

European and Chinese Cooperation on Grid





Grid Middleware for Industrial Applications

Thomas Fahringer



The Grid



System Users Scientists and engineers using computation to accomplish Lab missions.

> Intelligent Interface A knowledge-based environment that offers users guidance on complex computing tasks.

> > Middleware

Software tools that

enable interaction

among users, applications

and system resources.

Cluster Operating System The software which coordinates the interplay of computers, networks and storage.

Supercomputing

Heterogeneous collection of high-performance computer hardware and software resources.

Networking

The hardware and software that permits communication among distributed users and computer resources.

Mass Storage

A collection of devices and software that allow temporary and long-term archival storage of information.

2

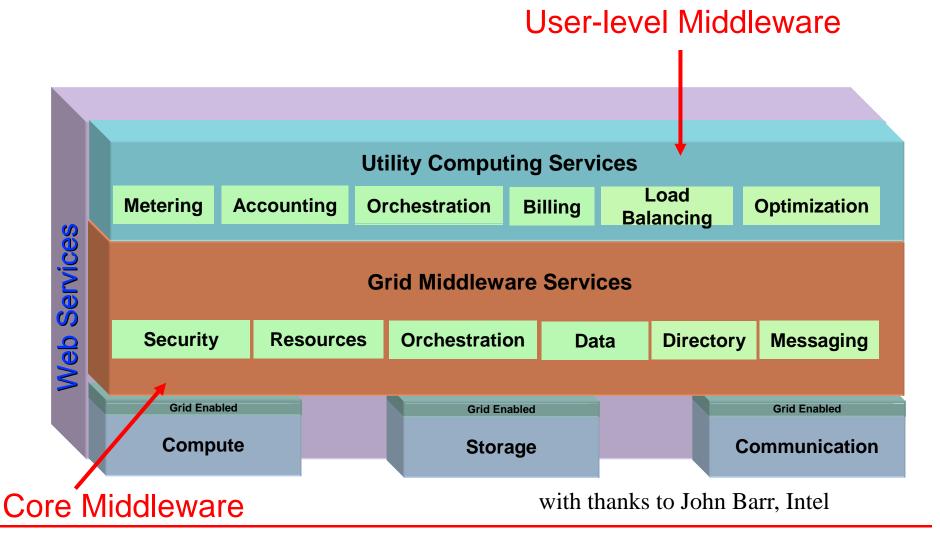
with thanks to Jack Dongarra

Second EchoGrid Workshop

Beijing – 29 & 30 October 2007







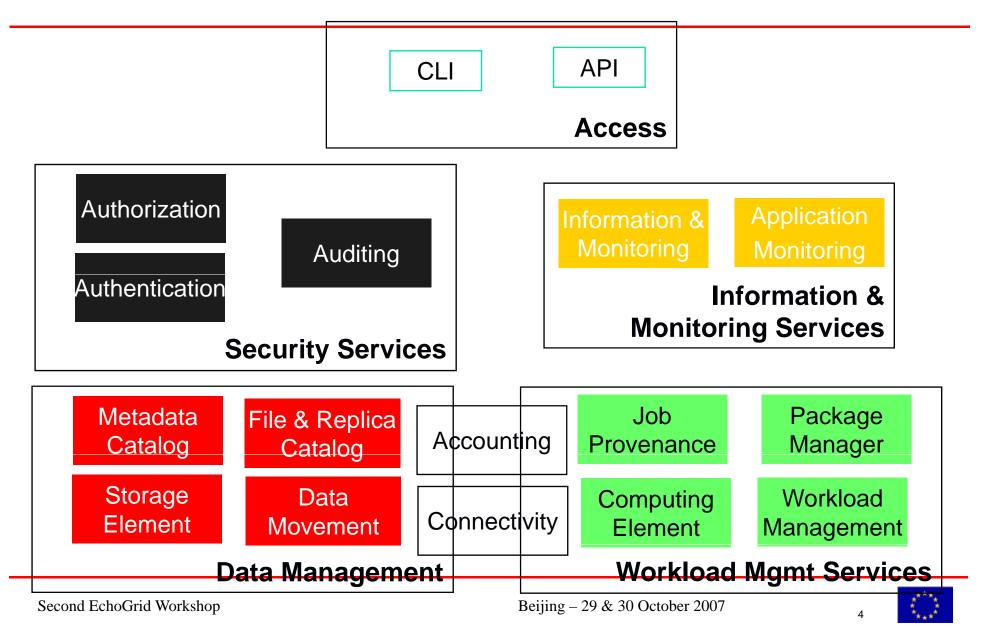
Second EchoGrid Workshop



3









- Knowledge and Data Management
- Grid Information, Resource and Workflow Monitoring Services
- Resource Management and Scheduling







Examples:

- CNGrid
- CROWN
- gLite
- Globus
- Unicore
- Etc.
- Some of them focus more on the core services, others on user-level middleware, some cover both
- Idea of this session:
 - Experience with industry applications developed or operated on modern Grid middleware



6

Online-Games: Killer-Applications for Grids





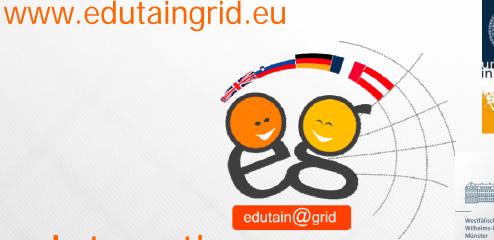
Huge Market

- Videogame Market: €33 billion in 2007
- €0,7 billion online games revenue in Europe



Edutain@Grid

EU funded STREP





A Grid Environment for Interactive Gaming and E-Learning

Lead Partner and Project Details:

Thomas Fahringer, University of Innsbruck, Austria 7 partners in total, approx. 2,5 Mio Euro total funding Project duration: Sept 2006 – Aug. 2009

University of Münster (Germany), IT Innovation (UK), University of Linz (Austria), Darkworks (France), BMT (UK), Amis (Slovenia)









DARKWORKS





- Li Rubao ICT Information Grid with New Intelligent Engine
- Gabriel Zaquine CERN gLite
- Kai Nan CNIC Virtual Laboratory: Exploring e-Science at CAS
- Yongjian Wang BUAA aviation grid application and pharmacy application
- Giulio Galiero ENG Grid and Finance

