

# FAX deployment issues discussion meeting

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# Reason for this meeting series

- Goal: provide reliable, production quality federation infrastructure reaching all ATLAS data stores, suitable for direct access or caching over the WAN
- Need to drive this as an ATLAS activity, coordinating with cloud experts with direct ties to facilities staff (site admins mainly)
- A number of integration issues remain: N2N, monitoring, site caching, and federation configuration choices (redirection)
- There will be many integration and deployment problems to solve as new sites and cloud regions join; this forum will offer a coordination point to make sure all issues get resolved

# FAX site integration

- WLCG storage sites are characterized not only by backend technology (dCache, DPM, Xrootd, GPFS, Lustre, Castor, ...) but other factors affecting federation:
  - Firewalls (lab, campus, cluster)
  - Storage pools on public or private networks
  - Outbound connectivity from compute nodes
- These factors determine site-specific configurations and performance: Proxy, DNS balancing over doors, N2N, redirection directives

# dCache status

- Original N2N deployed at AGLT2, BNL and MWT2
- AGLT2 and BNL are deployed using a proxy service to dCap
- MWT2 implements Xrootd overlayed on dCache
- dcache-xrootd N2N plugin in testing phase
  - Requires dCache 1.9.12-18 or higher
  - Separate version uses 2.
- FAX implemented with dcache-xrootd doors was seen as the simplest & consistent deployment option for dCache sites; in testing phase

cf Ilija's talk

# DPM status

- Standard dpm redirection service interacts with DPM service providing VO-independent file lookup to target disk
- For ATLAS an additional redirector service with dpm plugin is used for federation
- Under test presently

cf Ilija's talk

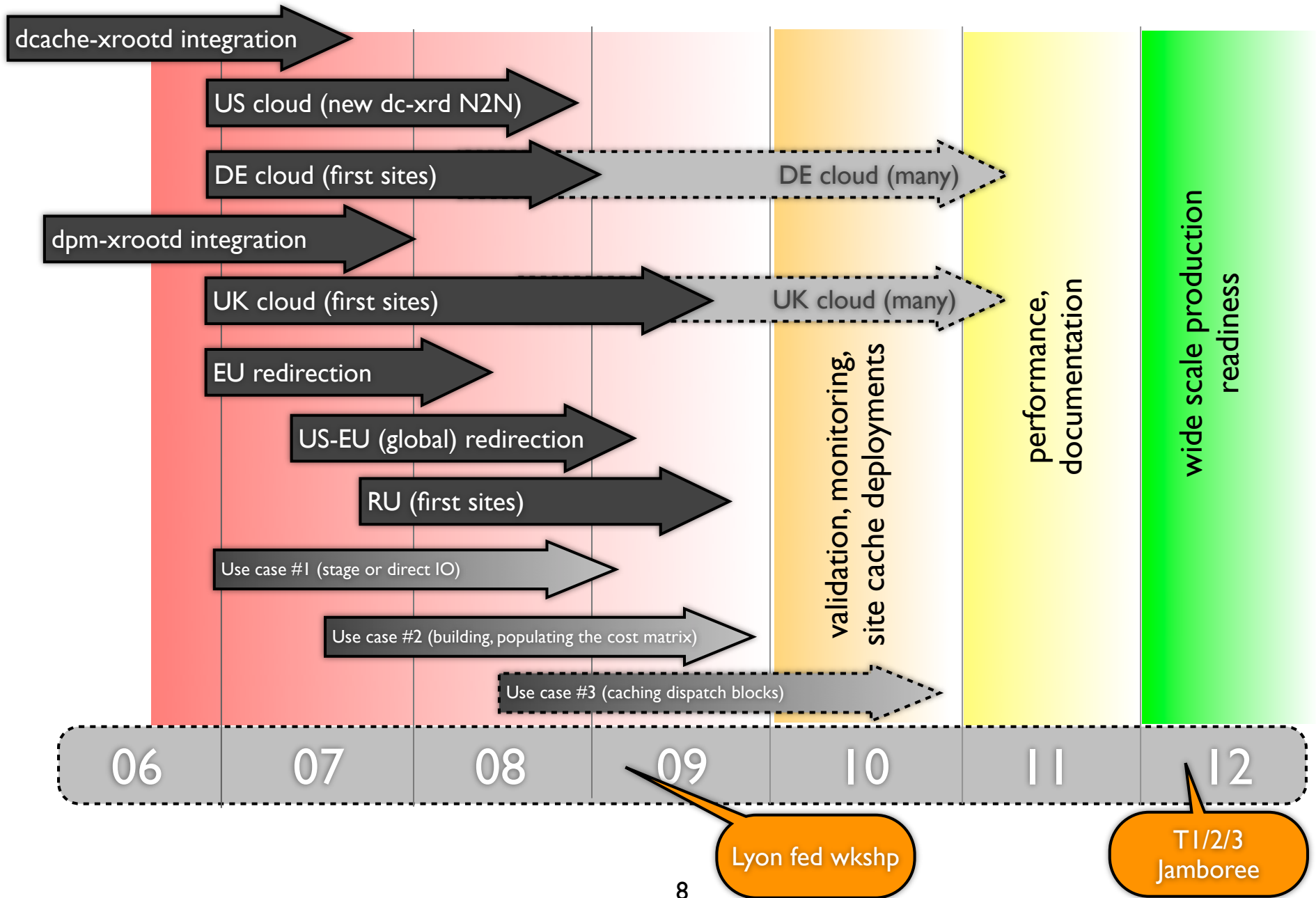
# GPFS, Lustre (GPFS) status

- Configuration for these sites is to run an xrootd+cmsd on host with mounted filesystem
- GPFS site at Boston in production
- Lustre site at Oklahoma in production

# Redirectors

- US Cloud: cloud-level hosted at BNL; midwest regional at Chicago
- UK Cloud: being setup at CERN
- DE Cloud: to be setup at CERN
- An EU super-Cloud redirector to be setup at CERN
- CERN can offer hosting and central management of redirectors of various types

# Timelines (for discussion)





# Other logistical

- [atlas-adc-federated-xrootd@cern.ch](mailto:atlas-adc-federated-xrootd@cern.ch) list permission problems.. solved?
- Meeting time slot, change?  
<http://www.doodle.com/fe2epus3ia9atkw5>
- Main twiki reference page for sites deployment:  
<https://twiki.cern.ch/twiki/bin/view/Atlas/AtlasXrootdSystems>