Enabling a robust VOSpace for VO tools and services with iRODS

work done since Trieste

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CDS

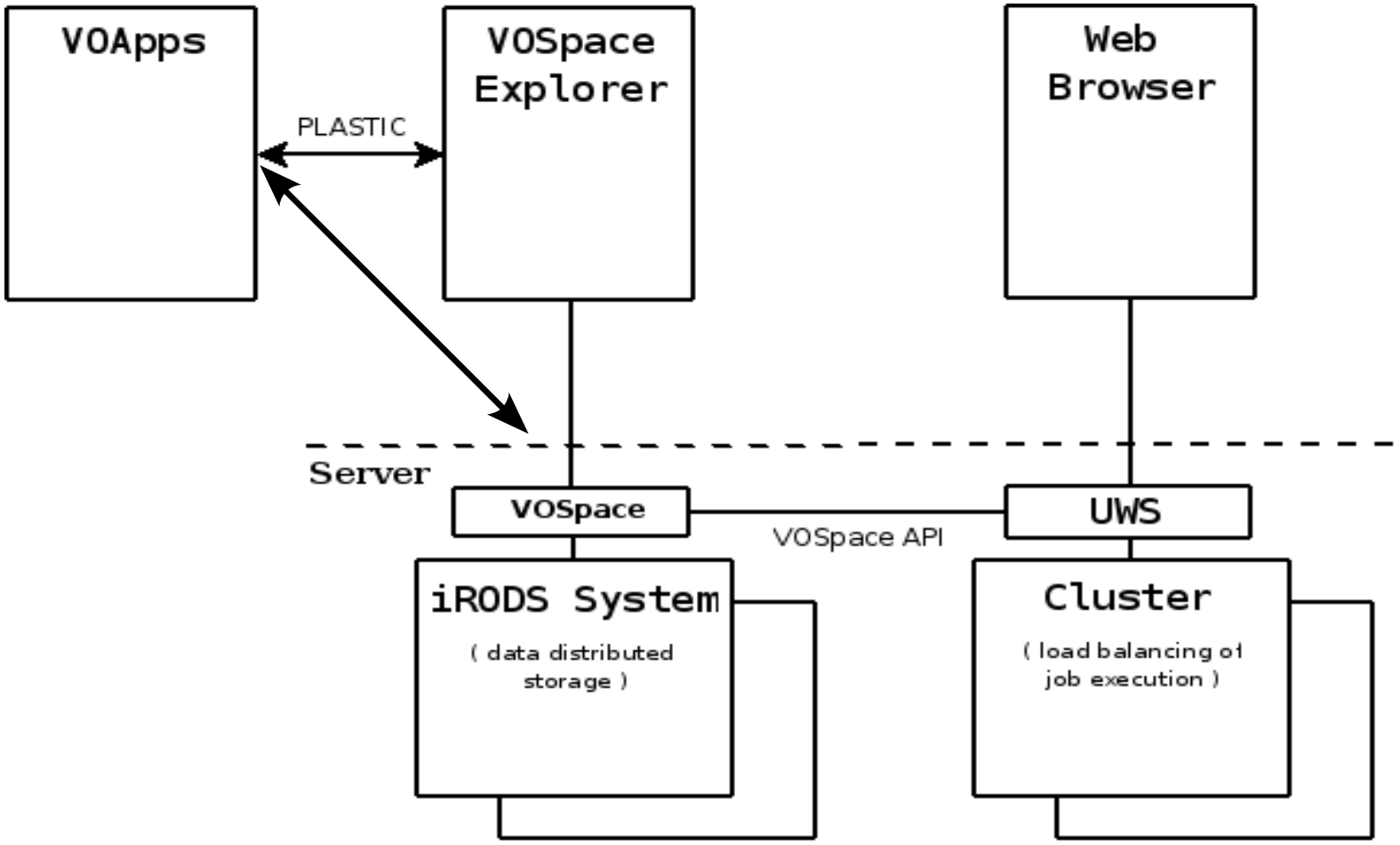
Roadmap

- First step : learn iRODS
  - development of an Aladin plugin giving an access to the iRODS implementation *Done*
- Second step : implemention of the VOSpace interface over iRODS *Done*
- Third step : create client tools
  - A VOSpace Explorer *Done*
  - A VOSpace file chooser as Aladin plugin *Done*
  - ...
- Last step : release for real life
  - *First set of 12TB available next week, in production for end of November*

