Authentication methods explored for CTA

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pour

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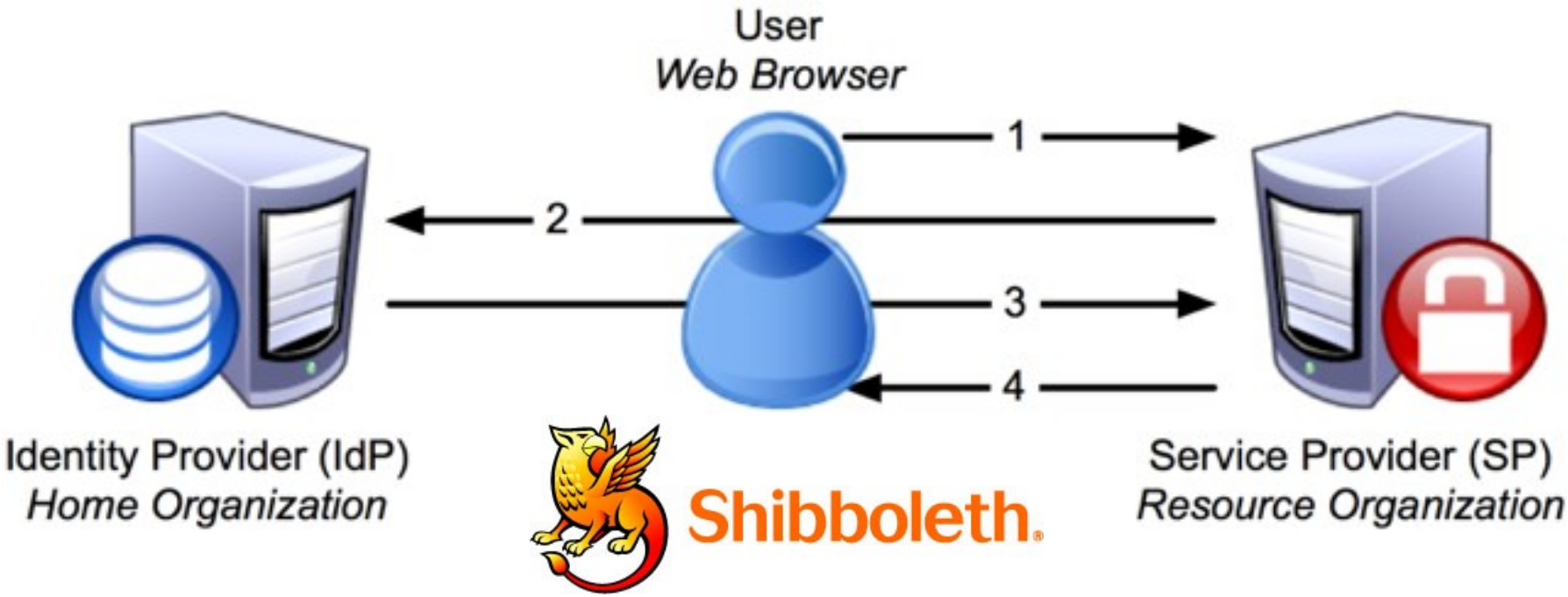
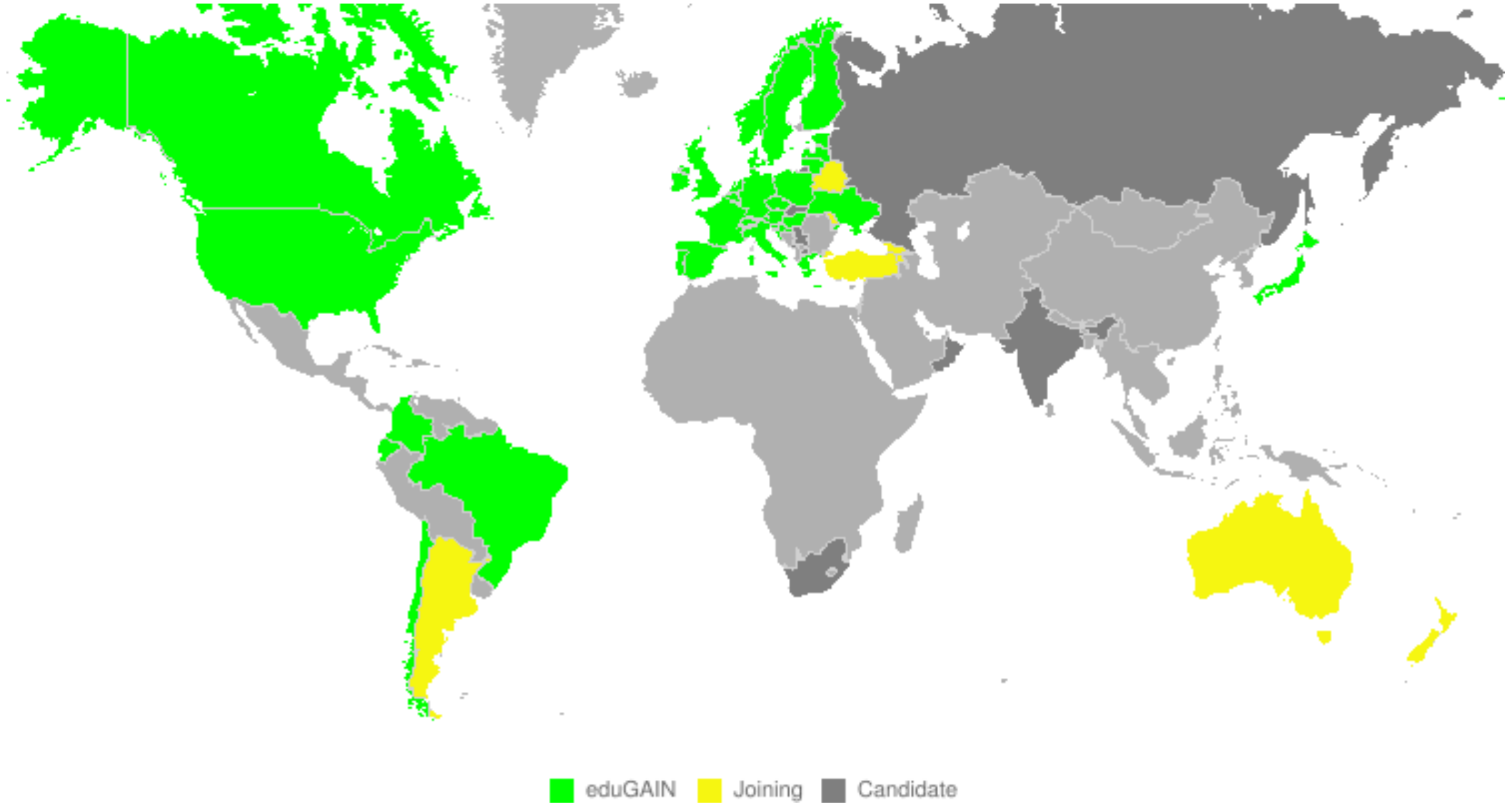
Single Sign-On with Identity Federations



