

Davrods: Past, Present and Future

Sirjan Kaur
s.kaur@uu.nl

Agenda

- ## 4 Future plans

Facts & Figures



>650
PROFESSORS



7+2
FACULTIES AND
TEACHING INSTITUTES



>39,000
STUDENTS

Strategic Themes



PATHWAYS TO SUSTAINABILITY



INSTITUTIONS FOR OPEN SOCIETIES



DYNAMICS OF YOUTH



LIFE SCIENCES

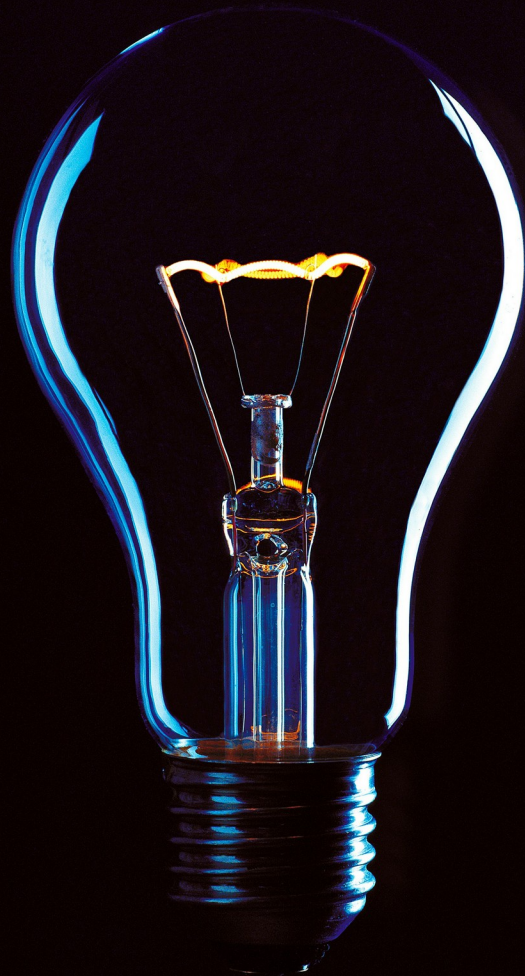
Dawn of Davrods

Designed by Ton Smeele (Mr. Yoda)

Developed by Chris Smeele (Mr. Baby Yoda)

Design goals

- Upgrade path to iRODS4
- Webdavis was not compatible with iRODS4
- iRODS alternative - irods-webdav - did not align with infrastructure upgrade timeline



Dawn of Davrods

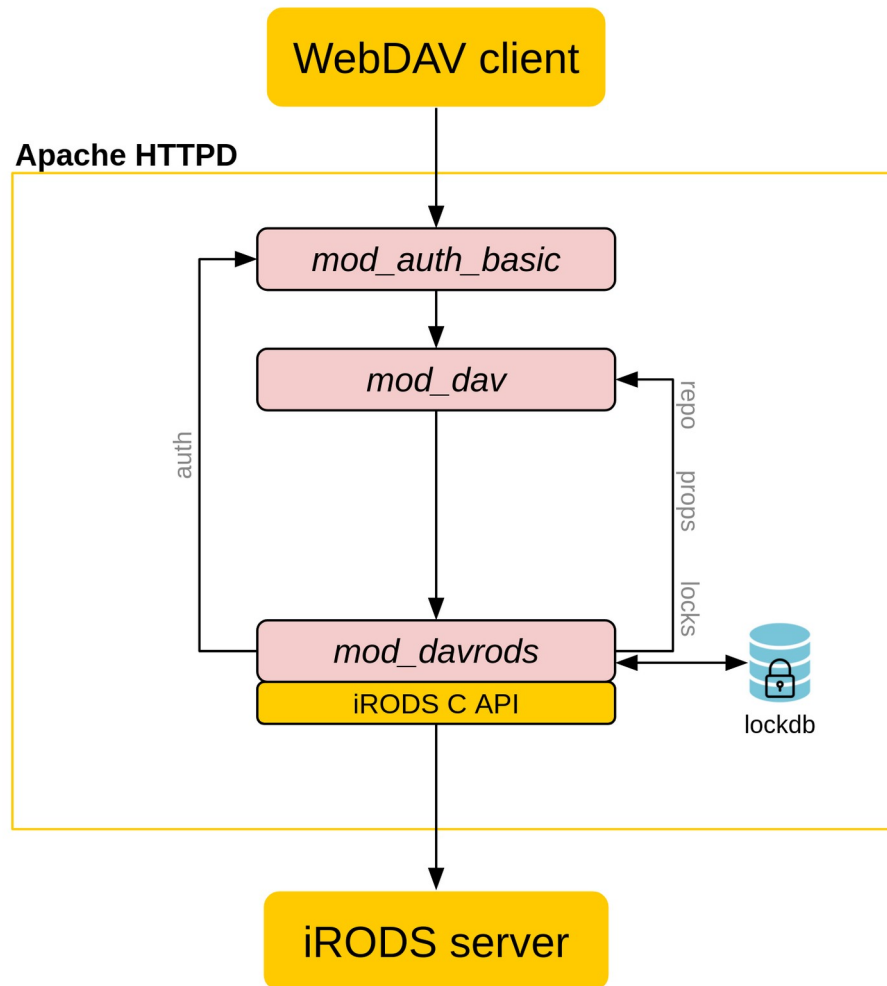
- Developed our own open source WebDAV interface to iRODS
- Written in C
- Support for WebDAV Class 2 specifications
- Supports iRODS PAM and Native authentication scheme



