



NGS

Shibboleth Access to Resources on the NGS

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Why Shibboleth & Federated Access

- User Friendly
- Scalable
- Secure
 - Enough for resources
 - Discourage less secure activities



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User Focus

- Remove certificates
 - not gone but hidden
- Familiar Log-on
 - Inherited from UK Federated Access
- Use Portals
 - Remove tooling from user maintenance
 - Opportunity for VO hosted Portals



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UK Federation

- Outsource Identity Management
 - We're doing it anyhow (Matriculation)
 - Reduce support costs
 - Systems already exist at institutes
 - Increase Security
 - Phishing harder (familiar URL, branding, distributed, etc.)
 - Identity checked more regularly
 - Less ad-hoc than normal RA-CA operations

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Grid Authentication

- Need robust security
 - Risks
 - IP, data and Identity theft
 - Meeting SLA
 - Licensing
 - Impact
 - Inconvenience, Litigation, Publicity, Reputation.
- Need to be very secure



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Virtual Organisations

- VOs grid's answer to scaling
- Shibboleth doesn't do this well
 - IdP can assert role inside organisation
 - Can IdP assert role inside VO?
- SARoNGS has VO tooling
 - Attributes specific to Federation via Shib
 - Attributes directly from VO too

SARoNGS proxy-ing



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Joining the NGS VO

<https://cts.ngs.ac.uk/scgi-bin/RegNGS.pl>

<http://bit.ly/RegNGS>



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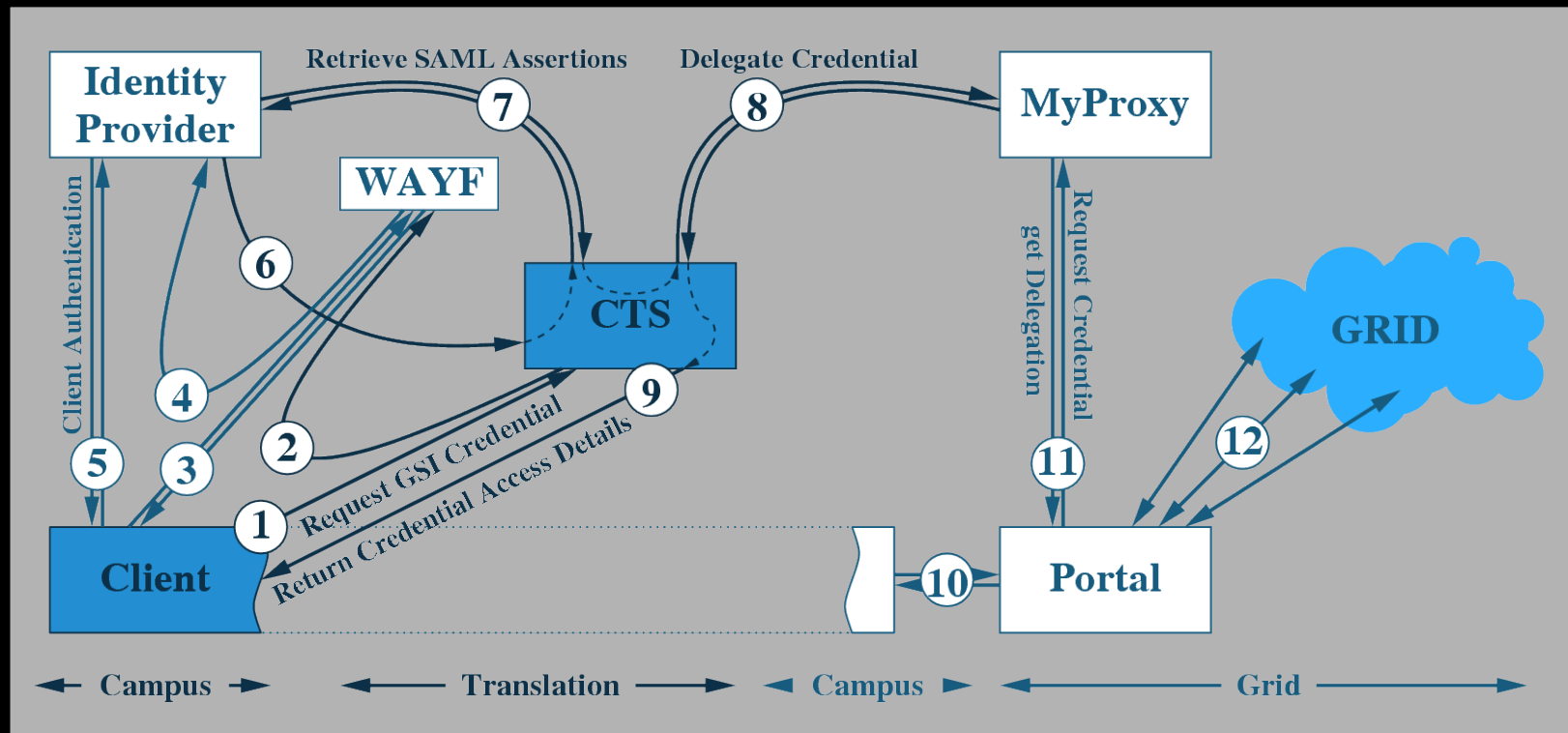
Portals

