DAIS Working Group - Session 1
Grid Data Services Specification
GGF13 - 14th March 2005

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Co-chair

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Agenda

- Introduction: Review of Activities to Date (Dave Pearson 10 mins)

- Introduction to DAIS specifications (Dave Pearson 10 mins)

- Core specification Overview (Mario Antonionetti 20 mins)

- Relational Realisation (Susan Malaika 20 mins)

- XML Realisation (Amy Krause 20 mins)

- Questions & Answers (All 10 mins)

DAIS Working Group Charter

- Promote standards for the development of database services in a Grid environment

- Focus principally on providing consistent access to existing, autonomously managed databases.

- Not seeking to develop new data storage systems

- Provision of composable components to ease application development

- Make existing systems more readily usable individually or collectively within a Grid framework.

DAIS Working Group Goals

- To identify and document the requirements of database and information management applications within a Grid setting.

- To develop a proposal for a standard interface for grid database services.

- To work with other groups within the GGF to ensure that the database service standard proposal conforms with other emerging Grid standards.

- To foster the development of reference implementations of Grid database services.

Activities Through To GGF12

- GGF4
  - BOF - draft nature and scope of DAI, Requirements identification
- GGF5 – GGF7
  - Requirements scoping and definition
  - OGSI based GDS specification development
- GGF8
  - Revised conceptual model
  - Specification aligned to Data Services
  - Topic based discussions – Data sets, metadata
  - Out of scope topics – Files, co-existence between Web & Grid services
- GGF9
  - Core specification with Relational & XML realisations
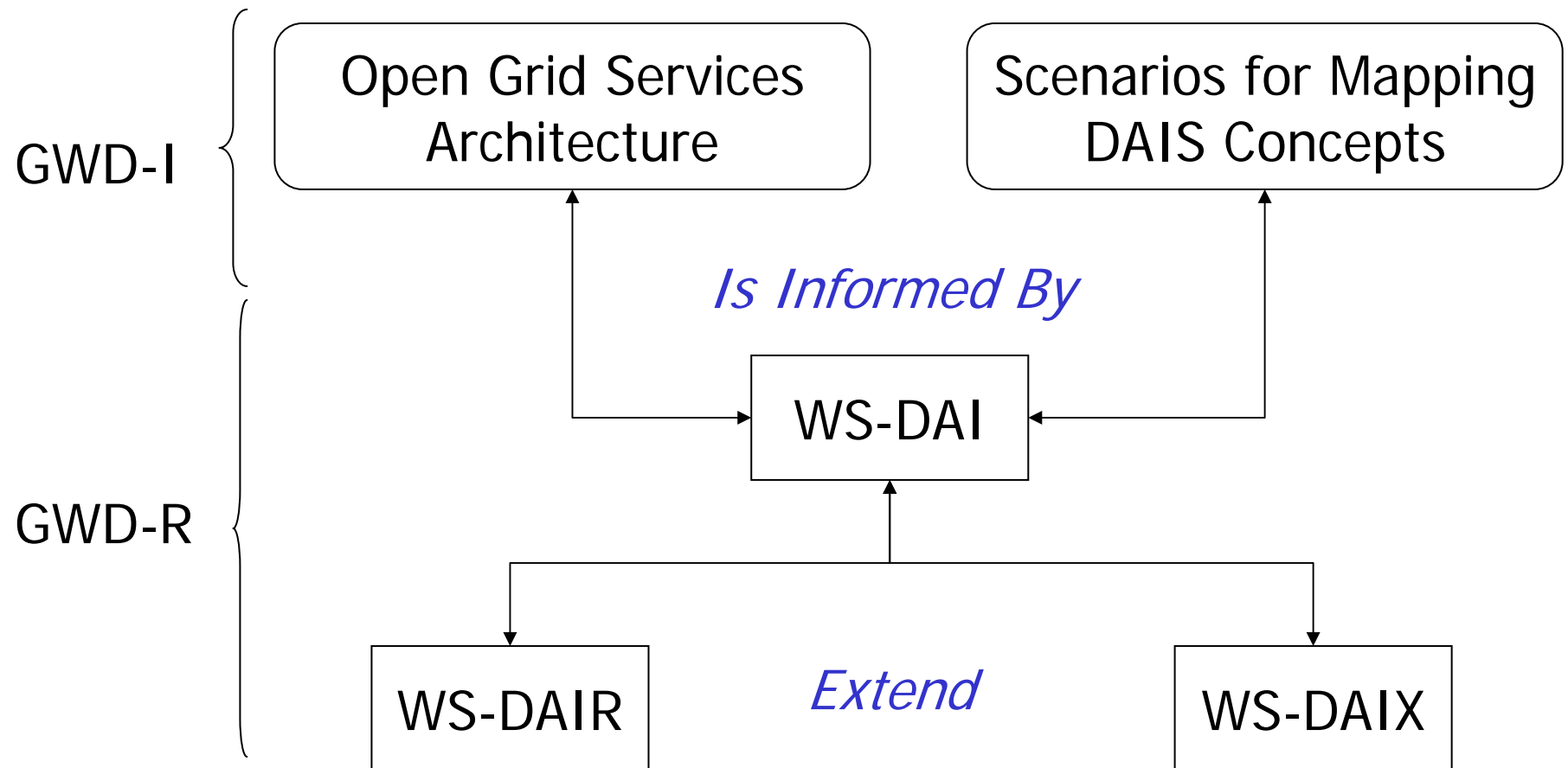 - Topic discussions – Files & Information Dissemination
- GGF10
  - Document restructuring
  - Focus on semantics
  - DAIS input to CGS-WG
  - Support for formation of INFOD WG
- GGF11-12
  - Charter revision – time scale and deliverables
  - Investigation of DAIS mappings to WS-I and WSRF
  - Stabilisation and issue resolution

