

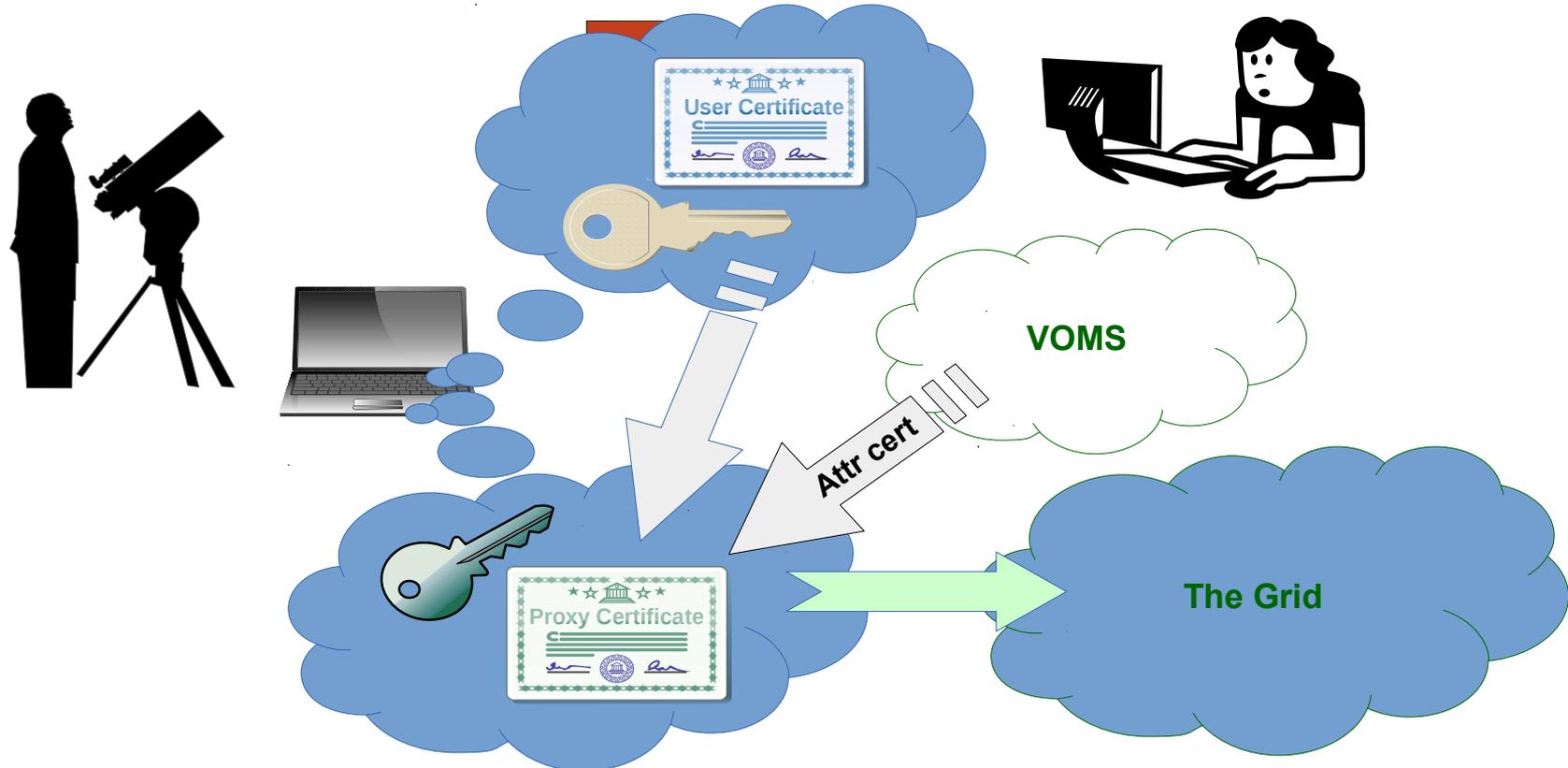
# Data Services Integration Team

## WP1 – Federated Identity



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# The grid X.509 (user) certificates



