

ATLAS DDM Operation without SRM

Wei Yang
On Behalf of the ATLAS DDM

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ATLAS DDM Operation Requirement

- Data access by jobs - Xroot / HTTP protocols preferred
- Data transfer, 3rd Party Copy (TPC)
 - Including scale up / clustering
 - Protocol requirement: GridFTP - Was SRM, will be (maybe) Xroot/HTTP
- Remote Management
 - Space reporting Json
 - A flat file, with static info - only total space/quota absolutely needed
 - <https://twiki.cern.ch/twiki/bin/viewauth/AtlasComputing/SRM2GridftpMigration>
 - Remote deletion
- Optional storage dump - a list of files in storage
 - Once a month
 - For DDM to discover missing data, dark data
 - This is not necessarily a storage function. Implementation is site/storage dependent.

ATLAS SRM-less Operation and DPM Readiness

- ATLAS has many GridFTP only DDM sites already:
 - EOS, CASTOR, RAL Echo (Ceph), NERSC, SLAC, OU
 - SRM is still supported, But
 - Focus point is moving toward GridFTP, and will be (maybe) Xroot/HTTP
 - Support of SRM in ATLAS DDM is fading away in long term
 - Unless you have tape library, SRM is not needed
- DPM supports GridFTP (and Xroot, HTTP, SRM)
 - Use Globus GridFTP, and a plugin (DSI?) to support clustering / load balancing
 - Remote data management function is compatible to Globus GridFTP
 - Though, to be an EGI certified site, you are expected to provide BDII info
 - via SRM (and Is this statement correct?)

Future of 3rd Party Copy

- Globus dropped support of the Globus Toolkit / GridFTP since Jan, 2018
- ATLAS and CMS are actively engaged in Xrootd and HTTP based 3rd Party Copy
 - As well as remote data access
- Xrootd TPC targets GSI based implementation
 - "easier" – still tones of nasty details to sort out
- HTTP TPC is working toward token based authentication
 - A bigger / harder / more fruitful goal.
- DPM developers are well connected to Xrootd and HTTP TPCs
 - And play critical roles in both