

A Study of European Grid Research and Commercial Adoption to Identify Future Technology Requirements and Infrastructure Needs

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e-IRG Open Workshop, Linz, Austria, April
10, 2006

Why Study Grid Research Trends in Europe?

- Researchers Can Help Define the Key Technologies for Grid Growth. Examples:
 - Authentication and Authorization
 - Infrastructure and Collaboration Tools and Environments
- Researchers Can Also Define Important Barriers to Grid Commercialization,
 - A Need for Collaboration Tools and Environments
 - Porting Legacy Applications
- Are Extensive National/regional Grid Initiatives a Roadblock to a Unified European Grid?

Analyzing Grid Research Initiatives Can Help Europe's e-Infrastructure Communities

- Many Research Efforts Require More Data and Computational Resources
 - Medical Imaging of the Heart - 5 Gbps
 - This Creates Large Databases of Images/sequences - 1000s of Images/sequence
- These Researchers Need Infrastructure That Provides for Interactive Discussion
- Study Captures Opinions About Future Infrastructure Needs to 2010 - Flexible on Aims

Understanding Commercial Grid Adoption

- There is a Growing Interaction between Research Grids and Commercial Grids that Can Benefit from Improved e-Infrastructure
- For Europe to be a “Center of Excellence for Grids,” It Needs to Enhance this Collaboration
- One Possibility is a Series of Testbed Initiatives for Grid Applications between Research and Commercial Users

Study Opens Room for Additional New Efforts

- If “Just-in-time” Production Is Key, Researchers Could Define How Europe Promotes Federated Databases
 - This would Give Firms a Significant Competitive Edge
- Insights from Research Institutes could Help Promote Commercial Adoption
 - Estimate the Importance of Service Oriented Middleware for Commercial Adoption
 - Identify the Tools that are Key for Commercial Grids

Conclusion: How this Study Could Help European Grid Efforts

- Identify Ways to Improve Links between Research and Commercial Grids
- Provide a Better Understanding of the Technologies Needed to Speed Grid Adoption
- Identify Future e-Infrastructure Needs
- Offer a Base for Comparing Europe's Efforts in Research and Commercial Grids with Progress in the US & Japan