# The problem: typical user reaction to X.509

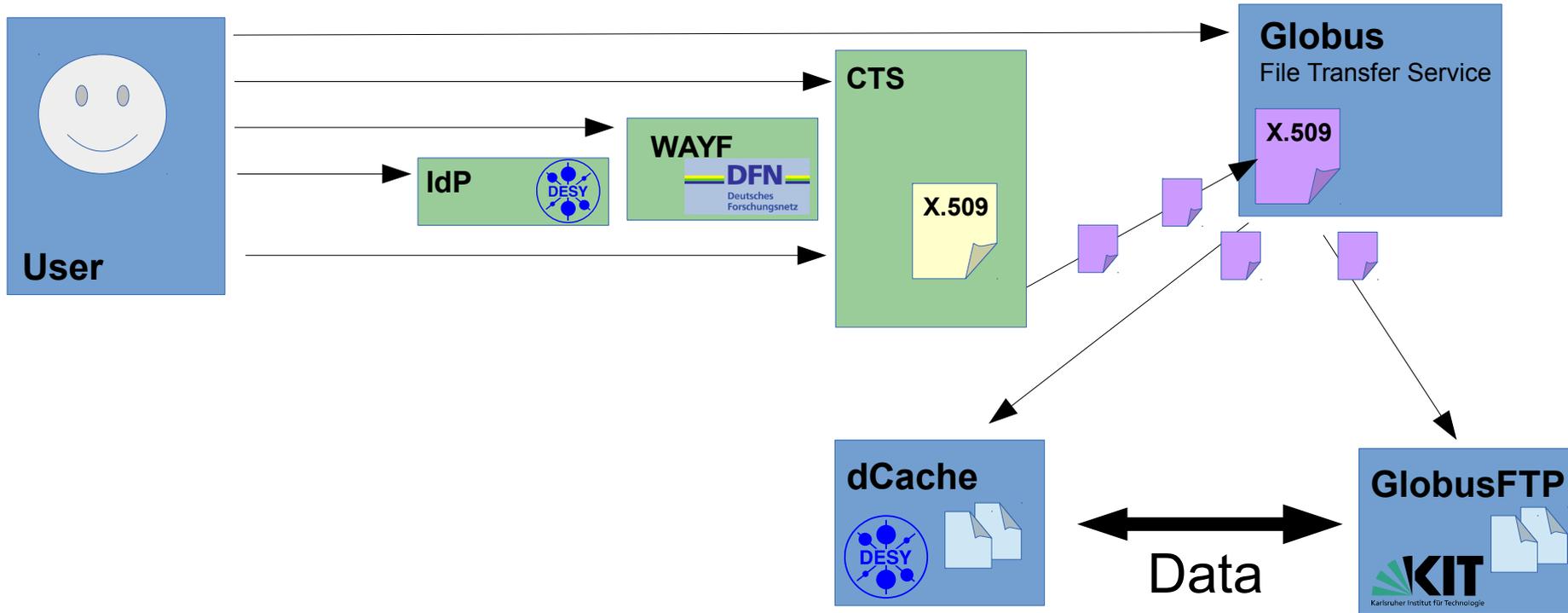


# Need a bridge between users and X.509



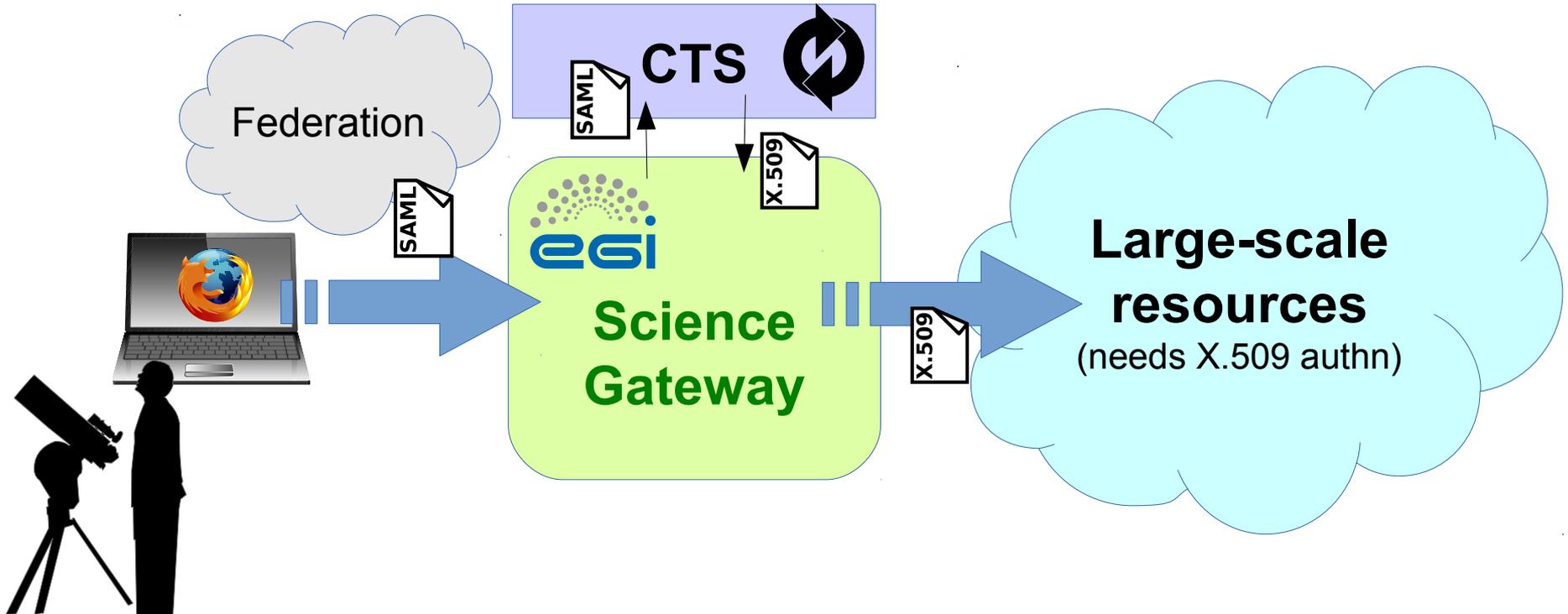
- The problem:
  - Infrastructure needs X.509  
(isn't changing any time soon)
  - User experience is terrible  
(isn't changing any time soon)
- Assume that:
  - users work with a web-browser
  - have a home institute that's part of DFN-AAI
- We want that a web-portal somehow gets an X.509 credential for a user  
Portal interacts with resources on users behalf.

