

2013 OSG Planning Retreat

OSG Software

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4 June 2013

Last Year

Packages

- **2012 Retreat statistic**
 - 198 source RPMs in latest release
- **2013 Retreat statistics**
 - 225 source RPMs in latest release (but ...)
 - 312 source packages total, ever
 - Globus Toolkit: 51 packages itself
 - Upstream (incl. OSG): ~4M lines of code

Notable Changes

- Globus GRAM crashers, critical fixes, LSF ...
- SHA-2 updates: BeStMan 2, jGlobus, VOMS
- Add Pakiti, frontier-squid, OASIS, OSG PKI, ...
- New CA certificate updater
- Added client (full and WN) tarballs
- Moved to Fetch CRL v3 everywhere
- HTCondor 7.8.2 → 7.8.8
- Many bug fixes across the board

Releases

3.1.6	2012-07-10	RSV bug fixes
3.1.7	2012-07-31	RPM fixes: BeStMan 2, XRootD, GridFTP-HDFS
3.1.8	2012-08-14	HTCondor 7.8.2 (security), GlideinWMS, bug fixes
3.1.9	2012-09-25	GRAM blockers, HTCondor 7.8.4 , net tools, Java
3.1.10	2012-10-09	CA certificates
3.1.11	2012-11-06	CA cert updater, VOMS Admin, HTCondor 7.8.6 , Java
3.1.12	2012-12-11	CA certificates , GRAM, GlideinWMS, bug fixes
3.1.13	2013-01-29	BeStMan 2 + jGlobus (SHA-2), Pakiti, XRootD, more!
3.1.14	2013-02-12	CA certificates , frontier-squid, OASIS config, HDFS
3.1.15	2013-03-05	Fetch CRL 3, Upcoming, GridFTP, gLXec/lcmaps, Java
3.1.16	2013-04-02	GRAM LSF support, OSG PKI, CA helper scripts
3.1.17	2013-04-30	GSI-OpenSSH, jGlobus, VOMS (SHA-2), Pegasus, ...
3.1.18	2013-05-14	HTCondor 7.8.8 , jGlobus patch, CA helpers, Java

Deployments

Retreat	OSG Release		
	1.0	1.2	3.1
2012	3	68	30
2013	—	28*	69†

* Actively and individually tracked by GOC

† Has oscillated within [69, 79] lately

NB: Official support for OSG ≤ 1.2 (Pacman)
ended on Friday, 31 May 2013

People

- **Left OSG Software**
 - Alain Roy, Scot Kronenfeld, Doug Strain
 - Tim Mortensen (UCSD) — out for 1 year?
- **Joined OSG Software**
 - Carl Edquist, Brian Lin (both UW–Madison)
- **Added Tim Theisen and Release Team**

Year 2 Plans

Staffing

UW—Madison	Tim Cartwright	1.0	0.8 Software, 0.2 Education
	Mat Selmecci	1.0	
	Carl Edquist	1.0	
	Brian Lin	0.5	+ 0.5 Release
U. of Chicago	Suchandra Thapa	0.5	+ 0.5 Release
UCSD	Igor Sfiligoi	???	
	<i>TBD</i>	1.0	
UNL	<i>TBD</i>	???	part of 1.3 new FTEs?
BNL	John Hover	???	0.5 split between Tech and SW?
	Jose Caballero	0.5	
	Alexandr Zaytsev	0.4	

Work Plan Overview

- **Ongoing**

- Routine updates
- Bug fixes
- Documentation
- Support
- Scalability testing
- More automated tests

- **Projects**

- Nearly done:
 - SHA-2 support
 - Java 7 migration
 - HDFS 2
- SLURM support
- Globus Toolkit updates
- OSG 3.2 and beyond
- BOSCO?
- Configuration tools?
- Debian support?

- **HTCondor Packaging**

- Unify RPMs
- Take over Debian support
- HTCondor-CE
- Ongoing maintenance and support

- **Community**

- Move Globus patches upstream
- Use some EPEL Globus packages?
- Join EPEL and donate packages

- **Automated Testing**

- Simplify test development
- Run tests as jobs (CHTC, OSG?)
- Multiple-machine tests

- **Education**

- OSG User School
- OSG Admin School (effort?)