Architecture of Davrods

Apache HTTPD

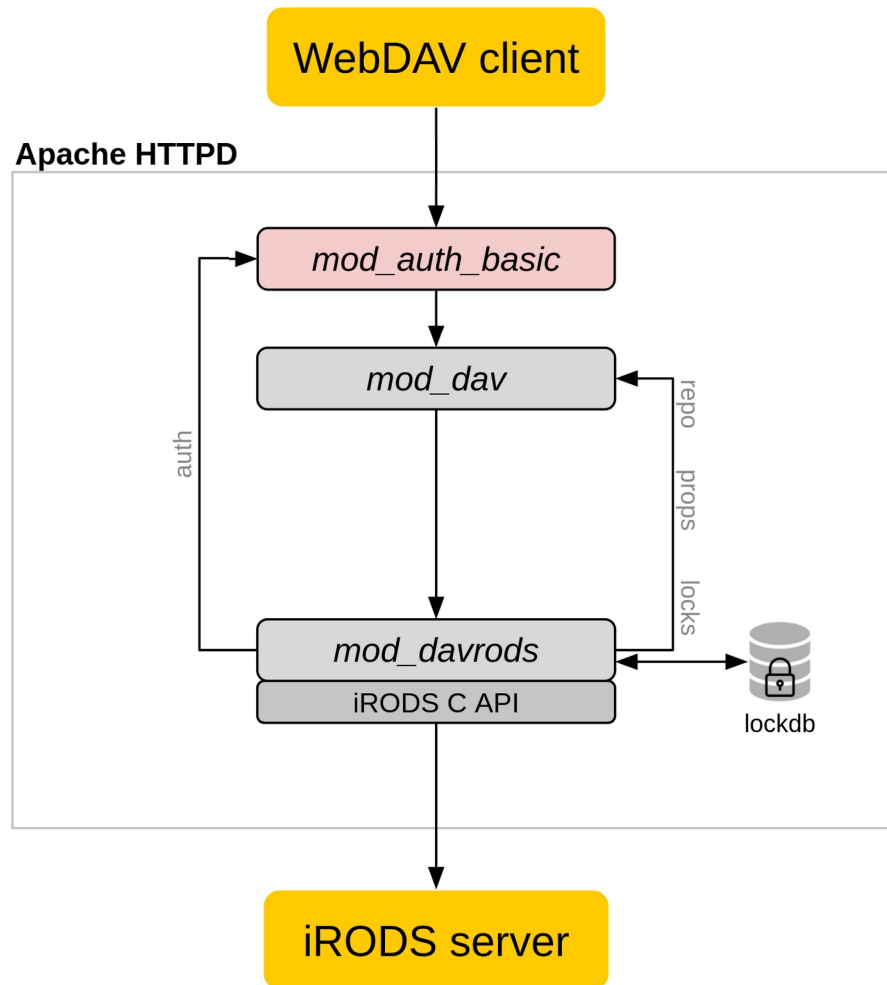
- Modular and extensible architecture
- Module that supports WebDAV Class 2 protocol



