Computing

PRC Preparation

Christoph Wissing
DESY CMS Meeting
April 19th, 2010

HELMHOLTZ ASSOCIATION

CMS

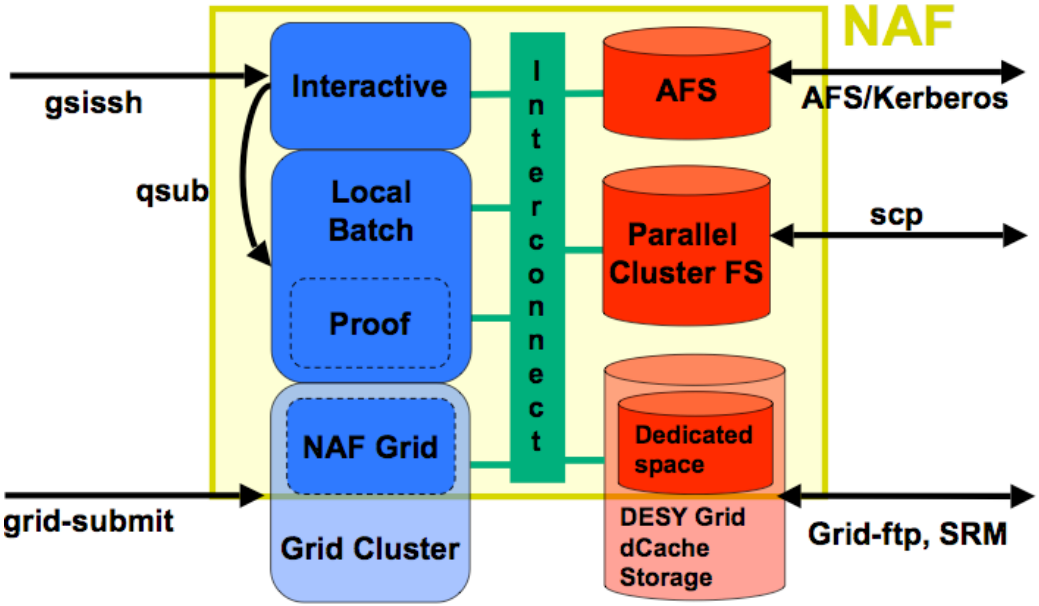
DESY

Grid and Grid-related Computing at DESY

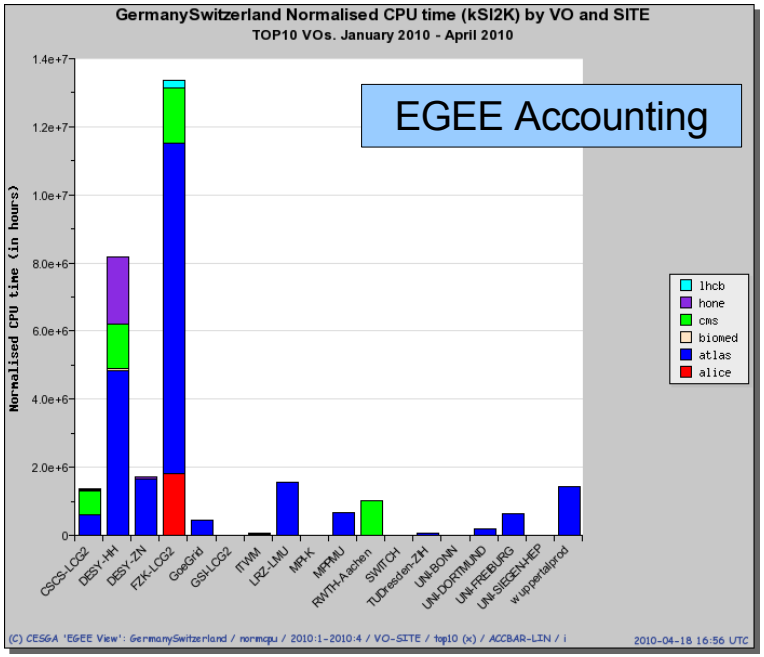
- DESY operates a Grid Center spread over 2 locations Hamburg & Zeuthen
  - Support for various communities on a generic gLite based infrastructure
    - LHC: Tier-2 for ATLAS, CMS and LHCb
    - HERA: H1, HERMES, ZEUS
    - Linear collider: ILC, CALICE
    - Astro particle physics: IceCube, CTA
    - Lattice QCD: ILDG
    - Photon science: XFEL.EU
  - Participation in several Grid projects
    - EGEE and NGI-DE
    - D-Grid
- Central Services for VOs hosted at DESY (HERA, ILC, IceCube, ILDG, XFEL)
  - VOMS/VOMRS (VO registration and management)
  - LFC (LHC File Catalog)
  - WMS (Workload Management System)