DAIS Specification Landscape

GWD-I

Open Grid Services Architecture

Scenarios for Mapping DAIS Concepts

Is Informed By

WS-DAI

GWD-R

WS-DAIR

Extend

WS-DAIX

Specifications

- Web Services Data Access and Integration (WS-DAI):
  - A paradigm-neutral specification of descriptive and operational features of services for accessing data.
- The WS-DAI Realisations:
  - WS-DAIR: for relational databases.
  - WS-DAIX: for XML repositories.

Documents Produced for GGF13

- **Web Services Data Access and Integration (WS-DAI)**

- **Web Services Data Access and Integration – The Relational Realisation (WS-DAIR)**

- **Web Services Data Access and Integration – The XML Realization (WS-DAIX)**

Federation

- **DAIS interfaces should:**
  1. Be usable to access a federation.
  2. Be usable by a federation to access resources.

- **In terms of the above:**
  1. Is a property of the federation.
  2. May provide requirements on DAIS.

Federation Requirements

- Thorough metadata:
    - Logical, physical, …
- Flexible delivery:
    - Incremental.
    - Third party.
- Flexibility w.r.t. transparencies.
    - Replication.
    - Naming.
    - …

Data Movement

- ## Third party and asynchronous delivery:
  - ### Infod. Mechanisms:
    - Infod service access resources via DAIS.
    - DAIS result services implement Infod portTypes.

- ## Third party synchronous delivery:
  - ### Position vacant.
  - ### DAIS result services could implement service-to-service or service-to-file portTypes.

Data Management

- Data Management is not yet defined.
- Themes:
    - Managing the resource.
    - Managing the service.
    - Managing the service-resource relationship.

Naming

- Current DAIS position:
  - Specifications cast in terms of WSRF.
  - Exploration of naming options.
- DAIS ethos:
  - WS-DAI quite generic, should be able to be instantiated in many different ways.
  - Realisations may take specifications into contexts with existing naming schemes.
- DAIS is somewhat stalled on this issue.

DAIS Relationships

- Within GGF
    - Data movement (INFOD-WG)
    - Naming (OGSA, etc)
    - File access (ADF-WG)
    - Metadata modelling (CGS-WG)
    - Storage Management (GSM-WG)
    - File Naming - GFS
    - Metadata about File contents - DFDL
    - INFOD – Publish/Subscribe, Replication
- Other standards bodies
    - OASIS - WSDM, WSRF, WSN
    - ANSI – SQL
    - W3C – XQUERY(X)
    - JCP – JDBC
    - DMTF - CIM

GGF13 DAIS sessions

- Session 1: Update to Community and Grid Data Services Specification

- Session 2: Specification Issues [Dave Pearson to Chair]:
  16th March 3:30 – 5pm Crystal Ballroom 2

Summary

- Core of specifications has been stable for a year.
- Completion delayed by maturity/presence of related specifications.
- Activities:
  - Cleaning/tightening of specifications.
  - Revising in the light of implementation experiences.
  - Working with related groups on boundary conditions, etc.