

# iRODS & ARCS

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Australian Research Collaboration Service

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# Who are we?

- Australian Research Collaboration Services
- Free tools for researchers
- 8 members with at least one in each state
- Services
  - Data
  - Compute
  - Collaboration (web, video)
  - Authorisation



# Data Service



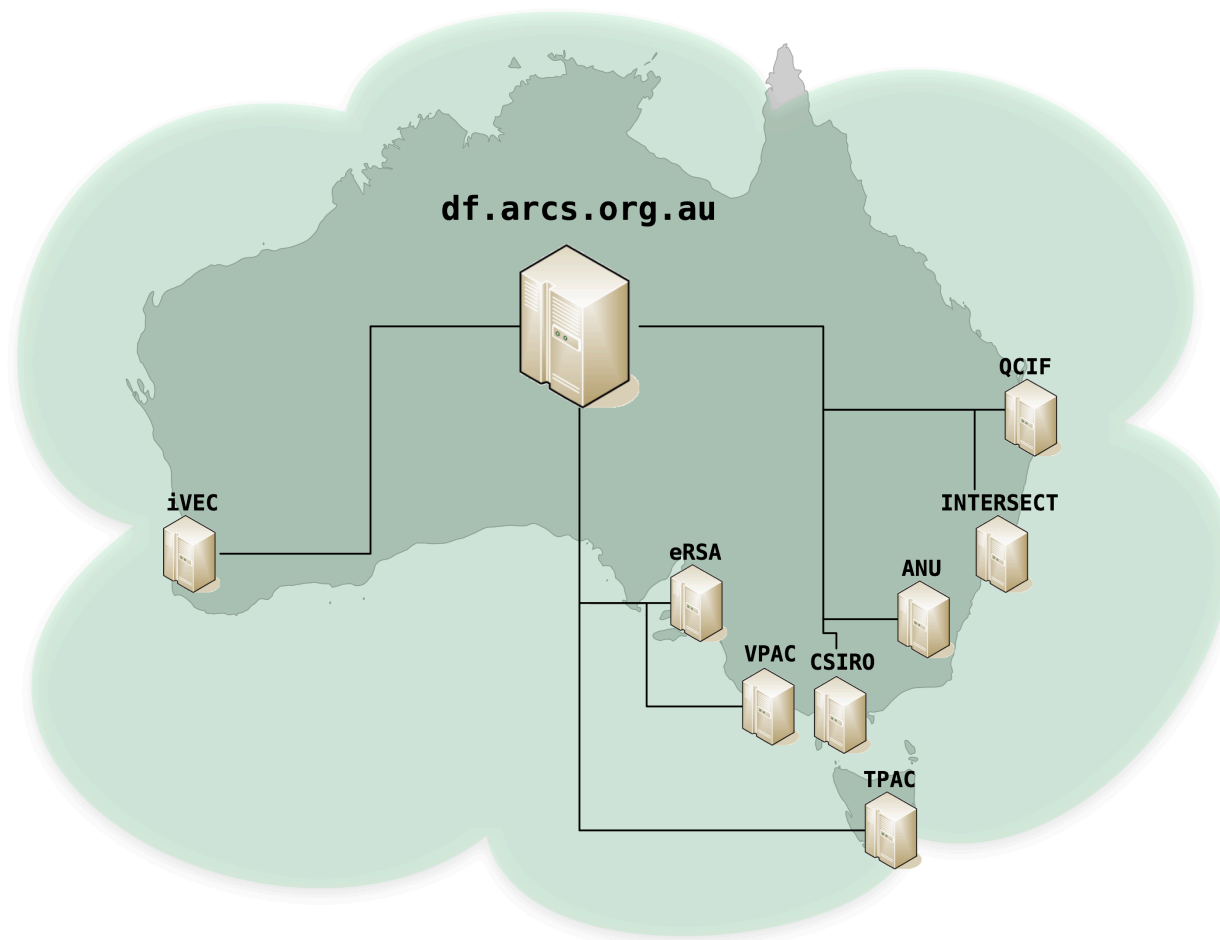
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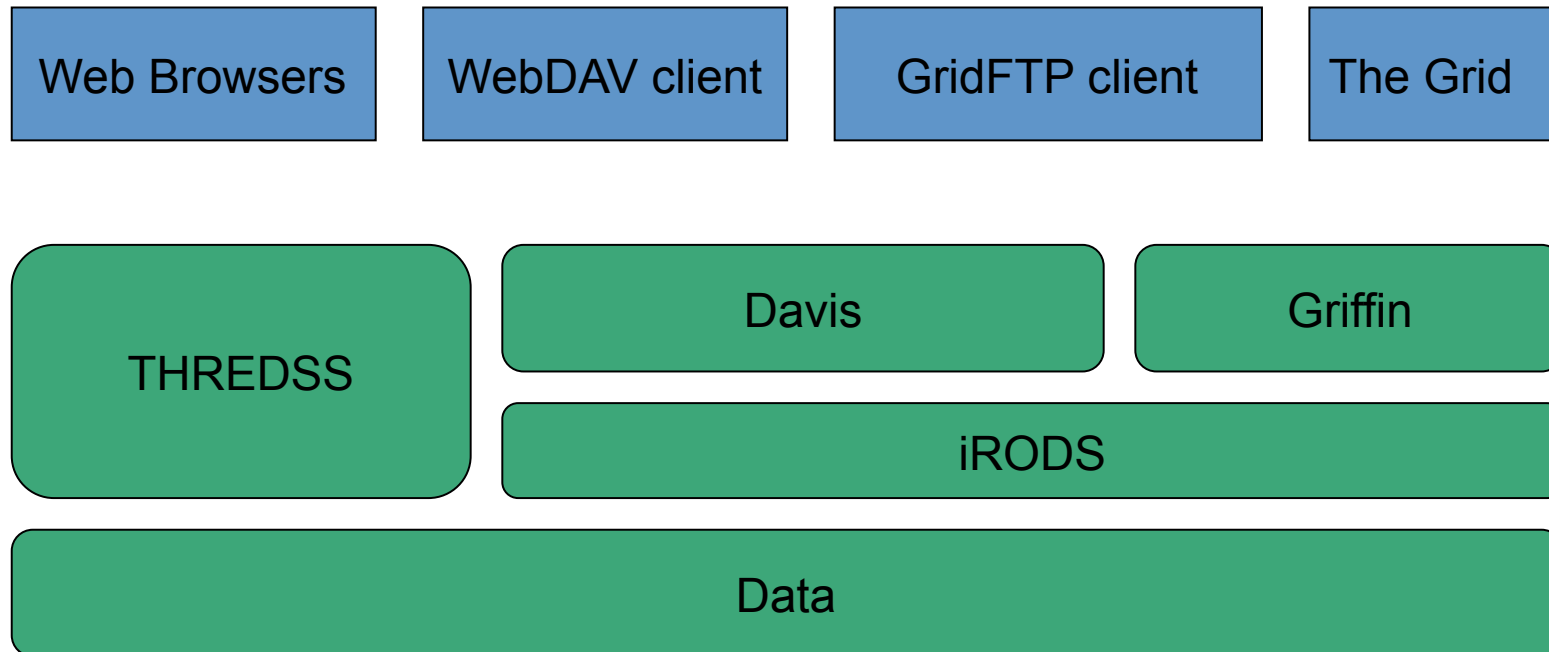
# Data Service

