

# LHCb Quattor setup

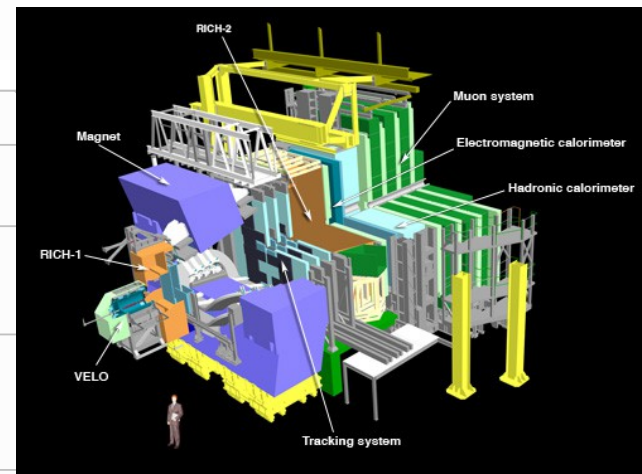
Loïc Brarda, CERN/PH

Quattor Workshop

Thessaloniki, Sep 8<sup>th</sup>

# What is LHCb

- One of the four main LHC experiments
- 4,500 tonne detector
- About 700 scientists from 52 different universities and laboratories
- 35 gigabytes of data is fed every second after 1<sup>st</sup> level filtering



# Online computing

- Event filtering farm
  - Actually 550 nodes (dual Xeon E5420)
  - We will add 700 to 1000 nodes this year
  - Run diskless
- Credit Card PCs
  - Embedded in LHCb acquisition cards
  - 500 nodes
  - Also diskless

# Online computing

- Control PCs
  - Farm servers : 50 nodes
  - CCPC servers : 22 nodes
  - Specs servers : 10 nodes
  - Misc : 28 nodes
- Infrastructure
  - Operator consoles : 18 nodes
  - General computing nodes (20)
  - Storage / Files servers

# Online computing

- Infrastructure
  - Gateways
  - Web servers
  - DNS / DHCP servers
- Mainly linux
  - SLC4 / SLC5 / RHEL5
  - Fedora 12 on consoles in near future
- Windows (120 nodes)
  - Domain controller / LDAP server
  - Some consoles and ecs server
  - Windows XP / Server 2003 / Server 2008

# (old) Quattor setup

- 1<sup>st</sup> contact with Quattor : 2003
- LHCb quattor setup installed in 2006
- CDB / panc v6
- Replaced SWREP by scripts
  - Generate repository & default templates
- All v1
  - Hack to support Softraid+LVM
- Started with flat template 1 OS / 1 admin
- Ended with namespaces / 3 OS / 5 admins

# (old) Quattor setup

- ViewVC web interface
  - Templates
  - Generated XML files
- Problems with kerberos auth
- Author always Apache
- Need to move to panc v8 / All 2
- Why not give a try on SCDB ?

# Developments

- Maintainer of :
  - ncm-diskless\_server
  - Ncm-pvss
- Small contributions to other components
- Using an updated (and not committed) ncm-checklines
  - Better than ncm-filecopy if there are no specific component yet.
  - Wanted to move away from NCM::Check::lines to CAF::FileWriter



# Future

- Finish move to SCDB
- Cleanup of templates
  - Usage of filecopy
- Update / rewrite / write ncm components
  - Ncm-pvss
  - ncm-diskless\_server
  - ncm-network

# Additional infos

- Added on /system
  - Modified quattor/schema.tpl

```
"master"      ? string  
"groups"     ? string[]  
"keywords"   ? string[]  
"loadpath"   ? string[]  
"crate"     ? string
```

- Also added `"/hardware/ipmi"`