Technical aspects

- IRODS (integrated Rule-based Data System)
  - IRODS 1.0 for the prototypes, iRODS 1.1 for the next release
  - Jargon API
  - developed by SDSC, iRODS is open source
- VOSpace
  - Web Service : Axis2 & Tomcat
  - Release 1.1 RC1 used for the prototypes, RC3 will be used for the production release
- VOSpace-iRODS : 2 quad core servers with 12 TB for the production release

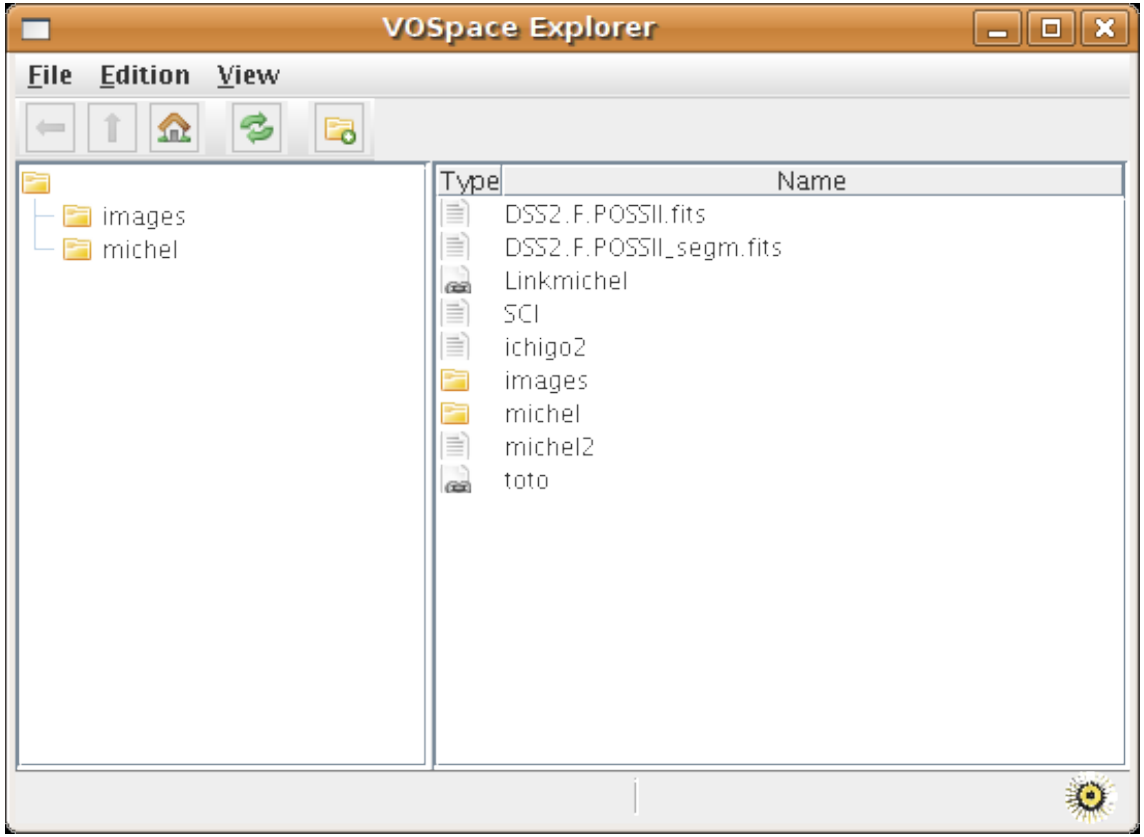
VOSpace-iRODS architecture



- **Some screen shots about the developments**

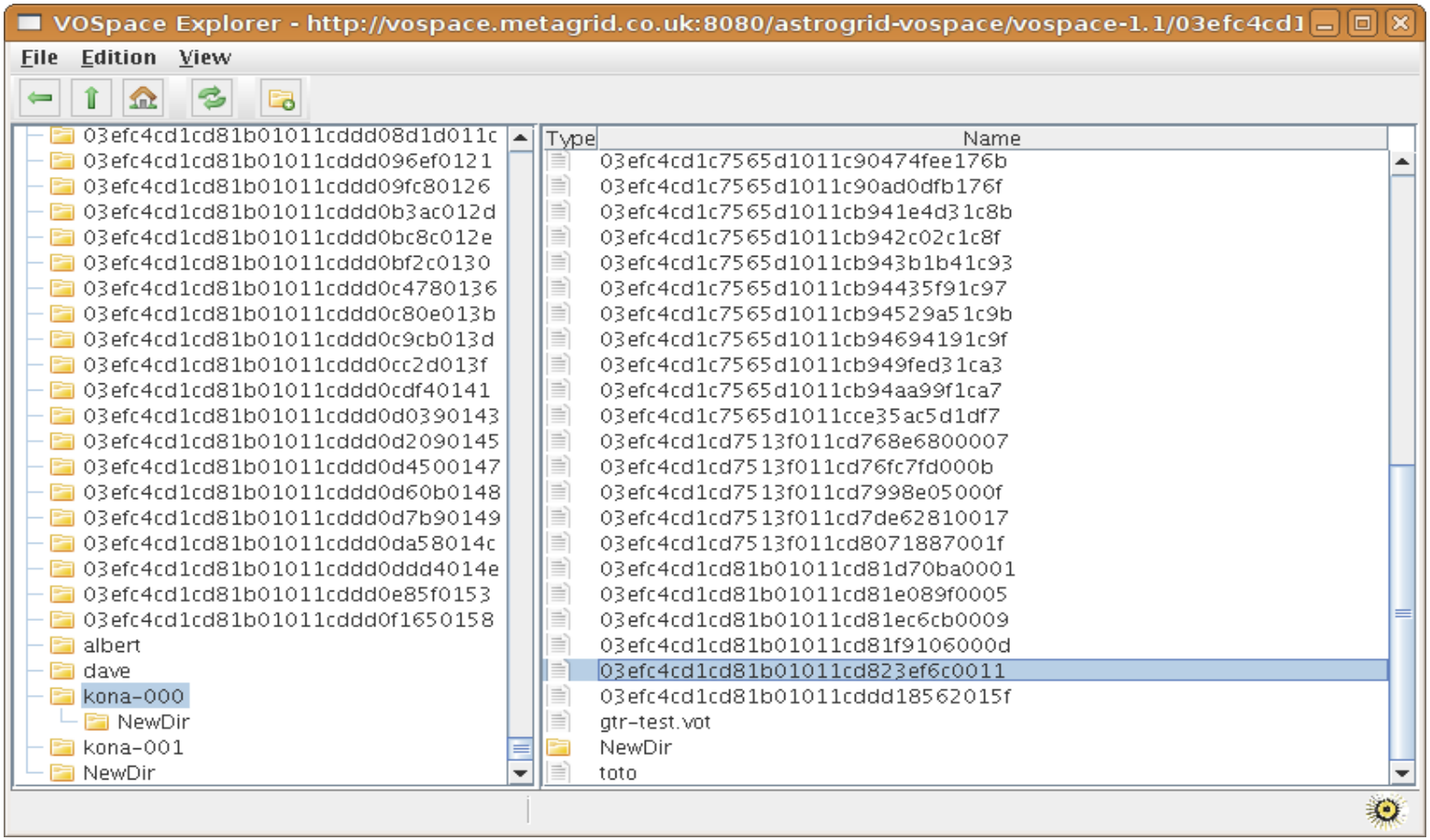
VOSpace Explorer, new version

- Development of a VOSpace Explorer in Java.
- If a VO tool supports drag and drop it is possible to interact through this way with the explorer.
- PLASTIC has been added.



