JADE

• JADE:
  - Jülich Aachen Data Exchange

• SMHB:
  - Helmholtz Portfolio Theme
    Supercomputing and Modeling for the Human Brain
Logo
Overview

• JADE implements a distributed dCache installation suited to the needs of the tasks of the SMHB and affiliated projects like the HBP and JARA

• It aims to i) satisfy generic demands for exchanging huge amounts of data between partners and ii) highly specific data management functionality
Use case 1: Cloud-like access

Any data in JADE can be shared and accessed via various methods – like https, webDAV, scp, nfs.

Fine grained ACLs are used to authorize access.

Exchange data with external partners (authenticated or non-authenticated).

Full featured cloud interface will be integrated.
Use case 2: Data Replication

Site can have synchronized data set e.g. in locally deployed data pools

Communities can use any available method for local or remote access
Use case 3: Data Flow

Generated data is written to a small local pool.

Files are transferred to a huge, central data facility. This happens transparently to the user.

When data is read the JADE system always knows in which locations a copy exists and links the read request to the best available copy or transfers the file back to a local pool in advance.

Additionally, a migration to a tertiary storage system is possible.
Use case 4: Archiving

All pools can be configured to migrate files down to tertiary storage systems.

Store and restore from tertiary storage systems is transparent to users.