Architecture of Davrods

`mod_auth_basic`

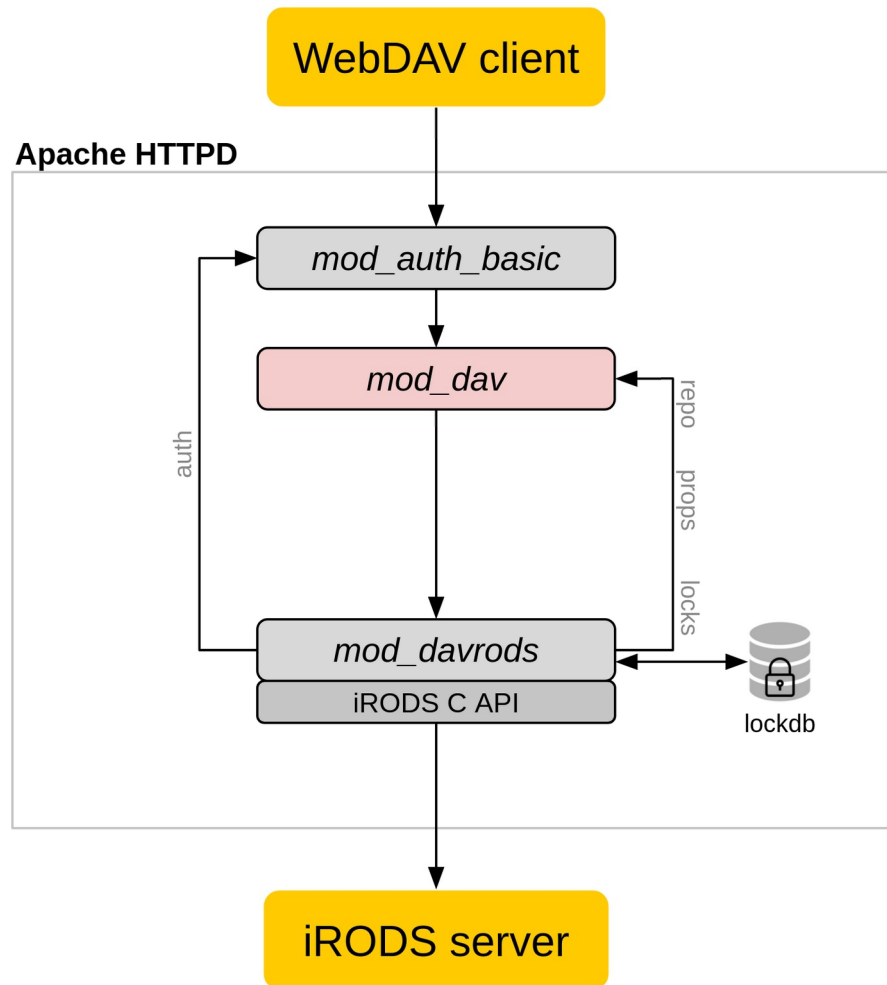
- Processes HTTP headers to authenticate the client
- Davrods is the authentication provider



Architecture of Davrods

mod_dav

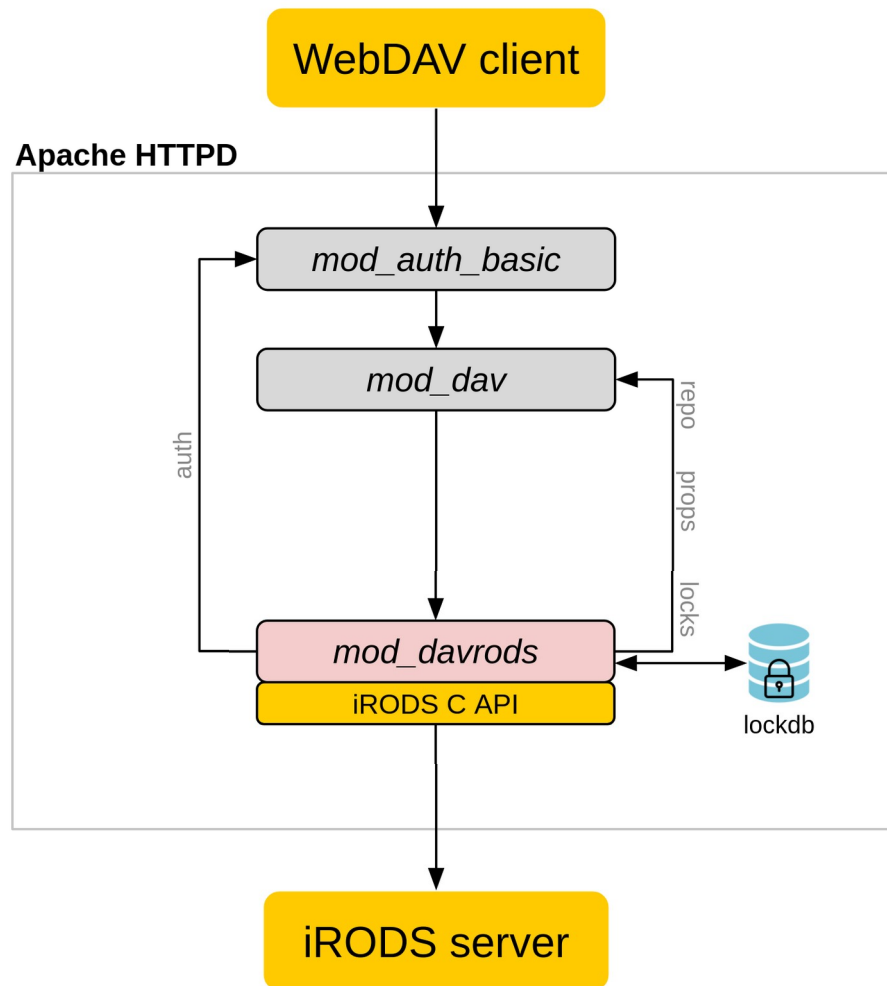
- Handles DAV requests
- Allows multiple implementations of backend functionalities



