2014 OSG Planning Retreat

Software

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Software is often the *how*

- With respect to Lothar's big 3 areas of focus
- Will try to tie those areas to Software tasks
- Could use your help at points!

Roadmap

- **Provide value to VOs and resource owners**
  - Maintain software components to support VOs and to allow sites to provide resources (WBS 1, 2, 5, 10)
  - Improve usability of packages, admin tools, and documentation (WBS 1, 2, 4, 5, 7, 8)
- **Provide opportunities for long tail of science**
  - Maintain OSG software, when involved (above)
  - Support for user software (WBS 10)
- **Promote use of DHTC for science**
  - Make software widely available (WBS 8, 10)
  - OSG User School

Staffing

UW–Madison	Tim Cartwright	1.0	0.8 Software, 0.2 Education
	Mat Selmeci	1.0	
	Carl Edquist	1.0	
	Brian Lin	0.5	+ 0.5 Release
UCSD	Edgar Fajardo	1.0	
	Igor Sfiligoi	0.2	
UNL	*to be hired*	1.0	
BNL	John Hover	0.25	
	Jose Caballero	0.25	

WBS Overview

1.	Ongoing work	**3 4 5**
2.	Year 3 new features	**3** 4
3.	Year 3 internal maintenance	**3 4 5**
4.	Documentation renovations	**3** 4 5
5.	New stakeholder projects	**3 4 5**
6.	EL 7 support	**3 4** 5
7.	Configuration support	**3** 4 5
8.	EPEL contributions	**3 4 5**
9.	Automated testing	**3 4 5**
10.	Support for user software	3 **4** 5

1. Ongoing work

1.1. Routine updates to software packages
1.2. Bug fixes to software and packaging
1.3. Routine documentation updates
1.4. Support
1.5. Scalability testing

- Important part of what we do
- No major obstacles
- Working down backlog of (today) ~150 tickets
- Expect roughly equal effort in all years

2. Year 3 New Features

2.1. Review and improve RSV (e.g., XRootD)
2.2. Make Squid proxy mandatory on all CEs
2.3. Design and package a new OSG client
2.4. Upgrade to VOMS 3 (Java)
2.5. Help perfSONAR with packaging and builds
2.6. Integrate Parrot into glideinWMS packaging

3. Year 3 Internal Maintenance

3.1. IPv6 evaluation of OSG software
3.2. Review Gratia probes and subdivide packaging
3.3. Move OSG software sources to git/github
3.4. Update build system to EL 6 and latest version

4. Documentation renovations

4.1. Finish incomplete documentation
4.2. Bring documentation up-to-date with releases
4.3. Improve usability of Release3 home page
4.4. Update template(s) and reusable elements
4.5. Factor out common elements from pages

- Need to catch up!!!
- Now that we have lots of documents, it is easier to see where we could systematically improve
- I happen to have experience doing this …

5. New Stakeholder Projects

- Mostly a placeholder for Year 3 expansion
- Where does GUMS belong?
- Is there package-build-test-deploy work to do for OSG Connect?
- Package PANDA (just found out at lunch)

6. Support Enterprise Linux 7

6.1. Add build and test support for EL 7 platforms
6.2. Rebuild all current packages for EL 7
6.3. Migrate init scripts to systemd

- Red Hat EL 7 is in beta, no release date declared
- Technology wants to move on this when we can
- We expect surprises …
- systemd is new to the Software team and may be challenging for some software
- Add inf. support soon to start experimenting

7. Configuration

7.1. Publish OSG Puppet modules

- With RPMs, did not port VDT configuration scripts
- Community is moving toward tools like Puppet
- Let's help … then see where it goes
- OSG repository for contributions already available

8. EPEL contributions

8.1. Join EPEL
8.2. Contribute UberFTP package
8.3. Contribute cctools package (Parrot, Chirp, etc.)
8.4. Contribute Pegasus package
8.5. Contribute Pakiti package
8.6. Help with or contribute perfSONAR packages
8.7. Contribute patches to Globus or EPEL

- Will check with developers first
- Still maintain packages, make widely available

9. Automated testing

9.1. Expand coverage of components and use cases
9.2. Improve expressiveness of test infrastructure
9.3. Automate developer tests (at least partially)

- Recently reviewed coverage and added some missing components
- Expressiveness work is to capture more use cases per run; e.g., run the same tests for ***X***, configured "manually", via Puppet, and via osg-configure

10.Support for user software

- This could be a new area for us
- Apply our packaging, build, and test knowledge to common end-user software packages
- Results would go into OASIS?
- There are nascent communities around this topic, and we would learn from them (cf., HTCondor Week talk from Anthony Scopatz)

OSG Education

- Where is the right organization home for the OSG School (currently, the only effort of the "OSG Education" area)?