OSG User Support & Campus Grids

Rob Gardner • University of Chicago
Mats Rynge • ISI

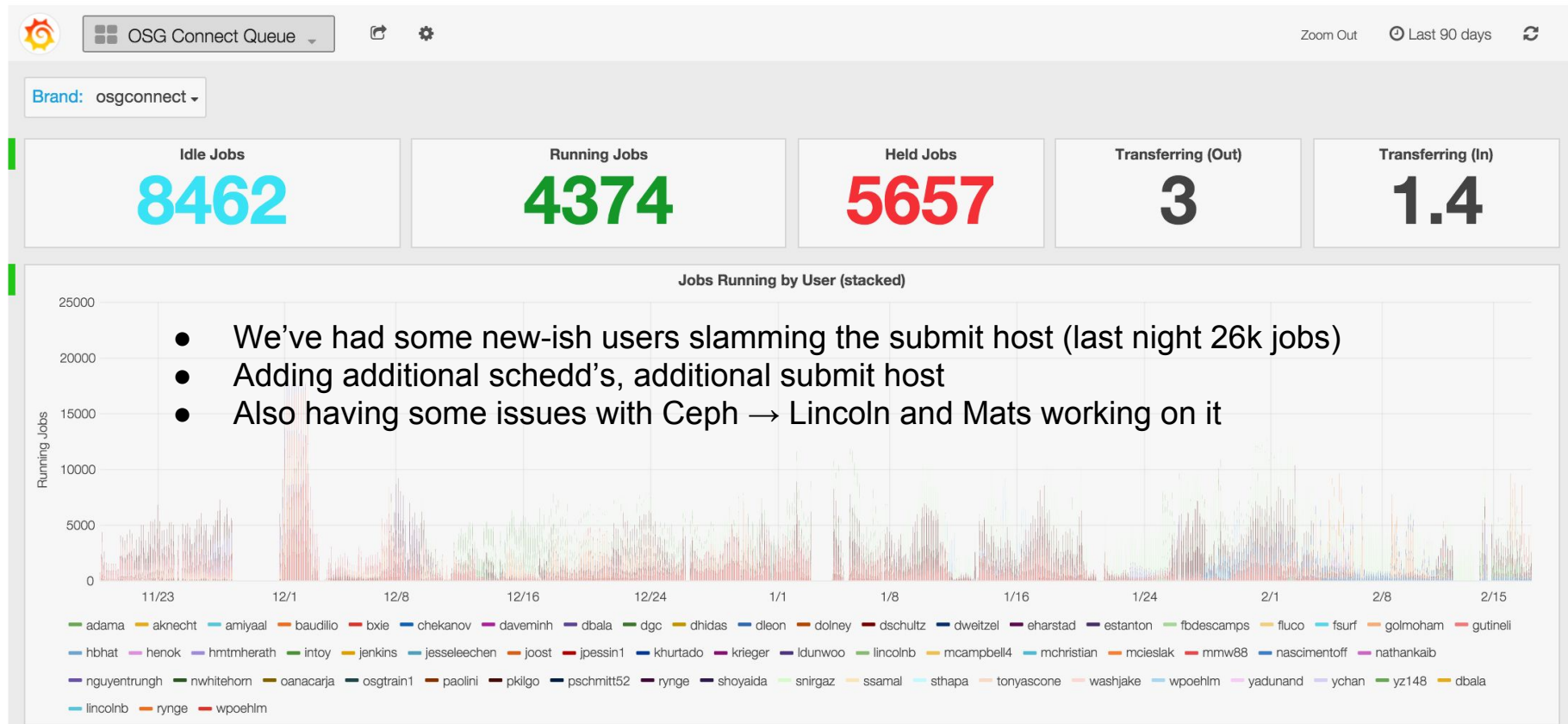**Open Science Grid**

User Support and Campus Grids

- Metrics
  - Averaging ~30 active projects in Connect, XD, Direct
  - 1,9M hours last week
- OSG SWC workshop at UNL success
- Two new OSG Connect clusters
  - University of Utah HPC (Guy Adams)
  - Test cluster at UChicago (Andrew Chien group)
- Transitioned to new Globus auth service
  - > 800 *Connect related accounts provisioned