- Store
  - iRODS
- Share
  - Davis, OPeNDAP
- Transport
  - Griffin

# “Data Fabric”



# Architecture



# Web Interface (Davis)

- Basic file operations
- Metadata editing
- Permissions
- Dynamic objects
  - Configurable interface to run rules or for displaying information
  - Example: Persistent IDs

# WebDAV (Davis)

- Turns the Data Fabric into a local folder
- Works on Windows, Mac & Linux
- Easy to use
  - Drag and drop folders/multiple files



# Griffin

- GridFTP interface for arbitrary filesystems
- Supports
  - 3<sup>rd</sup> party transfers
  - Parallel transfers
- Testing with grid jobs with Systems team

# Additional Services

- Backup
- Replication
- Persistent IDs

# Connectivity

- The ARCS Cloud through Griffin
- Australian National Data Service's (ANDS) persistent identifier service

# Use Cases

- Integrated Marine Observing System



A data delivery for IMOS, the Australian Integrated Marine Observing System, eResearch Australasia, 2009

# More use cases

- Sharing files
- Currently have set up 31 groups
- All have some data resource they would like to share
- Most of them are groups that spans multiple institutions

# Future Direction

- Grid
- Web Interface
- APIs
  - REST, XMPP, RSS
- Hardening
  - Alternative database, Oracle, pgpool, etc
  - Reduce single point of failure

# Questions?

- <http://projects.arcs.org.au/trac/systems/wiki/DataServices/iRODS>
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