Data Management Use Cases for CGS WorkGroup

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DAIS F2F

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Data Management

- In GGF9 agreed that DAIS-WG would support CGS-WG with DMTF on data management effort. 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

  - Influence CIM_Application29 and CIM_Database29 (June 2004?)

Objectives

- Define scenarios to drive the GGF CGS-WG effort to extend the CIM data model to take into account grid and DAIS-WG requirements.

- Support mapping DAIS concepts and management related requirements to CIM:
    - Where specific mappings exist, reuse the CIM classes
    - Where mappings do not exist, extend the CIM models

- It is **not** an objective to incorporate the DMTF CIM model into DAIS, but to ensure consistency in DAIS with the CIM model where there is overlap.

- Very Early High Level Scenarios Draft in Preparation – Need Volunteers

Application Access Scenarios

- 1.1 Discovering a Database
- 1.2. Immediate Query Execution
- 1.3. Deferred Query Execution Support
- 1.4. Direct Query Result Delivery Support
- 1.5. Asynchronous Query Result Delivery Support
- 1.6. Third Party Query Result Delivery Support
- 1.7. Third Party Asynchronous Result Delivery Support

Provisioning Scenarios

- 1.8. Provisioning a Complete System

- 1.9. Provisioning a Database in an Existing Database System

- 1.10. Creating a Replica in an Existing Database System

Execution Scenarios

- 1.11.   Starting up a Complete System
- 1.12.   Shutting down a Complete System

DBA Scenarios

- 1.13.   Backup a Database
- 1.13a   Bulk Load
- 1.14.   Recover a Database
- 1.15.   Restore Database to a Point in Time
- 1.16.   Create Database and Tables
- 1.17.   Add Index to a Table
- 1.18.   Alter Table
- 1.19.   Drop Table
- 1.20.   User and password administration

Priorities
(Determined in DAIS F2F Jan 2004 Meeting)

- High Priority
  - Extend the model to cover relational database content
    - SQL
    - Relational schema objects
  - Model additional common database entities, such as database users
- Medium Priority
  - Policy Terms
  - Enable management capabilities such as database provisioning
- Low Priority
  - Model common database management workflows, such as backup operations
  - Model other common database technology areas, such as resource management, queuing, and replication

Useful Links

- CGS-WG https://forge.gridforum.org/projects/cgs-wg
- DMTF CIM http://www.dmtf.org/standards/cim
- DAIS-WG https://forge.gridforum.org/projects/dais-wg
- CIM Database Model White Paper Version 2.8 Preliminary
  - http://www.dmtf.org/standards/published_documents/DSP0133.pdf
- Andrea Westerinen GGF9 Charts
- GGF OGSA Data Services
  - https://forge.gridforum.org/projects/dais-wg/document/OGSA_Data_Services/en/1
- GGF DAIS Grid Data Service Specification
  - https://forge.gridforum.org/projects/dais-wg/document/Grid_Data_Service_Specification/en/1
- GGF DAIS XML Realization
  - https://forge.gridforum.org/projects/dais-wg/document/Relational_Realisation/en/1
- GGF DAIS Relational Realization
  - https://forge.gridforum.org/projects/dais-wg/document/XML_Realisation/en/4