Open Science Grid

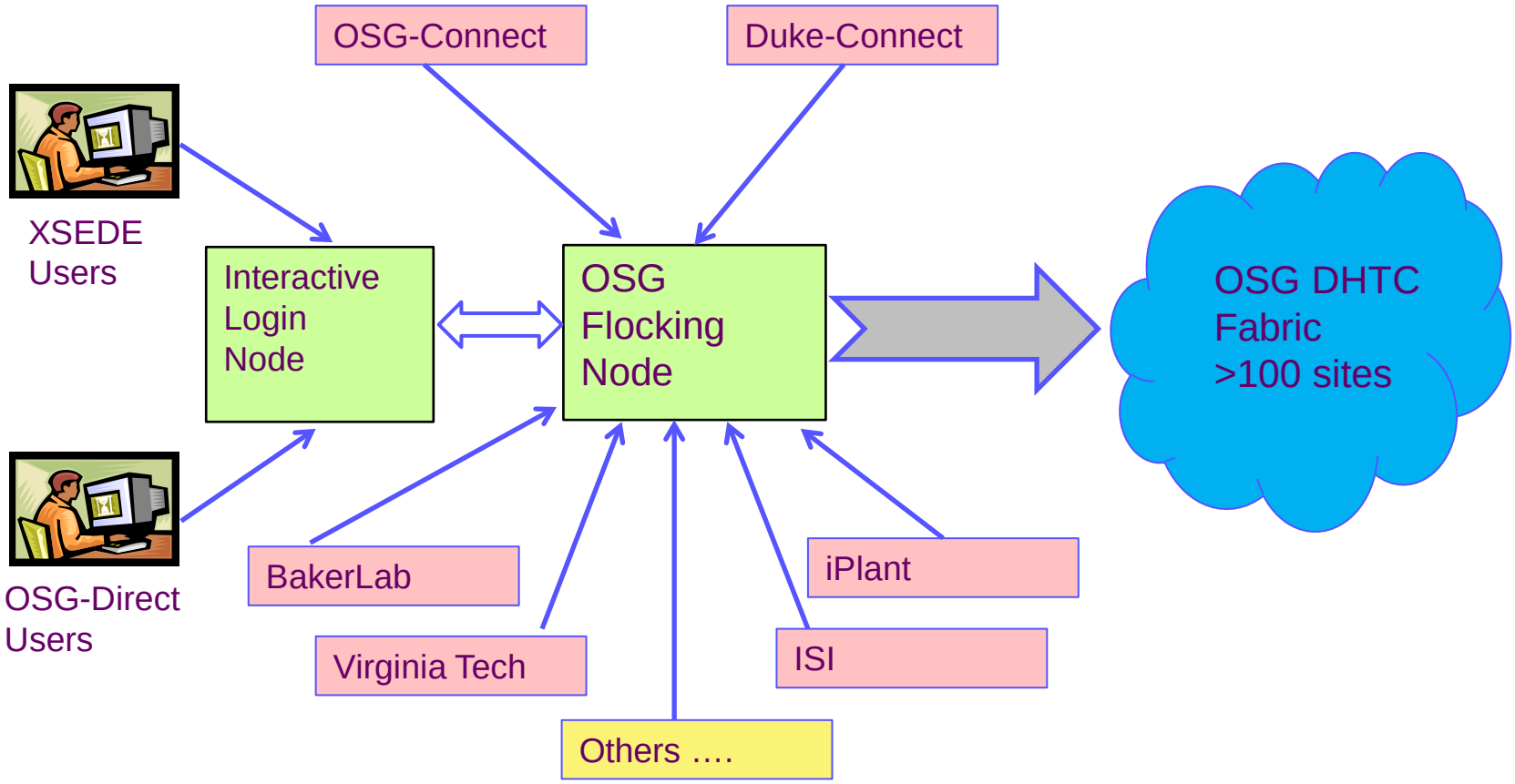
OSG-XD Usage Update

OSG Council Meeting

Oct 23, 2014

Mats Rynge

OSG-Flocking

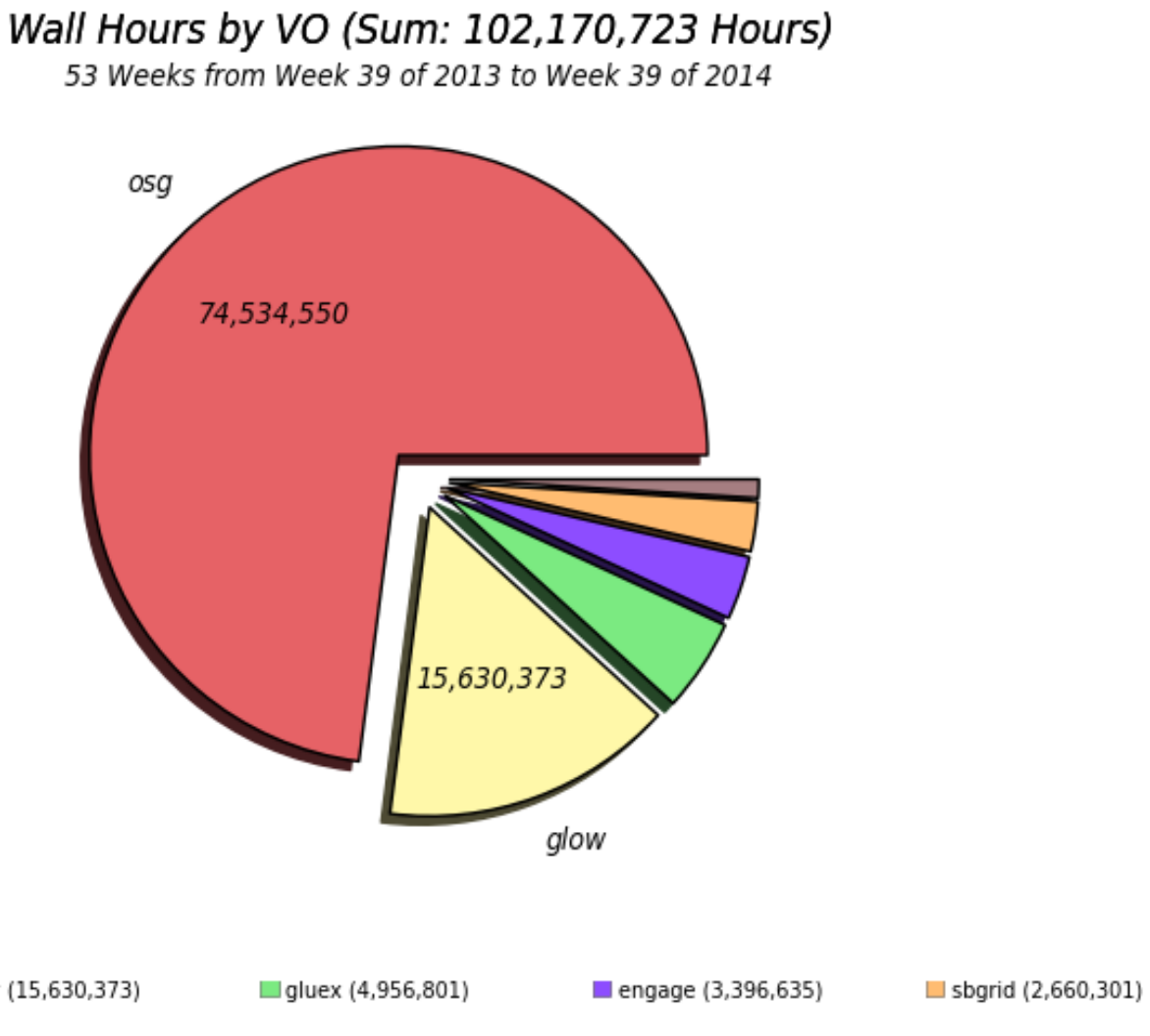


All access operates under the OSG VO using glideinWMS

New Hardware / OS Update

- 32 cores / 164 GB RAM
- 10 Gb uplink
- 15 TB local scratch, RAID 10 over 24 disks, XFS
- CentOS 6, HTCondor 8.2, other software upgrades
- Branding: xd-login.opensciencegrid.org (previous machine was osg-xsede.grid.iu.edu)

Opportunistic VOs 10/1/13-9/30/14



OSG VO Scope & Usage

The OSG VO does not own any computing resources and only exists to harvest unused cycles at OSG sites (Opportunistic cycles) and make them available to researchers who are not already affiliated with an OSG VO.

