



The DESY Grid Centre



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Set-up

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.

Resources

Resources are located on two sites:

- **DESY-HH**: grid-giis.desy.de:2170
- **DESY-ZN**: lcg-giis.ihf.de:2170

DESY provides computing power:

- DESY-HH: 4232 core @ 372 hosts
- DESY-ZN: 712 cores @ 89 hosts
- total: ~35 kHS06

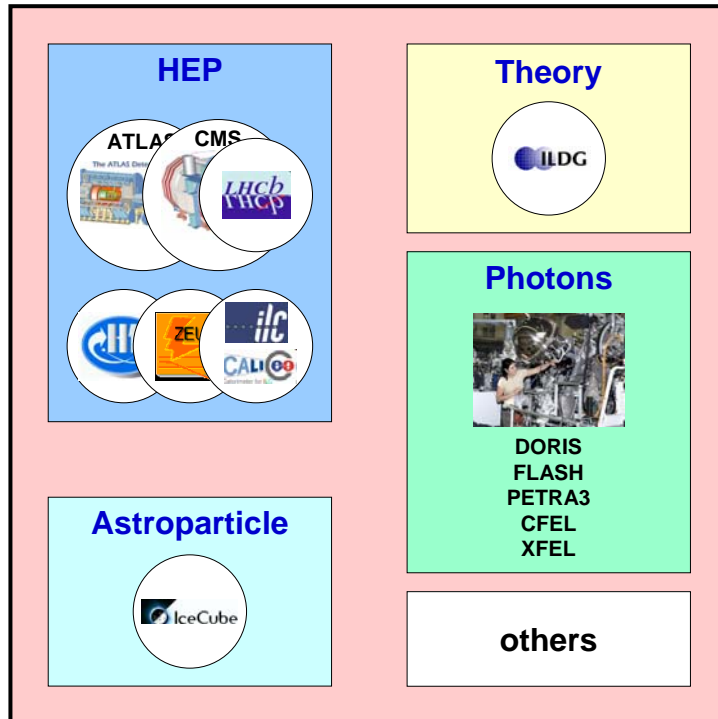
- 2GB RAM per core
- 15GB disk space per core

DESY provides storage:

- dCache-SE w/ 1.5PB on 3 SEs
- tape back-end

DESY has a **10 Gbit/s WAN** connection.

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



VO Support

DESY supports the LHC VOs 'atlas', 'cms', and 'lhcb'.

DESY supports the VOs 'geant4', 'dteam', 'ops'.

DESY hosts the global ('hone', 'ilc', 'xfel.eu', 'zeus'), regional ('calice', 'icecube', 'ildg'), and some local VOs.

DESY provides **core services** for the VOs.

As a Tier-2 centre for the LHC VOs ATLAS, CMS, and LHCb w/ **VO-specific services**, e.g. VOBOX, PHEDEX, FTS, etc

Tier-2 @ DESY

DESY is operating a **Tier-2** centre for **WLCG** in **federation** w/ German universities for **ATLAS** [1 av. T2] (DESY & U Göttingen), **CMS** [1.5 av. T2] (DESY & RWTH Aachen), and **LHCb**.

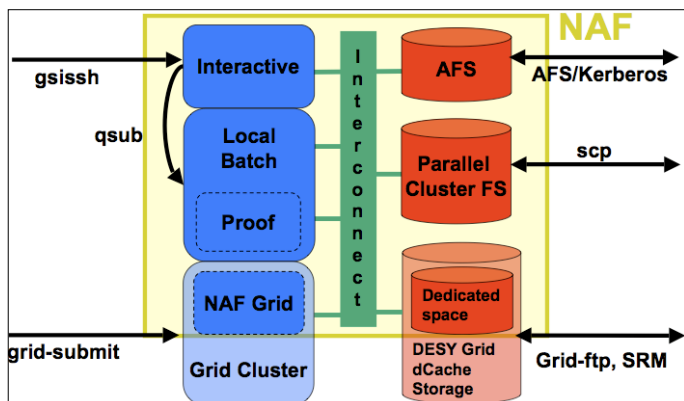
The WLCG Grid pledges (preliminary) *:

	2010	2011	2012
CPU [kHS06]	13	18.5	19
Disk [TB]	1150	2200	2600

* both DESY sites

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



Usage