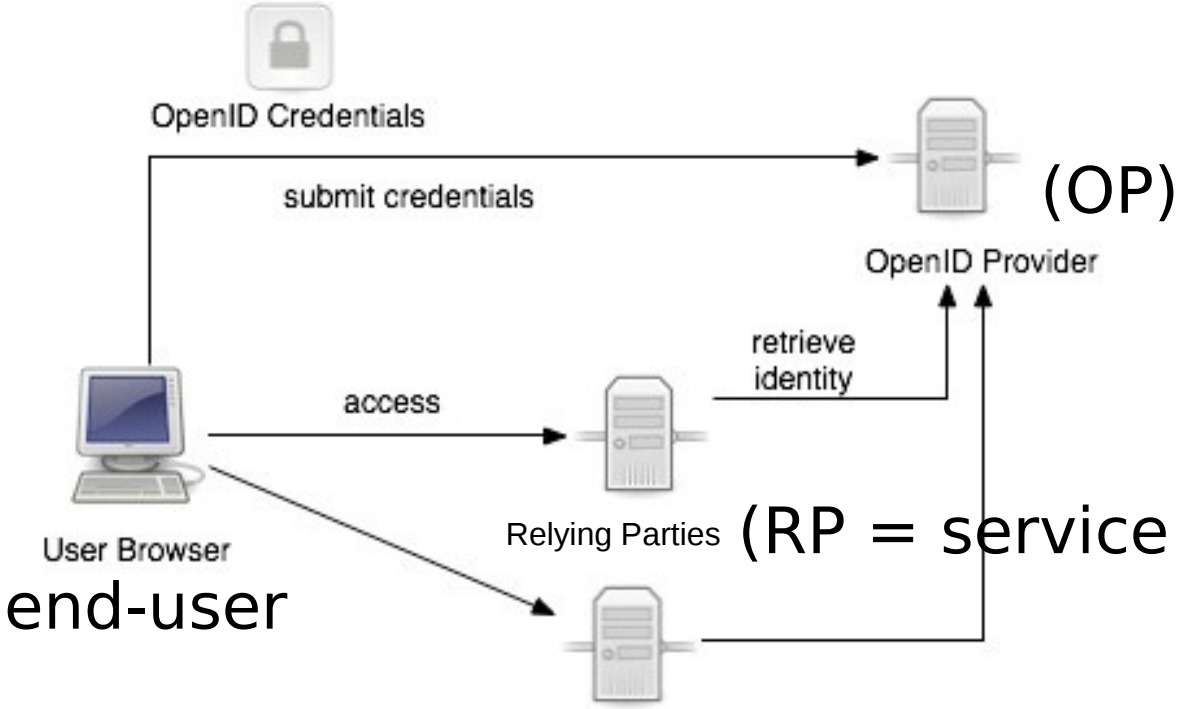
- Shibboleth 2 = implementation of SAML2 for **SSO Authentication**
- eduGAIN : Identity Federation (RENATER, …)
  - *Tested using Apache2 / mod_shib + mod_ssl + django-shibboleth-remoteuser*
  - Dedicated to research community
  - Dedicated to **web** authentication
  - WAYF (Where Are You From): additional step to locate your IdP
  - Need to **register** the service in eduGAIN (with a x509 certificate)

