

Manchester Tier 2 Update

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December 2008

Second instance of DPM installed, one per cluster. Pools on the worker nodes.

Problem with logrotate not working and globus-gatekeeper log filling CE headnode partition. Manually moved log files (bad idea).

Alessandra wrote a handy script to find black holes WNs using pbs accounting records.

January 2009

Replaced individual queues per VO with one queue per CE:

```
ce01.tier2.hep.manchester.ac.uk:2119/jobmanager-lcgpbs-long
```

Ordered new storage 48 TB from Viglen and 48 TB from IT Supplies.

Manchester now supporting LHCb as Babar is coming to an end.

February 2009

96 TB of storage delivered. Will be brought online as DPM storage. dCache problems causing lots of headaches.

NGS VO enabled on the cluster and have now entered week-long conformance testing.

March 2009

Hardware problems with both CEs (hanging with no error messages & one disk failure) forced us to change headnodes. We took the opportunity to replace disks with larger 500GB with RAID 1, as we had been suffering from a lack of space previously which has interfered with our accounting since before Christmas. Increased RAM to 8GB.

Completed NGS conformance testing and now an affiliate member.

Have no more space on our NFS storage for VO software.

April 2009

Owen installed two new NFS servers with RAID 1 1TB drives.

Concern over our CEs as they have both fallen over during the past month with no error messages. Both machines were created in February from worker nodes, but with brand new disks and 8GB of RAM.

May 2009

Kernel version used for NFS servers contained a bug, consequently all LHCb jobs stalled. Upgraded kernel version fixed the problem.

Biomed causing problems with dCache. Deleting thousands of files at a time putting too much strain on the system and causing timeouts.

Alessandra rebuilt our Mon / APEL box and started publishing user's DNs, as per the pheno/EGEE request.

Atlas space tokens enabled on our new storage – Tier of Atlas updated.

June 2009

Sergey installed Ganglia to monitor CE, DPM and dCache headnodes and DPM pools.

Decommissioning dCache, which is based on the worker nodes. Possibly replace with xrootd?

STEP 09 - considered useful exercise. See Alessandra's talk on Wednesday for more detail.

Currently running HEP SPEC2006 benchmarks.

Future

Buy more storage (DPM), replace some worker nodes & upgrade network.

Preparing to upgrade WNs to SL5.

Testing CREAM CE.