XD

- Projects with zero / low usage
  - One reason is that the allocations might have access to many resources, and OSG was just added in
  - Startup allocations used for exploration
  - Computing approach different from what XD users are accustomed to
- We have started to contact projects to offer additional help to get started

User Dashboard

▦ OSG Connect Queue ▾   ⎘   ⚙

Zoom Out   🕓 Last 90 days   ⟳

Brand: osgconnect ▾

Idle Jobs	Running Jobs	Held Jobs	Transferring (Out)	Transferring (In)
8462	**4374**	**5657**	**3**	**1.4**

Jobs Running by User (stacked)

- We've had some new-ish users slamming the submit host (last night 26k jobs)
- Adding additional schedd's, additional submit host
- Also having some issues with Ceph → Lincoln and Mats working on it

Running Jobs

25000
20000
15000
10000
5000
0

11/23   12/1   12/8   12/16   12/24   1/1   1/8   1/16   1/24   2/1   2/8   2/15

adama aknecht amiyaal baudilio bxie chekanov daveminh dbala dgc dhidas dleon dolney dschultz dweitzel eharstad estanton fbdescamps fluco fsurf golmoham gutineli hbhat henok hmtmherath intoy jenkins jesseleechen joost jpessin1 khurtado krieger ldunwoo lincolnb mcampbell4 mchristian mcieslak mmw88 nascimentoff nathankaib nguyentrungh nwhitehorn oanacarja osgtrain1 paolini pkilgo pschmitt52 rynge shoyaida snirgaz ssamal sthapa tonyascone washjake wpoehlm yadunand ychan yz148 dbala lincolnb rynge wpoehlm

