

DAIS and Data Management

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Background

- DAIS-WG Face to Face at Redwood Shores – Jan 2004
 - Discussion that Data Management didn't seem to be at same level in Relational and XML Realisations
- CIM Database Model for DAIS: Scenarios
 - Document - Susan Malaika and Norman Paton
- DAIS-WG Weekly Telcons
 - Continued Discussion in Feb 2004
- DAIS-WG Mailing List
 - Note posted by Brian Collins

DAIS – Grid Data Services Spec

- 4.12 “..... Within the DAIS specification [operations] are passed as strings and it is assumed that authentication and authorisation will determine whether or not operations get processed. However, it is envisaged that some implementations may choose to perform string parsing in order to prevent restricted operations being passed through the interface.”

What is the Scope of DAIS ?

- Should it Include Data Management ?
- We need to agree what Constitutes Data Management ?
- Then we need to agree if the Mode of Operation should be consistent across Data types
 - Relational, XML, Files ?
- Then we need to look at which other Groups/Specifications this affects and where Data Management should “reside”
 - DAIS, CGS, CMM, INFOD, DMTF, etc

Example Scenario for DAIS ?

- “What” data is required
 - Select ... from London-Table1 ...
 - Union
 - Select ... from Berlin-Table1 ...
- “Where” to send the result
 - Return Resultset to Specific 3rd Party rather than Originator
- “When” result is required
 - Start at 12:00 tomorrow and Return Resultset by 12:15 tomorrow
 - (Gold Customers response times of less than 3 seconds between 09:00 and 17:00 weekdays)
 - (Don't affect any other workload; run this at lowest priority)
- “Why” result is required
 - Needed as input to “Stage 2” of “Workflow B”
- “Which” results are acceptable
 - Partial Results are Acceptable (e.g. either table “not available”)
- “Who” is requesting the Service
 - User Identifier (Originator)

What Constitutes Data Management (Data Administration) ?

- Data Access and Integration
 - Specify “What” and “Where”
 - Aimed at satisfying Users Data Needs
 - DML Statements
 - Act on Instance of **Logical Schema**
 - Select, Insert, Update, Delete, (Bulk Load), etc
 - Some DDL Statements
 - Act on **Logical Schema**
 - Create/Alter/Drop Schema/Table/View, etc
- Data Management (Data Administration ?)
 - Specify “When”, “Why”, “Which”, etc
 - Aimed at satisfying “How”
 - Infrastructure works out “How” to do it
 - Some DDL Statements
 - Act on **Physical Schema**
 - Create/Drop Index/Tablespace/Database Partition, etc
 - Database System Commands
 - Act on **Physical Schema**
 - Replication/Backup/Restore/Logging, etc
- Access Control
 - Aimed at satisfying Security
 - Infrastructure decides “Who” can do it
 - Grant/Revoke

Logical Schema

Physical Schema

Should the Mode of Operation be consistent across Data types ?

- Previous Example was Relational
- Does a Similar Model Apply to XML ?
- Does a Similar Model Apply to Files ?

Which Groups/Specs are affected & where should Data Mgmt “reside”

- DAIS-WG
- CGS-WG
- CMM-WG
- INFOD–BoF
- Non-GGF: e.g. DMTF
- etc

What Next ?

- Use DAIS-WG Mailing List for Discussion ?
- Possible Paper for GGF11 ?

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