

BELLE2 @ DESY Grid Site

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> Situation in fall 2015:

- 112 kHS06 (recent and new hardware)
- 20 kHS06 (old hardware > 5years)
- Disk for BELLE2: 520TB (incl. 258TB BELLE1) 71% full!

- BELLE2 used on average in 2015 so far: 33% (incl. old hardware)

- New procurement of 20 kHS has just happened and will be added!

- DESY-HH supports multi-core jobs!

- Some tests with vaccum model (start pilots at site on resouce w/o Grid overhead)

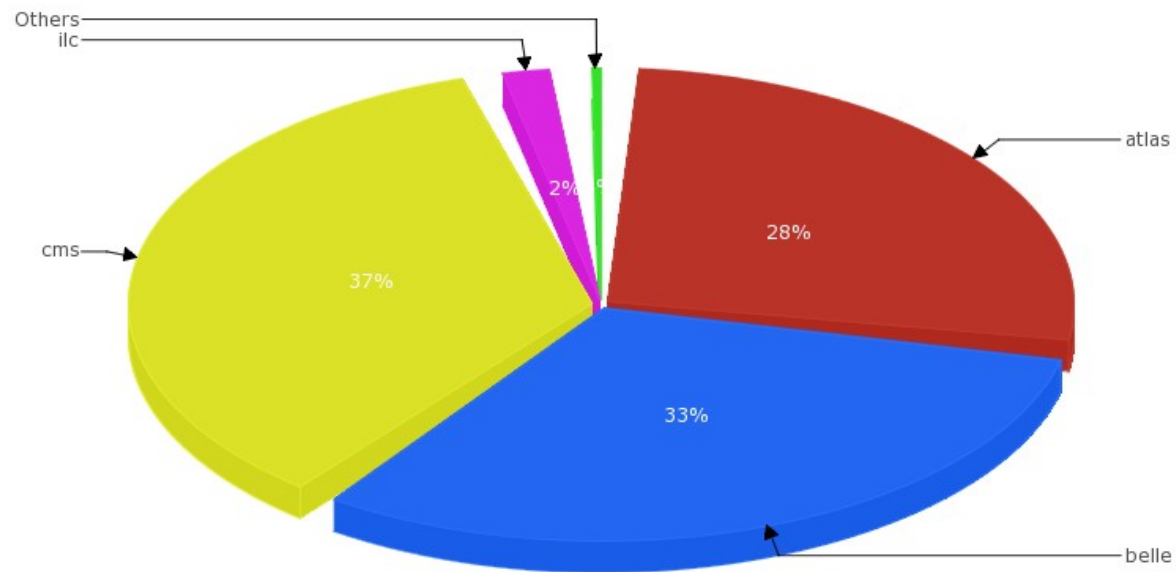


DESY Grid Center: Resources at DESY-HH

Developed by CESGA 'EGI View': / normelap-HEPSPEC06 / 2015:1-2015:12 / SITE-VO / all (x) / GRBAR-LIN / 1

2015-10-14 08:23

DESY-HH Normalised Elapsed time (HEPSPEC06) per VO

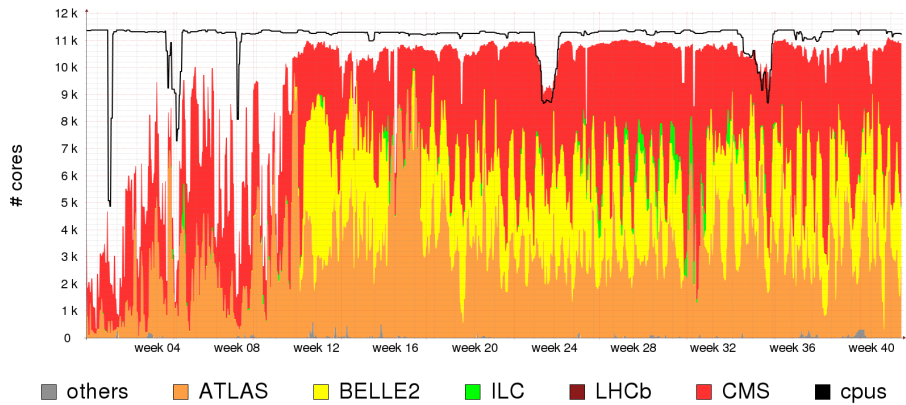


DESY Grid Center: Jobs at DESY-HH (2015)