eduGAIN status

https://technical.edugain.org/status.php



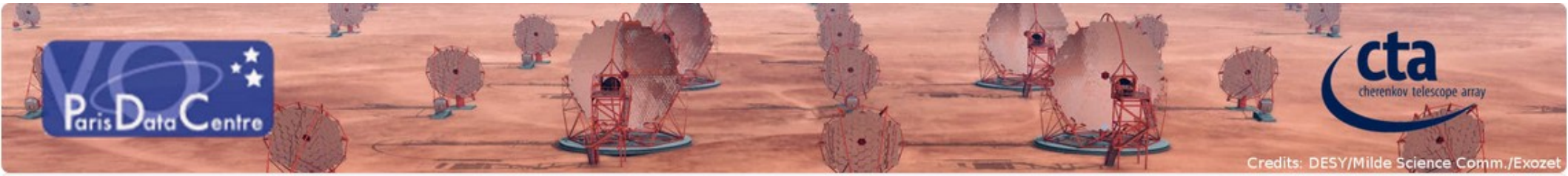
Social Networks: OAuth and OpenID



- OpenID is a way to use a single set of user credentials to access multiple sites
  - *Tested using Django + django-openid-auth*
- OAuth 2 is an **authorization** framework usable for **authentication**
  - *Tested using Django + python-social-auth*
  - Need to **register** the service at OP
- OpenID Connect (now replacing OpenID) sits on top of the OAuth 2.0 framework
  - WebFinger : automatically finds your OP