# Use-case: Globus Transfer Service

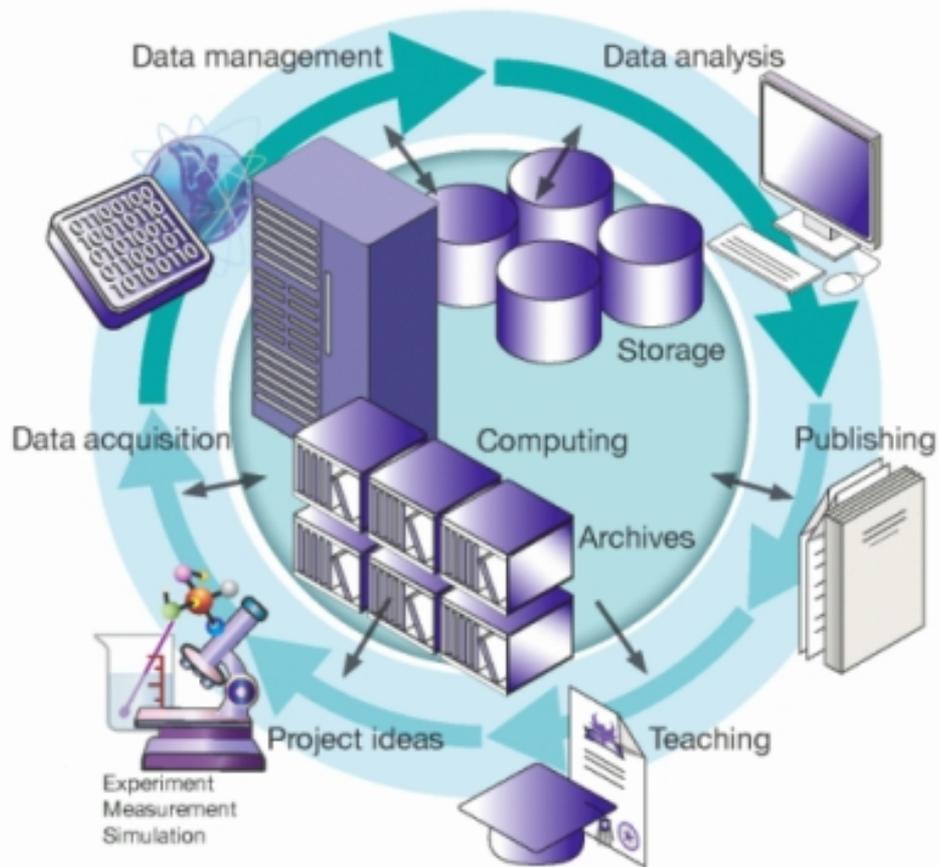


# Use-case: 'Science Gateway' portal

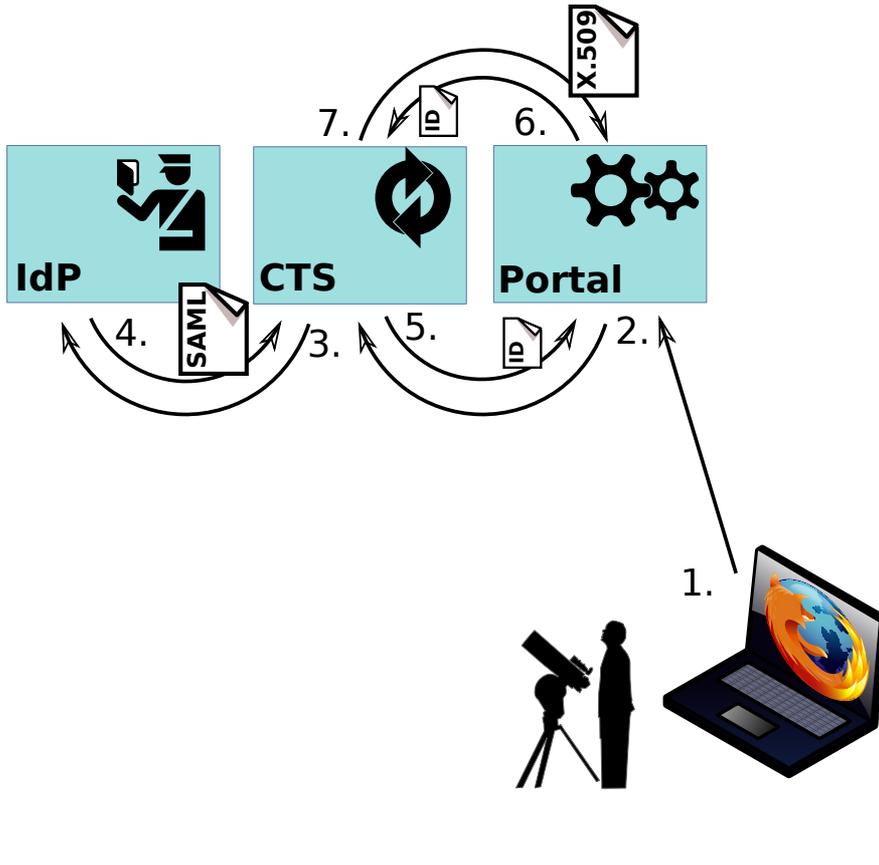
Provide a common place for interacting with “big” resources