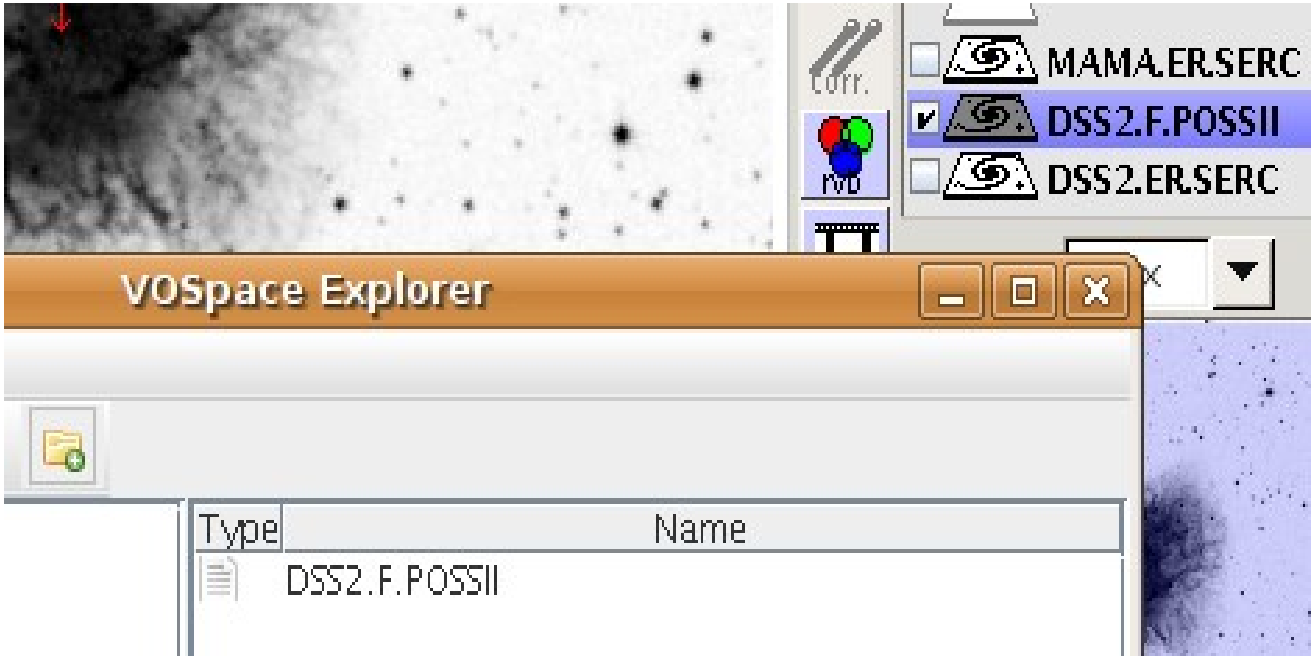
VOSpace Explorer, new version (2)

- Access to other VOSpace, (ex. : Dave's VOSpace)