For the 12 months ending 30-Sep-2014, the OSG VO harvested 74.5M hours (from sites by using gWMS) and delivered them to various submit hosts to enable the computing of researchers

Submit Host	Wall Hours
XD-Login (XD and OSG Direct)**	66,552,967
OSG-CONNECT **	3,800,930
BakerLab	1,399,444
ISI	46,370
LSU	60

** Core OSG Services

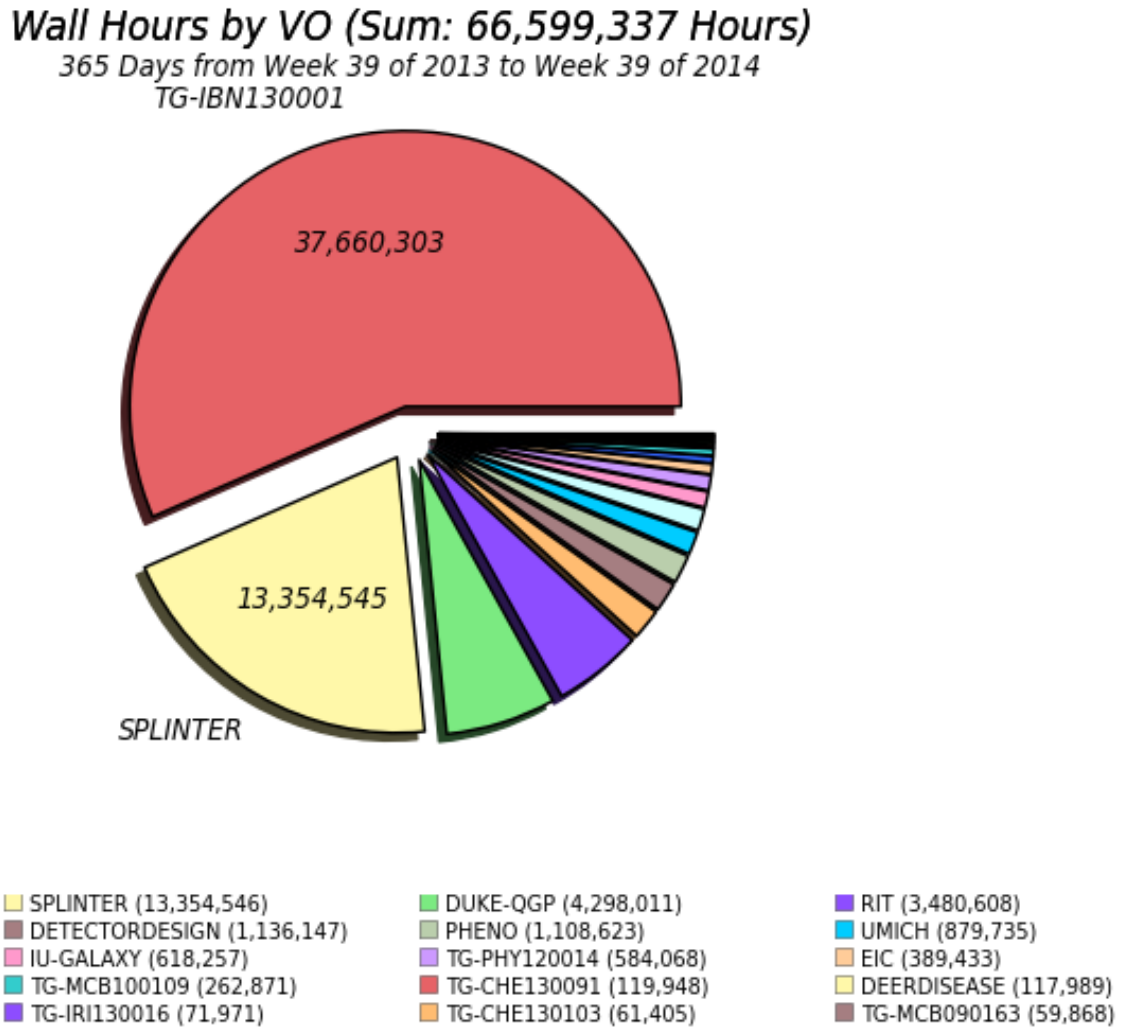
Tracking Allocations

- Problem: How do we, ahead of time, know that an allocation is about to expire and encourage the user to submit a research allocation request?
- Research allocations can only be submitted 4 times a year, and takes time to peer review and get set up.