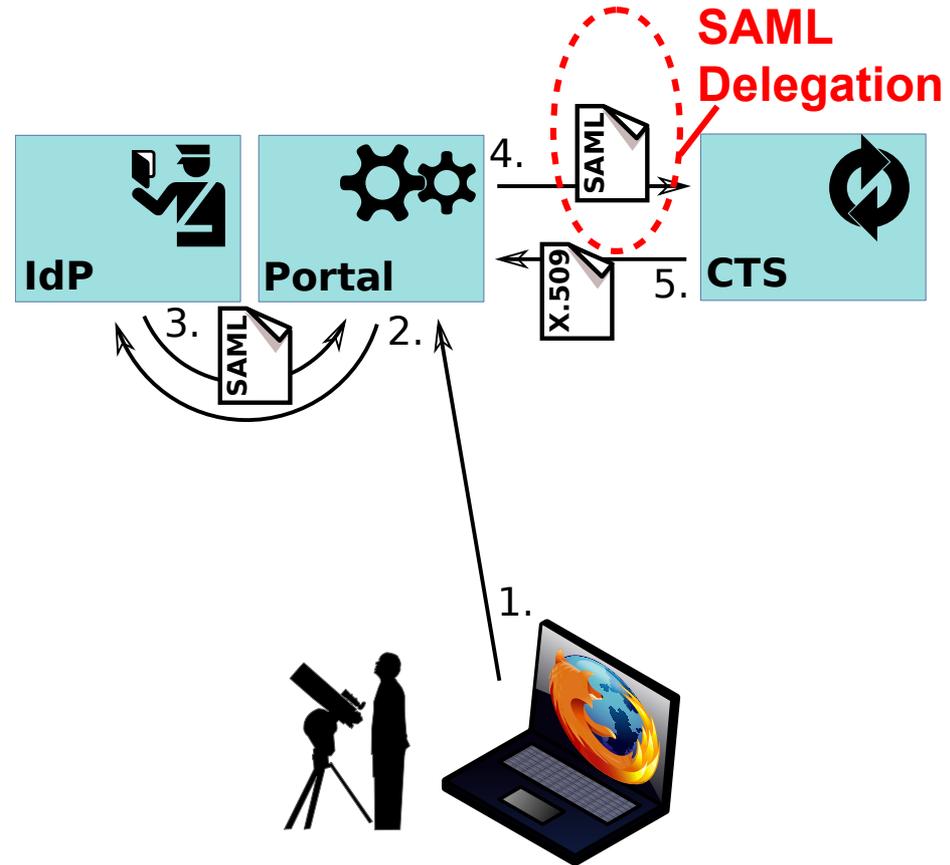
# Use-case: life-cycle management



# Types of solution: in-band vs out-of-band



in-band