Testing SSO for CTA VO Data Access

http://voparis-cta-client.obspm.fr/



CTA Data Distiller | Search Form | Sign in

Sign in through eduGAIN

OR

OpenID: OAuth: OAuth2:

OR

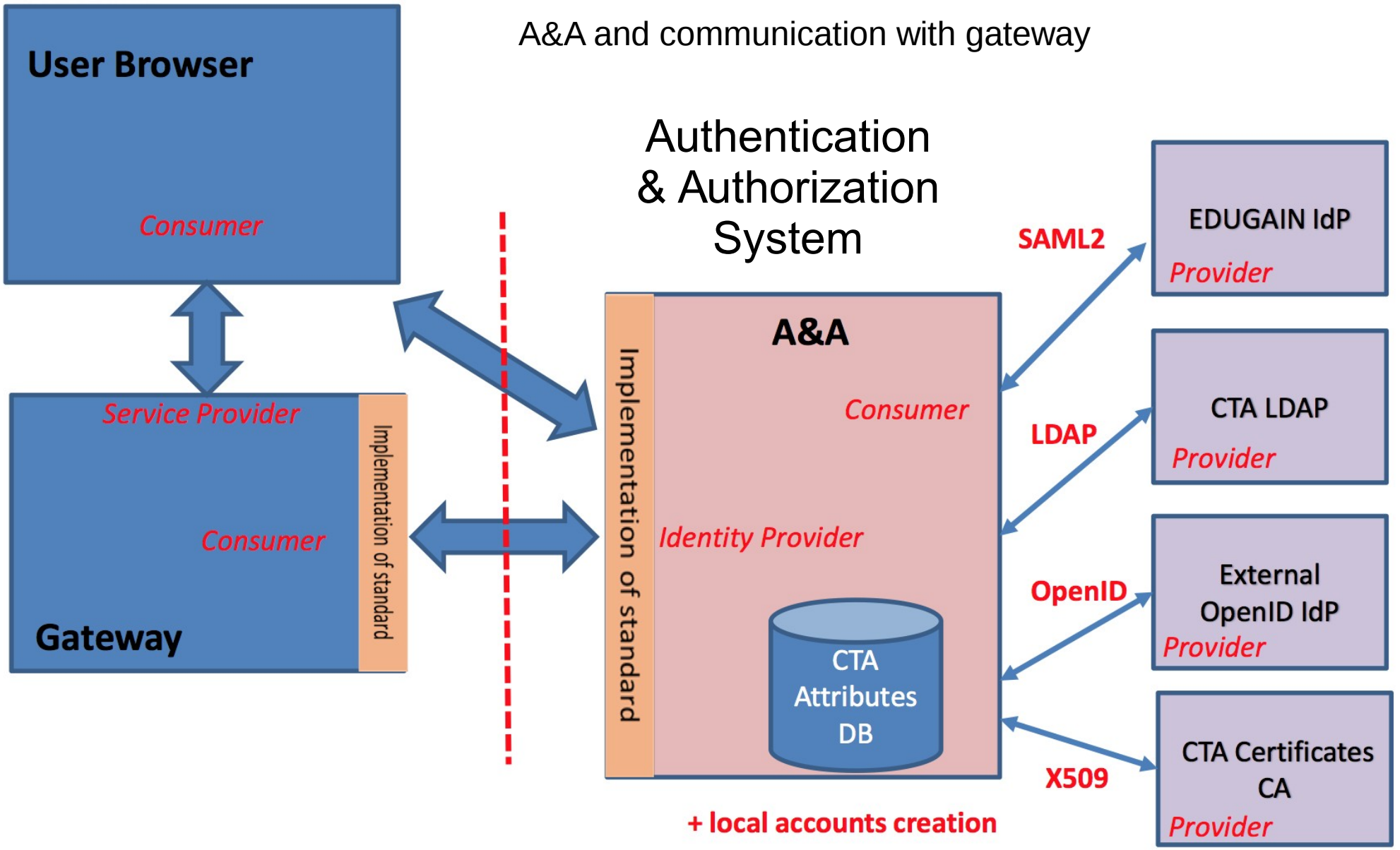
Username: user

Password: •••

Submit | Reset

CTA Science Gateway A&A

A&A and communication with gateway



Gateway common integration rules

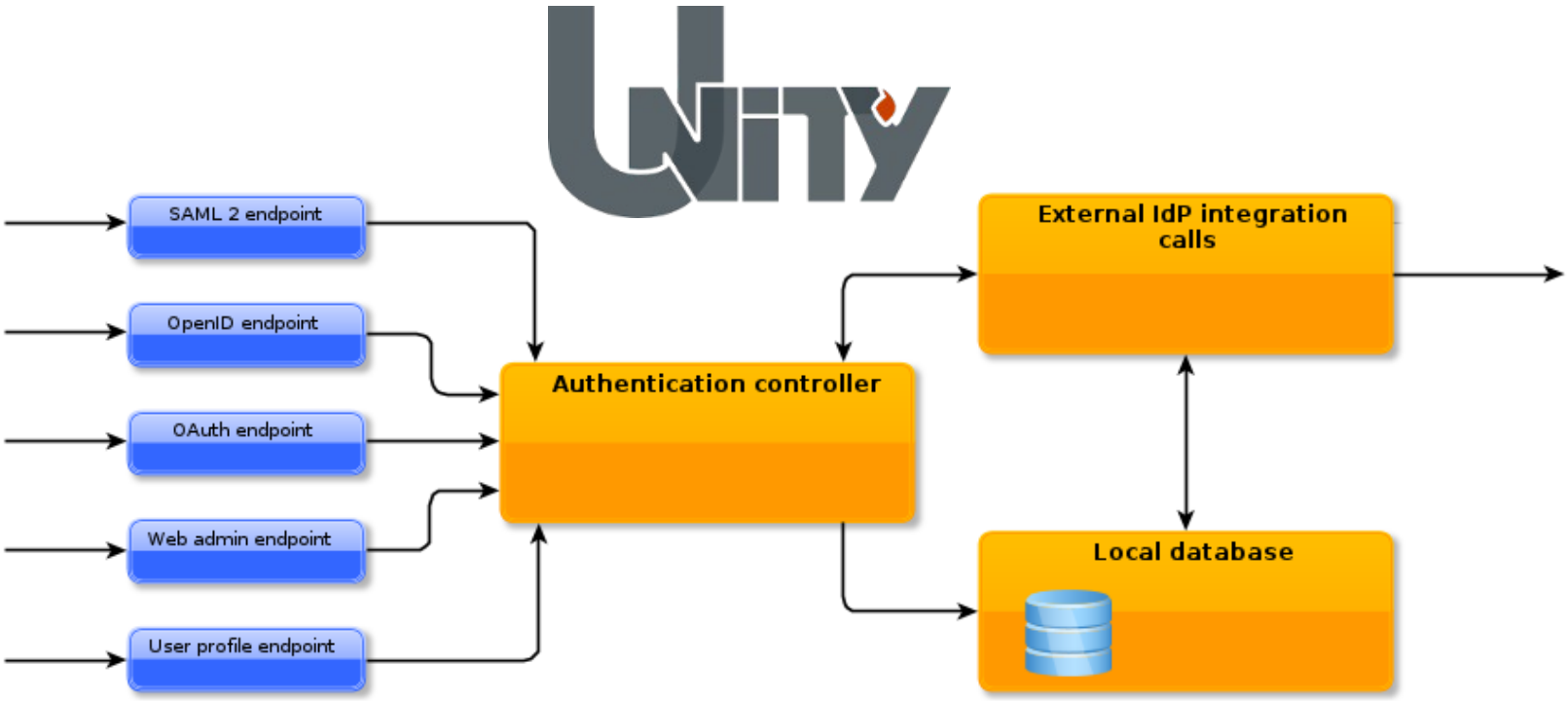
- Top Menu Bar for all applications
  - A common HTML code should appear on all Gateway services, accessible through e.g. a single URL
  - A common style: Bootstrap3 fixed navbar, which is the library already used by the Distiller
  - *Tested for the Data Distiller*, but with its local login engine:

    http://voparis-cta-client.obspm.fr/

- Centralized Authentication Systems **prototypes**
  - Unity
    http://www.unity-idm.eu/
  - Grouper
    http://www.internet2.edu/products-services/trust-identity-middleware/grouper/
  - *Being tested with Django plugins*