Main resources

112 kHS06

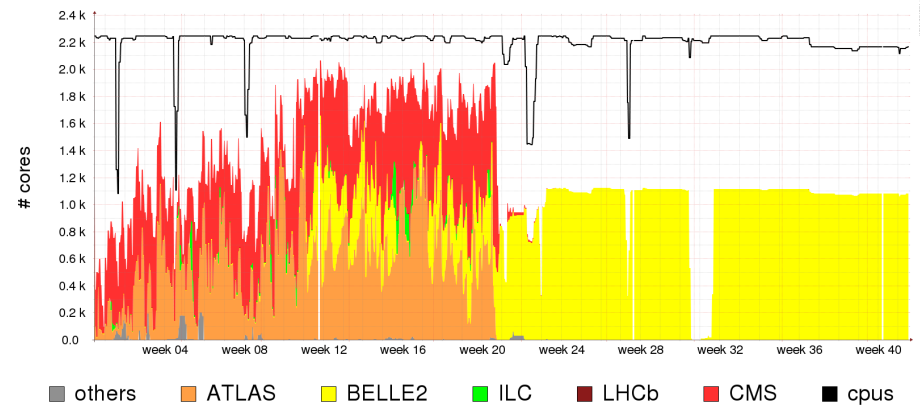
Cores running per VO 2015



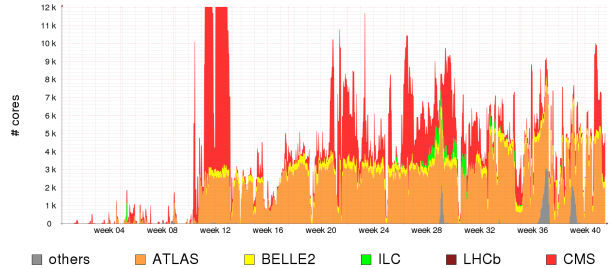
Additional *old* resources (Belle2 only)

20 kHS06

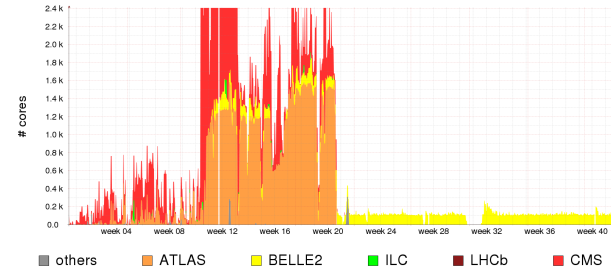
Cores running per VO 2015



Cores queuing per VO 2015



Cores queuing per VO 2015



> Planning for 2016:

- DESY-HH pledges in total (LHC+Belle2) for April 1st, 2016: **84 kHS06** (hardware in warranty)
- Some additional hardware is available which leads to a total of 132 kHS06
- This guarantees for **BELLE2** at DESY **10.8 kHS06** and the **520 TB** (incl. **BELLE1**) data
- B2CompSG requests for Germany: **21.65 kHS06**, **650 TB** (GridKa + DESY + ?)
- DESY-HH plans to migrate to **HTcondor** as a successor of PBS/torque

> Future:

- Until the end of the decade, BELLE2 pledges are at the level of ATLAS and CMS, therefore providing the requested resources is possible.
- The recent research programme POF III runs until 2019
- Resource provisioning must to be negotiated afterwards
- As the *traditional* usage of the Grid is superseded by pilot factories, we seriously consider to use a ***vacuum*** model (sites start pilots locally which then draw workload from pilot factory) to more efficiently use resources w/o the overhead of the Grid (CE, batch, ...).



Conclusions

- *BELLE2* (VO '*belle*') is well supported at DESY common Grid infrastructure
- At DESY the *federation* of Grid computing resources and its *opportunistic* usage models allows to very efficiently use the resources
- In 2015 sofar *BELLE2* used **33%** of the DESY Grid computing resources (incl. old hardware) (ATLAS: 28%, *BELLE2*: 33%, CMS: 37%, ILC: 2%)
- DESY will guarantee half of the requested resources of Germany in 2016 (**10.8 kHS06, 325TB**) but tries to provide significantly more
- Note: The *National Analysis Facility* (**NAF**) complements the Grid for interactive data analysis and supports *BELLE2*; more users are welcome!