4

OSG-Connect Projects 2015/02/01 - 2016/02/01

Project Name	PI	Institution	Feild of Science	Wall Hours
AlGDock	David Minh	Illinois Institute of Technolog	Chemistry	5240846
numfpi	Jerry Tessendorf	Clemson University	Computer and Information Scien	3679098
FFValidate	Vijay Pande	Stanford University	Chemistry	3556135
z2dqmc	Snir Gazit	University of California Berke	Physics	2241066
BioGraph	Alex Feltus	Clemson University	Biological Sciences	1322596
EvolSims	Oana Carja	University of Pennsylvania	Biological Sciences	1286555
CentaurSim	Nathan Kaib	Northwestern University	Astrophysics	1050911
IceCube	Francis Halzen	University of Wisconsin	Astrophysics	901601
PainDrugs	Pei Tang	University of Pittsburgh	Medical Sciences	785932
SourceCoding	Ahmad Golmohammadi	New Mexico State University	Engineering	753884
Errorstudy	Christopher Richards	USDA Agricultural Research	Molecular and Structural Bioscie	573448
microphases	Patrick Charbonneau	Duke University	Chemistry	516830
ConnectTrain	Robert William Gardner Jr	University of Chicago	Training	377906
OSG-Staff	Chander Sehgal	Fermilab	Computer and Information Scien	329686
mab	Vivek Farias	Massachusetts Institute of Te	Information Theory	277125
ProtEvol	Premal Shah	University of Pennsylvania	Evolutionary Sciences	163930
uchicago	Robert William Gardner Jr	University of Chicago	Multi-Science Community	156912
RicePhenomics	Harkamal Walia	University of Nebraska Linco	Biological Sciences	122319
SouthPoleTelescope	John Carlstrom	University of Chicago	Astrophysics	118223
cms-org-nd	Robert William Gardner Jr	University of Notre Dame	High	
MS-EinDRC	Jacob Pessin	Albert Einstein College of Me	Medic	
FutureColliders	Sergei Chekanov	Argon National Lab	High	
SDEalgorithms	Harish S. Bhat	University of California; Merc	Math	
duke-swcstaff	Robert William Gardner Jr	Duke University	Multi	
NSNM	Vadim Apalkov	Georgia State University	Physi	
EvolvingAI	Jeff Clune	University of Wyoming	Comp	
Swift	Michael Wilde	University of Chicago	Comp	
scicomp-analytics	Robert William Gardner Jr	University of Chicago	Multi-	
DemandSC	Fernando Luco	Texas A&M University; Unive	Econ	
atlas-org-uchicago	Robert William Gardner Jr	University of Chicago	High Energy Physics	19472
KnowledgeLab	James Evans	University of Chicago	Sociology	16335
Paniceae-trans	Jacob Washburn	University of Missouri	Evolutionary Sciences	15687
SNOplus	Joshua R Klein	University of Pennsylvania	High Energy Physics	14614
ERVmodels	Fabricia Nascimento	University of Oxford	Zoology	13151
z2qmc	Snir Gazit	University of California Berke	Physics	9598
ContinuousIntegration	Robert William Gardner Jr	University of Chicago	Technology	8537
PathSpaceHMC	Frank Pinski	University of Cincinnati	Computational Condensed Matte	8434
UserSchool2015	Robert William Gardner Jr	University of Wisconsin - Ma	Education	8163
ExhaustiveSearch	Sam Volchenboum	University of Chicago	Bioinformatics	4889
PTMC	Derek Dolney	University of Pennsylvania	Molecular and Structural Bioscie	3263
Phylo	Siavash Mirarab	UC San Diego	Bioinformatics	2315
hABCNWHI	Yvonne Chan	Iolani School	Biological Sciences	1822
NSLS2ID	Dean Andrew Hidas	Brookhaven National Labora	High Energy Physics	1486
MiniWorkshopUC15	Robert William Gardner Jr	University of Chicago	Computer and Information Scien	643
freesurfer	Donald Krieger	University of Chicago	Medical Sciences	638
SWC-OSG-IU15	Robert William Gardner Jr	IUPUI	Community Grid	286
ProbTracx	Dr. Bruce P. Hermann	University of Wisconsin	Neuroscience	277
pipediffusion	Panthea Sepehrband	Santa Clara University	Materials Science	270
DelhiWorkshop2015	Robert William Gardner Jr	University of Chicago	Physics	244
EHEC	Chuck Kaspar	University of Wisconsin-Mad	Microbiology	86
ASPU	ilyoup kwak	University of Minnesota	Bioinformatics	47
RADICAL	Shantenu Jha	Rutgers University	Computer and Information Scien	44
HTCC	Rob Quick	Indiana University	Community Grid	15
UserSchool2014	Tim Cartwright	OSG	Multi-Science Community	9
NeoflAnnot	Petra Lenz	University of Hawaii at Mano	Biological Sciences	5
atlas-wg-Exotics	Robert William Gardner Jr	ATLAS	High Energy Physics	4
OSGOpsTrain	Rob Quick	Open Science Grid	Community Grid	3
cms-org-fnal	Lothar Bauerdick	Fermi National Accelerator L	High Energy Physics	3
atlas-org-illinois	Mark Neubauer	University of Illinois	High Energy Physics	1
gem5	Dean Tullsen	University of California San I	Multi-Science Community	1
				24253300

OSG-Direct Projects 2015/02/01 - 2016/02/01

Project Name	PI	Institution	Feild of Science	Wall Hours
SPLINTER	Rob Quick	Indiana University	Medical Sciences	32746961
Duke-QGP	Steffen A. Bass	Duke University	Nuclear Physics	9591924
sPHENIX	Martin Purschke	Brookhaven Nation	Nuclear Physics	5589611
UPRRP-MR	Steven Massey	Universidad de Pue	Bioinformatics	1593405
IU-GALAXY	Rob Quick	Indiana University	Bioinformatics	1266000
BNL-PHENIX	Matthew Snowball	Brookhaven Nation	Nuclear Physics	519229
DetectorDesign	John Strologas	University of New M	Medical Sciences	376994
Pheno	Stefan Hoeche	SLAC	High Energy Physic	260755
DeerDisease	Lene Jung Kjaer	Southern Illinois Ur	Biological Sciences	157624
OSG-Staff	Chander Sehgal	Fermilab	Computer and Inform	138872
UNC-RESOLVE-ph	David Stark	UNC Chapel Hill	Physics and astron	34840
IBN130001-Plus	Donald Krieger	University of Pittsb	Neuroscience	2002
Total				**52278216**

