OSG jobs; 2) total number of OSG jobs. Also need to update CPU hour to SU conversion factor for OSG.

4. Assist FIU integrate a new 2K core site with OSG

5. Assist GLOW grow opportunistic access (starting with Fermigrid)

6. Be a catalyst for resolving gFactory issues (e.g. ramp up speed for launching new pilots)

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); we no longer plan to move iRODS to GOC (new version of iRODS will require too much integration effort)

2. We don't have good visibility into gWMS system with sufficient detail to debug production problems quickly; suspect that the factories may need to be upgraded or re-sized to deal with current production volumes

3. With the growth of OSG-Connect our administration and accounting systems are unable to integrate across these two separate but related "networks" (based on Dec 2014 blueprint, no immediate solution is evident or planned)

4. The OSG Open Facility platform has adequate access to compute cycles and we need to identify more users; we continue to be demand limited. Overall OSG opportunistic usage growth hinges on more users and more pressure from glow and fermilab VOs.

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