Gratia Status Report (2nd Quarter 2014)

Tanya Levshina

Efforts

Gratia Team

- Tanya Levshina – 0.05 FTE
  - Project leader, Operational issues, Reports , Releases, Scoreboard, Cloud probe, gratia/XSEDE (AMIE) interface
- Hyunwoo Kim – 0.2 FTE
  - mySQL, hibernate, gratia osg-testing suit
- Marco Mambelli – 0.5 FTE
  - Scoreboard, Archival Project, Operational issues, Probe common libs, Documentation
- Carl Edquist (OSG Software Team) - ? FTE
  - Operational issues,Batch probes, Some storage probe, OSG Display

Satellite Projects

- John Weigand, Scott Tiege -- ?FTE
  - OSG/WLCG interface
  - Operational issues
- Brad Hurst 0.1 FTE
  - GratiaWeb

Gratia Development (I)

- Gratia Core
  - 1.14.1 in osg-production repo
    - Get rid of BIRT reporting
    - Bug fixes
  - 1.15.1 in osg-development
    - Hibernate4
    - Mysql 5.1
- Gratia Probes (1.13.24 – 1.13.29)
  - Bug fixes (condor, slurm, pbs-lsf, sge)
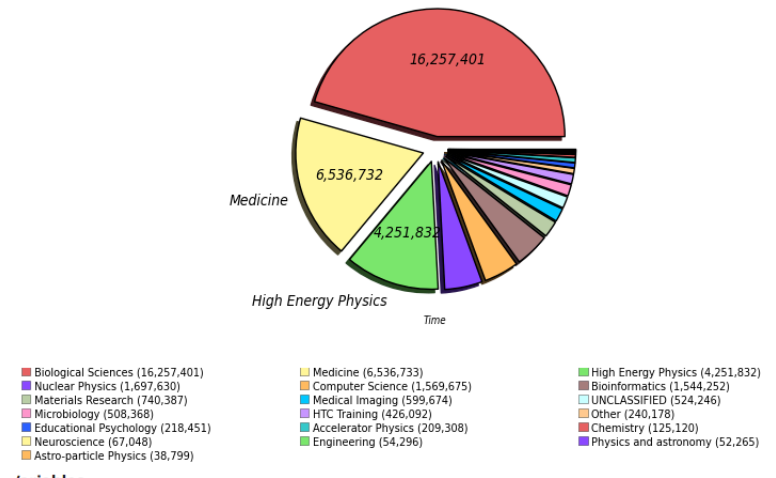 - Decommission psacct probe

Gratia Development (II)

- Gratia reporting
  - OSG Projects report modification and addition (OSG-Connect, UCSD)
  - Fields of Science for Projects and VOs – continuing work on design and coordination of GratiaWeb and OIM development
- Fermilab scoreboard: requirement gathering, automated weekly and monthly plots for experiments

Fields of Science

- There are 14 Campus Grids registered in OIM.
- Campus Grids that report ProjectName:
  - Atlas-Connect
  - UCSD
  - OSG-XSEDE
  - ISI
  - VT
  - OSG-Connect
  - Duke
- Campus Grid that don't report ProjectName
  - HCC - Still trying to convince HCC to start project registration. They have actually required this feature!
  - GLOW – Now run gratia probe but waiting for condor modification to start reporting ProjectName

Wall Hours by Field of Science (Sum: 35,661,754 Hours)
176 Days from Week 00 of 2014 to Week 25 of 2014

Biological Sciences 16,257,401
Medicine 6,536,732
High Energy Physics 4,251,832

Biological Sciences (16,257,401)
Nuclear Physics (1,697,630)
Materials Research (740,387)
Microbiology (508,368)
Educational Psychology (218,451)
Neuroscience (67,048)
Astro-particle Physics (38,799)

Medicine (6,536,733)
Computer Science (1,569,675)
Medical Imaging (599,674)
HTC Training (426,092)
Accelerator Physics (209,308)
Engineering (54,296)

High Energy Physics (4,251,832)
Bioinformatics (1,544,252)
UNCLASSIFIED (524,246)
Other (240,178)
Chemistry (125,120)
Physics and astronomy (52,265)

OSG/WLCG

- GOC is now in charge of the project (since mid December).
- Source Code is transferred, Scott has got access to SVN
- Service is running by Gratia Operation at Fermilab
- Still most of the issues are discovered/corrected by John Weigand or other members of gratia team
- Issues:
  - Tickets addressees should include:
    - Affected resource admin
    - T2 coordinator of the respective Vos
    - Gratia-operation
    - Person responsible for OSG/WLCG service
  - Release cycle (immediate changes can be necessary, can not wait for a month or two)

Data Integrity

- WallTime!=EndTime-StartTime (Nebraska)

- CpuTime set to NULL (Nebraska)

- Understating wall hours due to multi-core jobs (Purdue-Rossman, UNESP)

- Misreporting user VO affiliation (Net2)

- Double reporting of WallHours for opportunistic VOs (Fermilab) due to site-gate probe.

- ATLAS and CMS should find people to check the numbers that are reported to the WLCG!!!

GratiaWeb

- Very little progress
- In need of major review – too many minor bugs and inconsistencies.
- Many requirements: new queries fro transfers, campus grid etc.
- Numerous outages, memory problems, sluggish performance during last quarter
- Brad Hurst (Nebraska) doesn't work on the project anymore
- Visitor-scientist (starting July 1st) will be assigned to work on gratiaweb (50%FTE paid by the OSG):
  - Will Brian, Derek or Brad bring him up to date?
  - Should we continue to put effort in gratiaweb?
  - Who will provide long term support and maintenance of the code?

Laundry List of Issues and Questions.

- mySQL 5.6 upgrade
- Do we need to keep fermi instance (Only glexec probes are not forwarded to osg)
- Probe rewrite (pbs-lsf)
- Data auditing
- Report generation restructuring
- Fermi Scoreboard development directions.
- Archival Project
- Documentation

We need feedback from stakeholders to understand the priorities!