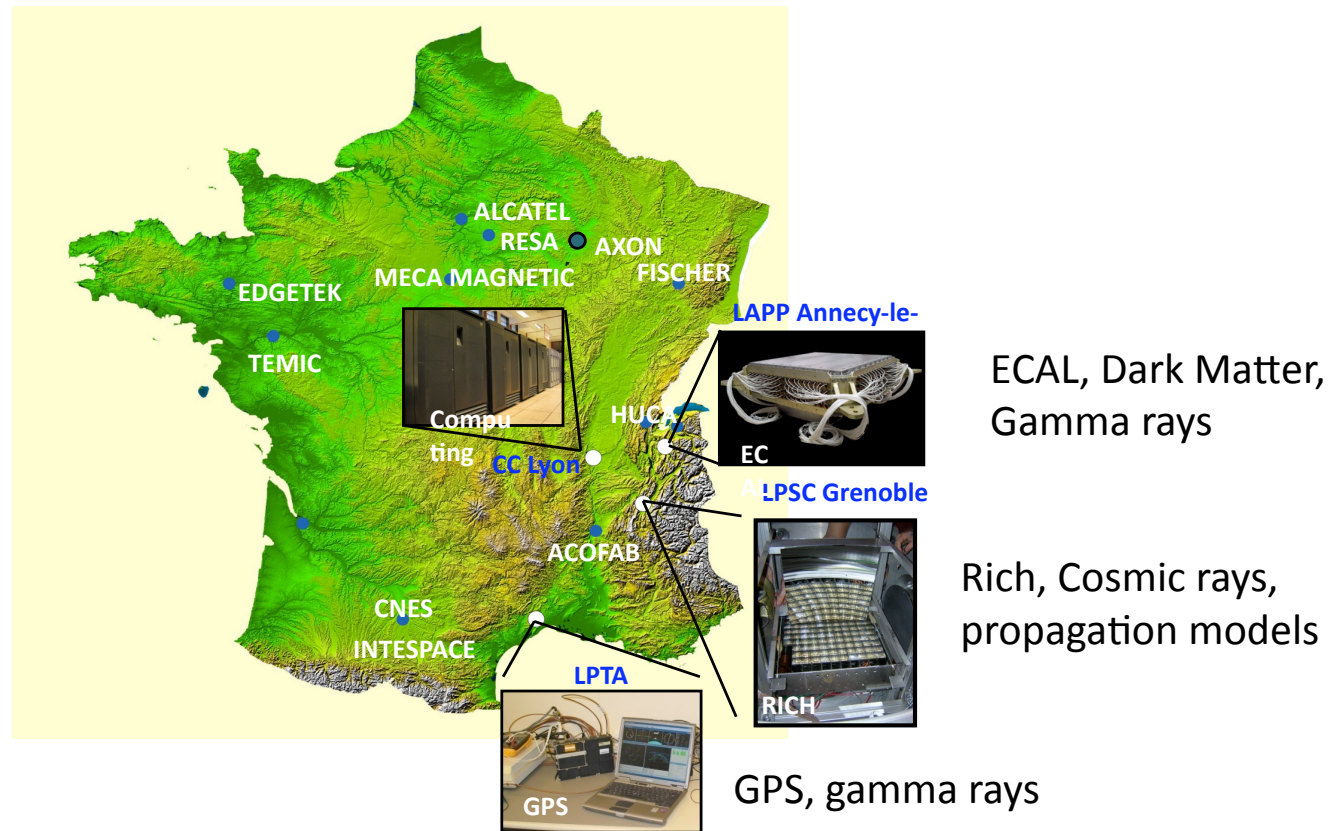


Resources and status of computing in France

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AMS Analysis Meeting – KSC 11 October

Resources and status of computing in France



- Main resource : CCin2p3 for data analysis and Monte Carlo production
- Secondary resource : local computing centre like at LAPP (MUST CC) for test beam analyses, theoretical models or propagation studies (CERN centre will be also used)

