

# Open Grid Services Infrastructure Working Group (OGSI-WG)

## GGF5

Global Grid Forum 5, July 22, 2002

# Overview

- OGSi Working Group Overview
- Document Status and Changes
- Other Web Services Standards Efforts
- Implementations of GS Spec
- Process and Planning
- Issues For Discussion in 2<sup>nd</sup> & 3<sup>rd</sup> Sessions

# GGF5 OGS I WG Sessions

- Monday, 3:00 – 4:30
  - Working group update
- Monday, 4:30 – 6:00
  - Discuss technical issues with Grid Service Specification
- Tuesday, 1:00 – 2:30
  - Discuss technical issues with Grid Service Specification

# Overview

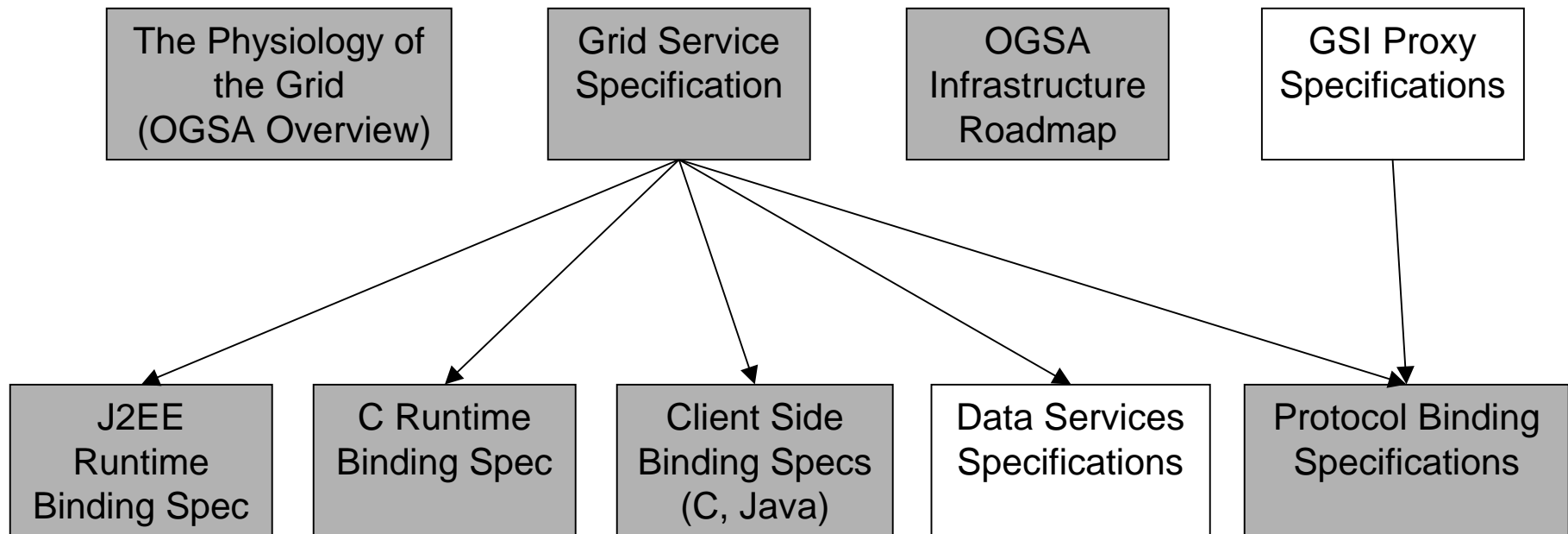
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# Open Grid Service Infrastructure (OGSI-WG)

- Charter: The objective of the OGSI WG is to review and refine the Grid Service Specification and other documents that derive from this specification, including OGSA-infrastructure-related technical specifications and supporting informational documents.
- <http://www.gridforum.org/ogsi-wg>
- [ogsi-wg@gridforum.org](mailto:ogsi-wg@gridforum.org)
- Chairs: Steve Tuecke, Jeff Frey\*

# OGSI-WG Roadmap (GGF4)

- Initial plan for document development



- Plan drafts of all these by end of 2002
- Expect other WGs to be formed in which specific interfaces & services are defined

## Current Documents

- “The Physiology of the Grid: An Open Grid Services Architecture for Distributed Systems Integration”
  - Informational: OGSA Overview
- “Grid Service Specification”
  - Technical Specification: Core Service Model
- Other possibilities to be discussed later...

