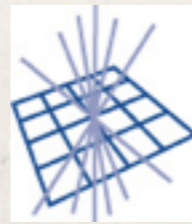


# UK DPM sites

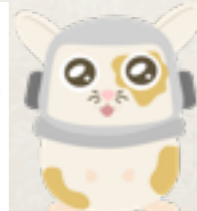
Wahid Bhimji (on behalf of UK DPM sites..)

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*DPM Workshop Edinburgh: 13th December 2013*



**GridPP**  
UK Computing for Particle Physics



# UK stats

\* 13 Tier 2s with DPM: 12 ATLAS, 1 CMS

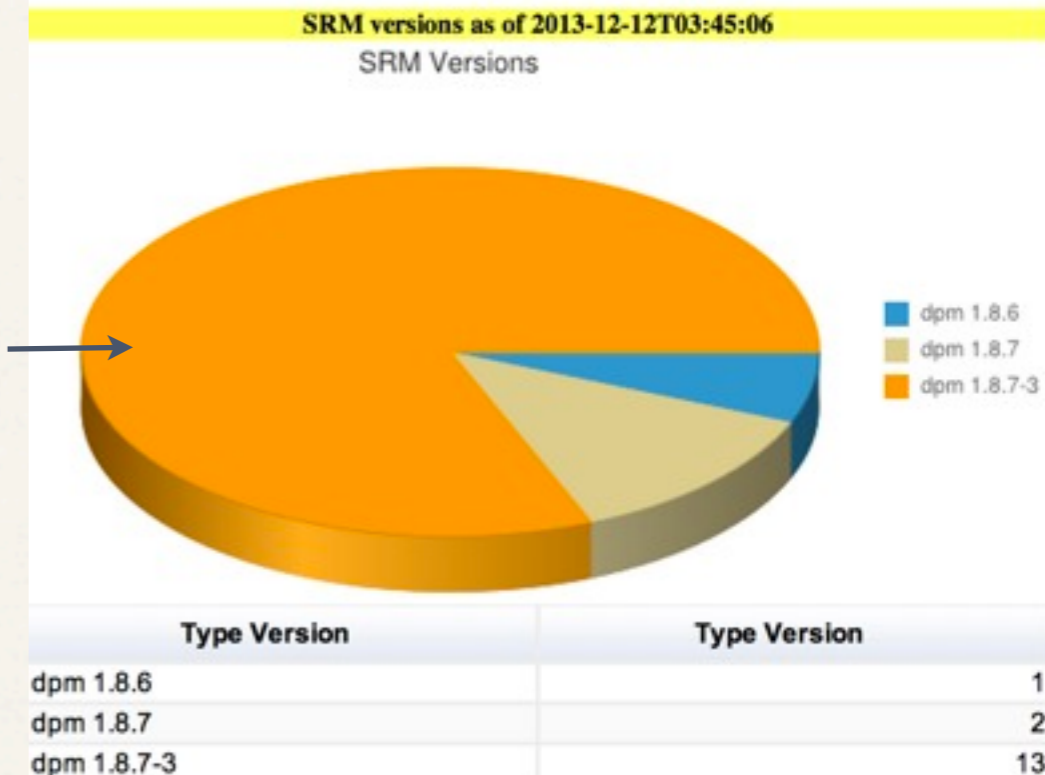
<http://www2.ph.ed.ac.uk/~wbhimji/SRMMonitoring/>

\* Soon LHCb too !

\* All prod. machines upgraded to DPM 1.8.7

\* This only checks headnodes though !..

\* Over 6 PB provided for ATLAS





# The difference a year makes...

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- ❖ At time of Paris meeting a year ago there was concern about future of DPM... Alessandra put it like this:
  - Everybody playing cool but most sites are extremely worried at the idea of changing storage
    - Even during the gap year it will not be easy if this happens
      - Lots of accumulated experience will be lost
- ❖ Changing away from DPM isn't being considered anymore (for most people) and even there may be some new DPM sites...
- ❖ Thanks to a **successful collaboration** which we are happy to continue to play a role in...