Work Plan: Ongoing

1. Deliver routine software updates & additions
2. Fix bugs in a timely fashion
3. Help maintain and improve documentation
 - Owned by Release Team
 - Work shared among Technology and Production
4. Provide timely user support
5. Test scalability of critical components
6. Add more tests to automated suite

Work Plan: Projects (Pt 1)

1. SHA-2 support
 - Testing complete
 - Must update one more package (dcache-srmclient)
2. Java migration (Oracle JDK 1.6 > OpenJDK 1.7)
 - Extensive internal testing done
 - In external testing now, no new issues so far
 - First in Upcoming, then main 3.1 release
3. HDFS 2.0
 - Nearly ready for testing
 - Will be released in Upcoming, then 3.2

Work Plan: Projects (Pt 2)

1. SLURM support
 - Functional and scalability testing complete
 - Needs packaging, documentation, etc.
2. Globus Toolkit updates
 - Need latest versions
 - Maybe in Upcoming, then 3.2?
3. OSG 3.2 and beyond
 - Will need planning and Software support
 - Changes to SVN, build tools, koji, repos, docs, etc.
 - Initially: HDFS 2, latest GT?, HTCondor 8.0?

Work Plan: HTCondor

1. Unified RPMs: Fedora, OSG, CHTC
 - High-level design complete, packaging in progress
2. Debian packaging
 - Initial release of 7.8.2 available in Debian Wheezy
 - Need to build, package, and upload new releases
3. HTCondor-CE
 - Most packaging done
 - Documentation, configuration in progress
4. Ongoing maintenance and support

Work Plan: Community

1. Move OSG Globus patches upstream
 - In progress
2. Use some EPEL Globus packages?
 - I.e., ones with no remaining OSG patches
 - May be tricky to mix packages
 - What happens when EPEL updates?
3. Join EPEL and donate packages
 - Start with some easy ones
 - Build working relationships with maintainers
 - What can we commit to?

Work Plan: Testing

1. Simplify test development
 - Improve dependency and sequencing system
 - Improve logging
 - Run same tests in different scenarios
2. Run tests as jobs (in CHTC, maybe OSG)
 - Pick technology: VMs, run-as-root
 - Change test kick-off and reporting infrastructure
 - Would allow significant expansion of test cases/runs
3. Multiple-machine tests
 - DanB may be doing something similar here

Work Plan: Education

1. 2013 OSG User School
2. 2014 OSG User School
3. OSG Admin School?
 - Started defining one, but needs revisiting
 - Would need extra effort

Concerns

Staffing & Responsibilities

- Initial team compositions
 - Mostly settled
 - BrianB can reassign staff as needed
 - Still hiring (UNL, UCSD)
 - Still defining some roles and contributions
- Team responsibilities
 - Mostly settled
 - Need to try it out for a while
 - BrianB, TimC, TimT will revisit in ... 6 mos?

Tracking Effort

- Currently, not tracking team effort well
- Started using Toggl.com within CHTC
 - Web system, easy to use, good enough
 - Need better categories for OSG time
 - Roll out to whole Technology Area? OSG?
- Will help to understand all contributions

HTCondor Packaging

- HTCondor wants us to take over packaging
- Requires understanding their build system
- They support more platforms than OSG
- Not sure what sustained effort is, long-term
- Where does this effort belong?

Project Backlog

- Recent efforts have taken a lot of time
 - SHA-2 support (BeStMan, jGlobus, lots of testing)
 - Java migration (lots of testing)
 - Client tarballs (development, testing)
 - Personnel transitions
- Affected projects:
 - Documentation: Making progress ...
 - Automated tests: Little progress lately
 - Configuration tools: Not started; needed?
 - Debian support: Not started
 - Community packaging: Not really started

Tracking Upstream Changes

- Example: dcache-srmclient
- We package many upstream components
- Hard to track releases to each one
- Nominally assigned to Release now
- Probably too big for any one team
- Will work with BrianB and TimT on a plan

Education Sustainability

- OSG User School
 - I estimate about 0.2 FTE for me for Education
 - Will have better data after this year's School
 - Many tasks well-defined now, some not so
- OSG Admin School
 - We have 0.3 FTE left in budget
 - Is that enough to start a new School?
 - Who would do it?