

# UK DPM Status 2015

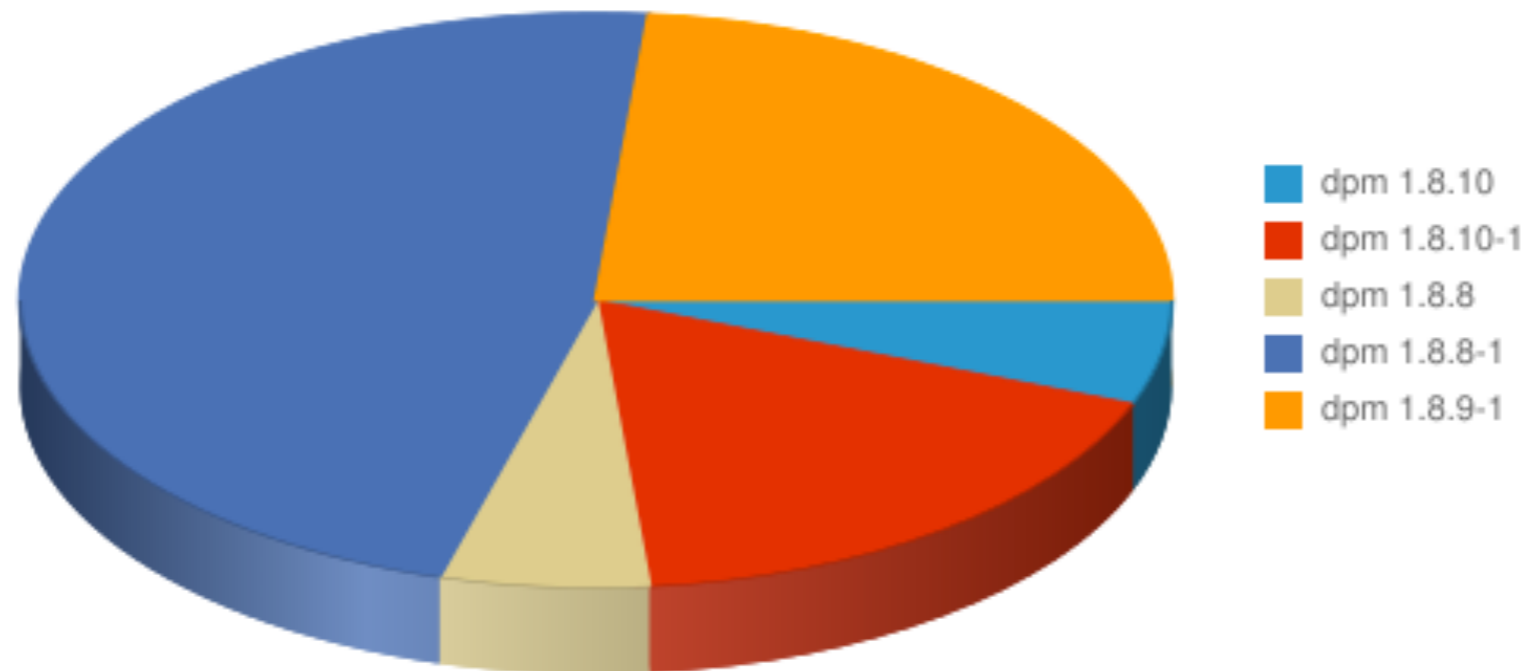
# Itinerary

- Overall Status
- Site Feedback
- Future Developments

# Status

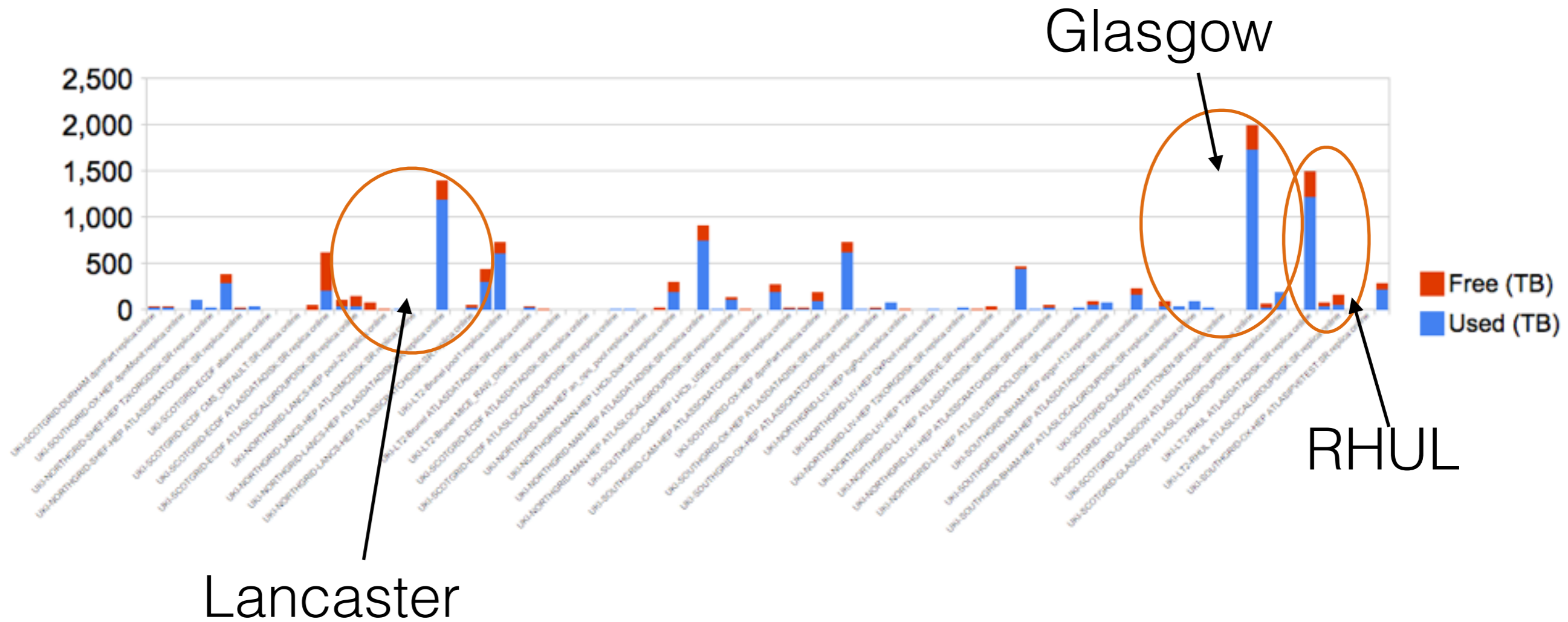
SRM versions as of 2015-12-02T11:48:34