# Heavily involved in data federation and xrootd / webdav

## ❖ ATLAS FAX :

<http://dashb-atlas-ssb.cern.ch/dashboard/request.py/siteview#currentView=FAX+endpoints>

Site Name	Direct	Upstream redirection	Downstream redirection	X509	response time
UKI-NORTHGRID-LANCS-HEP	OK	OK	OK	On	0.46
UKI-NORTHGRID-LIV-HEP	OK	OK	OK	On	0.42
UKI-NORTHGRID-MAN-HEP	OK	OK	OK	On	0.35
UKI-NORTHGRID-SHEF-HEP	OK	OK	OK	On	0.41
UKI-SCOTGRID-ECDF	OK	OK	OK	On	0.45
UKI-SCOTGRID-GLASGOW	OK	OK	OK	On	0.45
UKI-SOUTHGRID-CAM-HEP	OK	OK	OK	On	0.39
UKI-SOUTHGRID-OX-HEP	OK	OK	OK	On	0.36

- ❖ Production(ish) level: fallback saving jobs

❖ Also UK had some of the first **DPM WebDav sites**

<http://pandamon.cern.ch/fax/failover?hours=12>

❖ Now most have been renamed for ATLAS “rucio” via this interface.

Panda report on jobs failovers to FAX over last 2 hours

Record count: 7

Show ALL entries Search:

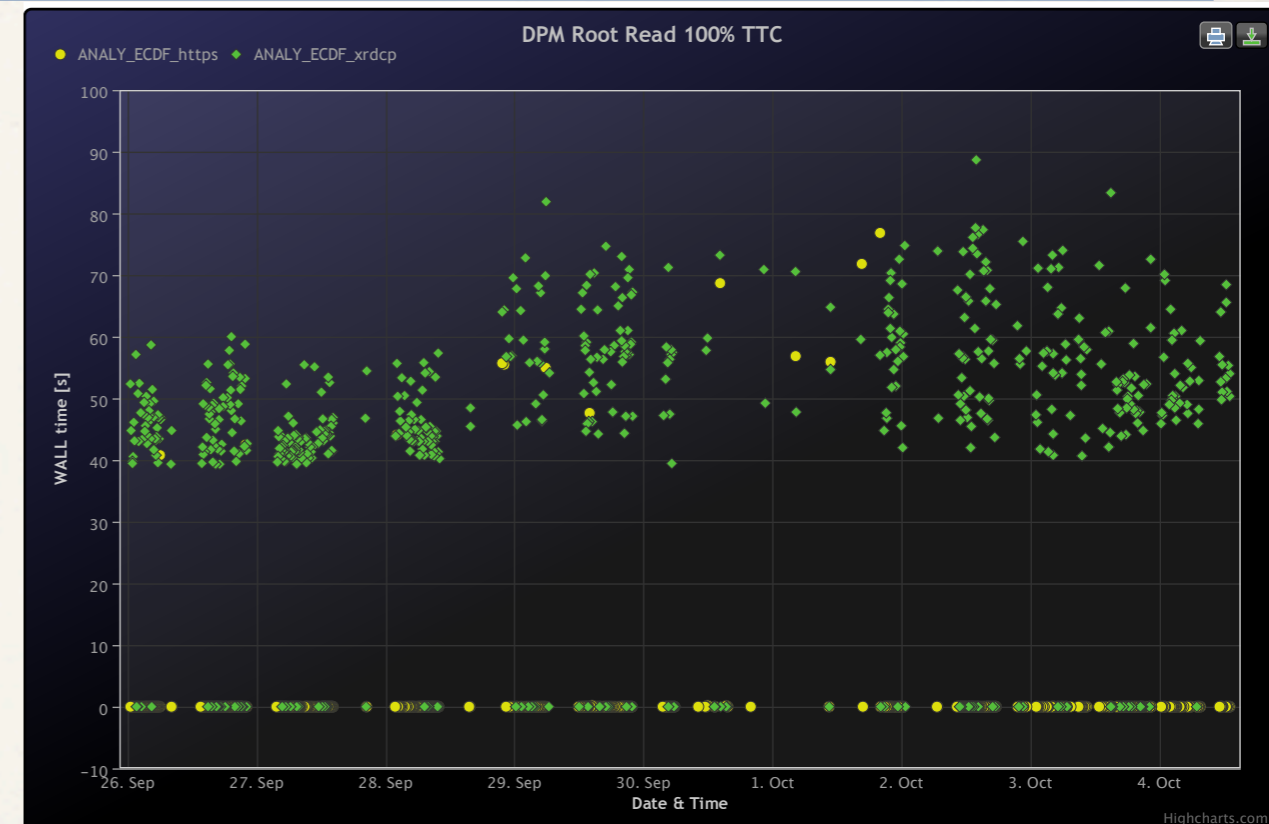
Site	Jobs	WithFAX [files]	WithoutFAX [files]	WithFAX [GB]	WithoutFAX [GB]		
UK: ANALY_LANCS_SL6	4	8	58	6.77	49.47		
<b>PandaID</b>	<b>Time</b>	<b>WithFAX</b>	<b>WithoutFAX</b>	<b>WithFAX [GB]</b>	<b>WithoutFAX [GB]</b>	<b>Status</b>	<b>User</b>
2000604967	2013-11-27 19:44:06	1	9	767065005	8691849935	finished	Marcello Barisonzi
2000818581	2013-11-27 20:05:03	2	22	1570478416	17893986663	failed	Pedro-Salvador Urrejola-Pereira
2000863746	2013-11-27 21:01:40	4	20	3057296769	14840156725	finished	Pedro-Salvador Urrejola-Pereira
2000884731	2013-11-27 19:48:19	1	7	1879390213	11689090603	failed	Thijs Cornelissen
US: ANALY_BNL_SHORT	2	2	24	2.05	20.82		

