



CC - IN2P3 Site Report

Hepix Fall meeting 2010 – Ithaca (NY)
November 1st 2010

Philippe.Olivero @cc.in2p3.fr



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Overview



- **General information about CC-IN2P3**
- **Staff changes**
- **Computing farms**
- **Batch System**
- **Storage (link)**
- **Network (link)**
- **Infrastructure (link)**
- **Miscellaneous**



General information about CC-IN2P3 - Lyon



- **French National computing center of IN2P3 / CNRS**
in association with IRFU (CEA)
- **Users:**
 - T1 for LHC experiments (65%) , and D0, Babar, ...
 - ~ 60 experiments or groups HEP, Astroparticle, Biology, Humanities
 - ~ 3000 non-grid users
 - 1 FTE dedicated support for each Atlas and Cms,
1/2 FTE for each Lhcb and Alice ~1 FTE for Astroparticles
- **Computing Teams :** **Operation, Infrastructure, Development** **59 p.**
 Others : **Administration, Facility management** **18 p.**
 ~ 45% non permanent **77**
- **Neither experiment nor users on site**



Staff changes



- **Fabio Hernandez left CC-In2p3 to French Foreign Office and is based at IHEP in Beijing (2 years contract, renewable once)**
- **Pierre Etienne Macchi appointed deputy director**
- **Jean René Rouet replaces PE Macchi as the Development Team Leader**
- **Rolf Rumler appointed « Quality Manager »**
- **Grids : Pierre Girard replaces Fabio as CC-IN2P3 / LCG project responsible**
- **Grids : Hélène Cordier appointed «NGI-Fr Technical director »**
- **Reorganisation of the whole management (not people, but ways of work)**



Computing farms



- **Current situation :**
 - **main farm** **12 600 Cores** **108 K-HS06**
 - **Parallel farm** **1 024 Cores** **8 K-HS06**
 - **12,000 simultaneous jobs** **~ 110 K-jobs/day**