SRM Versions



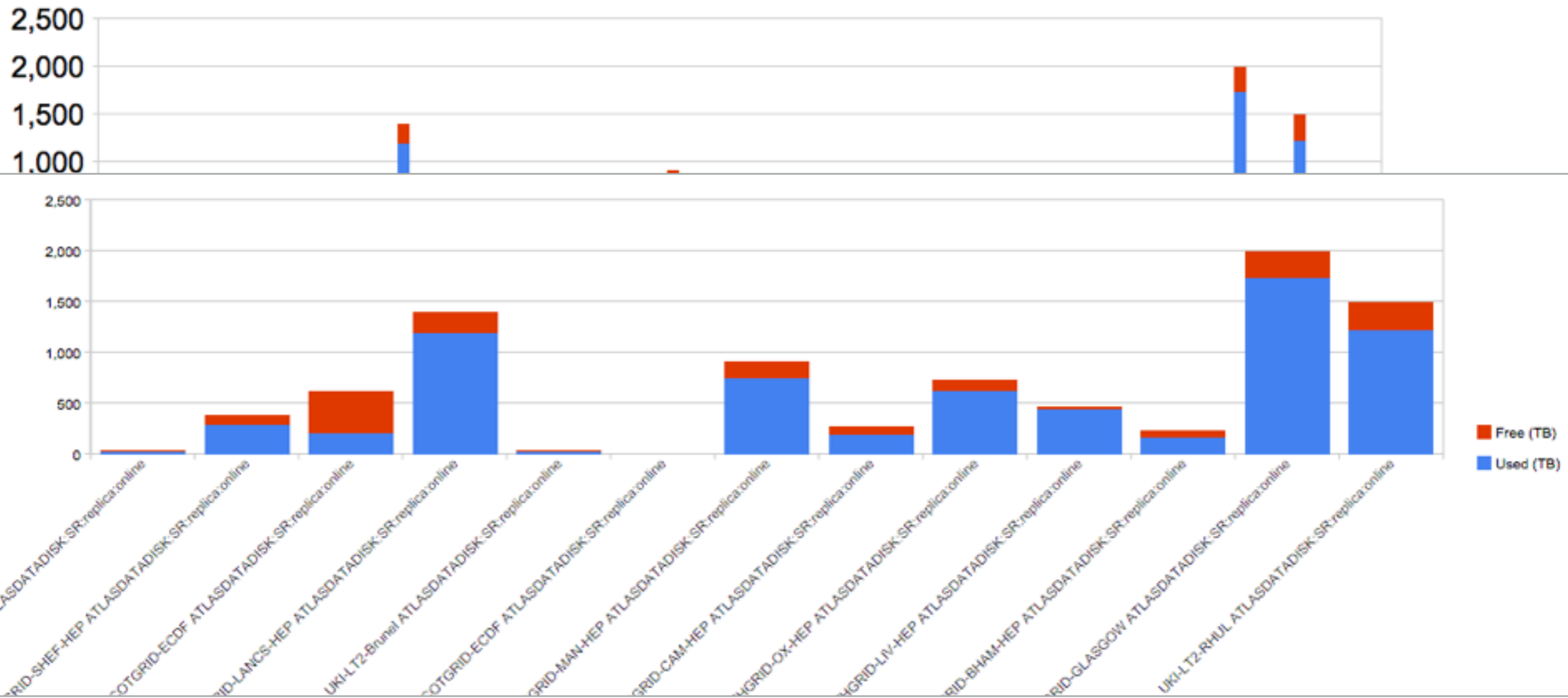
Type Version	Type Version	
dpm 1.8.10	1	} 1.8.10 : 4
dpm 1.8.10-1	3	
dpm 1.8.8	1	} 1.8.8 : 9
dpm 1.8.8-1	8	
dpm 1.8.9-1	4	} 1.8.9 : 4