Architecture of Davrods

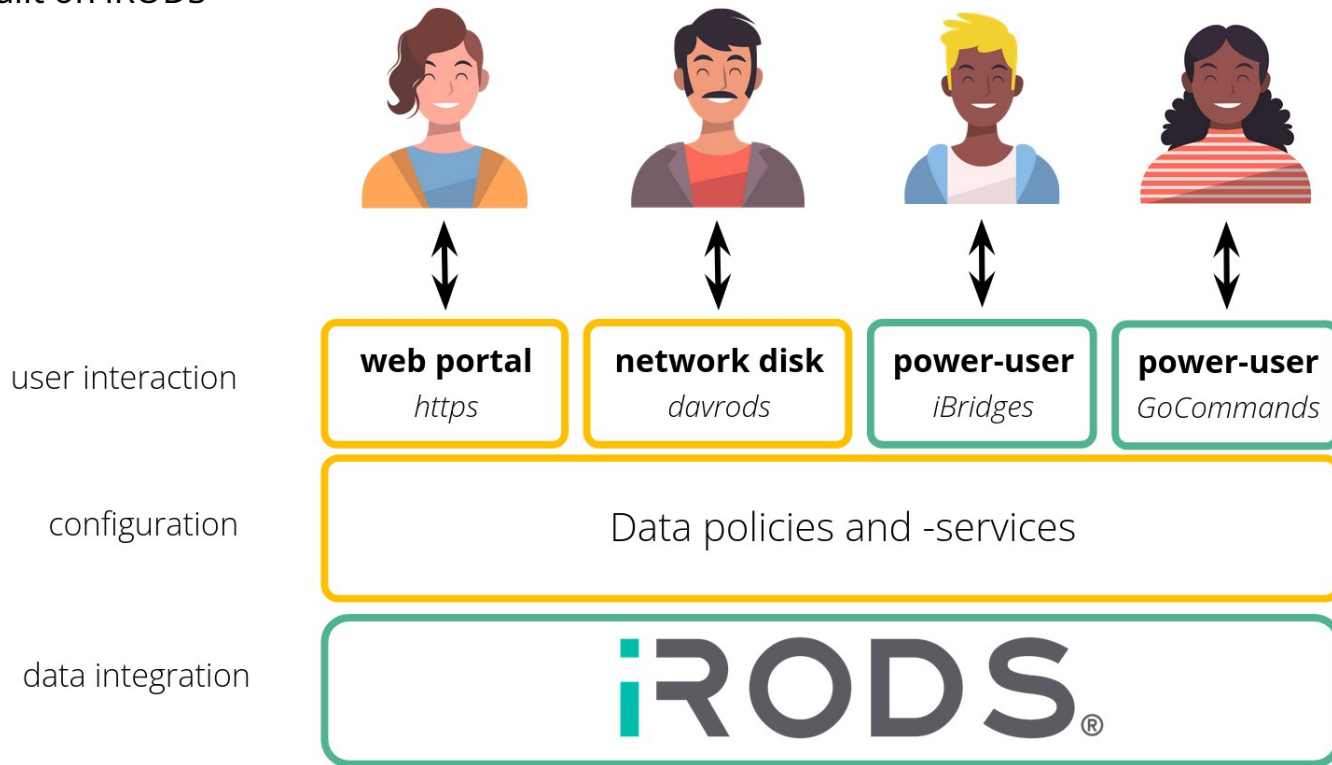
mod_davrods

- Translate storage and property access requests from mod_dav to iRODS C API
- Handles locking requests



Davrods use case - Yoda

Yoda is built on iRODS



Challenges

- WebDAV clients behave differently
- Microsoft has deprecated WebDAV client in Windows
- MS Office showing error messages when trying to open files from WebDAV



Recent challenge in Yoda

- AI scrapers led to DOS



Recent challenge in Yoda and solution

- AI scrapers led to DOS

Solution: Anubis

- Web firewall utility
- Lightweight
- Easy to configure



Davrods automated tests

- Automated and scripted tests
- Pytest BDD
- Tests are against dockerized version of iRODS using GitHub actions.



Davrods Community

Who uses Davrods?



Why contribute to iRODS?

- Davrods is used a lot outside the Yoda ecosystem
- Limited availability/priority to work on improvements
- C/C++ competencies needed for maintaining Davrods are better fit for iRODS team



Future of Davrods

- Letters of support and use commitment to yoda@uu.nl



\$ iexit



**Utrecht
University**

Sharing science,
shaping tomorrow