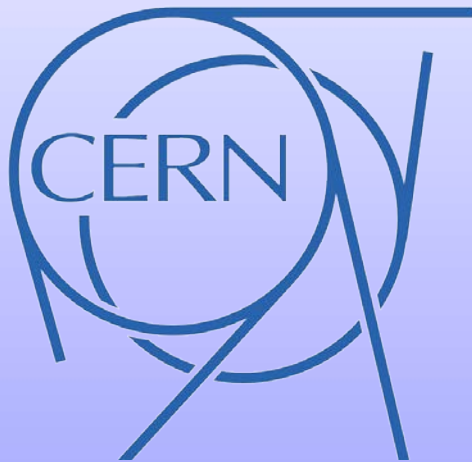


# Fabric management with diskless servers and Quattor in LHCb

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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