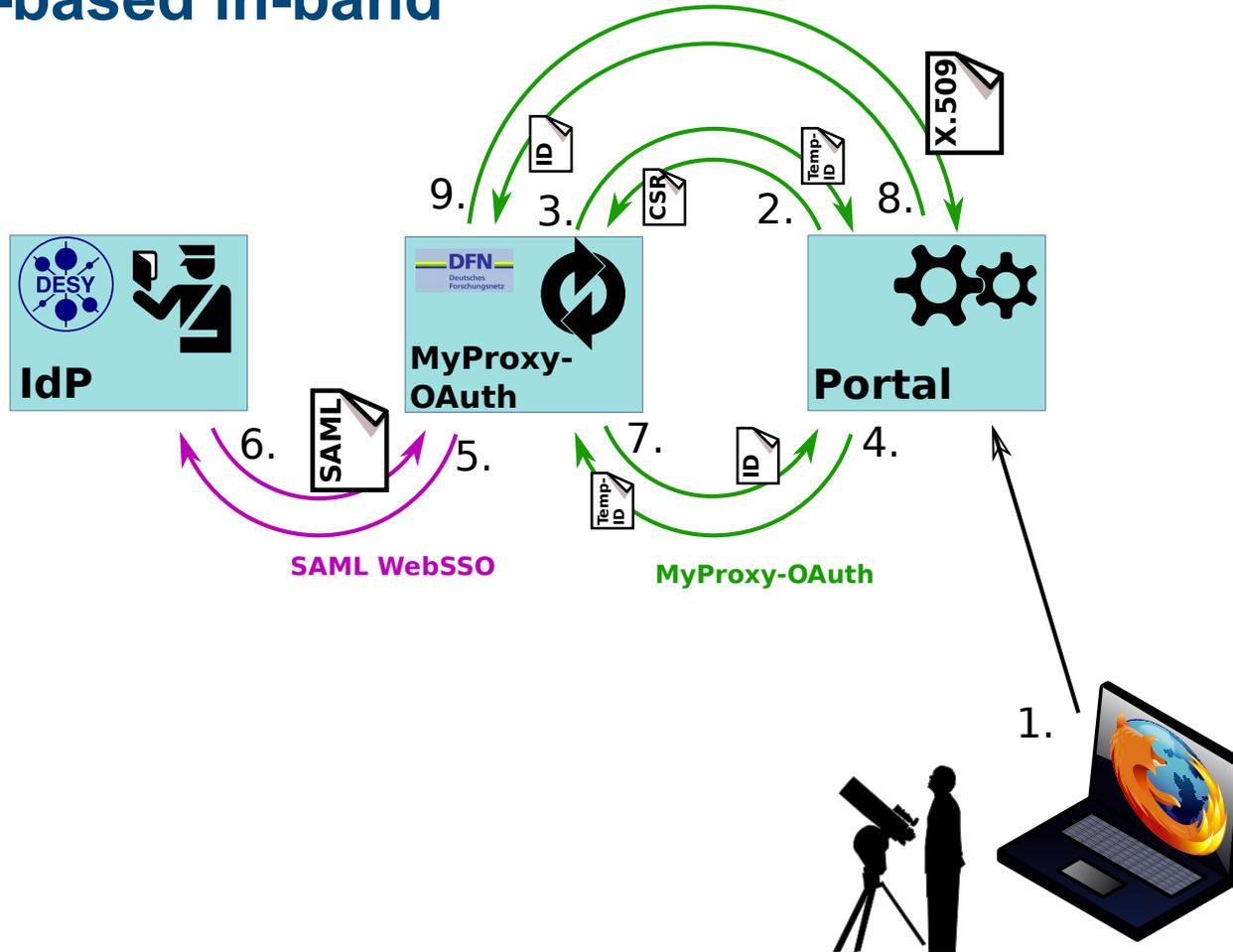


out-of-band

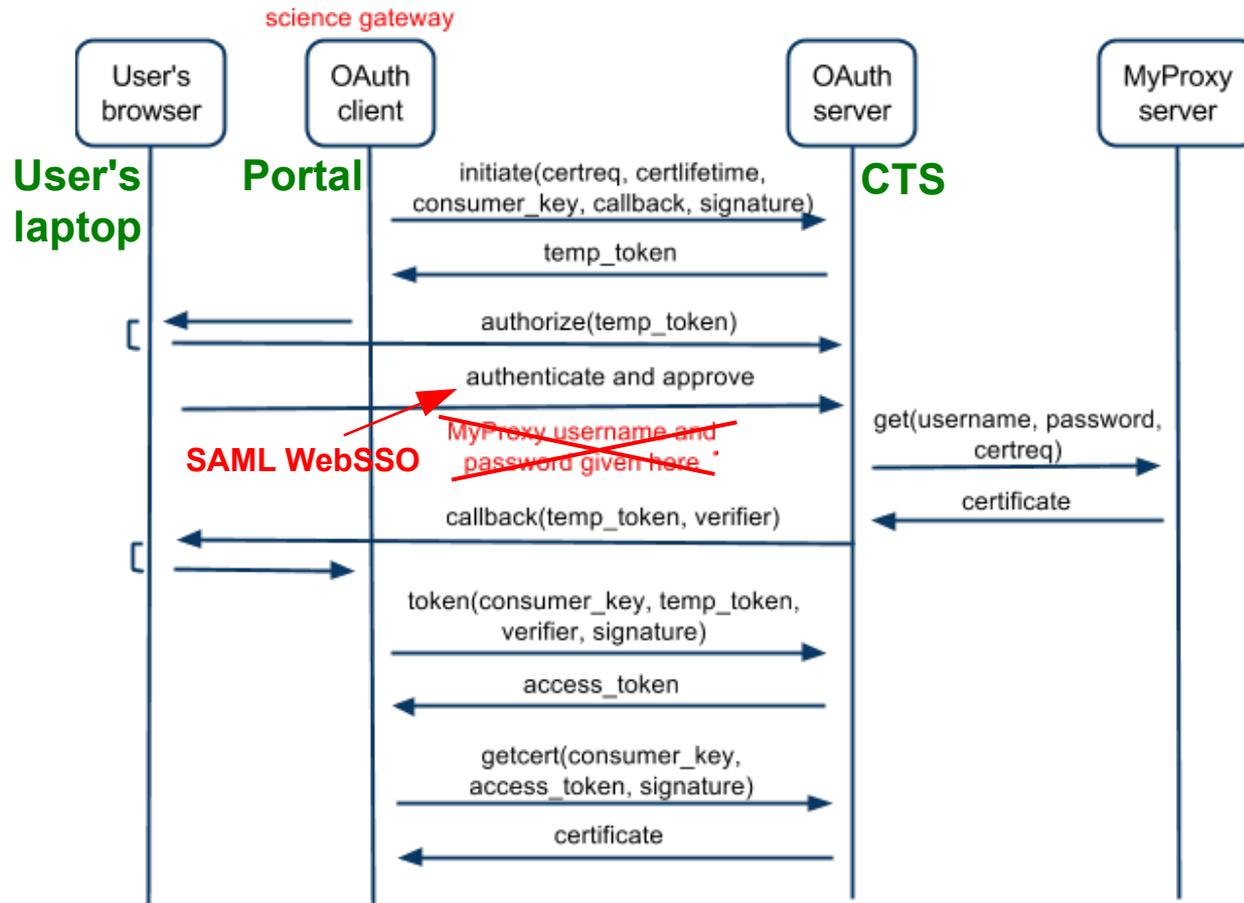
# This is not an original idea...