# Storage use



Sites bigger than 1PB in biggest space token

# Storage use



Just ATLASDATADISK token

# Feedback

- Still several sites on 1.8.8 (and or SL5)
- Lack of trust of Puppet configurator wrt YAIM
  - “Upgrading in-situ scares me”
- “I just install new nodes by copying config from old nodes”
- Don’t want to break stuff as harms UK performance metrics.

# Feedback (2)

- Still sites on XrootD 3
  - some without vomsxrd
  - Same causes as 1.8.8
    - lack of trust in Puppet
    - Fear of breaking stuff while in production.

# Feedback (3)

- Requests for improvement:
  - Multiple requests for mechanisms to limit the I/O consumption per protocol per disk server.
  - Multiple requests for better/more intelligent file placement.
  - Multiple requests for improved metadata performance.
  - DPM Monitoring?



# I/O Limiting

- Extant request goes back to 2012
- More critical since 2014
- UK “T2C” mechanism may allow many remote sites to draw from one hub

## 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”

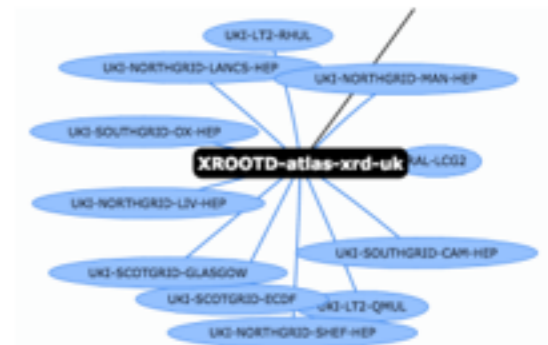
Issues:

**Limiting data I/O** – xrootd connections etc.

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

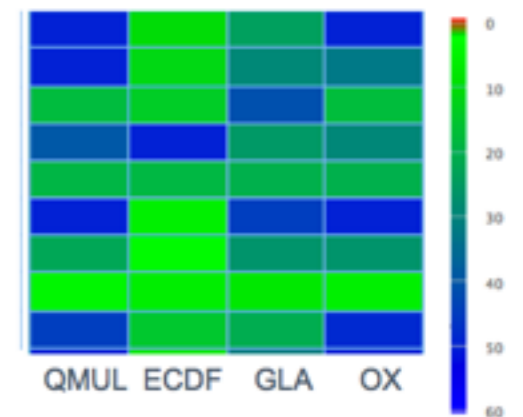
If xrootd plugin not coming can we have something in DMLite``?

Multiple VO support



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

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



UK Status DPM Workshop 2014

# File Placement

- Not just an issue with file rebalancing (which is post-hoc).
- “More intelligent file placement”
  - “Very basic, compared to ceph, lustre”
- (Possible solutions: not using DPM filesystem)
- (Possible improvements: chunk level distribution?)

# Metadata Perf

- rfrm for example.
- But **davix-tools** work faster
  - Everyone knows rfio-tools
  - People still don't trust/know new tools (dmlite-shell, davix\*)
  - User education process

# DPM Monitoring

- Several sites would like detailed monitoring of their DPM's state (transfers, load etc)
- dmlite-plugins-profiler ?
  - Seems active, is it subsumed by http tf work?
  - Needs a fairly complex consumer to write to.
- dpm nagios plugins ?
  - Are these still actively developed?

# Future Developments

- Storage Accounting
- Centos7 Tests
- RAL S3/DAV tests
- Ansible config (see later talk)
- DPM on HDFS (see later talk)