OGSA-DAI Today
Release 2.2

Principles and Architectures for
Structured Data Integration:
OGSA-DAI as an example

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What's in a name?

• Release 2.2 (April 28th 2006)
  – OGSA-DAI WSI 2.2
    – Runs under Apache Axis 1.2.1 on Tomcat
    – Runs under Axis 1.2RC3 on Tomcat
    – Runs under OMII 2.3.3
  – OGSA-DAI WSRF 2.2
    – Runs under Globus Toolkit 4.0.1 and 4.0.2

• Available now at http://www.ogsadai.org.uk
Resource management

- Transient data service resources
  - Exist only in memory
  - No associated configuration files on the server
  - Associated activity to create new transient resources
- Resource withdrawal
  - An activity to withdraw a data service resource
    - Optionally remove its configuration files from the server

Relational multi-resources

- A data service resource that aggregates multiple relational data service resources
- Aggregated resources can be local or remote
- Associated activities
  - Submit a query to every aggregated resource and return a bag of the results
  - Submit a query to every aggregated resource and return the results from the first one that completes
  - Remove duplicate rows from a bag of the results
Activities…

• Data conversion activities
  – Convert ResultSet to WebRowSet
  – Convert ResultSet to CSV
  – Convert BLOB from ResultSet column into bytes

• Relational meta-data activities
  – Retrieve logical database schema
  – Convert logical database schema to XML
  – Retrieve physical database schema

• XMLDB activities
  – XQuery

…and some more

• Projection and transformation activities
  – Remove duplicate rows from a WebRowSet
  – Project a ResultSet onto a column name or index
  – Project a WebRowSet onto a column name or index
  – Project CSV values onto a column index
  – Distribute numeric values onto spaces
  – Generate a random sample of input data
  – Write a stream of bytes to a temporary file and output a reference to this file

• Delivery activities
  – Throw data away
  – Write data to a resource property
  – Deliver data to a SOAP attachment
Then there’s…

- eXist data resources and XQuery
- BLOBs
  - Improved support for BLOBs in SQL query and update activities
  - Activity to dump BLOBs into temporary files server-side
- Security
  - Authorization
    - Resource level
    - Activity level
  - GSI Secure Conversation message-level security for inter-service communications using data transport
    - OGSA-DAI WSRF only
- Logging and exceptions
  - Revamped logging, exceptions and internationalization

…and…

- JARs
  - Third party JARs are now bundled with OGSA-DAI
  - OGSA-DAI WSI
    - JARs required to compile OGSA-DAI source distribution
    - JARs required to run OGSA-DAI clients
  - OGSA-DAI WSRF
    - Non-Globus Toolkit JARs required to compile OGSA-DAI source distribution
    - JARs required to run OGSA-DAI clients
- Usage
  - Publication of an initial set of usage scenarios and best practice
- Benchmarking and performance:
  - Numerous performance enhancements
  - Publication of summary of work