- We have started to track active allocations on a monthly basis. Information is gathered from Gratia, XSEDE allocation database, and the OSG-XD submit host. This is a fairly manual task, but allows us to evaluate expiration dates and usage.

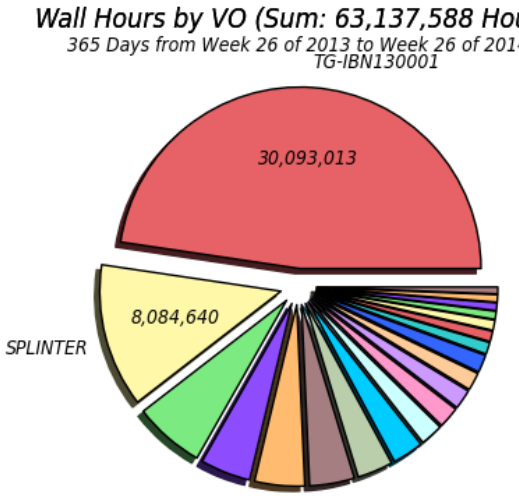
Communication Improvements

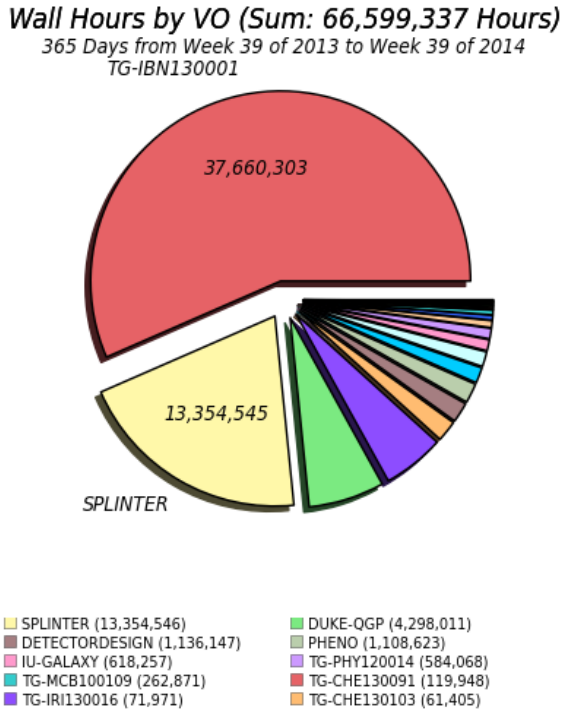
- New announcement mailing list
  - Users are added automatically when the system account is set up
  - Welcome email with support information
- Identify projects which are making slow progress, or have end of allocations coming up
  - Email and phone