- USA InCommon: CI-Login [in-band]
- UK NGS: SHEBANGS [in-band], SARoNGS [in-band]
- Switzerland SWITCH: WS-Trust, GridCertLib [out-of-band]
- EGI: robot certificates [out-of-band]
- ShibGrid [in-band?]
- EMI: STS (software, WS-Trust) [out-of-band]
- ...

# OAuth-based in-band



# OAuth (MyProxy-OAuth, CI-Login-OAuth, ...)



# SHEBANGS (portal first) solution (detail)

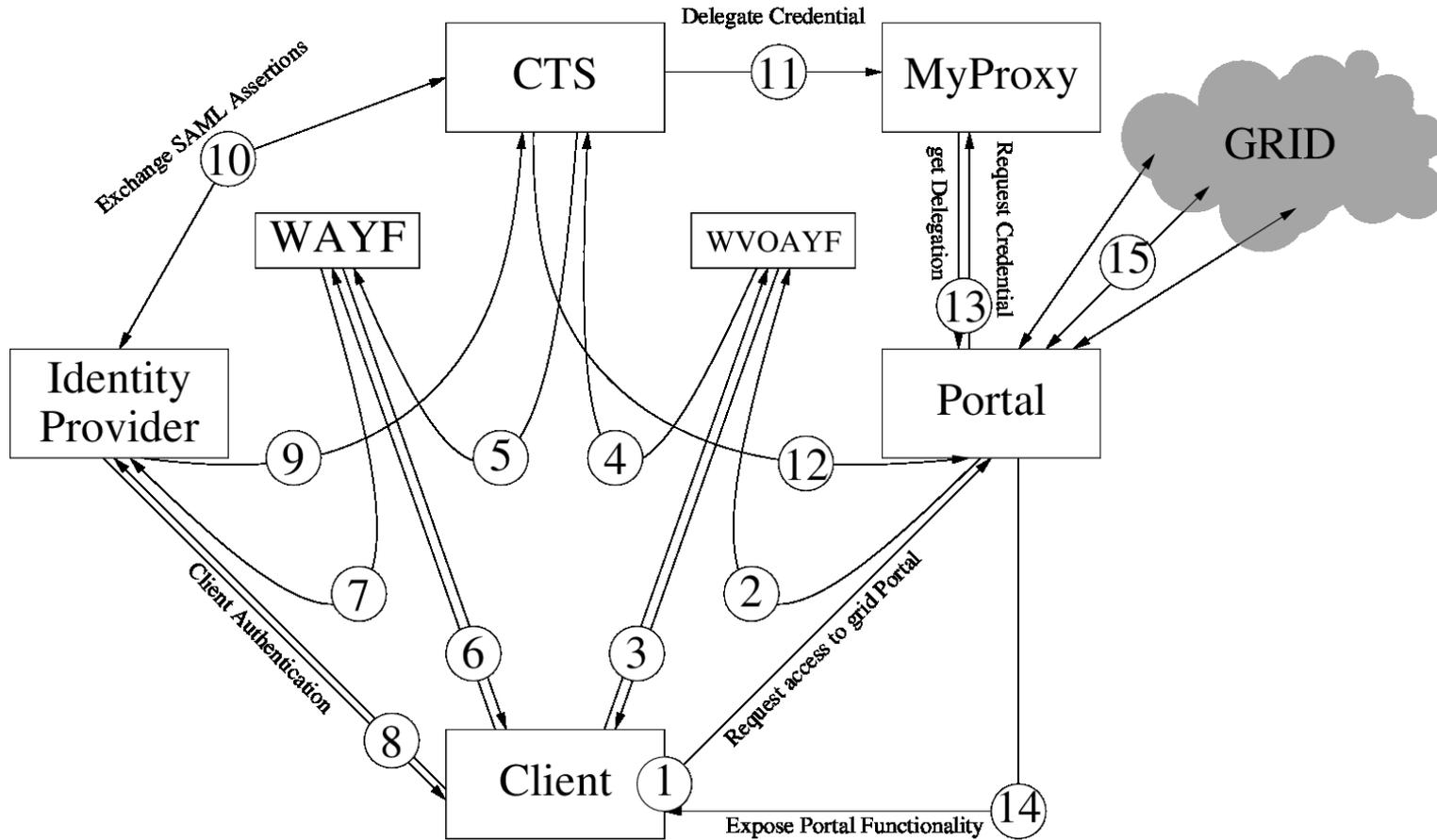


Diagram stolen from [http://pos.sissa.it/archive/conferences/162/150/EGICF12-EMITC2\\_150.pdf](http://pos.sissa.it/archive/conferences/162/150/EGICF12-EMITC2_150.pdf)

