

**PIC**  
port d'informació  
científica

# PIC Site review

*November 2009*  
*(Elena Planas)*

- **Hardware resources**
  - Servers
  - Storage
- **3D Databases**
  - Storage distribution
  - General info
- **Plans**

- **Production Servers**

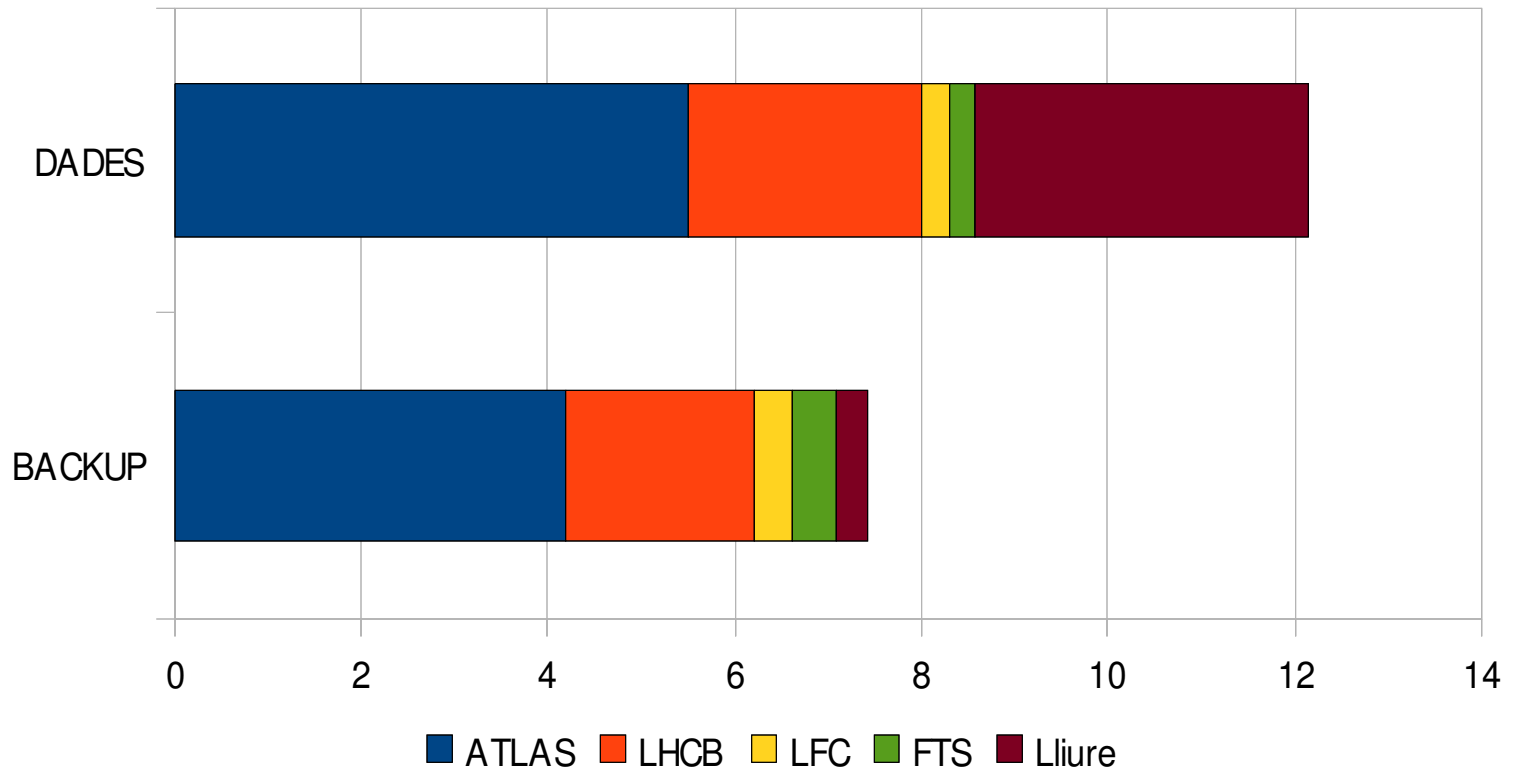
- 9 nodes hosting oracle databases :
  - Linux RedHat 5.2 64 bits
  - Fujitsu siemens: Primergy Advanced Blade Ecosystem BX600
  - 8 G RAM
  - QuadeCore intel CPU 1,6GHz
- 1 DIRAC mysql server :
  - Scientific Linux CERN SLC release 4.6 (Beryllium)
  - Dell 1850
  - QuadeCore Intel(R) Xeon(TM) CPU 3.20GHz
  - 4 G RAM
- 1 FroNTier & Squid server :
  - Scientific Linux SL 5.2 (Boron) 64 bits
  - Power Edge SC 1425
  - 4 Intel Xeon CPUs 3,2GHz
  - 4 G RAM

## • Storage

- 20TB on NetApp fas3040 for **data** LUNs
  - Redundant FC connections
  - Failover between two controllers
  - 70 disks of 280GB
  - 6 spare disks + 4 parity disks + 4 double parity disks
  - Effective space → **12,4TB**
- 13TB on fas270 for **backup** LUNs
  - 21 disks of 621GB
  - 2 spare disks + 2 parity disks + 2 double parity disks
  - Effective space → **7,7TB**

# 3D databases - Space distribution

## Space distribution for 3D databases (TB)



# 3D Databases

<b>DB</b>	<b>RAC Nodes</b>	<b>Oracle Version</b>	<b>ASM Data diskgroup</b>	<b>Used</b>	<b>ASM Backup diskgroup</b>	<b>Used</b>
ATLAS	3	10.2.0.4	5,5TB	9%	4,2TB	30%
LHCb	2	10.2.0.4	2,5TB	1%	2TB	40%
LFC	2	10.2.0.4	300GB	10%	400GB	75%
FTS	2	10.2.0.4	300GB	50%	500GB	60%

- **Hardware plans**

- During 2009/2010, there is no plan to upgrade any cluster yet.
- The actual performance is good. We are monitoring the servers and if we detect some increase of CPU or Memory usage, we'll plan to add more resources.
- FroNTier server load is being reviewed to assess the need of moving the service to another server.

- **Other plans**

- For security reason, we'll change ATLAS listener port from 1521 to another.
- We are evaluating different options to allocate 3TB to 5TB for a TAGS DB creation.