Distributing LBNE software using CVMFS

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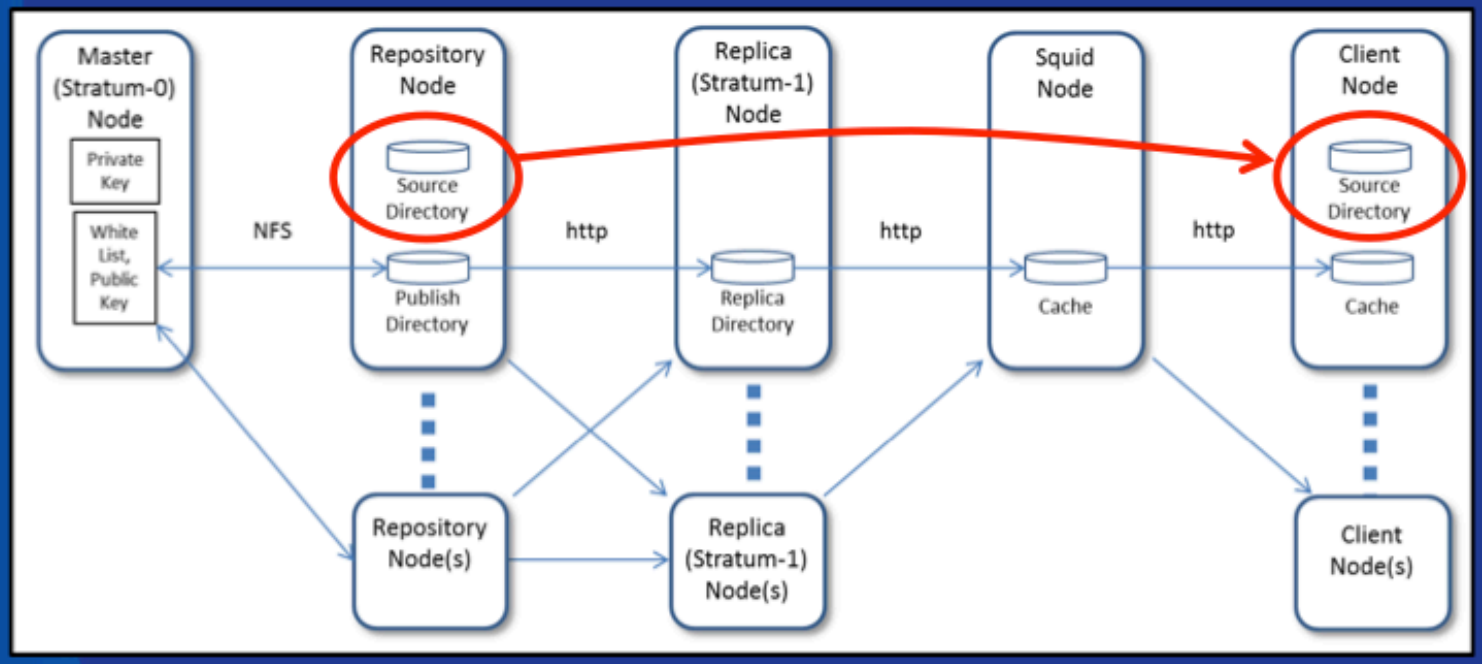
Overview of cvmfs elements



- Purpose is to "distribute" one definitive Repository Source directory to copies on many Clients
- Distribution via http of compressed/encrypted/cached files

https://cd-docdb.fnal.gov:440/cgi-bin/ShowDocument?docid=5150&version=2

LBNE Software Distribution Requirements

- what types of files will be distributed?
  - binaries, libraries, scripts, and configuration files
  - no distribution of data or source code
- where do we anticipate the files being accessed from?
  - OSG worker nodes
  - interactive nodes (?)
  - laptops (?)
- How often will files be updated?
  - currently see this as only official tags
  - nightly builds and CI results will not be part of CVMFS distribution
  - will begin with a manual rsync command and work towards automatically triggered
- How much access control do we want?
  - is this an issue at all?
  - limit access to only the VO?
- What flavors of software need to be distributed?

options for installation locations

- OASIS on OSG.org
  - configured on a large majority of the OSG worker nodes
  - available now, but obviously not under LBNE control
- Fermilab lbnecfs.fnal.gov
  - full control (within limits of SCD policy)
  - not actively distributed to worker nodes
- BNL CVMFS server
  - could be the local server for BNL
- either could serve as the mirror of central repo at either location
- no need to make choice right now

packages needed to be distributed

- lbnecode - extensions of LArSoft for LBNE
- LArSoft - already distributed on OASIS
- FastMC software
- G4LBNE
- others...

Current plan for LBNE on CVMFS

- utilize the OASIS server for access to LArSoft in:
  - /cvmfs/$OASIS/fermilab/products/larsoft
- distribute the lbnecode through:
  - /cvmfs/$OASIS/lbne/??????
- updates will be done manually with the script written by Dave Dykstra
- every tagged version of lbnecode will go onto OASIS
- when the structure for other packages exist, begin to integrate them into the LBNE area on OASIS