

# Sussex University



Interviewed: Dave Lewney (IT Services)

## BACKGROUND

Sussex has a tradition of cross-fertilising knowledge between subjects. To that end the University is organised into Schools of Studies and Graduate Research Centres, rather than more traditional faculties or departments. It now offers over 200 undergraduate and 120 taught postgraduate courses.

Sussex University started preparing for Shibboleth in the summer of 2007. At the time, ATHENS was the access management system. However, JISC was withdrawing funding for ATHENS, says Dave Lewney of the university's IT Services, and staff were 'very aware that costs would go up from August 2008. We wanted to avoid that cost and replace it with essentially the one-off cost of implementing a Shibboleth IdP at Sussex. We also wanted control of the whole process, including usage and registration.'

## WHY SHIBBOLETH?

As an alternative option Dave and his staff looked briefly at Guanxi. 'It was very similar but it didn't seem to be mainstream. As we were starting from scratch we wanted to keep in the mainstream, staying with stuff that most people were using. On evaluating the alternatives we decided the most cost effective approach was to install an IdP for the university rather than outsource to ATHENS.'

Furthermore, as Dave points out, Shibboleth is based on trust with each member of the access federation undertaking to maintain accurate records of its members and their status. Some years previously Sussex had had a complete re-write of the IT registration suite, leading to a rationalisation of username space across campus. This is the infrastructure needed to implement Shibboleth. This also meant that IT Services were already familiar with OpenLDAP and OpenSSL.

For all these reasons, Sussex was well placed to implement the Shibboleth IdP. The process took about five months from the start of discussions to deployment.

## IMPLEMENTATION STRATEGIES

The project at Sussex was driven forward by Dave, working closely with other ITS staff and a member of the library staff who is a regular contributor to the JISCmail mailing list on Shibboleth. By way of preparation, Dave made use of the JANET Training course. Meetings with the UK federation also went very well, he says, and the JANET helpdesk was very helpful, answering questions quickly.

To avoid extra cost and to keep control of the project, the work was done in-house. From the initial discussion to the final implementation took four to five months, although development often had to take a back seat according to the priority of other projects. Secure authentication is achieved via OpenLDAP servers, with attributes being retrieved from an Oracle database. Since it has been up and running, Dave says, the implementation has been 'remarkably stable. We've only had one problem in the six months the server has been up. It just carries on.'

---

<sup>1</sup> An open source implementation of the Shibboleth SAML profile, led by UHI Millennium Institute in partnership with the University of Oxford and Leeds University, [www.guanxi.uhi.ac.uk](http://www.guanxi.uhi.ac.uk)

## BARRIERS

Dave describes the main barriers to overcome as 'tailoring web pages and configuring Tomcat.' He admits that 'although I come from a UNIX background I hadn't up to this time worked with Apache (the web server software) or Tomcat (which provides a web server environment for Java code to run in), so there was a learning curve. My advice to others would be to read up beforehand. It's also a bit of a slog if you're not used to XML and SAML, but as soon as you get your head round them it's fairly straightforward.'

That aside, he says that fulfilling the requirements to join the UK federation is very easy.

## TRANSITION

Despite its importance to the university infrastructure, from the point of view of users the project has been kept low key.

'There was no fanfare of trumpets when Shibboleth went live on 1 August,' Dave recalls. 'There weren't many people around then. Implementing Shibboleth is just giving the users what they've already got in a different way. Users have discovered the federation WAYF for themselves and navigated to the Sussex IdP to complete authentication.'

## BENEFITS AND THE FUTURE

Library staff say that user experience is much better than before, especially for off-campus users. Dave adds that the Shibboleth logs give a good idea of which subscriptions are giving value for money.

The main benefit mentioned by Dave is that implementing Shibboleth gives you clean data in an accessible form. Getting data to that point is one of the major points of work in establishing Shibboleth, but it provides a foundation for all kinds of future work.

Shibboleth has now been fully deployed at Sussex but, Dave says, a lot of subscriptions are still based on the IP authentication server EZproxy. As Shibboleth grows in stature in the next few years these services will be migrated enough.

The live IdP at the moment is Shibboleth v1.3. 'We hope to upgrade the IdP to v2.0 in the near future,' Dave comments. 'The next step will be to create a local federation consisting of the v2.0 IdP and to shibbolise local resources.'

*Our thanks to Dave Lewney for agreeing to be interviewed for this case study.*