iRODS as Future Data Grid Backend for TextGrid?

Modular platform for collaborative textual editing
Creating a community grid for the humanities

http://www.textgrid.de
TextGrid – the Project

- First Grid community project in the Arts and Humanities in Germany
- Collaborative project of eight academic and commercial partners
- Involves Arts and Humanities scholars, IT professionals and information specialists
- Part of the German D-Grid initiative
- Funded by the German Ministry of Education and Research (BMBF) with € 1.74 Mio plus an additional investment of € 600,000 for grid storage
Goals

• Establish a **virtual research infrastructure** for the Arts and Humanities

• Provide a **Service Grid** (i.e. a virtual research environment for collaborative work with distributed resources)

• Build up a **Data Grid** (a virtual archive for long-term data preservation)

• Interconnect Arts and Humanities scholars, IT professionals and information specialists

→ Contribute to the preservation and the keeping alive of our Cultural Heritage
Prospects

• Foster new, cooperative forms of e-Research in the Arts and Humanities
• Be integral part of a national e-Humanities initiative
• Develop generic Grid services that can be used by other Grid communities
• Collaborate with international e-Humanities and e-Research initiatives (DARIAH, eAQUA, CLARIN, DRIVER, Interedition, SHAMAN etc.)
The Architecture – horizontal layers

- TextGridLab
  - open, specific
  - service integration
  - data integration
  - TextGridRep
  - robust, generic
  - middleware
    - grid services
    - archives
- user interface
  - GUI 1
  - GUI ..n
- services
  - workflow
- service integration
- data integration
- D-Grid
  - archives

Connecting the layers: The TG-utilities

D-Grid

TextGridLab

TextGridRep

user interface

services

middleware

utilities

TG-crud

TG-auth*

JavaGAT

Globus 4

data

metadata
The TextGrid Utilities – Slightly Simplified
The TextGrid Utilities – Some More Details

- Projects, Roles, Object properties
- Create, Read, Update, Delete
- Search
- TG-search
- Metadata DB
- Relations
- TG-auth*
- TG-crud
- Permissions
- Objects
- Adapters
- Structure DB
- Fileservices
- Normalized object
- URI
- PFN
- Storage Abstraction Layer (Globus DRS)
- Globus
- Globus
- Globus
- TextGrid TEI
- Object Metadata

Permissions
Too much logic in the middleware?
The Idea …
• Good idea?
• Other solutions?
• ...