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# Physiology of the Grid

- Latest draft: v2.9 (6/22/2002)
  - Second public draft
- Minor updates since original GGF4 draft
  - Track GS Spec changes
- Also appearing in:
  - IEEE Computer (June)
    - > Reduced version of Physiology paper
  - Book edited by Tony Hey (Fall 2002)

# Grid Service Specification

- Latest draft: v3, 7/17/2002
- Major revisions since first draft at GGF4
  - Overall model has not changed
  - But lots of details have changes
    - > Service data
    - > Notification
    - > Handles and resolver
    - > Removed primary key, compatibility assertion
    - > Based on new WSDL v1.2 draft
      - serviceType (extended for inheritance)
      - Open content model

# A Timestamp for Distributed Computing

- Specification for *measured timestamps*
  - dateTime + accuracy + resolution
- Previously an inactive document from GMA working group (performance area)
  - Same approach
  - Significantly revised, particularly by reorienting toward XML
  - Dan Gunter, Brian Tierney + Steve Tuecke
- Should this be an ogssi-wg document?
  - Propose yes

# Grid Compliance Service

- Requirements, Design, and Specification documents
  - “A Grid Compliance Service is a testing service which tests other Grid services for their compliance with the Grid Service Specification and their own service specification.”
- Should these be ogsi-wg document?
  - Propose yes

# Java OGSI Hosting Environment

- Specification of Java interfaces that define a portable container for implementing Grid services
- Introduced on 7/19/2002
- Should this be an ogsi-wg document?
  - GGF4 ogsi-wg roadmap included this
  - Propose no
  - Instead form Java OGSI/A working group
    - > Separate working group to focus on Java implementation aspects of OGSI/A
    - > Will discuss at OGSA Roadmap BOF (Tuesday 6pm)

# OGSA Security Document

- “Open Grid Services Security Architecture”
- “OGSI Security Roadmap – GGF Specification Roadmap towards a Secure OGSA”
- Introduced on 7/19/2002
- Should this be an ogssi-wg document?
  - Propose no
  - Instead form OGSA Security
    - > Will discuss at OGSA Roadmap BOF (Tuesday 6pm)

## Other Documents

- “Grid Service Primer”
  - Physiology paper has some of this, but is not detailed enough to really understand the GS Spec
  - Need a document that includes motivations, explanation of approaches and decisions.
- What else? See later slide: What is OGSi?

# Document Schedule

- GGF6 (or shortly thereafter)
  - Enter wg last call on:
    - > Grid Service Specification
    - > A Timestamp for Distributed Computing
- GGF7
  - Finished (Grid Forum Document)
    - > Grid Service Specification, v1.0
    - > A Timestamp for Distributed Computing, v1.0
  - Enter wg last call on:
    - > Physiology of the Grid



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## W3C WSDL WG

- W3C started a WSDL working group
  - Drafting v1.2 to become W3C recommendation
- Steve Graham (IBM) & Steve Tuecke are invited experts on this wg, representing GGF
  - Inject OGSi requirements into WSDL wg
  - Email list, weekly phone calls, face-to-faces
- WSDL v1.2 draft (release July 2002) contains two features that are critical to OGSi
  - serviceType (still working on inheritance)
  - Open content model

# IBM/Microsoft WS Security Architecture

- In April, IBM & Microsoft released:
  - Web service security architecture
  - WS-Security specification: SOAP message integrity, confidentiality, credential passing
    - > Submitted to OASIS in July
- OGSA Security Roadmap based on this

# Other Web Services Work

- OASIS
  - Shaping up as the home for Web services security standards
    - > WS-Security, SAML, XACML, XrML
- W3C
  - WSDL v1.2 in progress
  - SOAP v2 in progress
- Microsoft
  - WS-Routing, WS-Referral

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# Implementations of OGSI

- Globus Toolkit OGSI Technology Preview
  - Thomas Sandholm
- Unicore OGSI Demonstrator
  - David Snelling

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# Working Group Chair

- Jeff Frey (IBM) was wg co-chair
  - But Jeff just went on a 6 month leave
- What shall we do?
  - Continue with Steve only?
  - Choose a co-chair?
    - > Somebody from industry?
    - > Somebody who has time?