- Users don't have the grid tools
- Users usually have browsers
 - So we make Portals
 - Use Browsers
 - Provide grid tools
- Shibboleth is browser based



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How does it work

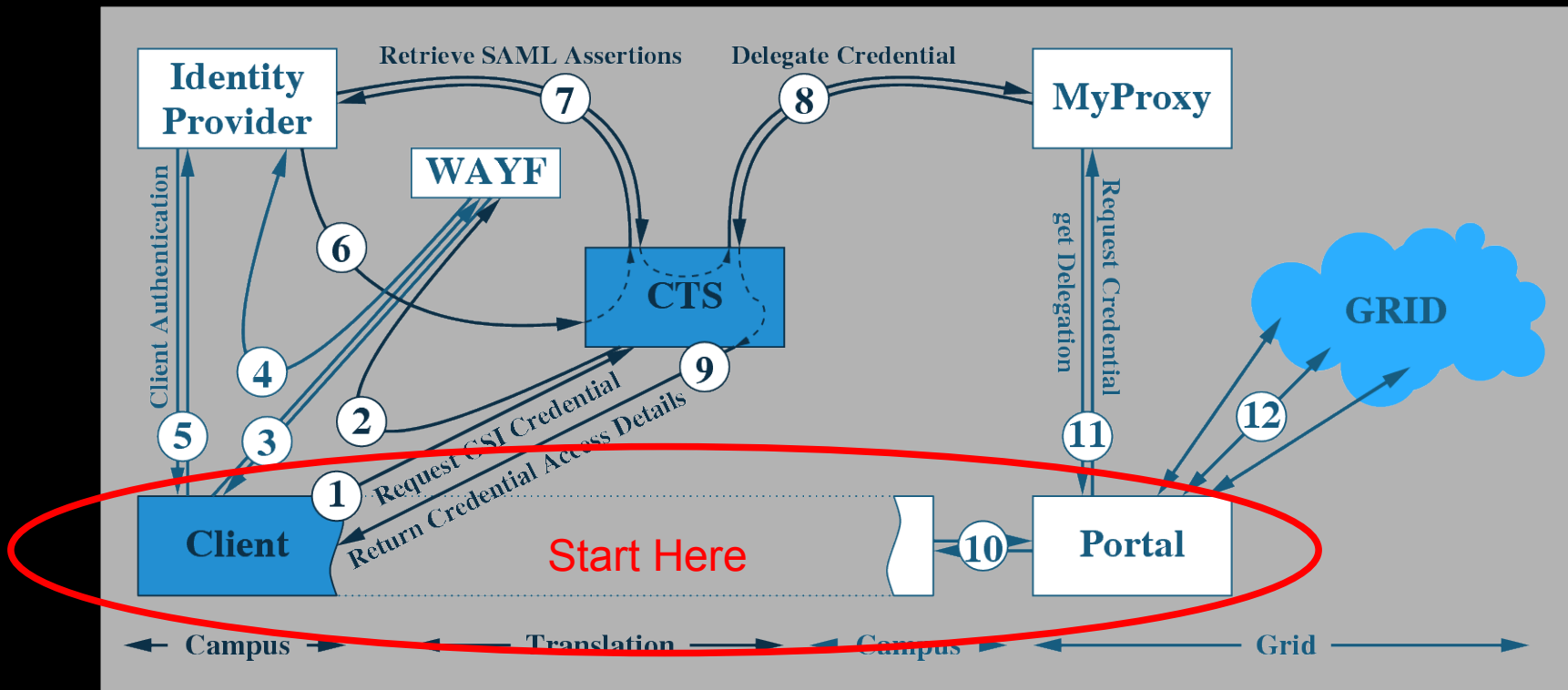


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My Grid Identity: None

Help / Get Started | Logout

- Authenticate
- Applications
- Job_Categories
- Browse_Host
- Data_Transfer
- SrbMdasEnv
- Admin
- Info

Authentication

My Job : JobProfile name

Save SaveAsNew New

My Grid Credentials

You have no Grid-proxy credentials currently loaded

Please Login using one of the methods below

Authenticate using the UK Access Management Federation

* Please note, NGS does not yet fully support this authentication method. Although you will be able to login to the portal, you will not yet be able to submit jobs and manage your data. This will be provided soon. Apologies for the delay.

