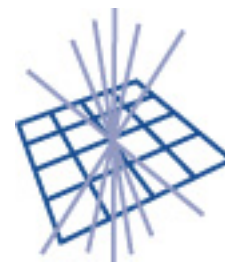


UK SITES AND TESTBEDS

Wahid Bhimji

on behalf of GridPP Storage Group

DPM Workshop 9th October 2014



GridPP
UK Computing for Particle Physics

The United Kingdom Sites

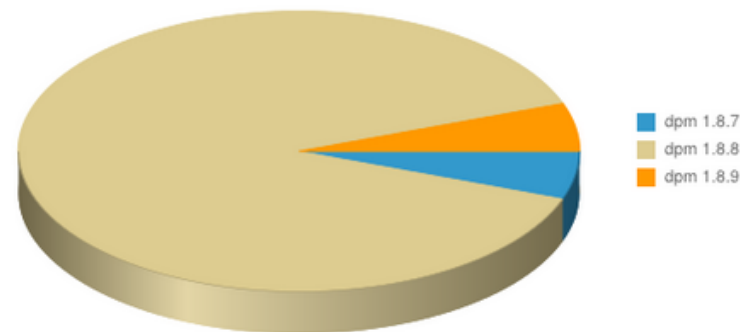
- 13 Production Tier 2 DPM sites
- Support ATLAS, CMS, ALICE, LHCb, and lots of others: e.g. T2K, snoplus, pheno, biomed
- DPM 1.8.8 virtually everywhere:
 - Some pioneer (testbeds) on 1.8.9.

UKI-SOUTHGRID-OX-HEP
 UKI-SOUTHGRID-CAM-HEP
 UKI-SOUTHGRID-BHAM-HEP
 UKI-SCOTGRID-GLASGOW
 UKI-SCOTGRID-ECDF
 UKI-SCOTGRID-DURHAM
 UKI-NORTHGRID-SHEF-HEP
 UKI-NORTHGRID-MAN-HEP
 UKI-NORTHGRID-LIV-HEP
 UKI-NORTHGRID-LANCS-HEP
 UKI-LT2-UCL-HEP
 UKI-LT2-RHUL
 UKI-LT2-Brunel
 UKI-LT2-IC-HEP (Test DPM production dCache)



SRM versions as of 2014-10-06T11:58:06

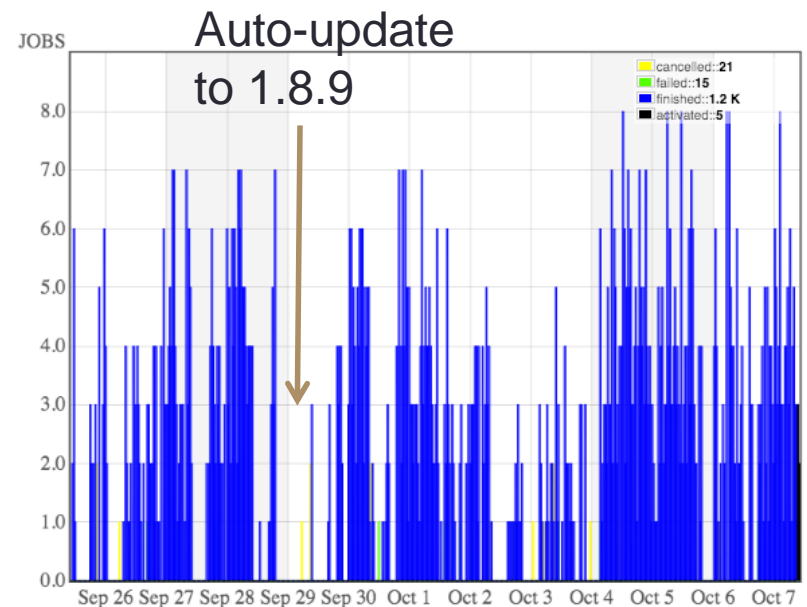
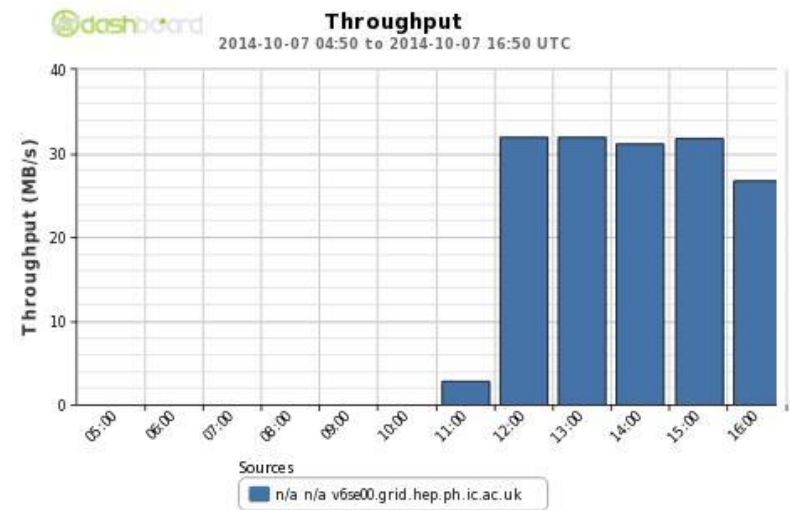
SRM Versions



