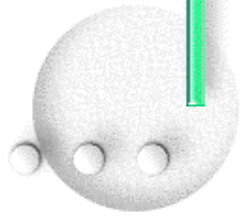




THE POSSIBILITIES ARE INFINITE

Progress Toward Open Grid Middleware

Dr. David Snelling
Fujitsu Laboratories of Europe
French UK N+N Workshop
DTI, London
November 3-4, 2003



Overview

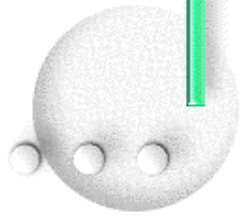
✚ Threads of Effort to Spin

- US, EU, & Japanese Projects
- Industry

✚ Technology Threads to Spin

- Traditional Grid Systems
- Traditional Web Services
- Grid Services
- Evolving Web Services

✚ The Spinning Wheel



Threads of Effort to Spin

+ **US, EU, & Japanese Projects**

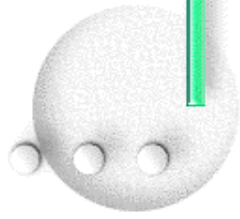
- Globus, TeraGrid, ...
- UK e-Science Projects
- EGEE, EuroGrid, ...
- **Japanese NaReGI Project**

+ **Industry**

- Mostly Web Services
- Unicore/OGSA Implementation

+ **Standards**

- OASIS
- W3C
- **GGF**

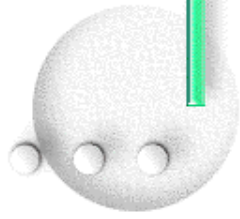


- # **National Research Grid Initiative**
- # **R&D Project Funded by MEXT 2003 to 2007**
 - ~17M\$ budget in FY2003
- # **GRID Technology for Nano-Science**
- # **Unicore as Initial Grid Infrastructure**
 - A new approach to using Unicore.

Training Session in Japan

- Two days formal sessions
- Two days “open” project labs.
 - 8 Projects; 5 teams; 7 Completed

QuickTime™ and a
TIFF (Uncompressed) decompressor
are needed to see this picture.



International Standards

W3C

- The “language” layer for Grid and Web services

Global Grid Forum

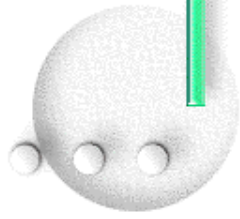
- OGSF
- OGSA
- Grid Domain Specific Standards

OASIS

- Industrial Domain Specific Standards

QuickTime™ and a
TIFF (Uncompressed) decompressor
are needed to see this picture.





Technology Threads to Spin

✚ Traditional Grid Systems

- Globus Toolkit 2 (GT2)
- **Unicore**
- “Grid Enabled” Batch Systems

✚ Traditional Web Services

- Axis, WebSphere, Interstage, Glue, ...

✚ Grid Services

- Globus Tool Kit 3 (GT3)
- Five other prototype implementations

✚ Evolving Web Services

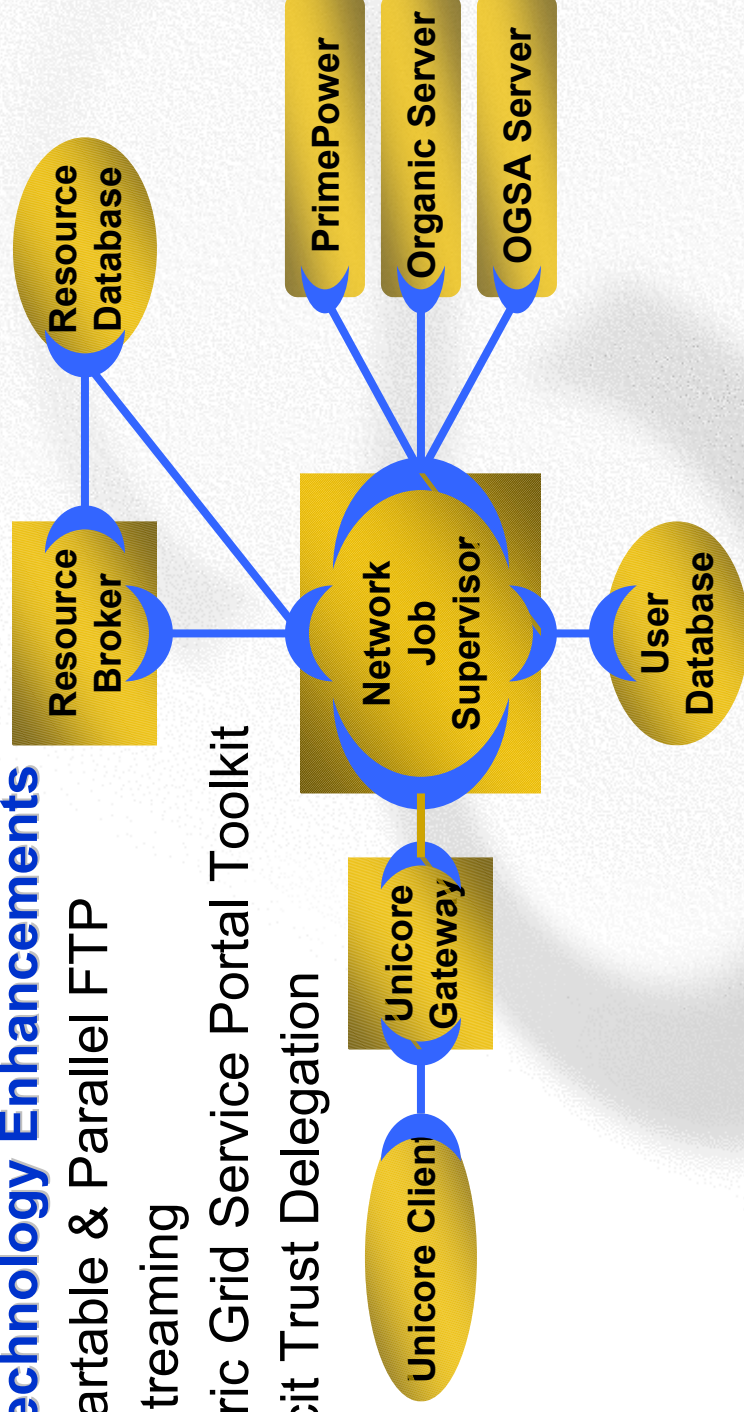
- Emerging alternatives to meet the Grid requirements

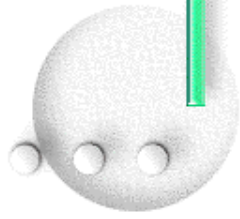
Open Grid Services Infrastructure

- Full Functionality OGSI Grid Service Interfaces
 - Factory, Notification, Resolver, Service Groups
- OGSA Service Backend
- Unicore Gateway Grid Service

Latest Technology Enhancements

- Re-startable & Parallel FTP
- File Streaming
- Generic Grid Service Portal Toolkit
- Explicit Trust Delegation





The Spinning Wheel

