OSG Storage Support

Gene Oleynik, Ted Hessleroth
Fermilab

Introduction

- Levels of support

- OSG Storage support through the VDT

- OSG Storage support through extensions

- OSG Storage activities (community)

Levels of support (definition)

- Distinguish the following tiers of support:

  - L1 - Hardware & software selection, procurement, configuration, operation, maintenance, and troubleshooting

  - L2 - Broader community knowledge of software, hardware. Assistance in site software installation, configuration, and troubleshooting

  - L3 - Software bug fixes and clarifications, patch releases and documentation
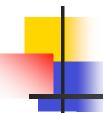
Where OSG Storage fits in

- Dedicated site administrators provide L1
- Developer community provide L3
- Something needed in-between to fill the gap
- OSG fills this gap in the Americas:
  - Validation and distribution of releases
  - Dedicated and community L2 support
  - "Extension" contributions to fill in gaps in functionality
- 4 FTE across 6 people dedicated to Storage
- Provide guidance & leadership in grid storage

VDT

- OSG uses VDT to distribute Storage software and tool releases. Examples:
  - SRM/dCache
  - SRM client
  - Bestman and client software
  - dCache Gratia probe
  - gip and glue schema

Testing

- GridWorks high performance test-stand
    - 10GB/s ~ equivalent to a Tier 2
    - Testing between GridWorks and UCSD test-stand
- Running S2
- Have our own load test
- Have Replica manager tests
- Used for release validation testing
- Used for benchmarking performance (future)
- Have another test-stand for the ITB

Storage Extensions

- Extensions are contributions to Storage software to add needed OSG functionality

- Extensions are contributed by the OSG community on OSG funds

Storage Extensions (2)

- Extension examples are:
    - dCache Gratia probe to collect transfer statistics
    - Globus Gridftp transfer statistics probe under development
    - dCache available space probe under development
    - Storage space "garbage collector" to remove files from expired storage spaces in SRM v2.2 - under deelopment
    - Improvements to dCache logging planned
    - Troubleshooting, maintenance toolkit planned

OSG Storage Activities

- Weekly storage activity meetings
- Very active OSG-STORAGE mailing list
- Provide troubleshooting of installations, configuration, and operation
  - Respond to storage related GOC tickets
  - Filter problems. Issue identified bugs to developer's ticketing systems
- Advise new OSG sites on use of storage, installation and configuration
- OSG specific documentation

Conclusions

- Currently 9 T2 currently using OSG for support
- US Atlas T2 sites will be using OSG for L2 support in addition to US-CMS t2
- The US-CMS T2 and US Atlas T2 have bi-weekly meetings where storage issues are discussed
- Level 2 model of support seems to be working well