Atlas global name space

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Atlas XROOTD Demonstrator project

- Last June at WLGC Storage workshop
  - Atlas Tier 3 proposed alternative method for delivering data to Tier 3 using confederated XROOTD clusters

- Physicists can get the data that they actually use

- Alternative and simpler than ATLAS DDM
  - In testing now
  - Plan to connect Tier 3 sites and some Tier 2 sites

- CMS working on something similar (Their focus is between Tier 1/Tier 2 – complimentary – we are collaborating)

Global name space

- In order for the xrootd redirector project to take off we need a global name space

- CMS uses simple site mapping scheme and libraries to map from LFN to local storage

- Atlas has the LFC.

- In order to make it straight forward to integrate the Tier 1 and Tier 2 sites into this project we need to select a global name space that fits into what already exists there.

Global name space proposal

- Name space starts with /atlas
- Local files (those not in the Atlas DDM) are stored in
  - /atlas/local/<user name>/….
  - <user name> - local account name of the user at the site
- Users can have private data sets
  - The dataset will need to be managed outside of XROOTD system either with Proof Master or flat files
  - Proof master information can be available via the web (it will need to be for exchanging information)

Global Name space (2)

- Proposal for datasets and files within the DDM
  - For example Data set:

group10.phys-sm.data10_7TeV.00160387.physics_Egamma.recon.ESD.f280.WZphys.100612.01.D3PD

- The name space would be

/atlas/group10/phys-sm/data10_7TeV/group10.phys-sm.data10_7TeV.00160387.physics_Egamma.recon.ESD.f280.WZphys.100612.01.D3PD /<file name>

- <data set name> is the name of an official Atlas dataset registered in the DDM. Any dataset inside of the global name   space must be registered in the Atlas DDM. This way there is information on each file within the global name space.
- <file name> - is the name of the file that is returned from the dq2-ls -f <data set name>   command.

Global name space issues

- This assumes that the global name space does not use static space tokens. (true for most Tier 3 sites).

- Tier 1/Tier 2 sites will need a translator between global name space and physical file name
  - This includes handling non xrootd storage
  - Files within space token areas.