Login to UK Federation via Shibboleth

Authenticate using MyProxy Server

Upload Credentials: Launch New Upload Tool (requires Java 1.5) | Goto MyProxy Upload Home

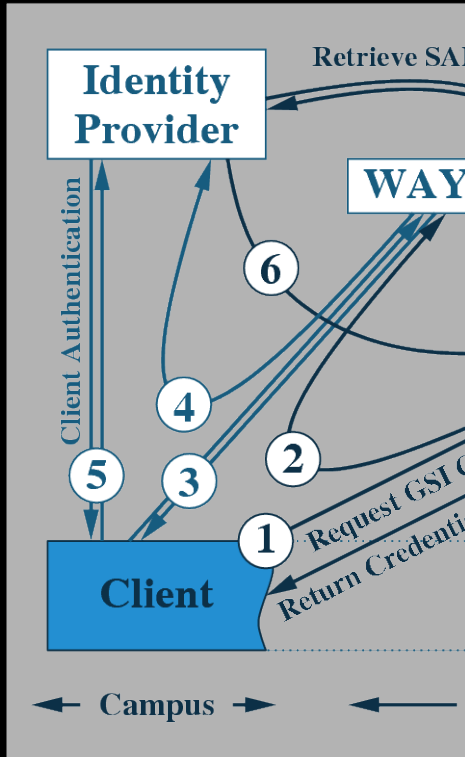
MyProxy Server: //myproxy.ngs.ac.uk:7512

Myproxy Username:

Myproxy Password:

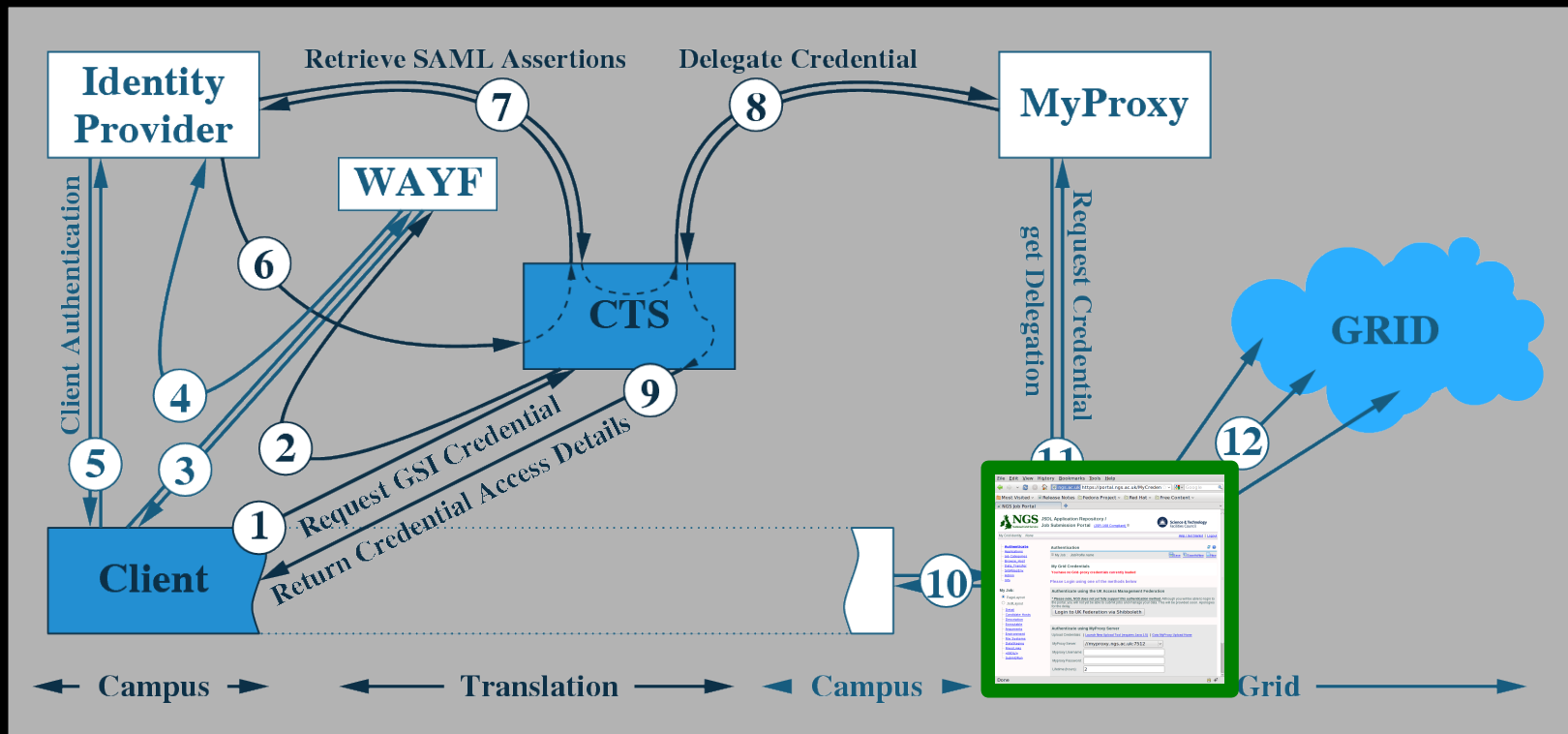
Lifetime (hours): 2

Done





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Select your home organisation

