

OSG Storage Forum Overview



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Goals

- ❑ Discuss emerging storage technologies suitable for T2/T3 sites
- ❑ Share tips on how to improve stability and scalability of deployed storage system
- ❑ Facilitate dialog between storage software developers and expert storage administrators
- ❑ Assess storage readiness for LHC and identify the area where we need improvements
- ❑ Develop understanding of storage needs for Tier-3 sites

Statistics

- Duration: 1 day and a half
- More than 35 people attended
- 27 talks + open discussion
- Tier-2 (5 CMS, 3 ATLAS, LIGO)
- Tier-3 (CMS, ATLAS Coordinators, 3 sites)

Storage Solution

- dCache
- BeStMan
- BeStMan-gateway
 - IBRIX
 - Xrootd
 - Hadoop
 - Lustre

Tier-3 sites

□ Tier-3:

- – 20TB to 200TB
- – 100,000 files
- – 100 - 1000 cores accessing storage simultaneously.
- Supported by 1/10th FTE

□ Possible solutions

- BeStMan on nfs
- BeStMan-gateway/HDFS + root plugin
- VM (?)

General Requests

- VDT:
 - SE packaged with GIP, CeMon etc
 - Software installation without root access
 - Native packaging that follows “standard conventions” in linux for logs etc
- RSV:
 - More depth of coverage of SE functionality
 - GIP sanity probe
 - cmdline tool for triggering RSV tests
- Middleware:
 - Reduce cost of operations of storage
 - Continued improvements in scalability

Requests to Storage Group

- Extend storage documentation
 - Include some info about NFS
 - Network tuning, kernel parameters
 - Document expert list for different DFS etc.
- Storage Monitoring of existing storage pages - more coherence and easier to use in single locations
- Use srmtester suite for a RSV probe
- Invite storage admin to meetings

Organizational Issues

Lessons Learned:

- ❑ very time-consuming activity
- ❑ be prepared that everything happens last minute including registration, uploading presentations etc
- ❑ insist that the presentation have reasonable amount of slides to fit into designated time slot
- ❑ select tough conveners
- ❑ never gave people the multiple choices for restaurant selection

Summary

- ❑ Great opportunity to meet face to face, establish contacts
- ❑ Very interesting talks, full of contents
- ❑ Helpful to people who just have started to think about storage and needed guidance
- ❑ Valuable list of experts for nfs, network setup
- ❑ Useful list of tools that could be included in community toolkit