The DESY Grid Centre

A. Gellrich for the Grid Team at DESY*, Germany

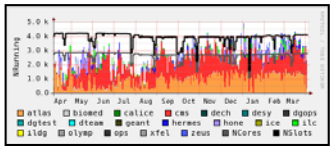
Grid

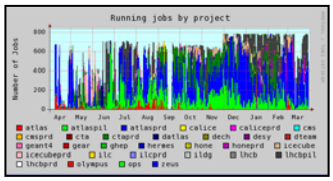
The DESY Grid Infrastructure is based on the most recent **GLITE** middleware. It contains all node types to make up a **complete** Grid infrastructure.

Core services are Workload Management Systems (WMS), Information Index (BDII), Proxy Server (PX), Catalog Services (LFC), VO Management (VOMS).

Resources are published by the site Information Service (GIIS) and provided by Computing Elements (CE) with Worker Nodes (WN), and dCache-based Storage Elements (SE) as a front-end to the hierarchical mass storage system.

Job Occupancy
DESY Hamburg and Zeuthen





***All* VOs supported on one *common* Grid infrastructure.**
Virtual *sharing* of the DESY Grid Resources by all VOs.

HEP

ATLAS CMS LHCb ILC CALICE

Theory

ILDG

Photons

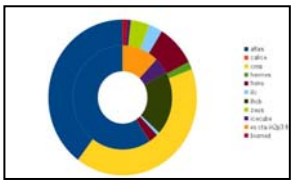
DORIS
FLASH
PETRA3
CFEL
XFEL

Astroparticle

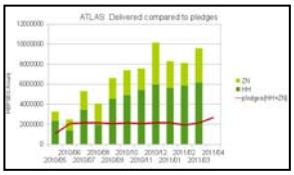
IceCube

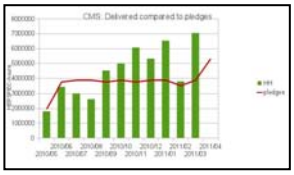
others

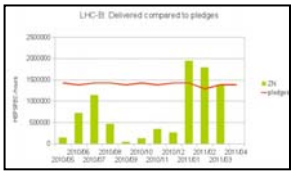
Opportunistic and federated use of CPU resources



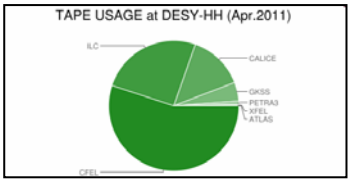
Heavy user community delivered vs. pledged CPU resources

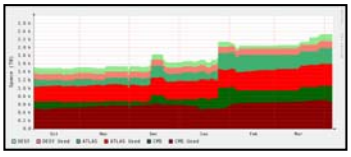






Storage resources tape and disk

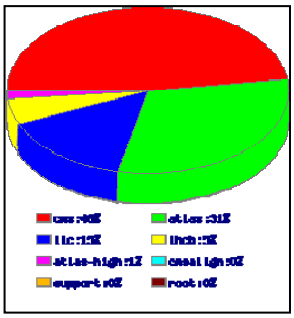




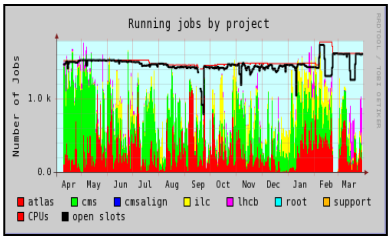
National Analysis Facility (NAF)

- Provide members of German institutes with a generic multi-purpose analysis facility Atlas, CMS, LHCb and ILC current users
- Built, hosted and operated by DESY (Hamburg and Zeuthen)
- complementary access to storage
- tightly coupled to existing storage: Tier-2 dCache share which hosts analysis data
- Extension of existing Grid infrastructure
- Additional interactive resources: ~1500 cores & ~150 TB Lustre file system
- Support and documentation in close collaboration with experiments

NAF CPU usage of TeraScale users



NAF CPU Occupancy

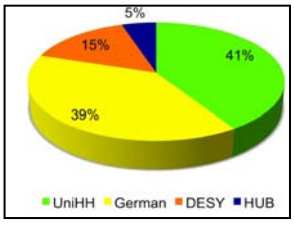


Measurement of the Underlying Event Activity with the Jet Area/Median Approach at 0.9 TeV

The CMS Collaboration

Acknowledgements

We would like to thank Matteo Cacciari, Gavin Salam and Sebastian Sapeta for their precious help in understanding the theory and their useful suggestions. We also thank the National Analysis Facility (NAF) administrators and WLCG for providing the excellent and reliable computing infrastructure necessary to carry out this analysis.



Presented 24.05.2011, DESY

*contact: http://gridcenter.desy.de/