Selection options

The service you are trying to reach requires that you authenticate with your home organisation. Please select an organisation using one of the methods below.

Recent selections

- University of Manchester
- University of Manchester: MIMAS
- National e-Science Centre (Glasgow)

Clear

Choose from list

Aberdeen College Staff

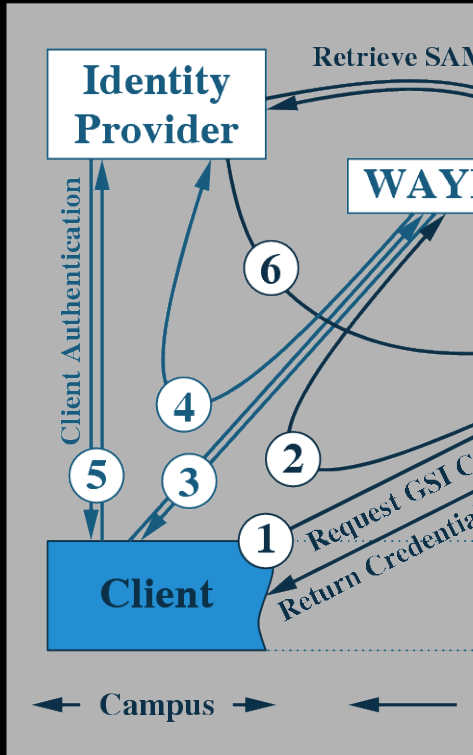
Remember for session

Select

Search by keyword

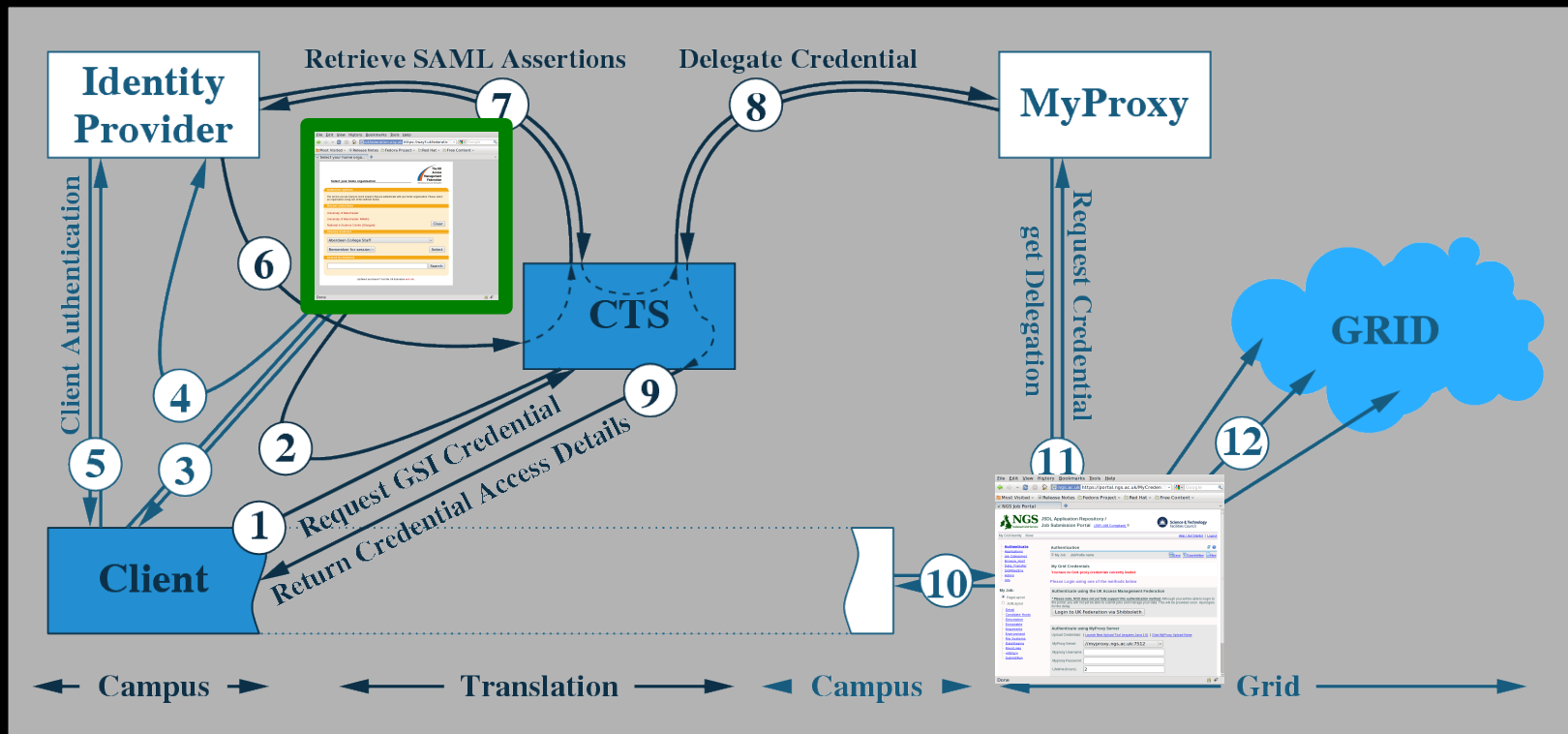
Search

{w} Need assistance? Visit the UK federation [web site](#).





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File Edit View History Bookmarks Tools Help

manchester.ac.uk https://login.manchester.ac.uk

Most Visited Release Notes Fedora Project Red Hat Free Content

The University of Manc...

MANCHESTER 1824

The University of Manchester

Central Authentication Service

[More information](#)

Login with central username and password

Username:

Password:

Warn me before logging me into other sites.

Web Authentication Advice

1. Always check that this page has the correct URL (<https://login.manchester.ac.uk/cas/>) before logging in.
2. **Log out and close your web browser** when you have finished using services that require authentication.

Read more [security advice](#) from IT Services

You are seeing this page because a website needs to check your identity. After you log in you will be returned to the website you wish to access.

Authentication and Authorisation Guides

- [Accessing intranet services](#)
- [Accessing federated online resources](#)
- [Accessing legacy and Athens resources](#)

Your IT Accounts and Online Identity

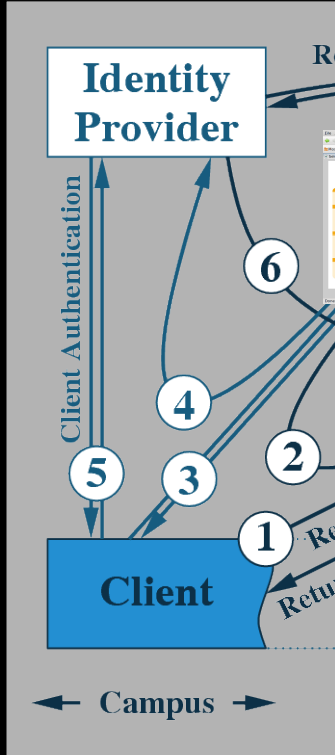
- [Sign Up](#) to get your IT Account, or check [your IT account](#) information
- [Change your password](#)
- Recover a [forgotten username or password](#) or [unlock your account](#)
- Contact [the IT Servicesdesk](#) for help with your IT accounts

Available Features

You may use these types of credentials to log in:

