eDEISA: Extended Distributed European Infrastructures for Supercomputing Applications

Description

The main aim of this project was to extend DEISA (Distributed European Infrastructure for Supercomputing Applications), an existing FP6 I3 Grid empowered research infrastructure. Rather than being a new I3 initiative, eDEISA should therefore be understood in the context of the existing DEISA supercomputing grid research infrastructure.

DEISA represented a consortium of leading national supercomputing centres in Europe who joined forces to build and operate a distributed terascale supercomputing facility. This objective was to be attained by the thorough integration - using modern grid technologies - of existing national high performance computing infrastructures. A fundamental objective of the DEISA Consortium was to deploy a production-quality, persistent, grid-enabled pan-European supercomputing environment that would act as the integrating infrastructure for High Performance Computing in Europe. DEISA's technology choices, based on the concept of integration of resources and services, aimed to add value to existing infrastructures.

This ambitious roadmap could not be achieved without a permanent reassessment of strategic and technological objectives. The eDEISA project therefore aimed to extend DEISA by adding new Service Activities which had been identified from the experience gathered during the first year of operation of DEISA and from requirements resulting from the expansion by three new major partners. These Service Activities included a second-generation, high-bandwidth dedicated network across eleven supercomputing platforms in Europe, an additional middleware activity and new innovative services in the user and applications area, in particular the scaling and optimization of grand-challenge applications, distributed visualization, portals and web interfaces.

eDEISA also aimed to strengthen the pan-European impact by associating seven additional high-performance computing organizations in Europe as explicit subcontractors.

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