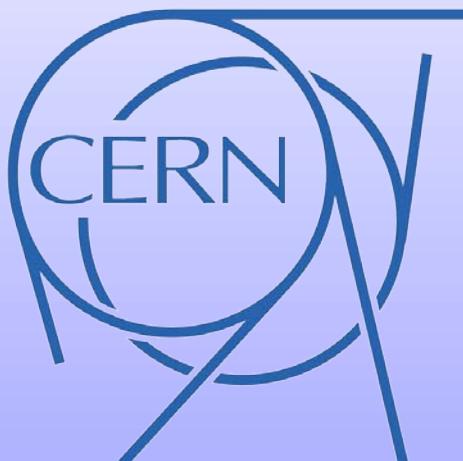


Fabric management with diskless servers and Quattor in LHCb

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WEMMU005



Diskless

- Computing farm
 - ~ 1500 nodes in LHCb Event Filtering Farm
 - ~ 500 embedded Credit Card PCs
- Booting on network
 - Root file system on NFS
- Diskless nodes servers
 - PXE (DHCP, TFTP) & NFS
 - 75 servers

File system union

- RedHat netboot tools
 - Lack of flexibility
 - deprecated
- Merging two directories into one
 - One shared root file system ⇒ Read Only
 - One snapshot per diskless node ⇒ Read/Write
 - Union exported through NFS
- New union file system
 - Available solutions evaluated
 - New solution currently using FUSE

Quattor

- Centralized administration
 - All LHCb Linux nodes managed
- New diskless component
 - Creating everything from scratch
 - Several shared root file systems
 - Several OS in parallel
 - PXE configuration
 - Shared root file systems configured as a real node