

The benefits of Shibboleth



Privacy

- Shibboleth enables people to access resources/services without giving away their personal identity
- Shibboleth only ever releases the minimum amount of information necessary for the access decision to be made



Federations

- Federations are 'clubs' where membership is limited to certain classes of organisation eg HE and FE
- They agree to respect certain codes of operation and behaviour and form a 'trust' community
- Federations may have legal status
- The US higher education federation is called InCommon
- JISC will create a federation representing the UK further and higher education sectors



Institutions

- Institutions will become members of the UK further and higher education federation
- Once a student or staff member is registered and given an institutional username and password, this is all they will need to access web resources to which they are entitled
- Access will be just as easy on or off campus
- Easier access means better takeup and use of licensed resources (such as electronic journals)

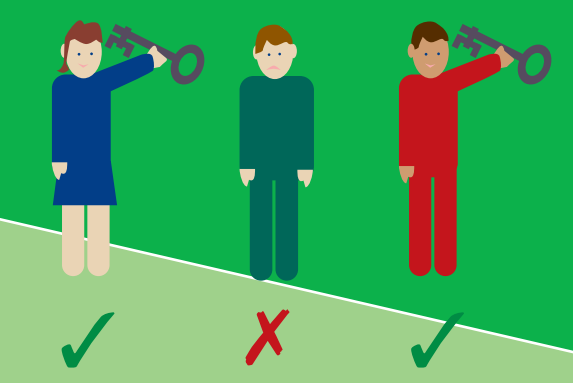


Shibboleth first authenticates the user and then allows access to resources by authorised users only.

Shibboleth allows different levels of access for different types of users so, for example, only the researcher can access the genome database, and only the librarian the library circulation system. However, all can of course access their e-mail accounts.

Suppliers

- Shibboleth is inherently secure and provides guarantees to suppliers that only eligible people get access to their services
- Because Shibboleth can store information about which department users belong to, suppliers could sell products directly to individual departments knowing that only members of that department will be able to get access



Security, privacy and trust are increasingly important in the online environment, as much in education as in the rest of our daily lives. JISC has recently endorsed Shibboleth as the next generation authentication and authorisation system. Over the following pages we explore what Shibboleth is, how it will work and some of the benefits it will bring to UK education and research

Connecting people to resources

Shibboleth is a word that you are likely to start encountering ever more frequently in the coming months. So what is it and, more importantly, how does it affect you and what do you need to do about it?

Whether it is accessing our bank account online, filling in our tax returns on the Inland Revenue website, or ordering our shopping from Tesco, we are facing repeated challenges on the Internet to prove who we are. While these are valued facilities, users are becoming concerned about the number of organisations that collect and store their personal information.

Increasingly, this is an issue affecting education and research too. In order to access e-mail accounts, library borrowing information, or lecturers' notes, students have long been used to having to enter a username and password. But the growing list of different identities is difficult to remember and to keep secure.

Shibboleth is a potential solution to some of these problems but it isn't a product or piece of software. It is the name given to a set of protocols for the secure passing of identity information. It is also built around the important distinction between authentication and authorisation. Authentication is the process of verifying who you are (which university or college you belong to, for

example), while authorisation is the process of deciding whether the identified person has the right to access the protected resource.

Shibboleth works by establishing the institution to which a user belongs, the group to which they belong within that institution (postgraduate researcher, lecturer, undergraduate, librarian, administrator, etc.) and then on the basis of these 'attributes', to decide on the level of access permitted.

So what are the advantages of Shibboleth?

First, there is the issue of privacy. At no time is the identity of the student divulged to the resource provider as a person's identity is stored and checked in only one place.

There is also the issue of trust. The resource provider trusts the integrity of the organisation to keep an accurate and up-to-date record of their staff and students. This is where the notion of federations comes in. Federations are collections of organisations that are

prepared to trust each other and who share some common characteristics. They are typically country-centric. There are federations for example in the USA (InCommon) and Switzerland (SWITCH). JISC is in the process of creating a federation (as yet un-named) to cover all of further and higher education in the UK.

The flexibility of the system means it is feasible for commercial data providers to sell their services to departments within an institution – a research group, for example – confident that access will be limited to that group of people. This



opens the way for providers to strike deals to sell very specialised products to only those departments that need them, without impacting, for example, on the library budget.

In addition, the system provides mechanisms for the creation of ad hoc, cross-institutional groups, such as multi-institutional research teams.

Finally, the introduction of such a system will reduce or eliminate the burden that has often fallen on librarians' shoulders of registering and maintaining huge lists of usernames and passwords for remote resources.

So, you might ask, when is this going to happen in the UK, and what about Athens?

Athens has been a major success story. In many ways, Athens has put the UK ahead of the game, by providing a national security system that allows access to a wide range of resources.

Nevertheless, JISC has decided that Shibboleth is the future and has been working on a migration policy for some months now. Fifteen projects have been funded to explore issues related to Shibboleth. Eleven 'Early Adopter' proposals from institutions have been approved for JISC funding to help them investigate and implement migration to Shibboleth. Finally, a service is being established to provide a helpdesk and other support for these early adopters. Over the next year or so you can expect to hear a lot more about the outcomes of these early experiences.

As for Athens, it must be emphasised that there is no plan to turn it off in the immediate future. Gateways are being developed and tested that will enable Shibboleth institutions to access Athens-protected resources, and vice versa. JISC

will be providing regular information and guidance on developments and timescales to enable organisations to decide for themselves if and when to move from Athens to Shibboleth. Watch this space!

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JISC Briefing paper; Shibboleth - Connecting People and Resources

For further information please go to:
www.jisc.ac.uk/programme_middleware.html
<http://shibboleth.internet2.edu/shib-faq.html>

JISCmail lists:
Discussion: JISC-SHIBBOLETH
Announcement: JISC-SHIBBOLETH-ANNOUNCE

Early adopters programme

JISC is funding a number of institutions to investigate the use of Shibboleth in various contexts. As mentioned above, these experiences will be fully shared with the rest of the community.

A good example is the project run by St George's Hospital Medical School. ADAMS (Authentication and Delivery Across Medical courses using Shibboleth) will test Shibboleth as a means of providing secure delivery of core online teaching resources to any UK university and college involved in

running medical and healthcare courses. It will also allow on-site access to resources for medical and healthcare students.

The project will entail:

- the creation of a Shibboleth 'target'

CASE STUDY

enabling online teaching and learning repositories to be accessed by other institutions

- the establishment of an 'origin' server allowing students access to teaching materials from off-campus locations
- the development of attribute release policies enabling resources to be targeted at specific courses