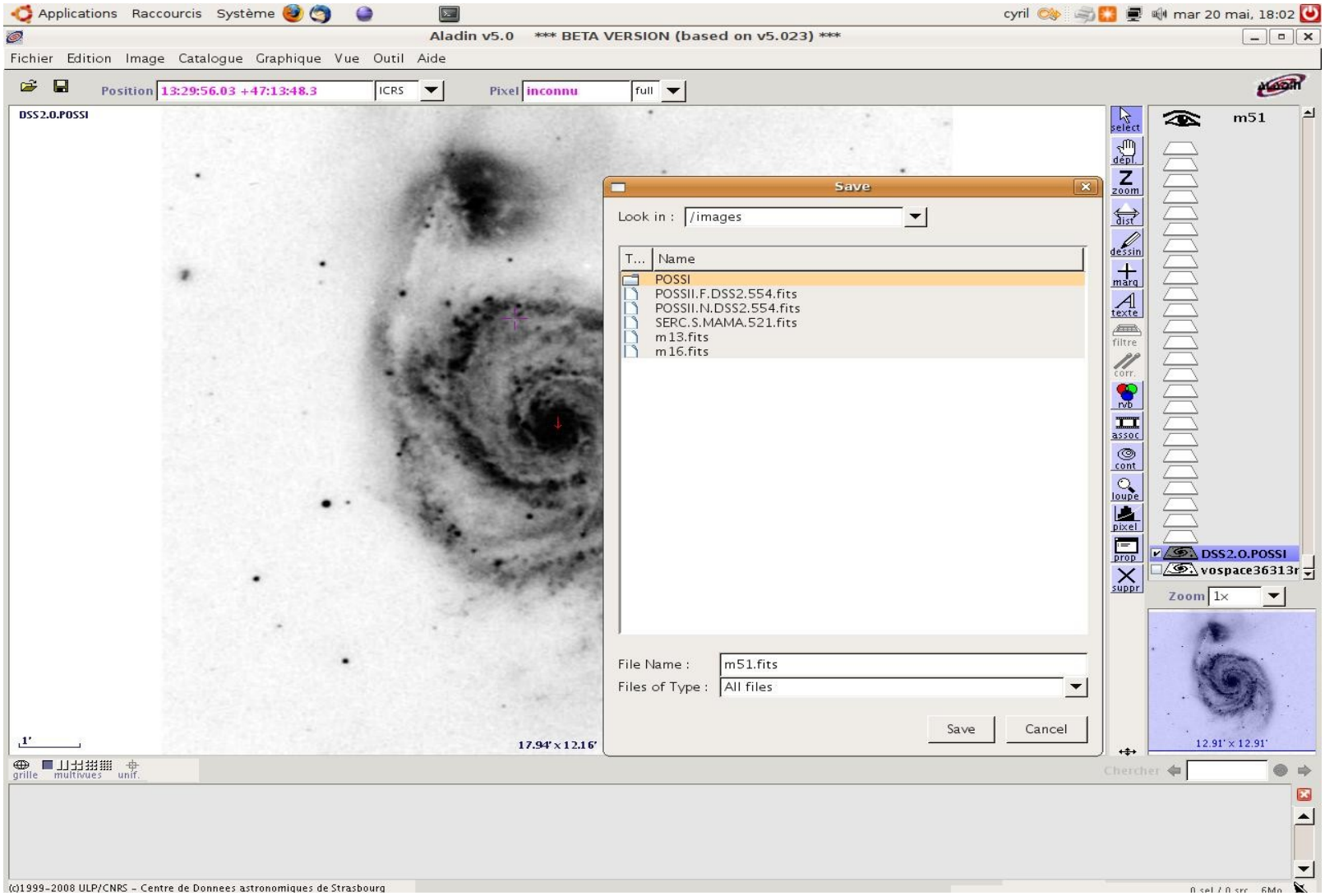


VOSpace Explorer, new version (3)

