

Strengths of UNICORE

unicore-forum-board@unicore.eu

UNICORE FORUM

What is UNICORE

- ▶ **UN**iform **I**nterface to **CO**mputing **RE**sources
 - ▶ seamless, secure, and intuitive
- ▶ Integrated technology for distributed computing
- ▶ Suited for both HPC and HTC usage
- ▶ Support for workflows and application integration
- ▶ Open Source developed by international community
- ▶ In its latest version 6.4
 - ▶ WS-RF based
 - ▶ Supports various operating and resource management systems
 - ▶ Variety of clients
 - ▶ RPM packages

Reasons to use UNICORE – Managers and Deciders

- ▶ Mature, well-proven, competitive technology for Distributed Computing Infrastructures (DCIs) from Europe
- ▶ Widely used in national, European and international DCI projects, initiatives, and infrastructures
- ▶ Origins as seamless, secure, intuitive access technology for Supercomputing / HPC resources
- ▶ Is also a middleware for Grids of Clusters / HTC, single PCs
- ▶ Fast and competent support directly from the developers
- ▶ Enables continuity management across multiple resource centres

Reasons to use UNICORE – Users and Resource Providers

- ▶ Easy to install and configure clients and services
- ▶ Intuitive graphical user interface and powerful command line client for seamless access to resources
- ▶ Application integration mechanisms at the client, services and resource level
- ▶ Mature workflow support tightly integrated but extensible for different, domain-specific workflow languages and engines
- ▶ Interoperability through standards
- ▶ Support for multiple operating and batch systems
- ▶ Active international developer community
- ▶ Migration of jobs between resources easy

Reasons to use UNICORE – Developers

- ▶ Key features: application integration, workflow, rich security
- ▶ Source code (all Java) is available and easy to modify
- ▶ Open Source under BSD license
- ▶ Easily extensible with own developments with the option of integration in official releases
- ▶ SOA-based infrastructure
- ▶ Standards based: WS-RF, OGSA, SSL, etc.

UNICORE Community

▶ Main contributors today

- ▶ Jülich Supercomputing Centre
- ▶ ICM - Uniwersytet Warszawski
- ▶ Technische Universität Dresden - ZIH
- ▶ Commissariat à l'Énergie Atomique (CEA)
- ▶ CINECA - Consorzio Interuniversitario



▶ UNICORE Forum e.V.

- ▶ Non-profit organisation
- ▶ Foster distribution and use
- ▶ Coordinate the developments
- ▶ Founded by: developers, HPC centres, universities, hardware vendors
- ▶ <http://www.unicore.eu/forum>