- **Current process of migration from BQS to Grid Engine (see below)**

- **last machines : DELL Poweredge C 6100 (2 *6 cores HT , 72GB)**

- **50 interactive-access machines, Grid: 10 CEs (4 CreamCe) , 8 LHC Vo-Boxes**

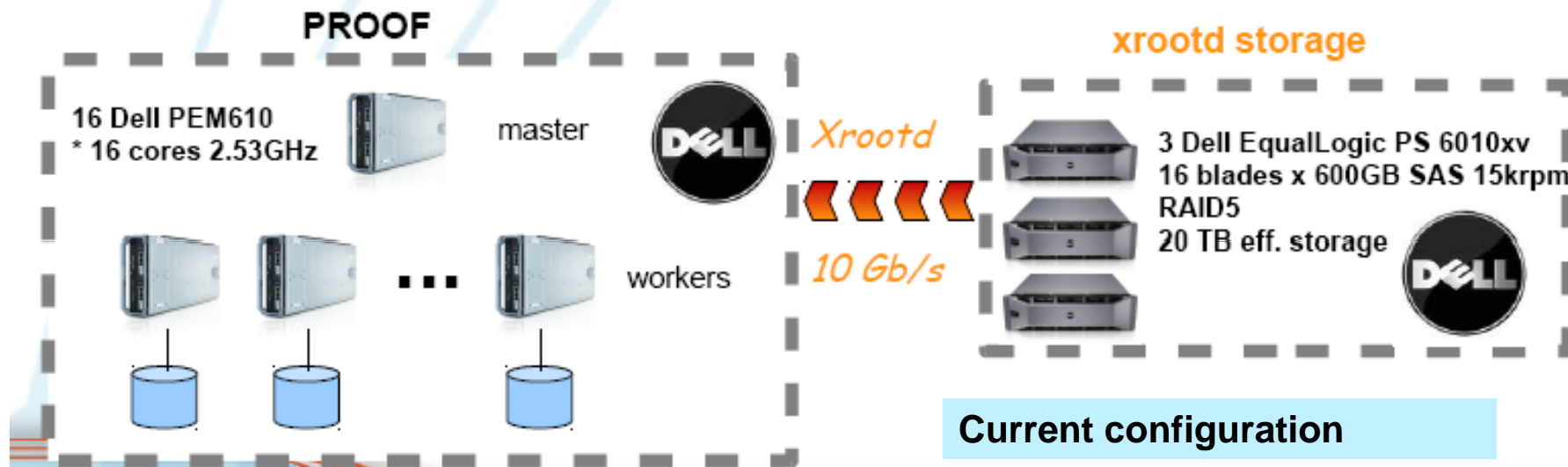


LAF - Lyon Analysis Farm



Mainly used by ALICE – ATLAS is starting

The new farm has been designed to optimize the I/O performance but the disk system is below the specification → under investigation with DELL – 200 MB/s instead of 1 GB/s (Read)



Credit : Renaud.Vernet@cc.in2p3.fr

3 x 10 Gb/s interfaces: 2 for the data and 1 for blade internal communication



New Batch System : Grid Engine



- Home made batch system BQS in a process of migration to Grid Engine after a careful evaluation of several batch- systems (2009)
- Process of migration started in june 2010,
- Current internal pre-production farm open, with some first « guinea pigs »
- Production platform planned for 2011Q1
- End of BQS planned for 2011, depending on encountered problems
- Current discussions with Oracle for a better price, to get Oracle Support
 - We begin with the free version of Grid Engine
- Free version GE doesn't seem a priority for Oracle, but OGE appears to be one