## Weekly Phone Call

- Goal: Try to pretty much finish spec by GGF6
  - This is only going to happen with significantly more interaction
- Proposal: Begin weekly 1.5 hour phone calls to resolve issues in specification
  - Propose Tuesday 10:00am US Central time
- Pound through issues in GS Spec. Each week:
  - Prioritize bugzilla issues from bugzilla and go through them
  - For each: reach resolution, or postpone, or assign writing a solution proposal

## Mini ogsi-wg Meeting

- Propose a small ogsi-wg technical meeting in late August or early September
- 2.5 day meeting focused on resolving technical issues in the GS Spec
- ***Please no tourists!!!***
  - To be effective, this needs to be a small, face-to-face, round-table meeting
  - Only people who have read the GS Spec, and who want to engage in technical debate on it
  - Other criteria? Must attend at least N calls?  
Must have sent technical email to list?

## Mini ogsi-wg: Candidate dates

- September 4<sup>th</sup>, 1pm – 6<sup>th</sup> 3pm
- August 28<sup>th</sup>, 1pm – 30<sup>th</sup> 3pm
- Can host at Argonne
  - Chicago suburbs (<30 minutes from O'Hare)
  - Onsite hotel (Argonne Guest House)
    - > ~\$65/night, rooms have network
  - Small registration fee to cover lunches

# What is OGSi?

- OGSi = Open Grid Service Infrastructure
- What does this include?
  - Does OGSi = Grid Service Specification?
  - Or is OGSi broader?
- What else should the ogsi-wg address, besides the Grid Service Specification?

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# Issues For Discussion

- 2<sup>nd</sup> and 3<sup>rd</sup> ogsi-wg sessions will be technical discussion on issues listed in following slides
- All issues are in the bugzilla database
  - <http://www.gridforum.org/ogsi-wg/bugzilla>
  - If there is an issue you want resolved in the spec, make sure it gets into bugzilla
- Issues appear in spec
  - Prefixed by “Issue X”, where X is the bugzilla bug number
  - Highlighted in MS Word version, will fix in PDF

## Issues (1)

- Handles, References, HandleResolver (60 minutes)
  - 26 Who controls handle namespaces?
  - 27 Multiple GSHs within one URI scheme to the same instance
  - 29 Operation to check if GSH (or two) refers to instance
  - 17 Recommend client use of HandleResolver over direct resolver
  - 28 Restrictions on http GSH resolver protocol

## Issues (2)

- Change Management (30 minutes)
  - 24 Loosen serviceType immutability statement
  - 25 Version numbers vs immutable service description
- Symbol Names (10 minutes)
  - 12 Change Notification Source/Sink to Producer/Consumer?
- Registration (20 minutes)
  - 20 Is WS-Inspection document required in registry?



## Issues (3)

- Instance destruction (30 minutes)
  - 15 Combine SetTerminationTime and Destroy
  - 14 SetTerminationTime of "forever"
- Time (30 minutes)
  - 16 Absolute or relative termination time
  - 13 Use Measured TimeStamps
  - 22 What if SDE lifetime attributes are not specified?
  - 23 Expressing "forever" in SDE lifetime attributes

## Issues (4)

- Factory: (30 minutes)
  - 05 Factory extensibility
  - 19 Reduce Factory::CreateService output parameters
- No Discussion Needed:
  - 18 Add gsdl:subscriptionExpression type?
  - 21 Interpretation of SDD mutability attribute on service descri
  - 30 Define queryByXPath
  - 31 Define queryByXQuery

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