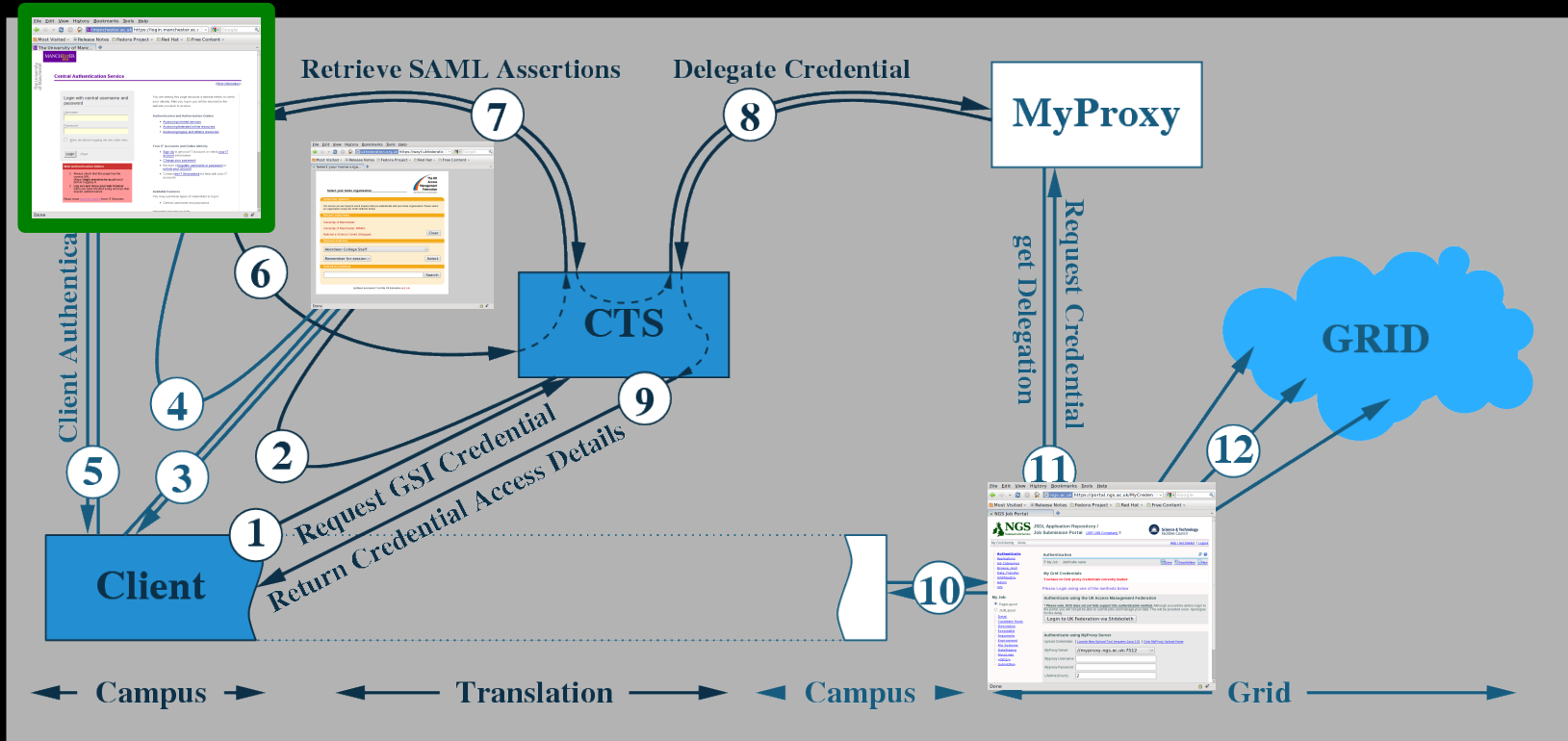
- Central username and password

Integrated services include:





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Your identity has been verified successfully.

To continue the login process with default options click here: [Complete login to portal.ngs.ac.uk](#)

Advanced Options:

You now have the option of adding your affiliation. Use the table below