❖ Also enabled DAV on RAL LFC - exploring use for small VOs - use via gfal still being explored : see [ggus](#).



# Testing - development etc.

- ❖ Regular tests for our testbeds (Glasgow / Edinburgh) and CERN
- ❖ IPv6 Testing at Glasgow (also IC, Brunel and Oxford)
- ❖ Puppet; S3; interest in HDFS
- ❖ StAR accounting (from John G):
  - ❖ Liverpool, Lancs published in APEL
  - ❖ Minor bugs: script in EPEL rpm; dbg printing. Otherwise **worked smoothly**.
  - ❖ Review docs; verify data -> more sites
  - ❖ Prototype portal view, not live data yet



- ❖ Vendor collaborations: DDN, Dell





# Grumbles....

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- \* Brunel xrootd server is unstable (related to CMS federator) - David Smith knows and is following up with Raul...
- \* Occasional xrootd instability at Glasgow (and Edinburgh) - traced to dmlite mysql interaction ... in progress...
- \* Load issues better with xrootd (and direct IO) but still spikes - so load limiting still needed (xrootd v4?), and rebalancing (in progress...).
- \* Xrootd IPV6 report (also in xrootd v4 ?)
- \* LHCb (lcg-gt returning xrootd TURL ) issue - personally I'm not sure about the continuing use of SRM for this - but its what they want / not unreasonable and seems in-progress according to Jira

# StAR accounting

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# Conclusions

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- ❖ DPM bigger than ever in UK - and working well for us.
- ❖ Successful adoption of 1.8.7 - now complete.
- ❖ Xrootd and Dav interfaces in widespread use.
- ❖ Testing and exploration of other backends ... use cases appearing
- ❖ Some niggles, need to stay constantly vigilant !