Type Version	Type Version
dpm 1.8.7	1
dpm 1.8.8	16
dpm 1.8.9	1

Testbeds

- IPv6 Testbeds in Oxford, Imperial, Glasgow, and Brunel
- Brunel testbed also used for Fabrizio / CMS testing.
- Edinburgh (ECDF) testbed – used for DPM tests as well as ATLAS MW testing.



Xrootd and data 'Federations'

- Xrootd now very stable for us both as a local protocol (all sites in UK) and for 'Federation'
- ATLAS moving from 'failover' to 'overflow' (deliberate WAN reading) based on "cost matrix"

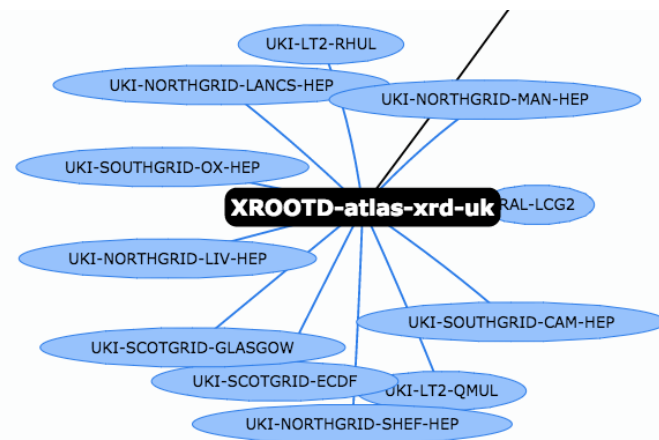
Issues:

Limiting data I/O – xrootd connections etc.

An old issue – but still a **very important** one.

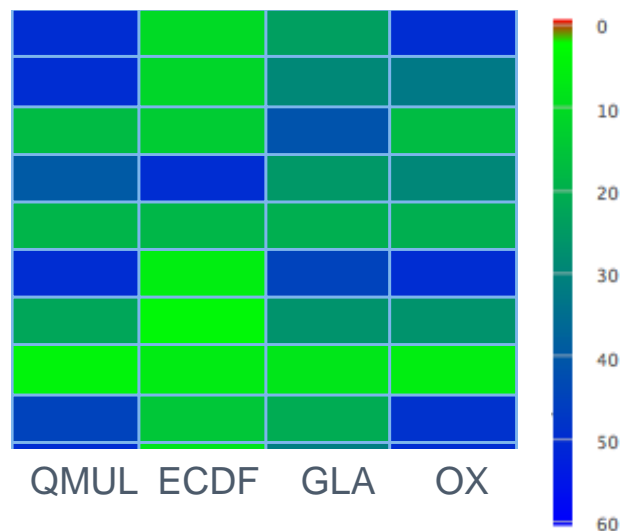
If xrootd plugin not coming can we have something in DMLite``?

Multiple VO support



<http://waniotest.appspot.com/>

THGRID-OX-HEP
 HGRID-CAM-HEP
 GRID-GLASGOW
 SCOTGRID-ECDF
 HGRID-SHEF-HEP
 HGRID-MAN-HEP
 THGRID-LIV-HEP
 GRID-LANCS-HEP
 UKI-LT2-RHUL



Other issues/ Excitement / Activity

Filesystem backends:

- Some interest in ‘proper support for’ Lustre / GPFS backends
 - QMUL is a big Lustre site currently using StoRM
 - At Edinburgh we have a new storage space “RDF” that is GPFS – currently just mounted as a normal DPM filesystem
- Some interest in HDFS backend (from Bristol)
- Also longer-term in cloud/object stores (maybe not a DPM issue)

And...

- Argus integration – widely deployed after Ewan’s [recipe](#) and campaign
- GridFTP redirection – will be tested at Edinburgh
- Puppet: aware of upcoming Puppet-only configuration – no issues yet - but many sites have not tried :
 - Expect Feedback Soon (!)

Conclusions

- DPM working well in UK
- **Critical** to have some handles to control load spikes.
 - Increasingly important issue.
- Also need stability in interfaces.
- Moving finally (and completely) to newer interfaces will be a key activity in coming months
 - Touches on GridFTP redirection ; Dav ; Spacetoken alternatives
 - Need implicit path-based “space token” support, both for minor VOs, and for writes over non-SRM interfaces.
- HDFS; Lustre, Object stores could be increasing part of the longer term landscape