A&A with Unity

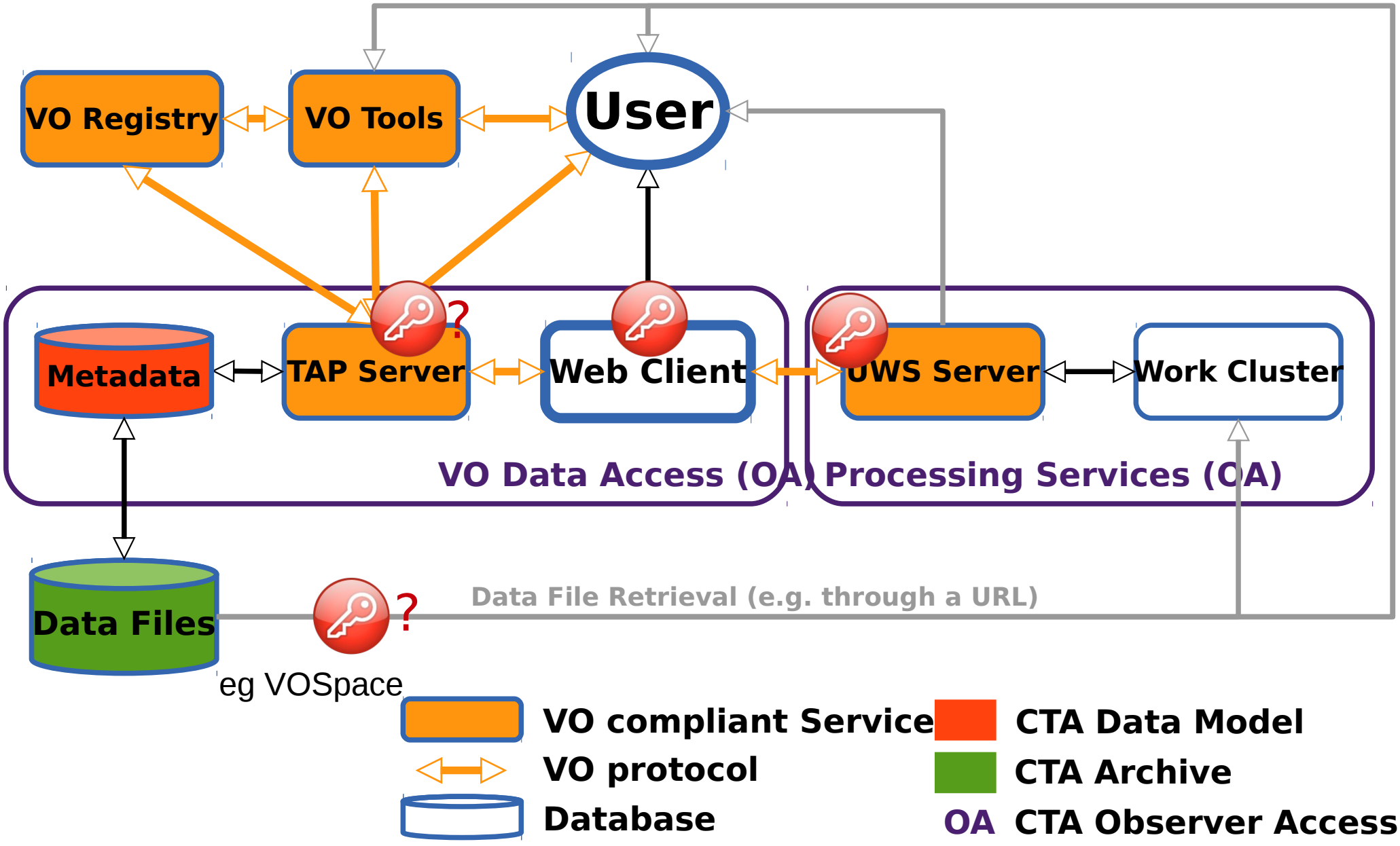
- Solution for identity, federation and inter-federation management
- Lead by ICM (University of Warsaw)
- Open Source (permissive BSD licence)