OSG-XD Projects 2015/02/01 - 2016/02/01

Project Name	PI	Institution	Feild of Science	Wall Hours
TG-IBN130001	Donald Krieger	University of Pittsb	Biological Sciences	34454812
TG-DMR130036	Emanuel Gull	University of Michig	Materials Science	1269854
TG-CHE140110	John Stubbs	University of New E	Chemistry	1048149
TG-AST140088	Francis Halzen	University of Wisco	High Energy Physic	552688
2	Gregory Snyder	Space Telescope S	Mathematical Scier	420545
8	Paul Siders	University of Minne	Chemistry	318432
0	Jennifer Lotz	Space Telescope S	Astrophysics	128107
0	Francis Halzen	University of Wisco	Physics and astron	83901
0	Emiliano Brini	SUNY at Stony Bro	Molecular Bioscien	77481
3	Juliette Becker	University of Michig	Astrophysics	68490
0	David Rhee	Albert Einstein Coll	Molecular and Stru	39368
8	Jon Pelletier	University of Arizor	Geographic Informa	36641
1	John Chrispell	Indiana University	Other	21074
72	Adrian Del Maestro	University of Vermc	Materials Science	18098
TG-OCE140013	Yvonne Chan	University of Hawa	Ocean Sciences	17884
TG-PHY120014	Qaisar Shafi	University of Delaw	Physics and astron	17594
TG-TRA130030	Neranjan Edirisingl	Georgia State Univ	Mathematical Scier	3933
TG-AST150046	Suzanne Hawley	University of Washi	Mathematical and P	3020
TG-MCB140232	Alan Chen	SUNY at Albany	Molecular and Stru	598
TG-CCR140028	Shantenu Jha	Rutgers; the State	Computer and Infor	455
TG-TRA100004	Andrew Ruether	Swarthmore Colleg	Training	204
TG-MCB060061N	Jeffry D. Madura	Duquesne Universi	Molecular and Stru	49
TG-MCB140268	Graziano Vernizzi	Siena College	Molecular and Stru	19
TG-STA110011S	Stephen McNally	University of Tenne	Other	1
Total				**38581397**

A few projects selected from OSG Connect
Training and Educational Projects

Project Name	PI	Institution	Feild of Science	Wall Hours
ConnectTrain	Robert William Gar	University of Chica	Training	377906
Duke-SWC-OSG15	Robert William Gar	Duke University	Multi-Science Com	234514
duke-swcstaff	Robert William Gar	Duke University	Multi-Science Com	73112
UserSchool2015	Robert William Gar	University of Wisco	Education	8163
MiniWorkshopUC1:	Robert William Gar	University of Chica	Computer and Infor	643
SWC-OSG-IU15	Robert William Gar	IUPUI	Community Grid	286
DelhiWorkshop201	Robert William Gar	University of Chica	Physics	244
UserSchool2014	Tim Cartwright	OSG	Multi-Science Com	8163
Total				**694877**

Campus Projects

Project Name	PI	Institution	Feild of Science	Wall Hours
Duke-SWC-OSG15	Mark DeLong	Duke University	Multi-Science Com	234514
uchicago	Robert William Gar	University of Chica	Multi-Science Com	156912
cms-org-nd	Kevin Lannon	University of Notre	High Energy Physic	116187
duke-swcstaff	Mark DeLong	Duke University	Multi-Science Com	73112
Total				**580725**