# SARoNGS solution (detail)

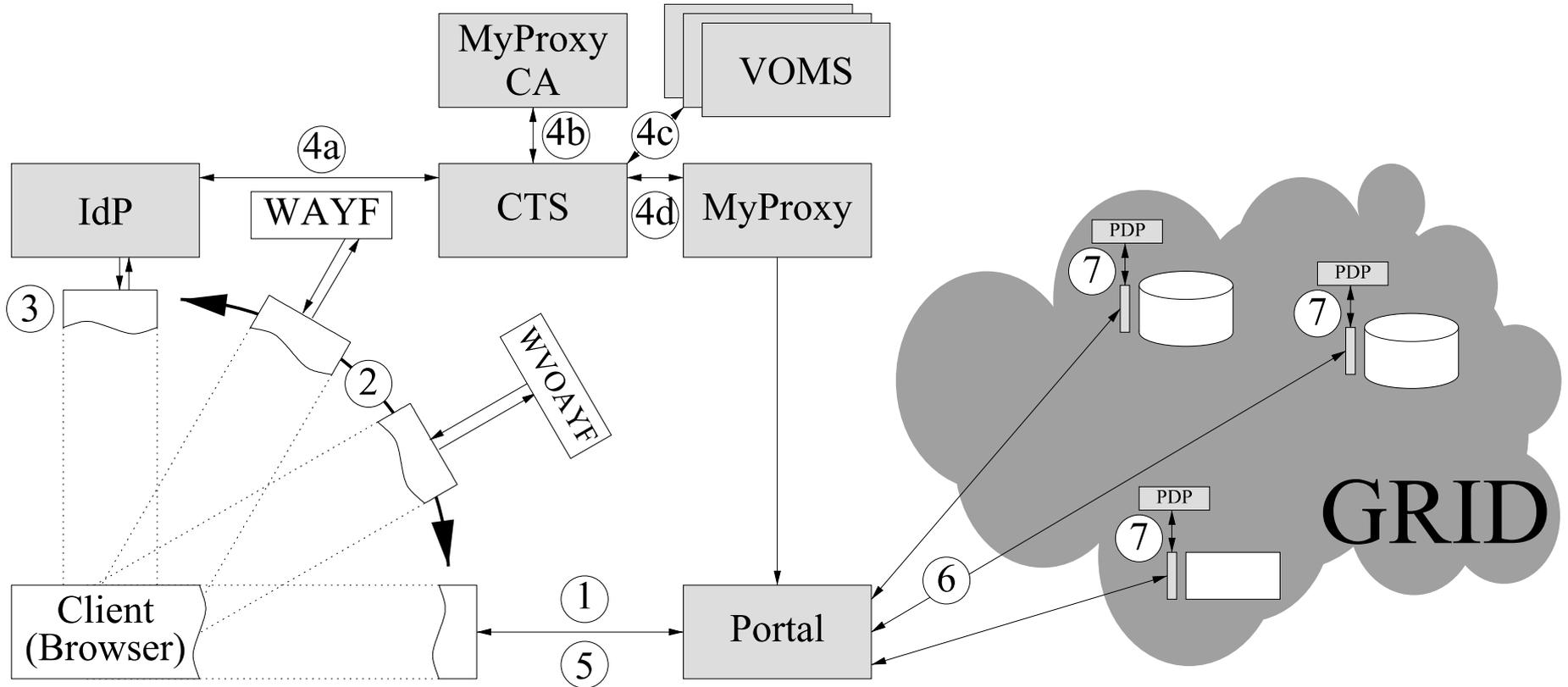


Diagram stolen from [http://pos.sissa.it/archive/conferences/162/150/EGICF12-EMITC2\\_150.pdf](http://pos.sissa.it/archive/conferences/162/150/EGICF12-EMITC2_150.pdf)

And now  
for something  
completely different...



“The **EGI Federated Cloud** is a seamless grid of academic private clouds and virtualised resources, built around open standards and focusing on the requirements of the scientific community.”

→ i.e., lots of IaaS services.

The **EGI Science gateways** are “a popular and rapidly developing tool used by researchers to access the European Grid Infrastructure.”

→ i.e., lots of portals that want to use Federated Cloud resources.

- EGI also needs to solve these problems, too – potential for collaboration.

Thanks for watching

Questions?

# VOMS groups and roles model

