Belle II @ DESY Grid Site
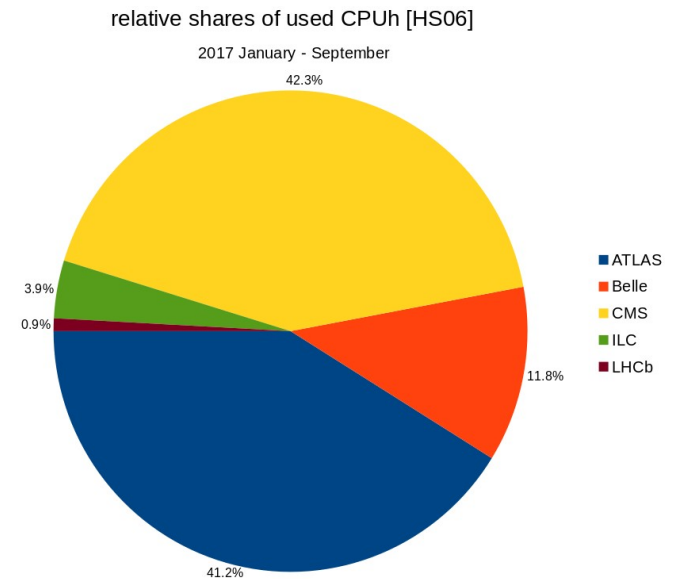
Andreas Gellrich
DESY

28th B2GM
11 Oct 2017, KEK, Japan

DESY: Resources for Belle II

> CPU:

- 150 kHS06 (new and old hardware)

- Main: HTCondor (2 ARC-CEs)(WLCG) (136kHS06) (20% Belle II)

- Add: PBS/MySched (2 CREAM-CEs) (~40 kHS06) (Belle, ILC exclusive)

- Belle II used in 2017 so far: 12%

- Memory 4GB/job (hard limit 8GB/job)

- Scratch 20GB/job (hard limit 30GB/job)

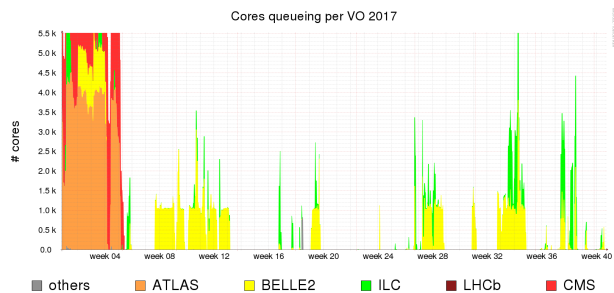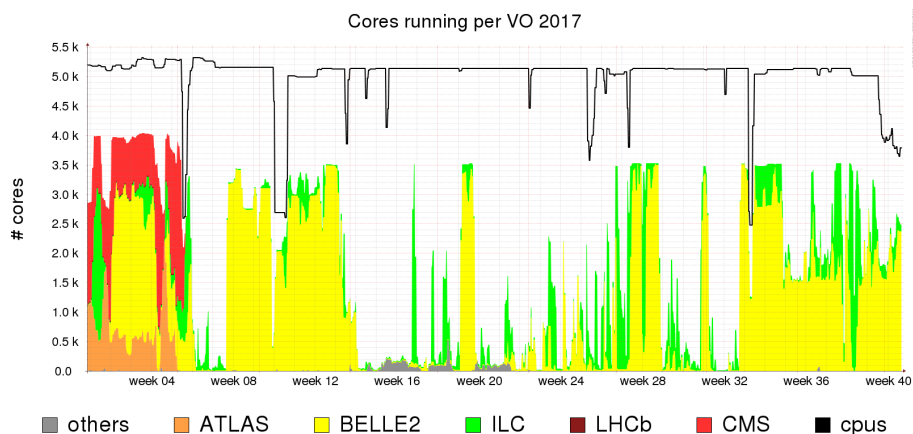- CVMFS (6 Squids)

- DESY-HH supports multi-core jobs!

> Storage:

- dcache SE (dcache-desy.de)

- SRM, XROOTD, HTTP, GSIDCAP, NFS4

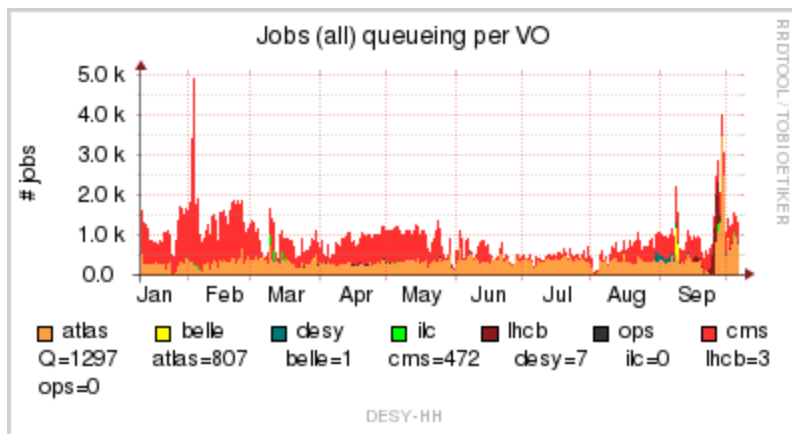- Disk for Belle II: 500TB (incl. 184TB Belle) (~100% filled)

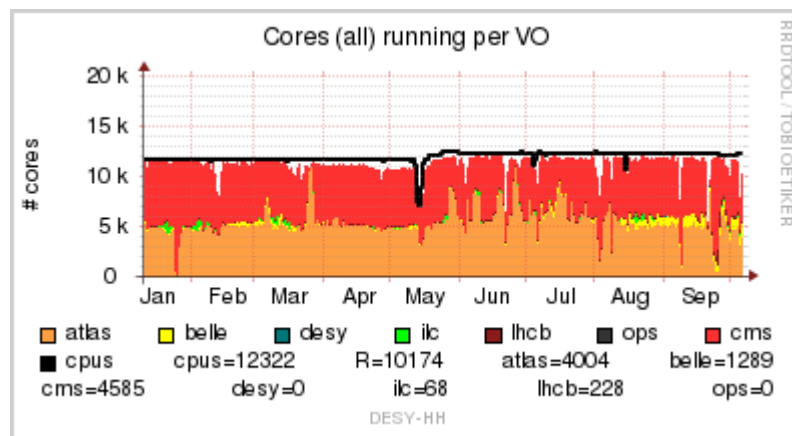relative shares of used CPUh [HS06]

2017 January - September

42.3%

3.9%

0.9%

11.8%

41.2%

ATLAS
Belle
CMS
ILC
LHCb

PBS/mysched resources

~40 kHS06

HTCondor (main Resource)

136 kHS06

DESY: **Planning**

> Planning for 2017/8:

- We are buying additional CPU resources to meet the WLCG pledges

- EL7 envisaged

- In CPU Belle II is still small compared to ATLAS and CMS (<20%)

- The MoU pledges were positively received by the directorate (though no formal approval yet)

- The MoU pledges can therefore be guaranteed (most likely)

- We will keep outdated resources running *in addition* for Belle II

- A database proxy server (frontier_squid) could be installed

> Comments:

- Jobs are transient – data is persistent … Management of data on the SEs needed!

- Although the Belle II storage space is ~10 times the current pledges, it is full:

  - Who should be allowed to write where?
  - Who is cleaning up?
  - Do we need quotas / partitions / volumes?
  - Data needs to be transferred and stored for the analysis facility!