

DAIS Grid Data Service Specification: The Relational Realization Issues and Observations

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Susan Malaika, December 2003, DAIS F2F

Issues and Observations

- Define the DataManagement portTypes
- Represent the following in XML
 - SQL and SQL/XML
 - XML Realization Analogy:
 - XQuery and XPath requests, XQuery and XPath results
- Improve the DBOperation descriptions
- Improve the DataDescription Port Types
- Review exposing metadata in multiple ways
 - Through service data or through operations
- Review the Relationship with:
 - Data Distribution
 - Transformations
 - Transactions
 - XML Realization (which provides services at the collection level)
- Remove WS-Agreement references

Data Management

- In GGF9 agreed that CGS and DAIS working groups will collaborate on data management. CGS group has been re-chartered to support the collaboration
 - CGS working group: DMTF CIM-based Grid Schema Working Group
 - Distributed Management Task Force
 - CIM:
 - » A model for describing overall management information in a network enterprise environment
 - <https://forge.gridforum.org/projects/cgs-wg>
- Examine the DMTF models to determine if they can support grid scenarios. DMTF models of particular interest include:
 - database, storage, application (install, deployment and related capabilities), and security
 - CIM_Application28 and CIM_Database28
 - http://www.dmtf.org/standards/cim/cim_schema_v28

Data Management Next Steps

- Next Steps in CGS and DAIS Collaboration:
 - Define mapping of DAIS concepts to CIM
 - Where specific mappings exist, reuse the CIM classes
 - Where mappings do not exist, extend the models
 - Model development is on-going and driven by the needs of DMTF members and partners
 - Influence CIM 2.8 (due to be final in Feb 2004) and provide input to CIM 2.9
- Some Motivating Scenarios:
 - Scenario 1: Discovering a Database
 - Scenario 2: Provisioning a Complete System
 - Scenario 3: Provisioning a Database in an Existing Database System
 - Scenario 4: Creating a replica in an Existing Database System
 - Scenarios 5 & 6: Starting up and Shutting down a complete system

Relationships with other specifications

- SQL/XML – SQL 2003 – ANSI/ISO
- WebRowset – JSR 114 – Java Community Process
- CIM (Common Information Model) 2.9 – DMTF Distributed Management Task Force
- ASIDE:
 - XML Realization
 - XQuery and XQueryX – W3C
 - XQJ – JSR 225 – Java Community Process

Areas to look at for the next DAIS F2F

- Continue the CGS DAIS Collaboration
 - Define the stages for the effort
 - Start the first stage
- Improve the DBOperation descriptions
- Improve the DataDescription Port Types
- Propose XML representation for SQL (DDL and DML)