Enabling Interoperability with the Open Standards-based Data Movement Interface in UNICORE

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Data movement emerges as an essential requirement of many Grid applications that use geographically distributed computing resources and thus raise the demand for a secure access to storage resources and data transports. In the context of a Grid job submission the major requirement of data movement is to seamlessly move data from a storage resource to the computing site and back. This particular requirement becomes more critical when data sources and computing entities are distributed and deployed in different Grid infrastructures (i.e. EGEE, DEISA, etc.) and exposing non-interoperable interfaces. In order to satisfy these requirements, the Open Grid Services Architecture's Data Movement Interface (OGSA-DMI) specification evolved in the Open Grid Forum (OGF) by abstracting and standardizing the different data movement interfaces and functionalities. In this contribution, we present a reference implementation of OGSA-DMI within the UNICORE Grid middleware and evaluate its potentials to facilitate interoperability between different Grids.