

DFC DataNet FEDERATION CONSORTIUM

Dataverse and iRODS Integration Project Demonstration

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Project Goals

- Design curation workflow integration
- Connect research environment with archive
- Connect archive with national architecture
- Open source focused
- As “pluggable” as possible

Bringing great tools together

- iRODS
- Dataverse
- Modeshape
- Databook Architecture
 - Apache Service Mix
 - iRODS Rule Integration
 - Indexing Engine

Dataverse Storage Abstraction

- Current production environment tied to UNIX based file system
- In this prototype we used Modeshape
- Expands the storage options for Dataverse
- Abstracts the storage layer
- Allows standardized interface to iRODS
- Allows future use of Rules Based Policy Management and ties to Dataverse Data Tags

Leveraging iRODS

- Databook infrastructure
- Rules base policy management

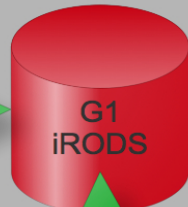
Research Environment



Computer



User



G1
iRODS

AMQP*

Elastic Search Indexer

OSGi Container
Apache Servicemix

DVN API

DVN Sword Ingest

Archive Environment



Odum Test
Dataverse



Curator



Modeshape



Odum
iRODS

AMQP*

Indexer

OSGi Container
Apache Servicemix

Elastic Search

Preservation Copies



DFCMain
iRODS

* Using Databook Infrastructure

Advantages

- Simplifies archive connection to research environment
- Adds possibility for rules based policy management
- Enhances secure data sharing possibilities
- Diversifies Dataverse storage options
- Allows curators in archive to assist in metadata cleanup within workflow

Next Steps

- Add metadata creation and ingest API
- Automate base metadata generation
- Create new studies in Dataverse
- Add authentication
- Allow Dataverse to populate iRODS AVUs
- Full two way metadata synchronization
- Fully integrate Modeshape into DVN
- Allow Dataverse to add data object to iRODS

Demo

Links

- <https://github.com/DICE-UNC/dfc-dataverse-integration>
- <https://github.com/DICE-UNC/indexing-irods>
- <https://github.com/akio-sone/dvn/tree/Odum-Ext>
- <http://datafed.org>
- <http://thedata.org>
- <http://www.odum.unc.edu/odum/home2.jsp>

Thanks