MUST computing center

- Hosted at LAPP, open to 11 laboratories, out of which LAPP and LAPTH
- Tier 2 for Atlas and LHCb since 2 years
- 750 Cores : possible for all LAPP experimental groups to submit jobs
- Operating system : Scientific Linux 5.3 64 bits
- Used by the LAPP-AMS group for the test beam analyses (2007->2010), Micromegas (DM generator), propagation models, diffuse gamma ray background maps and standalone ECAL simulation with GEANT4



MUST Computing center
**MID-RANGE DATA STORAGE AND COMPUTING CENTRE WIDELY OPEN TO EGEE/LCG
GRID INFRASTRUCTURE**

Computing center of the In2p3 CCIn2p3



**Le CC-IN2P3 is located at
Lyon - Villeurbanne.
©IN2P3**

The main activity of CC-IN2P3 is to provide computing power and related services to the researchers (2500 users) in these domains:

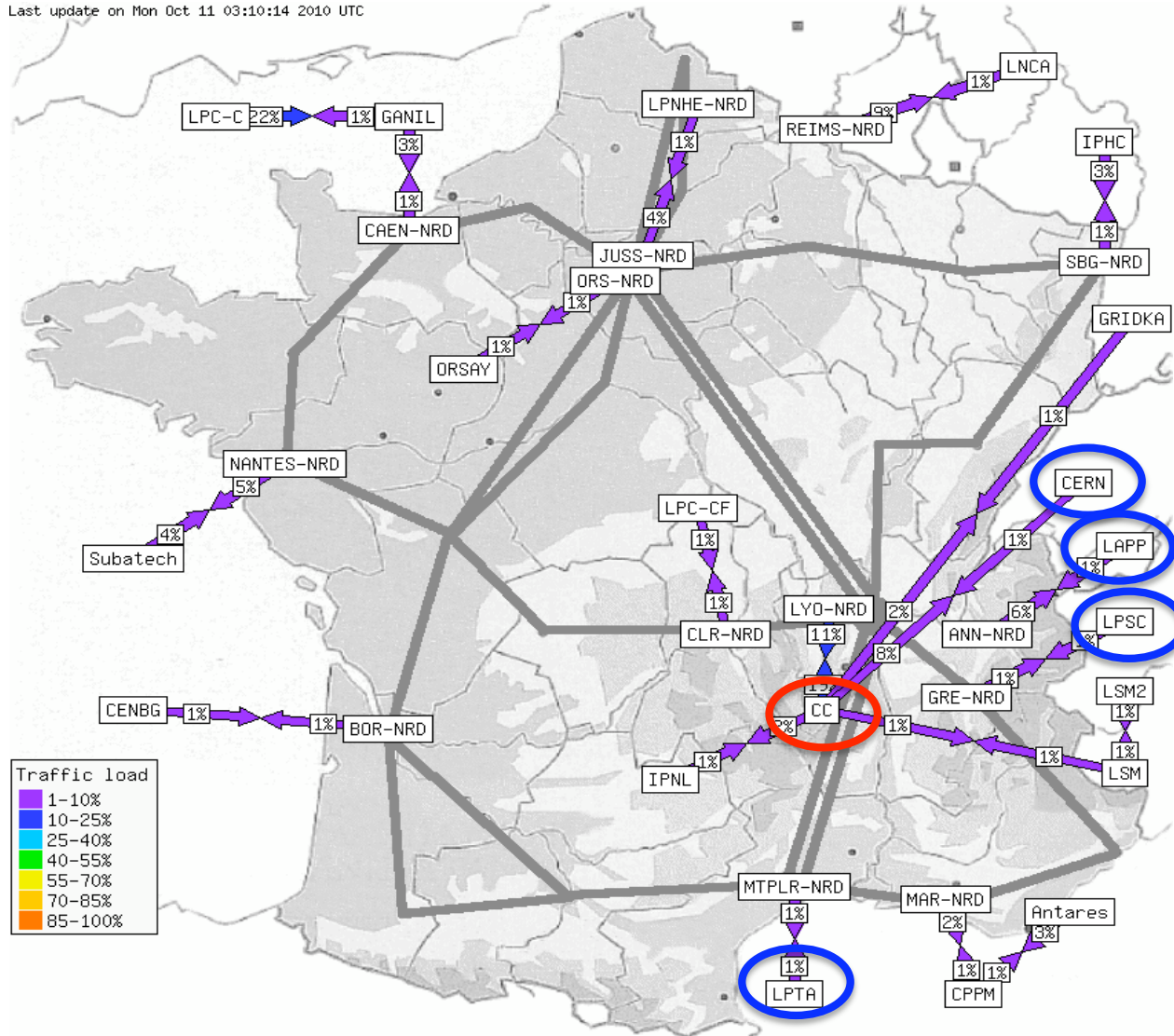
- High Energy Physics (tier 1 for LHC)
- Astroparticle (using 40 % of the CC resources)
- Nuclear Physics

