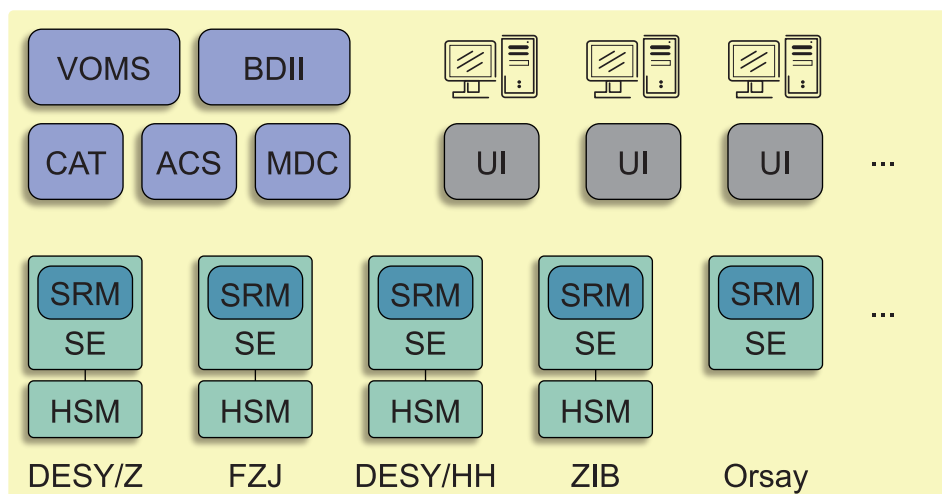


# ILDG International Lattice Data Grid

Building an international grid-of-grids for global sharing and long-term storage of gauge field configurations from Lattice QCD simulations

## LDG Infrastructure



## Requirements

- Semantic access to world-wide distributed data via grid
- Standardized description (metadata) of LQCD data, e.g. physics, algorithm, code
- Standardized binary file format for LQCD data
- Common middleware interfaces between regional grid implementations (Australia, Japan, LatFor, UK, US)

## LatFor Data Grid (LDG)

- Regional implementation to become part of the ILDG
- Members from LatFor (Austria, Germany, Switzerland), France, and Italy
- Has developed a searchable metadata catalogue (MDC), implemented as web service
- Implementing an Access Control Service (ACS)
- Uses LCG grid services as provided by DESY, e.g. File Catalogue (CAT), Virtual Organisation Membership Service (VOMS)
- Provides user tools (*ltools*) on top of LCG-2 tools as user interface (UI), for convenient combined access to MDC and storage elements (SE)

## NIC/ZAM Contribution

- ZAM operates SRM/dCache based grid storage element
- ZAM provides grid user interface for data transfer between the grid and local supercomputing resources
- ZAM makes over 60 K gauge field configurations available to the lattice community
- ZAM provides user support