to configure your asserted affiliations. Once you are happy with the format of your credential, click "Continue" to generate it and make it available to you.

[Add VO Attribute](#)

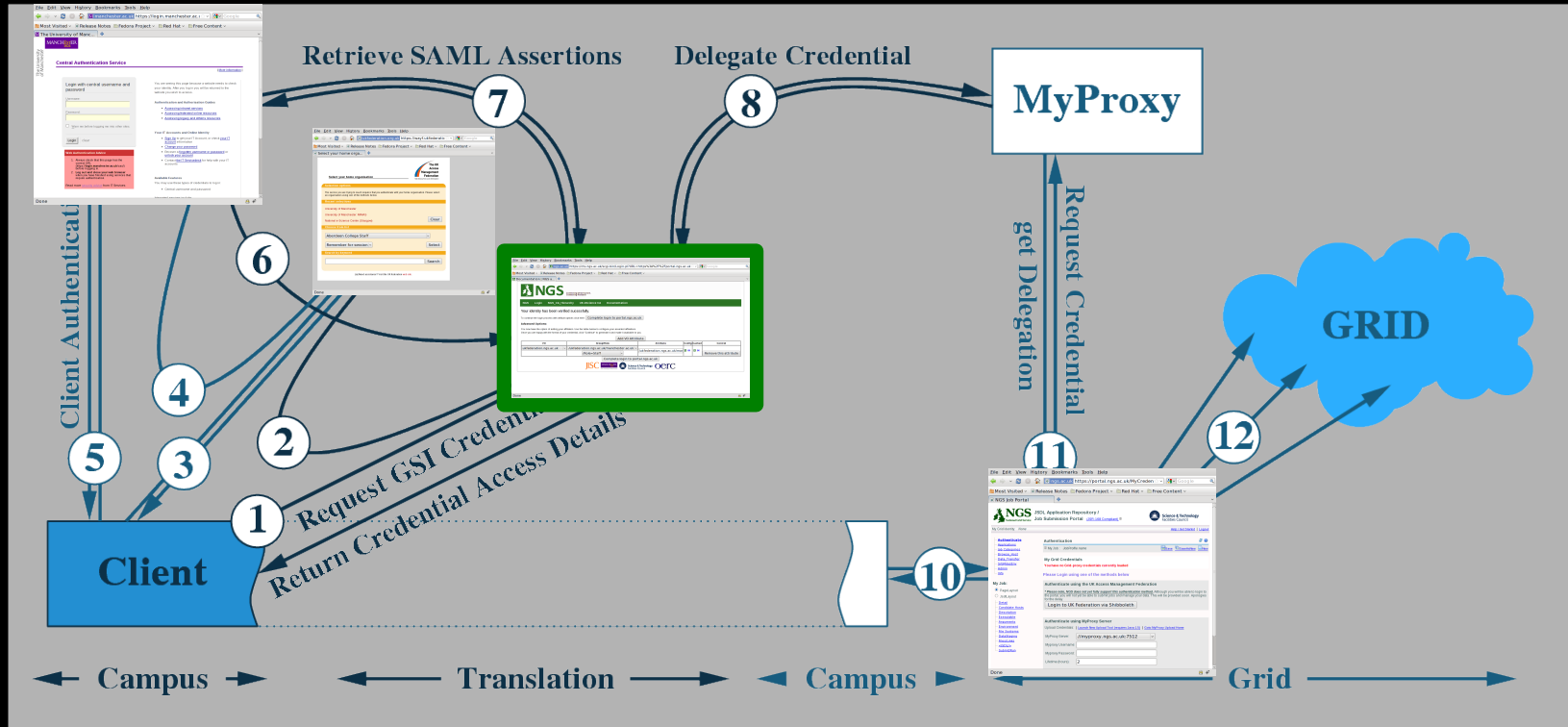
VO	Group/Role	Attribute	Config	Cached	Control
ukfederation.ngs.ac.uk	/ukfederation.ngs.ac.uk/manchester.ac.uk /Role=Staff	/ukfederation.ngs.ac.uk/mar	OK	OK	Remove this attribute

