Grid Programming Environment (GPE)

Grid Summer School, July 28, 2004
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Grid Programming Environment (GPE)

Bringing applications to the Grid...

Grid Programming Environment (GPE)

Grid Programming Language
- Open Grid Service Architecture (OGSA)
- WS Resource Framework (WSRF)
- Web Services
- OGSA enabled Server Components

High-level Grid API
- Resource, job and workflow descriptions
- Job management, file transfers, brokering, steering, etc.

Grid SDK
GridBeans
Client Framework

OGSA enabled Server Components

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Use Case: Expert User

- Run multiple applications in complex workflows
- Get all information from the Grid
- Functionality as in old UNICORE Client
Use Case: Application User

- Only one application
- Get only application specific information
- Run lightweight client on mobile devices
Use Case: Unaware User

- What is a "Grid"?
- Service provider offers a service on the web
The Grid Developer

- GridBean = Grid Service + Client Plug-in
- Wrap existing applications
- Write new Grid applications
- Plug-in for Eclipse?

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Grid Service Backends

- GPE will provide Grid services to wrap different server types
GPE: Summary

- Proof of Concept implementation based on Globus Java CoG

- Integration with UNICORE services in UniGridS project

- GPE will enable developers to implement applications for the Grid