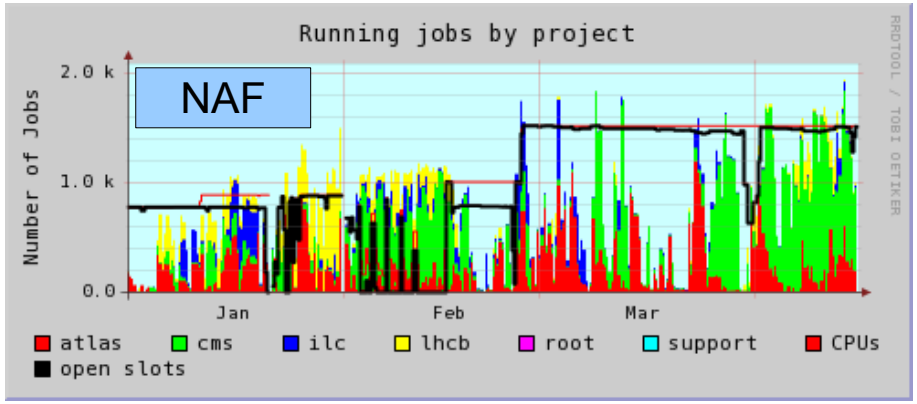
National Analysis Facility (NAF)

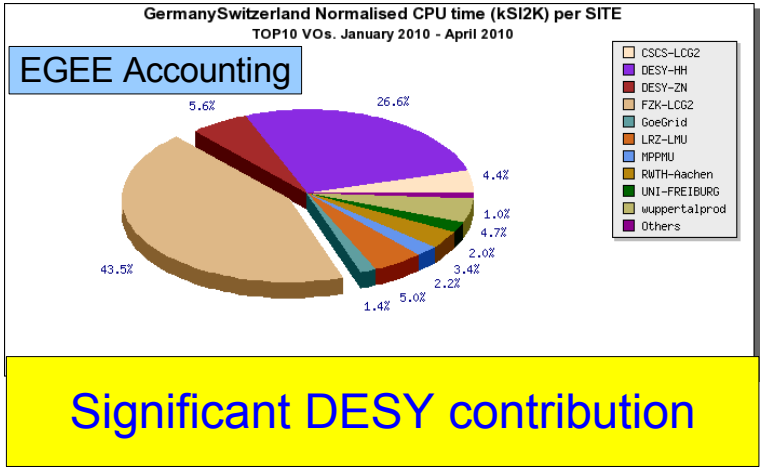
- Complements the Grid infrastructure
  - Interactive login
  - More flexible local batch system e.g. for PROOF
- Part of the Helmholtz Alliance Physics at the Terascale
  - Supported experiments: ATLAS, CMS, LHCb and ILC
  - Open for members of all German institutes