[Complete login to portal.ngs.ac.uk](#)





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My Grid Identity: /DC=uk/DC=ac/DC=ngs/DC=sarongs/CN=50d51d54a1b51e5e0093cbc8a4318c5931cb6d31

Help / Get Started | Logout

Authenticate

- Applications
Job Categories
Browse Host
Data Transfer
SrbMdasEnv
Admin
Info

Authentication

My Job: JobProfile name

Save SaveAsNew New

My Grid Credentials

You have Grid credentials (proxy) loaded

- Grid Identity: /DC=uk/DC=ac/DC=ngs/DC=sarongs/CN=50d51d54a1b51e5e0093cbc8a4318c5931cb6d31
Proxy Timeleft: 1 hour(s) 59 minute(s) 59 second(s)
VOMS: /ukfederation.ngs.ac.uk/manchester.ac.uk/Role=Staff /C=UK/O=eScience/OU=CLRC/L=DL/CN=cts.ngs.ac.uk/E=sct-certificates@stfc.ac.uk 43173264

My Job:

- PageLayout
JSDLLayout

- Detail
Candidate Hosts
Description
Executable
Arguments
Environment
File Systems
Data Staging
Files/Links
<ISDL>
Submit/Run

Please Login using one of the methods below

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MyProxy Server: //myproxy.ngs.ac.uk:7512

Myproxy Username:

Myproxy Password:



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'Applications'

- Directly (via Portal)
 - NGS Portal
 - MIMAS Landmap demo ('09)
 - Manchester's BioPortal
 - OneVRE
 - WRG's P-Grade Portal
 - Taverna 1 Demo ('10)
- Indirect
 - GSI-SSH, MEG, Globus Tools, WMS, SRB



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Applying it

- Put in your portals
 - “Login via NGS” button
- Use grid enabled services
- Accept UK eScience SARoNGS CA
- Accept UK NGS hosted VOs
- or Accept ukfederation.ngs.ac.uk VO



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ukfederation.ngs.ac.uk

- Says you logged-in via the UK federation
 - you have a valid UK account
- Can assert your *scope*
 - (the institution you came from)
- Can assert your *affiliation*
 - role: (staff, member, alum, academic)



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APIs

- We don't really know the VO-scape
- Portals have a better idea
 - They know where you're going
 - They know what you're doing
 - They may be able to guess required credentials
- As yet undocumented*
 - Working with a number of projects