Resource Requests in addressed once a year by each experimental group (November)

Data transfer at IN2P3

IN2P3 network, build over RENATER (French Academic network) managed by the computer centre

Last update on Mon Oct 11 03:10:14 2010 UTC

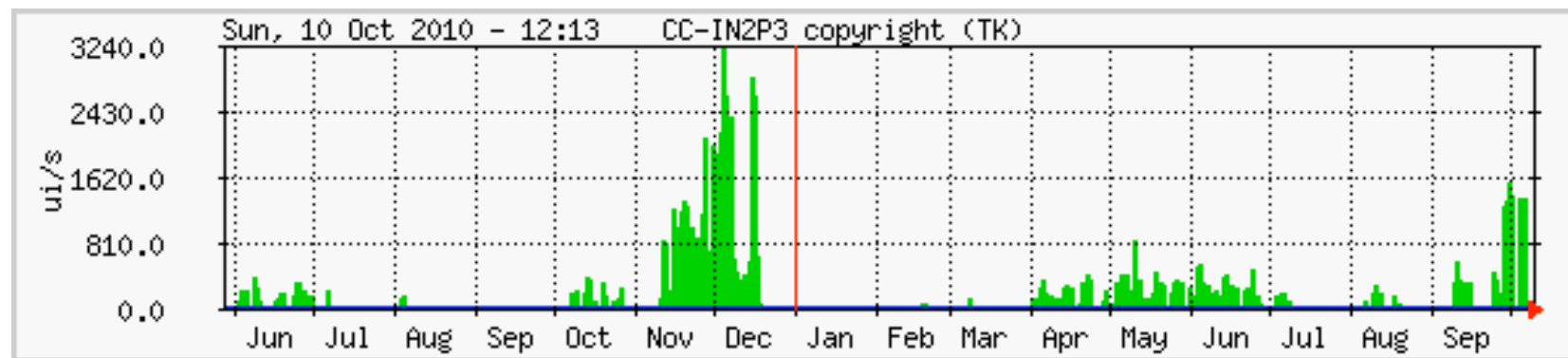


**Special connexion
to CERN :
Network
bandwidth
10 Gbps**

CPU resources at CC IN2P3 (BQS)

Type	Model	Numbers	Processors	Frequency	#cores
DELL	PowerEdge 1950	400	2x Intel Xeon E5450 Quad Core	3 GHz	3200
IBM	System x iDataPlex	400	2x Intel Xeon E5430 Quad Core	2.7 GHz	3200
DELL	PowerEdge M610	288	2x Intel Xeon E5450 Quad Core	2.53 GHz	4600
TOTAL		1088			11000

CPU AMS-France in the past for MC production (2002-2003) ~ 25 % of the total
 CPU AMS-FRANCE Request in 2010 ~ 10 cores : < 10 % used



CPU AMS-FRANCE Request in 2011 ~ at least 100 cores for Monte Carlo and data
 Analysis

Data storage resources at CC IN2P3

1) TAPES

few tens of thousands of tape
Library StorageTek PowderHorn 931
(36 000 tapes, 7 petabytes)



2) DISK = 10 PentaBytes

(IBM and ORACLE devices)



**Oracle Sun Fire X4540
(2,9 Pentabytes)**

2010 : AMS-France used on disk : AFS (3 Terabytes, 80 %) HPSS (400 Gbytes, 1000) (NFS 20 Gb out 4Tb)

2011: DiskStorage2010 * (20-30) at least.