OSG VO Wall Hours 10/1/13-9/30/14

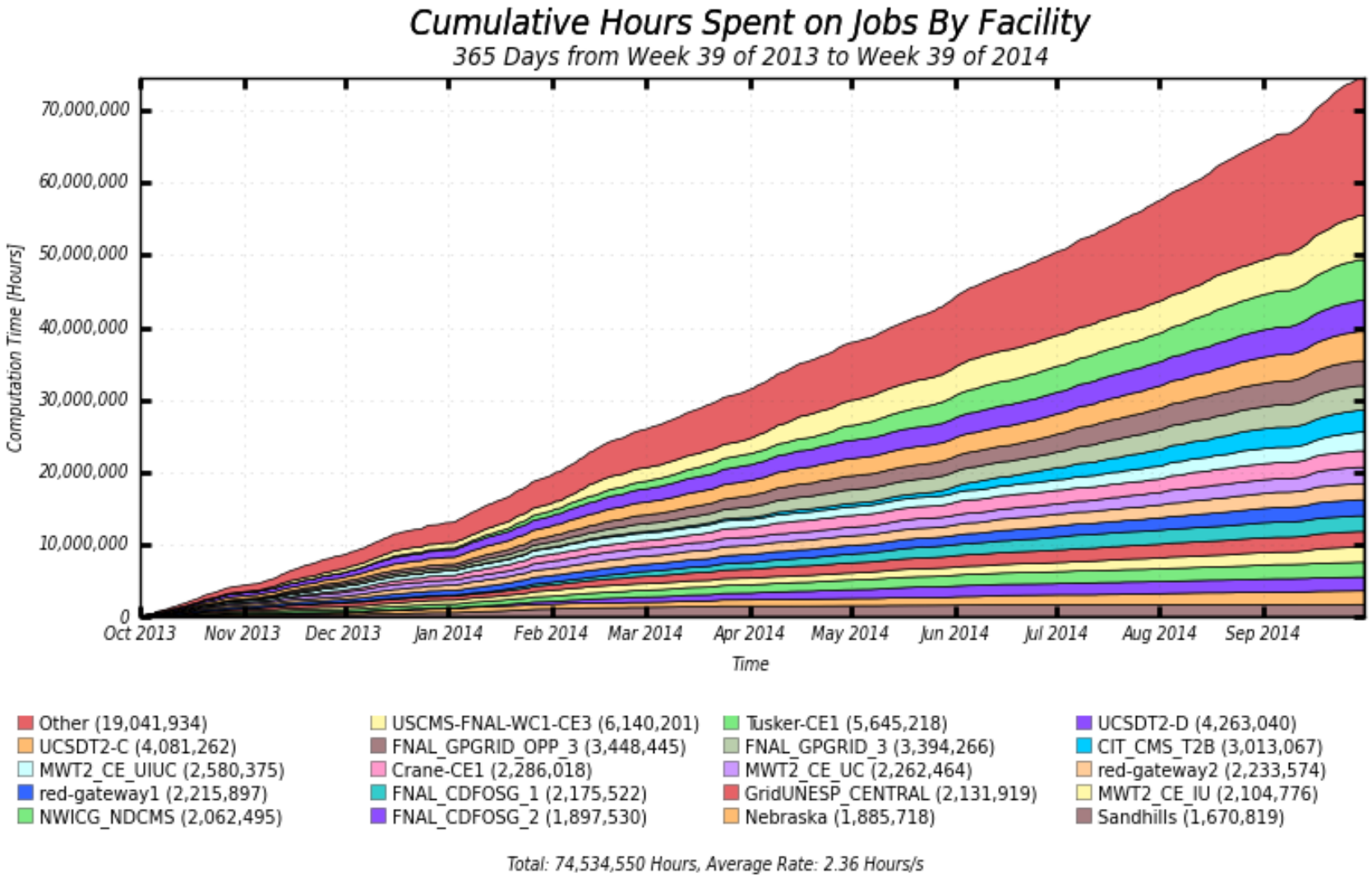


The large projects are getting larger





Resource Contributions



XD Research Allocations 7/1/13-6/30/14

Project Name	PI	Institution	Field of Science	Wall Hours	Allocation	% Used	Note
TG-IBN130001	Donald Krieger	University of Pittsburgh	Biological Sciences	37,660,303	3,700,000	1018%	Submitted new request
TG-DMR130036	Emanuel Gull	University of Michigan	Materials Science	844,237	1,000,000	84%	Renewed
TG-PHY120014	Qaisar Shafi	University of Delaware	Physics and astronom	584,056	1,200,000	49%	Contacted
TG-MCB100109	Lillian Chong	University of Pittsburgh	Molecular and Structu	262,871	500,000	53%	
TG-CHE130103	Jeremy Moix	MIT	Chemistry	61,405	100,000	61%	Ended / Contacted
TG-MCB090163	Michael Hagan	Brandeis University	Computer Science	56,068	154,000	36%	Renewal started on 10/1
TG-PHY110015	Pran Nath	Northeastern University	Physics and astronom	37	1,000,000	0%	
TG-CHE140098	Paul Siders	University of Minnesota;	Chemistry	-	205,000	0%	New research alloaction
TG-OCE140013	Yvonne Chan	University of Hawaii; Mar	Ocean Sciences	-	60,000	0%	New research alloaction
Total:				**39,468,977**	**7,919,000**		

59% of OSG VO usage comes from XD projects.