**115M CPU hours
2/1/2015-2/1/2016**

5

OSG (Connect, Direct, XSEDE)

115M CPU hours
2/1/2015-2/1/2016

6
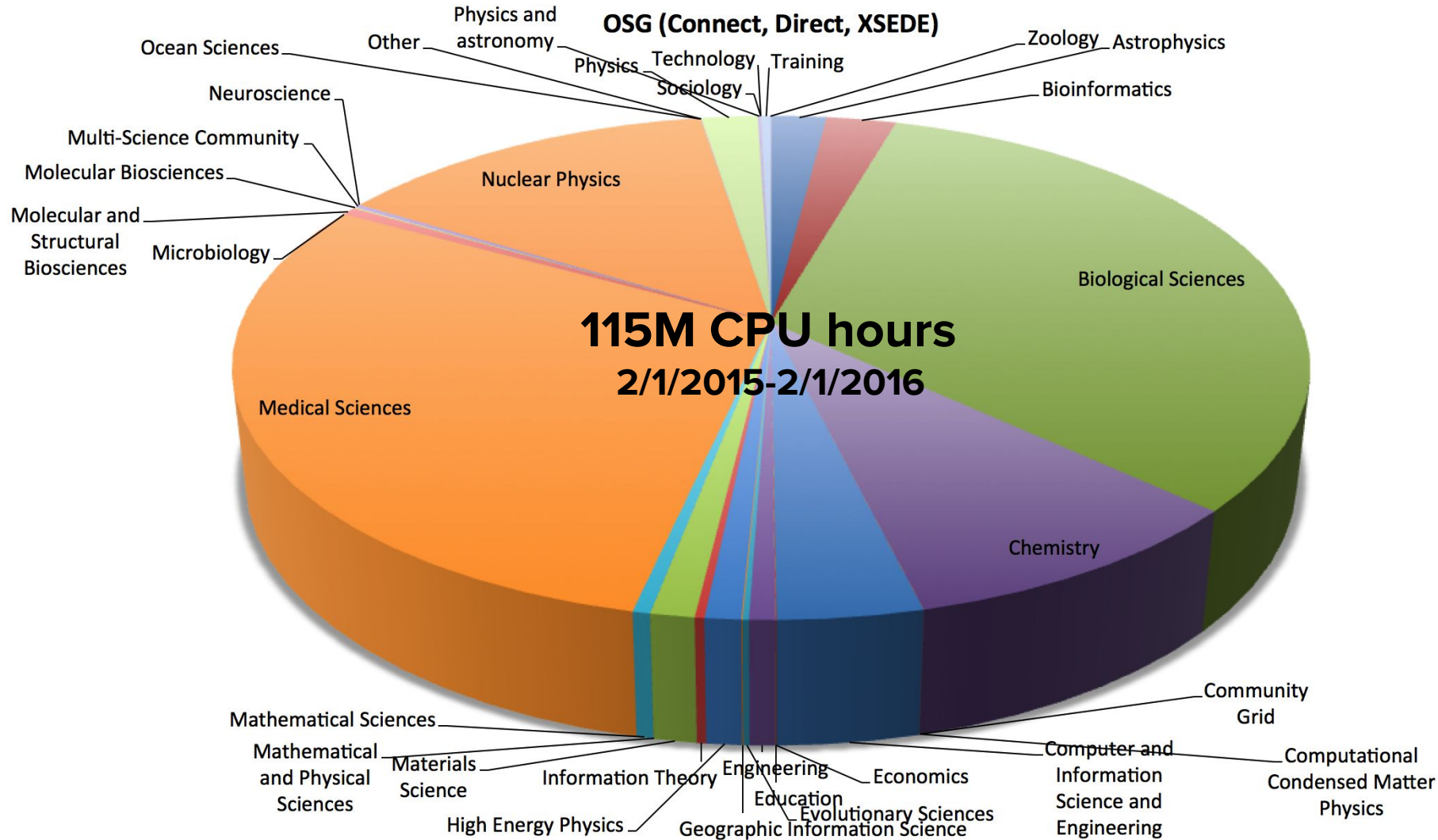
Project Activity: 2014 vs 2015

Active Projects 2014 and Active Projects 2015

Legend:
- Active Projects 2014
- Active Projects 2015
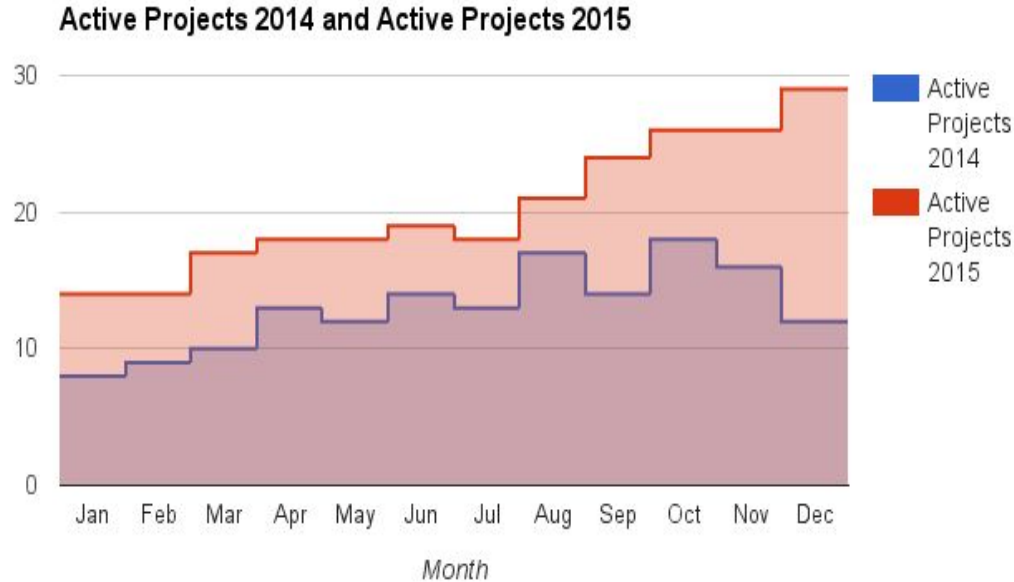
Year 15: Steady Growth

Year 14: slow down at end

Average:

year-2014 = 13

year-2015 = 20

Improved = 54%

Not included: UserSchool, Workshops, Training

User Support Activities - last 90 days

239 ▼56%
CREATED TICKETS ⓘ

246 ▼55%
RESOLVED TICKETS ⓘ

22 ▼39%
REOPENED TICKETS ⓘ

10h 53m ▼14%
AVERAGE 1ST RESPONSE TIME ⓘ

8h 19m ▼26%
AVERAGE RESPONSE TIME ⓘ

74h 49m ▲161%
AVERAGE RESOLUTION TIME ⓘ

44m 10s ▼83%
AVERAGE 1ST ASSIGN TIME ⓘ

69% ▼15%
FIRST CONTACT RESOLUTION ⓘ

87% ▲19%
FIRST RESPONSE SLA ⓘ

How to read this report ?

View all tickets

Created tickets split by source

Email	135
Phone	48
Chat	32
Portal	22

View more...

Created tickets split by priority

Low	213
High	15
Urgent	8
Medium	3

Created tickets split by status

Closed	214
Open	17
Waiting on...	5
Resolved	3

Created tickets split by type

Account or login	118
Job executio...	62
Other	26
Data transfer	8

Created tickets split by type

Account or login	118
Job executio...	62
Other	26
Data transfer	8
Documentation	8
Software	6
Campus grid	6
Workshops /Schools	3
None	2