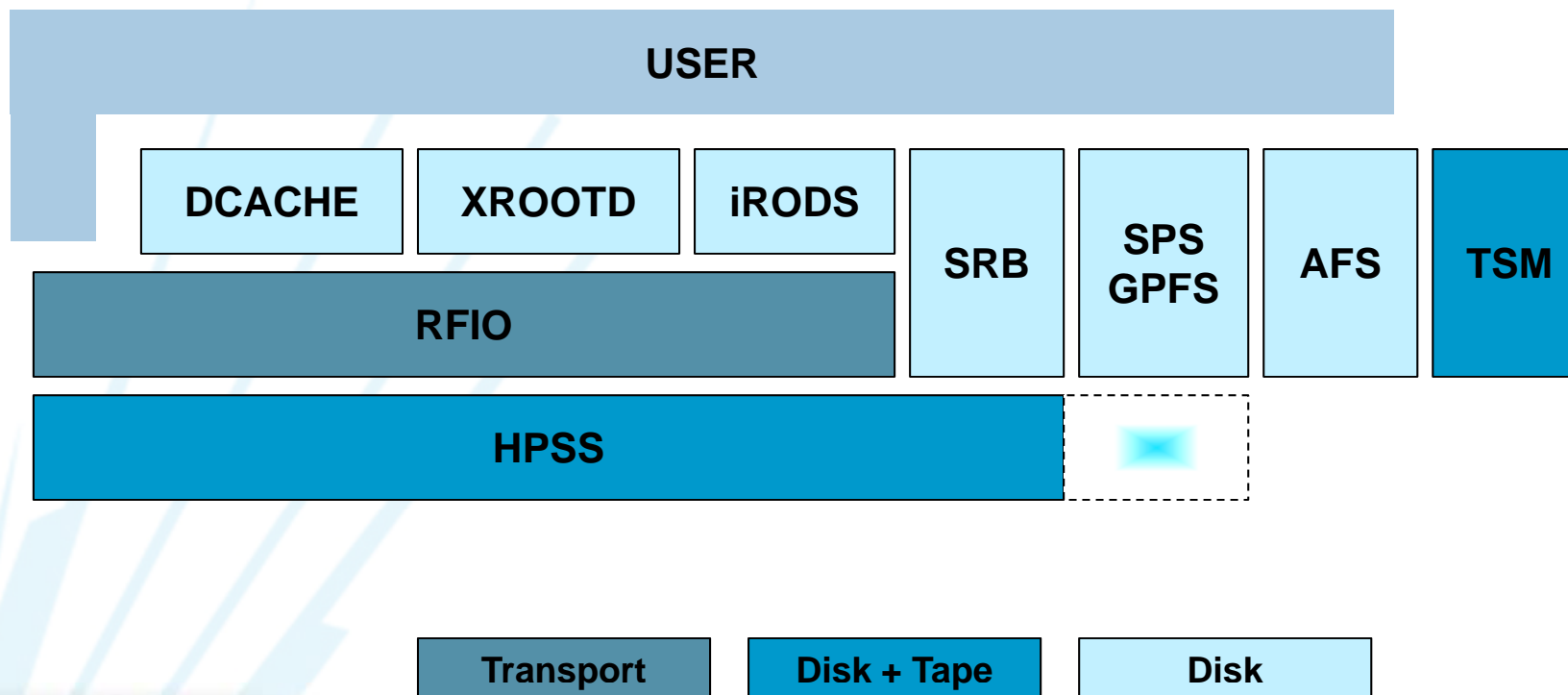


Storage



Special report by Pierre Emmanuel Brinette on Tue 2/11 at 3 PM

« Current storage status and plans at IN2P3 »



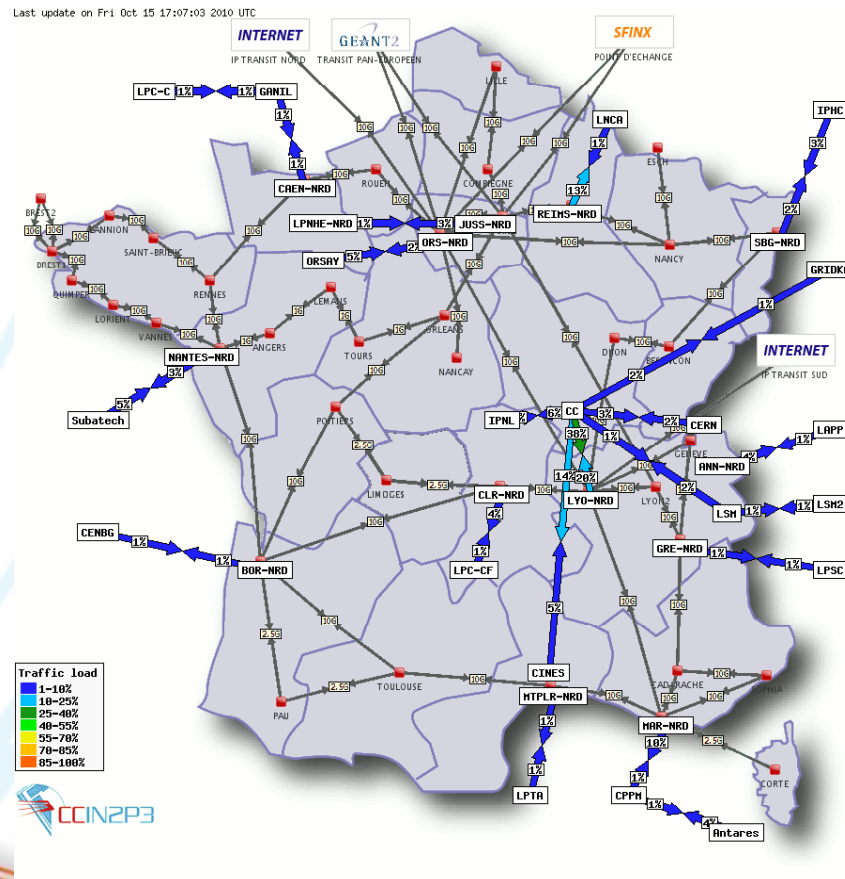


Network



- Special report by Guillaume Cessieux on Wed 3rd at 9 AM

« New network architecture at IN2P3-CC »





Infrastructure Improvements



New machine room in progress

See session « CC-IN2P3 Infrastructure » Improvements on 4th at 3:30 PM





Miscellaneous



- All services monitored with Nagios, Robotic monitoring with StorSentry
- Machines metrics collected with Smurf
- Data reporting (Data warehouse by SQLServer 2005 : SSIS,SSAS, SSRS)
- Web Clusters : ~ 10 machines, 280 websites (70% HEP)
- Symod (Harvesting Data System)
- Grid projects :
 - EGI/NGI : NGI technical direction, ROD, Nagios-box(failover:VmWare HA)
 - Tidra (Regional Grid over Rhones-Alpes)
 - CIC Portal development for EGI operations
- Current actions to implement selected ITIL procedures and processes
 - Service Desk, Operation Bridge, Event and Incident management



Thank you !



Questions ?