A&A with Grouper

- Grouper is an access management system, used to create and manage institutional and personal groups, roles and permissions
- Developped by internet2 (US research and education network)
- Open-source software (Apache 2.0 licence)
- Same « spirit » as for eduGAIN and Shibboleth
- Widely used for research and education (LIGO, LHC/Michigan...)

Use Cases: VO Data Access for CTA



Prototype

client.obspm.fr

http://voparis-cta-

CTA Data Distiller | Search Form | Job List | Sign out **user**

Cone Search

Target Name	Crab Nebula
Source RA (deg)	83.633
Source Dec (deg)	22.514
Search radius (deg)	0.001

Submit | Reset

Used to query Simbad with Sesame and set RA/Dec.

- Django, jQuery, BootStrap3
- Name resolver
  Simbad through Sesame
- Builds and Sends the ADQL query

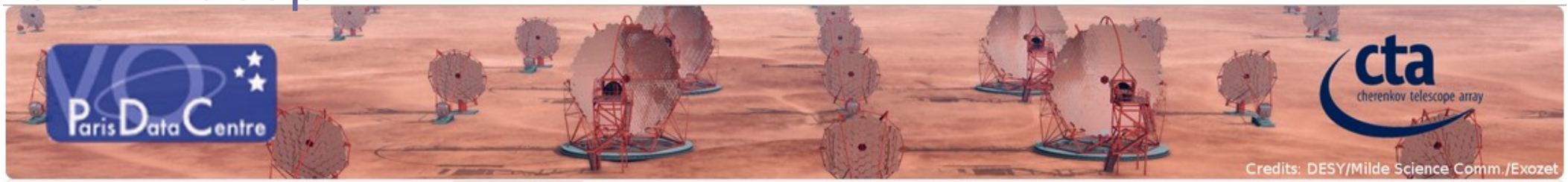
ObsCore Search

proposal_id		Proposal ID
dataproduct_type	Nothing selected	Data product (file content) primary type
dataproduct_level	Nothing selected	DL0-5

Prototype

client.obspm.fr

http://voparis-cta-



CTA Data Distiller | Search Datasets | Results | Job List | Selected Job | JS9 | Authentication: Sign out **user**

Search | Analyse | Visualisation

SAMP

Interop (SAMP)

Send Result Table

Send Selected Data

Analysis tools

Create Count Map(s)

Extract Spectrum

Plotting tools

TOPCAT

Aladin

VOSpec

SPLAT

Results

show/hide query

SELECT * FROM cta.vo_obscore as o WHERE 1 = intersects(o.s_region, circle('ICRS', 83.63308333, 22.0145, 0.001))

Send

ADQL query

ObsCore fields

Search

UWS

	dataproduct_type	obs_collection	obs_id	target_name	s_ra (deg)	s_dec (deg)
☐	eventlist	1	23592	Crab Nebula	82.01333618164062	22.01444435119629
☐	eventlist	1	23559	Crab Nebula	85.25333404541016	22.01444435119629
☐	eventlist	1	23526	Crab Nebula	83.63333129882812	22.51444435119629
☐	eventlist	1	23523	Crab Nebula	83.63333129882812	21.51444435119629
☐	eventlist	3	5003499	CrabNebula	83.28087615966797	21.784133911132812

Showing 1 to 5 of 10 rows 5 records per page

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