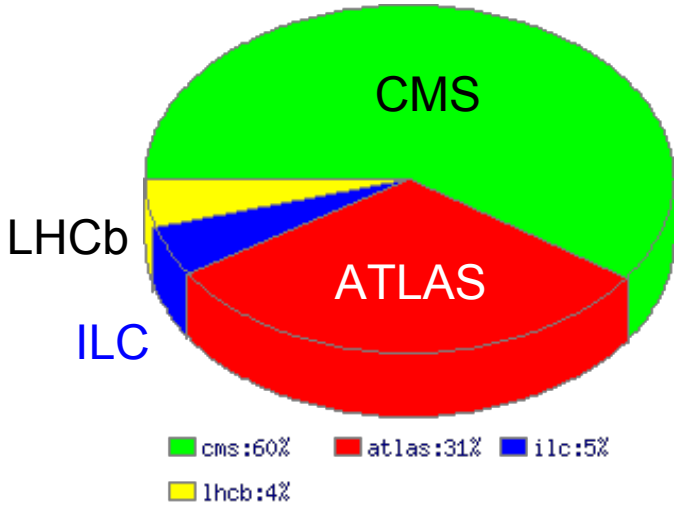


Resource Usage: Grid and NAF





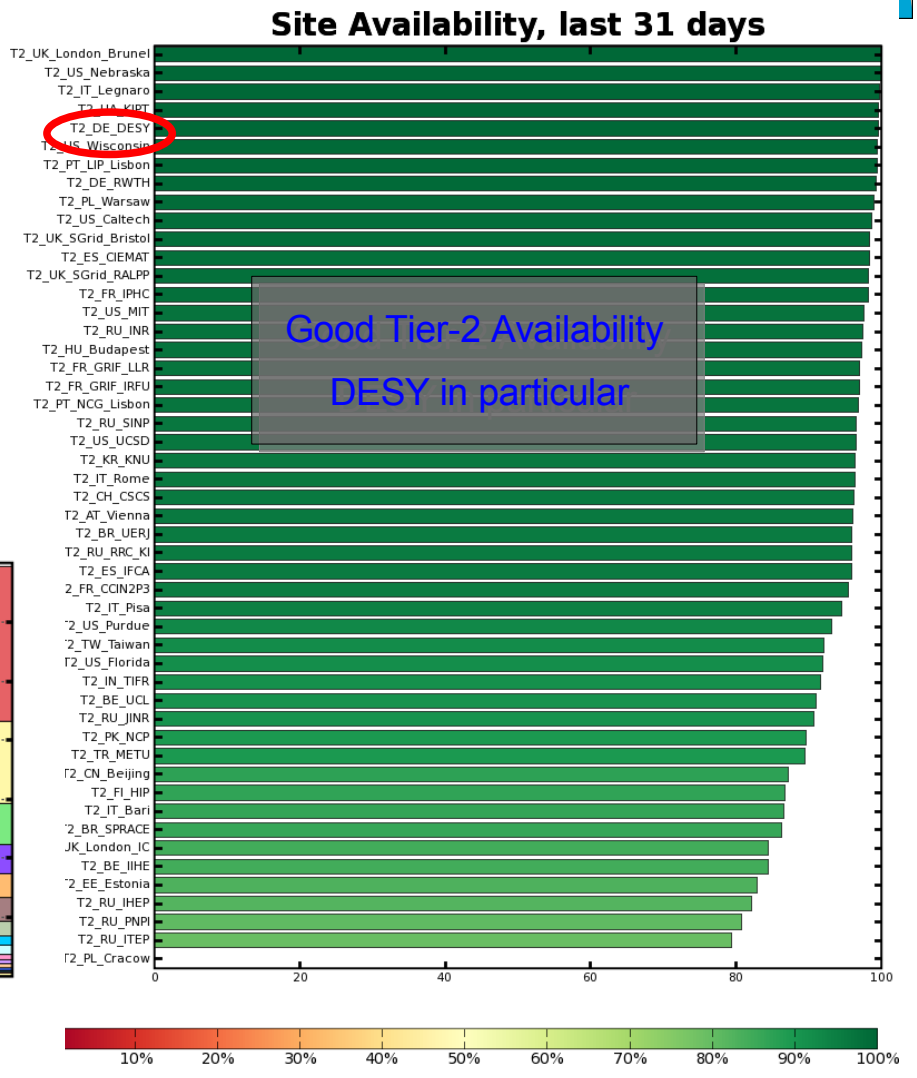


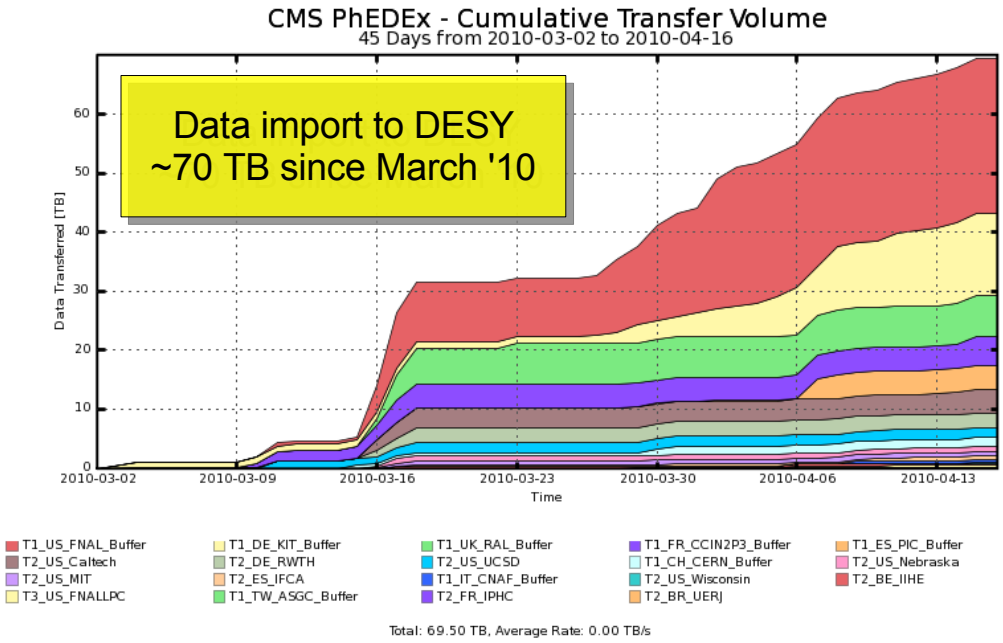


Significant DESY contribution

CMS Tier-2 at DESY

- Reliable compute resourc
- Actively used
  - MC production
  - User analysis





CMSSW Deployment

- Present DESY responsibilities
  - Coordination of installations at European and Asian CMS sites
    - 6 Tier-1 and ~40 Tier-2 and Tier-3 sites
  - Improvement of tools
    - More automation
    - Increased reliability
- Very good performance
  - 90% of installs in a few hours
  - All sites in typically 24 hours