- **PLASTIC use between Aladin and the VOSpace Explorer**

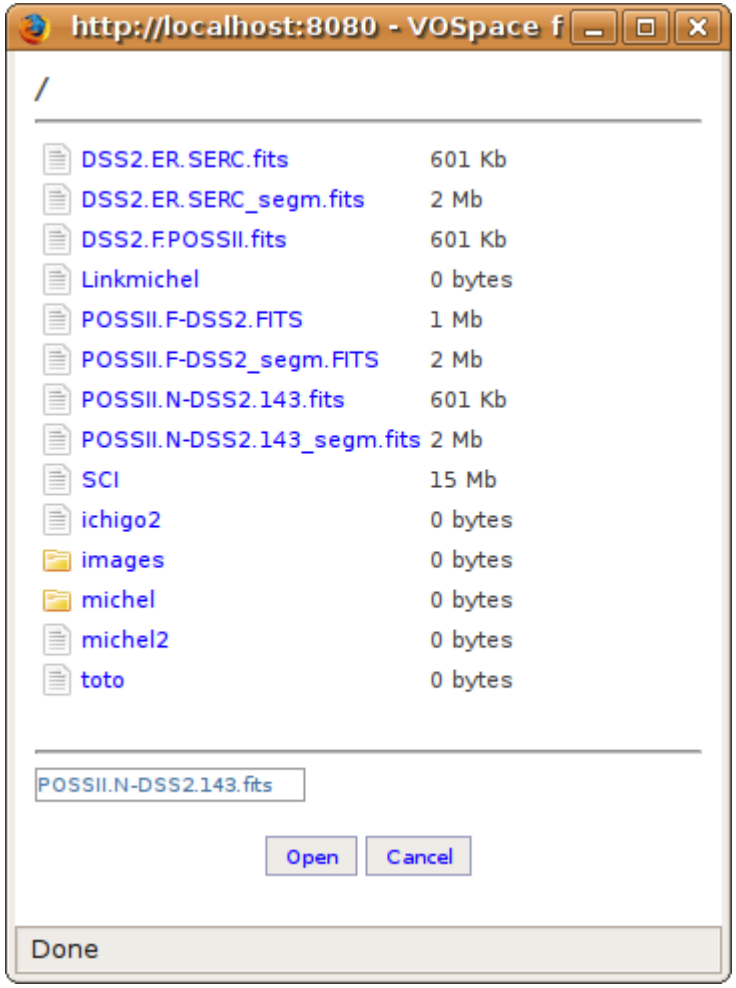


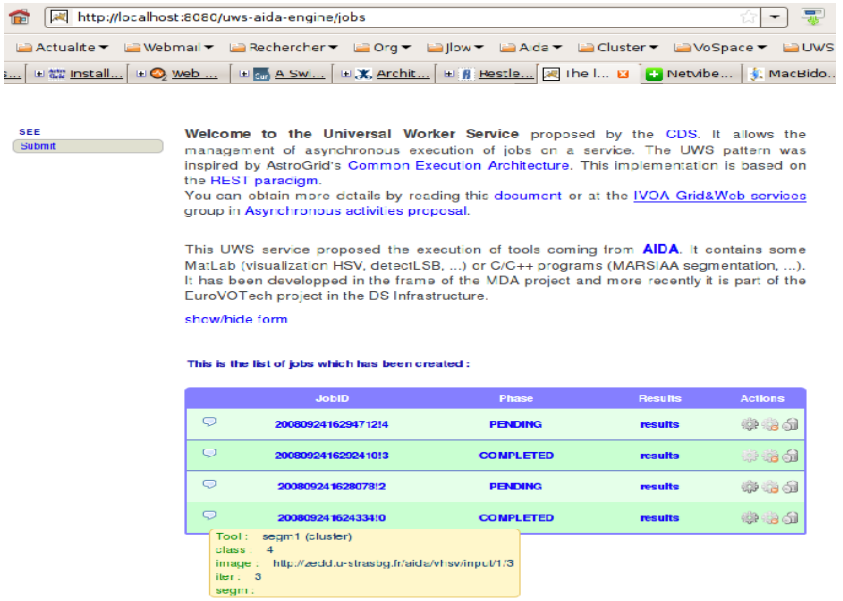
File chooser for Aladin (not in the public release)



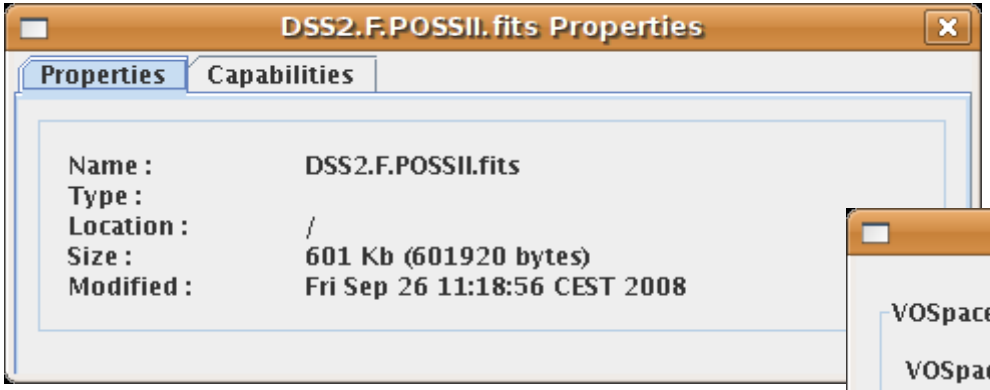
FileChooser as a servlet

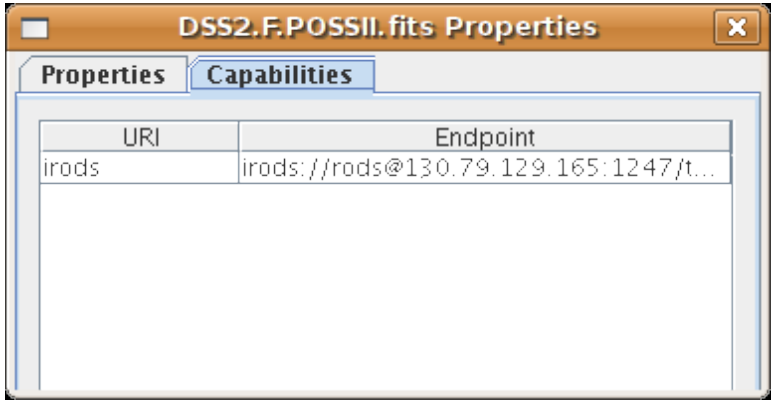
- Used in CDS UWS framework





Properties, capabilities, security





TLS : with password ok, with certificate soon

Conclusion of this work

- iRODS is easy to implement and is a good solution to ensure the robustness of a VOSpace.
  - It is not easy to evaluate the real needs in term of disk space, etc. → 12TB as a first step, evolution after a few month period of activity
- Development of complementary tools : mainly a PLASTIC compliant VOSpace Explorer.
- This work is done in the frame of VOTECH project ending in December, tools are available and maintenance will continue for the tools used at CDS (VOSpace-iRODS framework, VOSpace Explorer)
- On iRODS Wiki : http://www.irods.org/index.php/VOSpace
- Presentation of the work in February 2009 at an iRODS workshop