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API Examples*

- External VOMS

<https://cts.ngs.ac.uk/API>

VO=vomss://voms.ngs.ac.uk:15017/manchester.
ac.uk

RetURL=<http://www.yourportal.login>

- Internal VOMS from

<https://cts.ngs.ac.uk/API>

VO=vomss://cts.ngs.ac.uk:443/ukfederation.ngs.
ac.uk/manchester.ac.uk

RetURL=<http://www.yourportal.login>



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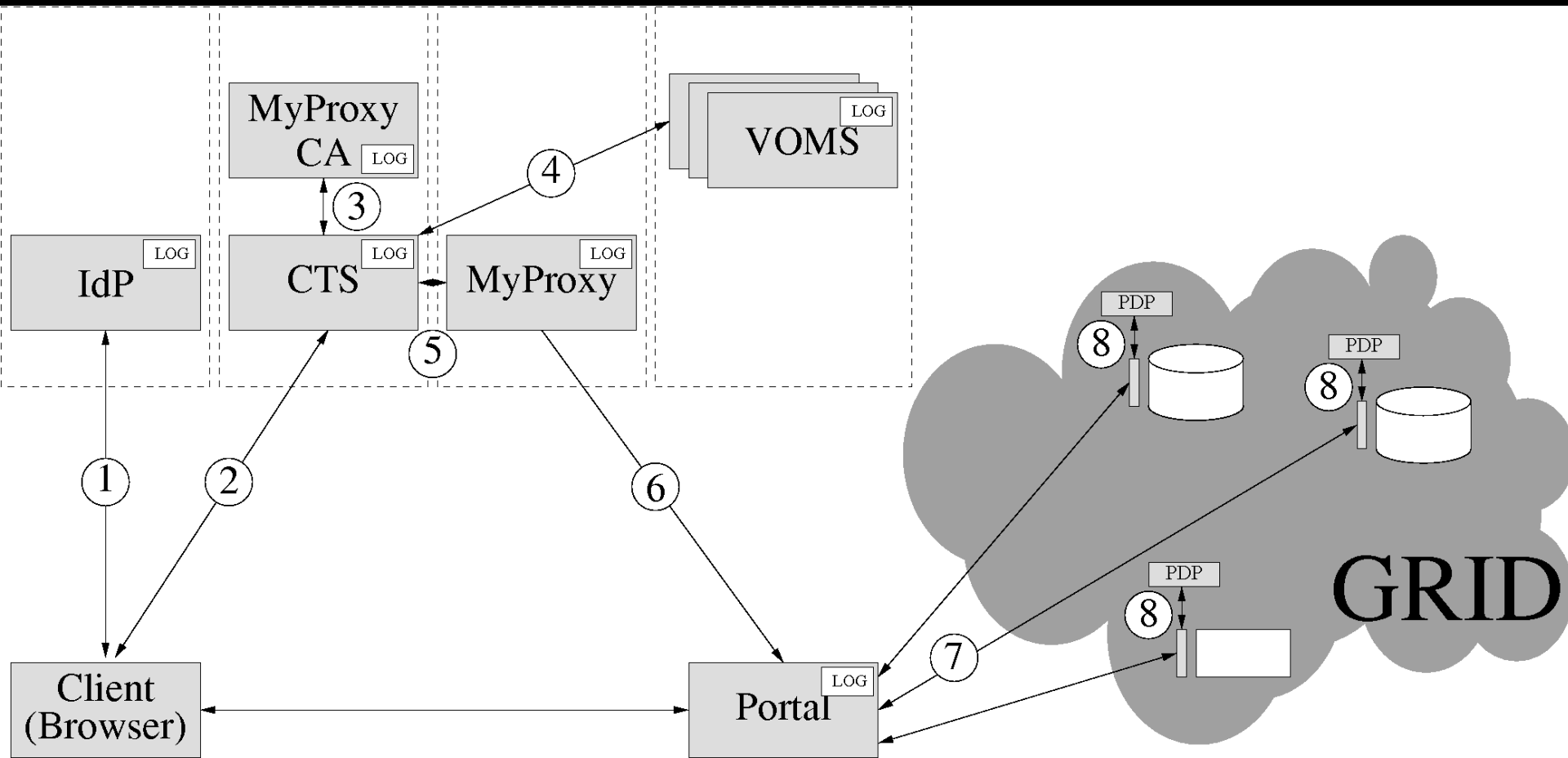
Trust

- Federation
 - Names – get EduPersonTargetedID
 - Roles – member, staff, alum, faculty, ...
 - Audit
- CA
 - ~~IGTF~~ – realistic name, record retention reuse policy
 - MyProxy
- VOMS
 - AUP
 - Third party control
 - VOMS Hosting



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Trust2



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Experiences

- Even experts have certificate problems
- Cannot debug a federation
- Difficult to convince Resource providers to trust us and UK-Fed
- International trust difficult



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Summary

- Authentication based on UK Federation
- Outsourcing trust and **support**
- Long but **trustable** audit trail
- **User** Focussed and **easy** to use
- Elimination of bad security practices

Questions?

Event Twitter tag - #NGSIF10

NGS User Survey - <http://bit.ly/NGS2010>