gCube

Enabling platform for serving challenging e-Science scenarios

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gCube is a versatile, rich featured platform for building e-Infrastructures. It has been developed following the Service Oriented paradigm and exploiting and extending various existing grid middleware and technologies like the Globus Toolkit 4, gLite, and the GridSphere Portal Framework.

gCube empowers the sharing of...

... computing

gCube enables cost-effective utilisation of the computational and storage resources of a grid infrastructure, in a landscape of custom processing of structured and unstructured payload.

... services

gCube substantially reduces the need for human intervention in infrastructure management. The automatic allocation and deployment of services ensures the effective consumption of the available resources. It simplifies the maintenance by managing consolidated and enhanced versions of the services and community specific resources.

... data

gCube offers a feature-full platform for data management by relying on an open, flexible data model. Supported data types include raw data, relational data, time series, documents as well as XML metadata. Controlled-sharing, preservation and data provenance tracking are distinguishing features in addition to powerful subsystems for data transformation, description, indexing, annotation, selection, fusion, retrieval and presentation.

gCube enables the dynamic creation of **Virtual Research Environments (VRE)** to provide scientists with tailored applications granting access to data and tools they needs.

VREs enable scientists to closely collaborate by offering:

- A **Repository** where users can safely store, share and access data;
- A **Computing environment** where users can access data, customize algorithms, execute large or small data simulation processes, and produce new data available for further analysis;
- A **Reporting tool** to present aggregated view of the data stored in the repository and products produced through the computing environment.

www.d4science.eu
www.gcube-system.org

D4Science
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