BUILDING A NATIONAL RDM INFRASTRUCTURE IN THE NETHERLANDS WITH IRODS
IRODS USER GROUP MEETING
JUNE 11, 2020
Agenda

- Short introduction of SURF
- RDM infrastructure, why?
- How did we start?
- What do we build?
- How do we do this?
WHO ARE WE?
WHY DO WE BUILD A NATIONAL RDM INFRASTRUCTURE?
Broad recognition that research support does not stop at the borders of the campus; researchers work together with other researchers all over the world.

Less costs through cooperation in development of necessary infrastructure and services

A common infrastructure offers the opportunity to use facilities at different locations

The RDM infrastructure needs to be set up in cooperation
Universities want to select RDM tools:

- What will these cost me?
- How much FTE do I need to make available for support of these tools?
- Where do I find the people that can support my researchers for the use of these tools?
- Can I customize the installation of these tools for my researchers?

Shared services, shared infrastructure and shared development are the answer!
iRODS is very interesting because it has the potential to support researchers during the entire research data life cycle;

but the command line interface is not suitable for all researchers
YODA is an interesting tool with a graphical user interface and standard RDM support functions for researchers, 

**but** it is a custom build tool for one university
Universities want to know in advance the answers to the questions about iRODS and YODA and make no choice.

Shared services by SURF can only be made available after the universities have made their choice.
HOW DID WE START?
De kracht van de coöperatie

small pilots with the participating universities with hosted versions of YODA and iRODS

Joined evaluation in Dec 2019
Working together is crucial; universities benefit in terms of cost and knowledge. Joined development of new features is necessary.
More evidence needed on the suitability of the tools for different research area’s and on costs involved
Universities are reluctant to make definitive choices on RDM tools; Researchers need to try the tools, ICT and Librarians need to be convinced.
Next steps necessary to build trust within and between institutions and to come up with more evidence for management
WHAT DO WE BUILD?
iRODS

Policies

Metadata scheme

Storage virtualization

Local storage

Object store

Data Archive

USER INTERFACE

YODA

WebDav Command line

DATA PIPELINE

Virtual research environments

HPC environments

OTHER INTERFACES

Publish to data repository

DATA PIPELINE
YODA – YOur DAta, built in Utrecht

• YODA is a software application for data management, aimed at all types of researchers (i.e. not only the CLI crowd)

• It includes facilities for:
  • Data storage
  • Data sharing
  • Data annotation (metadata)
  • Data review by data curator
  • Data publication

See also the talk of Chris Smeele and Lazlo Westerhof on YODA at the UCM 2020, June 9, 11 a.m.
YODA supports various phases in the research process

- **Initialization**
  - Group management
  - Project structure
  - User roles & access rights

- **Active research**
  - Upload data
  - Share access
  - Add metadata

- **Closure**
  - Complete metadata
  - Quality review (data steward)
  - Submit to Vault

- **Publication**
  - Publish data
  - DOI
  - Public landing page

Works on top of iRODS
YODA – YOur DAta, built in Utrecht

• It was developed by Ton Smeele and team at UU.
• Initially for one particular research project, now scaled out to multiple faculties
• It is built on top of iRODS, adding:
  • Graphical Interface
  • Rules and configuration
  • DavRODS
• Main value: making the power of iRODS available to a wide group of researchers and supporting the most essential data management processes

Yoda in numbers

HOW DO WE DO THIS?
Issues or feature requests go to inst’l data steward

Data steward contacts helpdesk

Users interacting with inst’l YODA instance

YODA hosted instance

Storage

Service delivery
Users interacting with inst’l YODA instance

Issues or feature requests go to inst’l data steward

Data steward contacts helpdesk

Helpdesk

Service incident
Configuration request
Feature request

YODA hosted instance

Storage

Service delivery

Users interacting with inst’l YODA instance
Issues or feature requests go to inst’l data steward

Users interacting with inst’l YODA instance

Data steward contacts helpdesk

YODA hosted instance

Helpdesk

Service incident
Configuration request
Feature request

Incidents and configuration handled by service provider

Service delivery

Storage
Issues or feature requests go to inst’l data steward

Data steward contacts helpdesk

Users interacting with inst’l YODA instance

YODA hosted instance

Storage

Service delivery

Helpdesk

Service incident

Configuration request

Feature request

Feature requests discussed and prioritized by stakeholder group
Issues or feature requests go to inst’l data steward

Data steward contacts helpdesk

Users interacting with inst’l YODA instance

YODA hosted instance

Service delivery

Storage

Helpdesk

Feature requests discussed and prioritized by stakeholder group

Feature request prioritization

Prio’d feature requests feed into dev. roadmap

RDM-TEC

SURF

Development

UU
Central support for version control and updates
Central helpdesk for problem management

SURF offers hosted environments for YODA and iRODS for every participating university

Every university has its own (limited) support team for their own users

Joint development of YODA
Joint development of iRODS add-ons/functionalities (like Multi factor authentication)

Issues or feature requests go to institutional data steward

Users interacting with institutional YODA instance

YODA hosted instance

Service delivery

New releases tested and deployed

Release

Development

Feature requests discussed and prioritized by stakeholder group

Feature request prioritization

Prioritised feature requests feed into dev. roadmap

Service incident

Configuration request

Feature request

Data steward contacts helpdesk

Incidents and configuration handled by service provider
TOGETHER WITH
2019

- Pilot 14 groups with iRODS/YODA
- Limited knowledge on needs and costs

2020 - 2021

- Pilot more groups/preproduction YODA, production iRODS
- More knowledge on needs and service costs

2021+

- Known service levels iRODS and YODA
- National infrastructure RDM in NL

National infrastructure RDM in NL
DO YOU HAVE ANY QUESTIONS?

Saskia van Eeuwijk
E-mail: saskia.vaneeuwijk@surfsara.nl
www.surf.nl

Driving innovation together