8

Customer feedback

Satisfaction Report
19 Nov 2015 - 16 Feb 2016

Sort By: Name

Bala Desinghu
Scientific Computing Consultant

95%
21 customers said above expectations

4%, one said met expectations

0%, nobody said below expectations

Lincoln Bryant

100%
one customer said above expectations

0%, nobody said met expectations

0%, nobody said below expectations

Mats Rynge
Computer Scientist

50%
one customer said above expectations

50%, one said met expectations

0%, nobody said below expectations

Suchandra Thapa

50%
one customer said below expectations

rwg was the unhappy customer

50%, one said above expectations

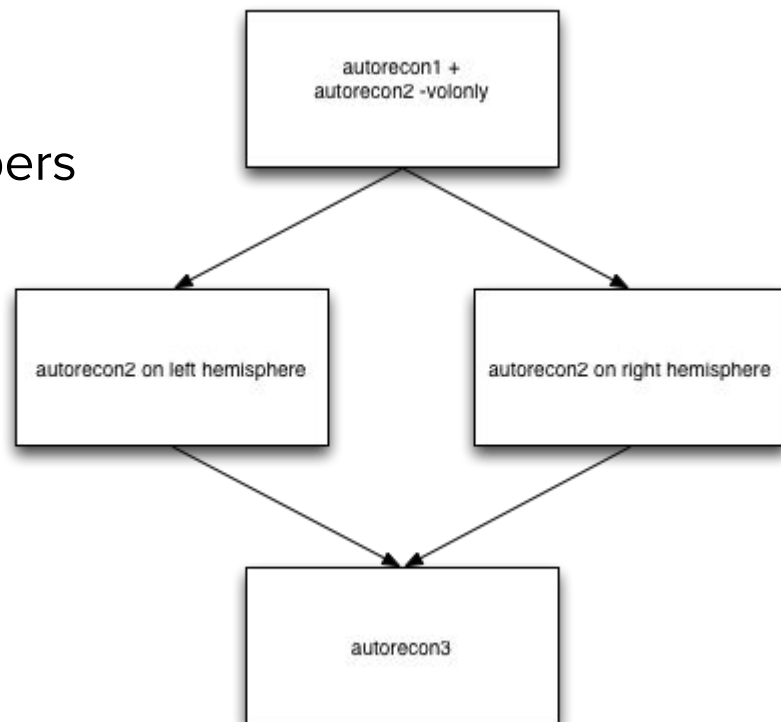**0%**, nobody said met expectations

FreeSurfer execution service update

- Command line from login.osgconnect.net
- Local client submission to API
- Validating output with Freesurfer developers
- Preparing user documentation & tutorial


```
fSurf --runFile SubNo_01_defaced.mgz --singleCore
fSurf --runFile SubNo_02_defaced.mgz --multiCore
fSurf --showJobsStatus
fSurf --fetchResults SubNo_02_defaced.mgz
```


autorecon1 +
autorecon2 -volonly

autorecon2 on left hemisphere

autorecon2 on right hemisphere

autorecon3

Campus grid activities

- Duke CI Connect
  - Two projects have become active in 2016
- UChicago CI Connect
  - Driven by Xenon1t collaboration
  - New builds of PAX; Geant4 ➜ in OASIS/modules
  - 25TB Gran Sasso➜Nikkef➜Stash➜Midway
  - Workflow; need lightweight transfer service
- CMS Connect: with USCMS T3 managers
  - expect users post-Moriond

Manpower situation

- 1.0 Bala, 0.5 Mats, 0.5 Emelie, 0.5 Suchandra, 0.5 Rob
- Losing Emelie to maternity leave next week
- 0.5 Champion replacement at UC
  - scientific programmer
  - 22 candidates, interviews starting next week

Upcoming

- Release of new FreeSurfer service
- Preparing for AHM
  - Working with Marcin and Lauren on facilitation for Clemson campus users
  - Connect client submission from Palmetto to OSG
- Technical things on the docket
  - User data access with StashCache - BLAST demo eval
  - Small campus connect tools:
    - Hosted CE-ssh (replace Connect bosco-as-service)
    - Parrot+OASIS (avoid CVMFS worker install)