If you exclude TG-IBN130001, only 2.8% of the usage comes from XD projects. This is down from 4.2% from last report.

XD Startup and Campus Champion Allocations 7/1/13-6/30/14

Project Name	PI	Institution	Field of Science	Wall Hours	Allocation	Used	Note
TG-CHE130091	Paul Siders	University of Minnesota; Du	Chemistry	119,948	100,000	120%	Startup
TG-IRI130016	Joseph Cohen	University of Massachusetts	Intelligent Systems	71,971	200,000	36%	Startup
TG-OCE130029	Yvonne Chan	University of Hawaii; Manoa	Ocean Sciences	44,480	33,120	134%	Startup
TG-TRA120014	Pol Llovet	Montana State University	Evolutionary Sciences	19,479	200,000	10%	Startup
TG-IBN130008	Jorden Schossau	Michigan State University	Biological Sciences	16,857	200,000	8%	Startup
TG-DEB140008	Robert Toonen	University of Hawaii; Manoa	Biological Sciences	4,106	31,000	13%	Startup
TG-MCB120070	Joseph Hargitai	Albert Einstein College of M	Molecular and Structural	378	100,000	0%	Startup
TG-TRA120041	Hanning Chen	George Washington Univers	Computer Science	231	200,000	0%	Startup
TG-CHE140094	John Stubbs	University of New England	Chemistry	118	23,000	1%	Startup
TG-SEE140006	Sheila Kannappan	University of North Carolina	Physics and astronomy	46	20,000	0%	Educational
TG-MCB140160	David Rhee	Albert Einstein College of M	Computer Science	25	200,000	0%	Startup
TG-CDA100013	Mark Reed	University of North Carolina	Mathematical Sciences	6	100,000	0%	Campus Champion
TG-CCR120041	Luca Clementi	San Diego Supercomputer C	Computer Science	5	50,000	0%	Startup
TG-CCR130001	Ruth Marinshaw	Stanford University	Training	2	50,000	0%	Campus Champion
Total:				277,651	1,507,120		

OSG-Direct Projects

Project Name	PI	Institution	Field of Science	Wall Hours
SPLINTER	Robert Quick	Indiana University	Medical Sciences	13,354,546
Duke-QGP	Steffen A. Bass	Duke University	Nuclear Physics	4,297,443
RIT	P. Stanislaw Radziszowski	Rochester Institute of Technology	Computer Science	3,480,608
UPRRP-MR	Steven Massey	Universidad de Puerto Rico	Bioinformatics	1,192,943
DetectorDesign	John Strologas	University of New Mexico	Medical Sciences	1,134,622
Pheno	Stefan Hoeche	SLAC	High Energy Physics	1,108,623
UMich	Paul Wolberg	University of Michigan	Microbiology	879,735
IU-GALAXY	Robert Quick	Indiana University	Bioinformatics	618,257
EIC	Tobias Toll	Brookhaven National Laboratory	High Energy Physics	389,433
DeerDisease	Lene Jung Kjaer	Southern Illinois University	Biological Sciences	117,989
HL-LHC-TP	Meenakshi Narain	Brown University	High Energy Physics	90,870
BNLPET	Martin Purschke	Brookhaven National Laboratory	Medical Sciences	38,819
ECFA	Meenakshi Narain	Brown University	High Energy Physics	34,660
SoyKB	Dong Xu	University of Missouri	Plant Biology	29,889
dVdT	Ewa Deelman	University of Southern California	Computer Science	29,185
P0-LBNE	Maxim Potekhin	Brookhaven National Laboratory	High Energy Physics	18,334
OSG-Staff	Chander Sehgal	Fermilab	Computer Science	14,403
Total:				**26,830,358**