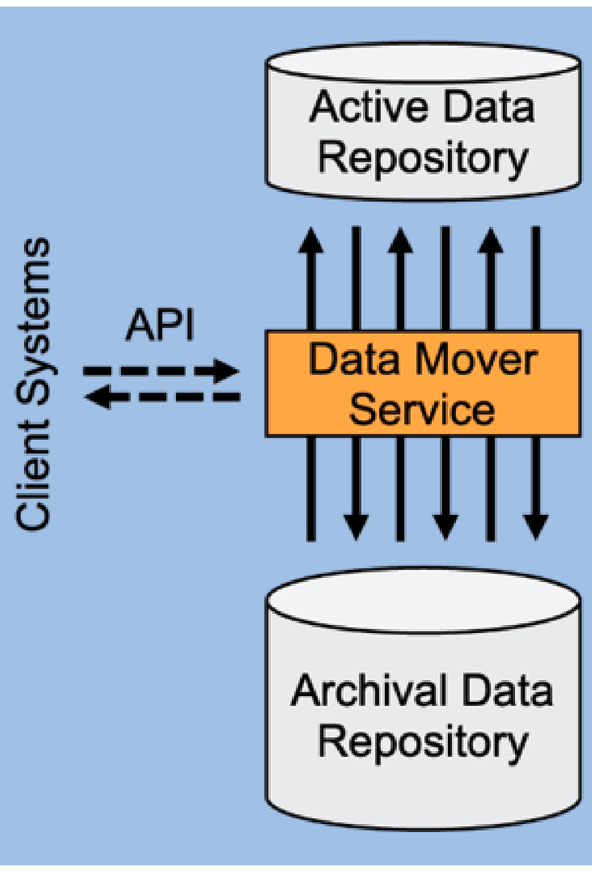
DATAMOVER

BRIDGING THE GAP BETWEEN HPC AND CLOUD STORAGE

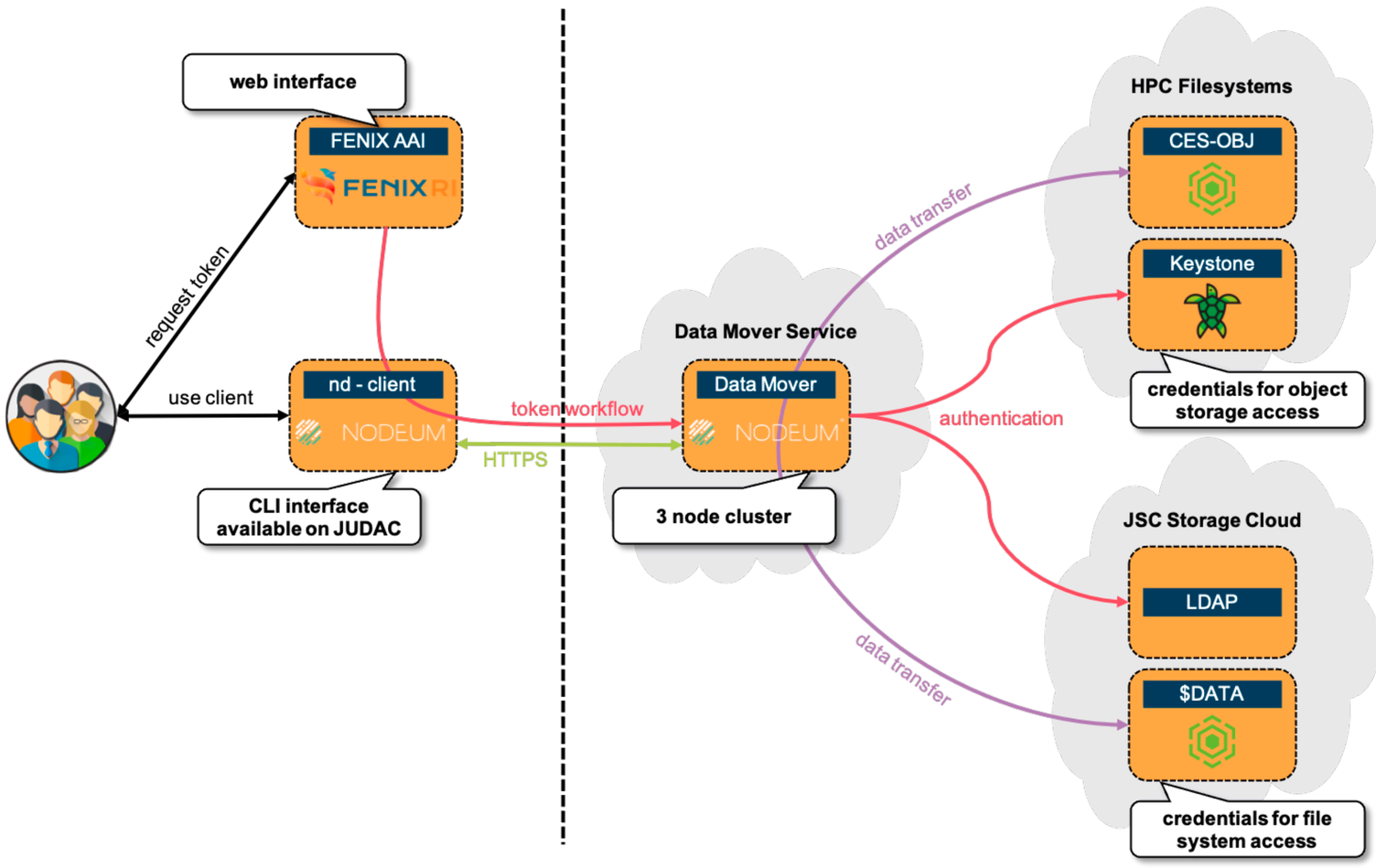


THE FENIX DATAMOVER, POWERED BY NODEUM®

- Transfers data from parallel filesystems to object storages
- Can be accessed via the Fenix-AAI at all five Fenix sites
- Integrated into SLURM to allow automatic data stage-in / stage-out

AKQUINET, MT-C and the Fenix consortium, via funding of the ICEI project, teamed-up to enhance the multifunctional data mover called NODEUM®. This service allows users to seamlessly migrate data stored in high-performance parallel file systems to object storages and vice versa.

The goal of this service is to offer the users of the Fenix Infrastructure programmable, high speed, scalable and secure data movement between Active Data Repositories and Archival Data Repositories. This software will be offered at all 5 project member sites (BSC, CEA, JSC, CINECA, CSCS) to move data site locally.



The High Performance Computing (HPC) filesystems (POSIX conform) represent the Active Data Repository and the object storage (using SWIFT API) represents the Archival Data Repository. Authentication is done using the central Fenix-AAI. Dedicated nodes are running and hosting the service exposing a REST interface. For user operations, such as triggering a data movement, a command line interface (CLI) called **`nd`** is provided. In addition to the CLI, users can trigger movements via SLURM.

The Data Mover service is integrated into SLURM using the burst buffer plugin. It is possible to automate stage-in of data from a selected Archival Data Repository to a selected Active Data Repository prior to the execution of a batch job. The availability of the data in the location selected by the user is ensured prior to the start of the job. Also, automated stage-out of data following the execution of a batch job is supported. The service is available at JSC on the Jülich Data Access servers JUDAC. For more information see:

https://go.fzj.de/datamover

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