WS-Resource Framework: Globus Alliance Perspectives

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Perspectives

- Why is WSRF important?
- How does WSRF relate to the Open Grid Services Infrastructure (OGSI)?
- How does WSRF relate to the Open Grid Services Architecture (OGSA)?
- What will the Globus Alliance do with WSRF?
- What does WSRF mean for Globus Toolkit users?
Context: Open Grid Services Architecture

- Define a service-oriented architecture ...
  - the key to effective virtualization
- ... to address vital “Grid” requirements
  - AKA utility, on-demand, system management, collaborative computing
- ... building on Web services standards
  - extending those standards where needed
Open Grid Services Architecture
(www.ggf.org/ogsa-wg)

- Domain-Specific Services
- Program Execution
- Data Services
- Core Services
- Open Grid Services Infrastructure
However, despite enthusiasm for OGSI, adoption within Web community turned out to be problematic.
Three Major Web Services Concerns about OGSI

- Too much stuff in one specification
- Does not work well with existing Web services tooling
- Too “object oriented”
Grid and Web Services: Convergence: Yes!

The definition of WSRF means that Grid and Web communities can move forward on a common base.
Concerns Addressed

- Too much stuff in one specification
  - WSRF partitions OGSI v1.0 functionality into a family of composable specifications
- Does not work well with existing Web services tooling
  - WSRF tones down the usage of XML Schema
- Too object oriented
  - WSRF makes an explicit distinction between the “service” and the stateful “resources” acted upon by that service
From OGSI to WSRF: Refactoring and Evolution**

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**Draft document at www.globus.org/wsrfr this week**
Globus Toolkit® and WS-Resource Framework

3.2

Improved robustness, scalability, performance, usability

3.2 March

2004

4.0 β Q2

WSRF; some new functionality; further usability, performance enhancements

2005

4.0 Q3

4.2 β Q4

4.2 Q1 '05

Note: We are not waiting for finalization of WSRF specs

Numerous new WSRF-based services

4.2

2004 2005

WS-Resource Framework

www.globus.org/wsrf
Implications for the Globus Community

- Production deployments based on GT pre-OGSI components
  - These components will be included in 3.2 and 4.x, and we will continue to support you

- Projects based on GT OGSI components
  - Changes are regretted but promise ubiquity
  - We will work to ease transition to WSRF
  - Similarities between OGSI and WSRF imply that most changes will be straightforward
Summary

- **Why is WSRF important?**
  - WSRF completes Grid/Web convergence

- **How does WSRF relate to OGSI?**
  - WSRF restates OGSI concepts in WS terms

- **How does WSRF relate to OGSA?**
  - WSRF mechanisms will enable OGSA

- **What will Globus Alliance do with WSRF?**
  - WSRF-based GT4.0 planned for Q3 2004

- **What does WSRF mean for GT3.0 users?**
  - For the most only minor changes
For More Information

- Specifications, architecture documents, FAQ, and other information
  - http://www.globus.org/wsrf
- Discussion forum
  - http://www.ggf.org/ogsi-wg
- GlobusWORLD Sessions
  - Tuesday, 10:30a: Panel
  - Wednesday, 4:30p: WSRF Technical Details
  - Thursday, 10:30a: Meet the WSRF Authors