

West Nottinghamshire College



Interviewed: Sue Sproston, Learning Resources Manager
Heather Peake, VLE Coordinator

SUMMARY

West Nottinghamshire College was a user of Classic ATHENS until JISC funding ceased at the end of July 2008, after which it embarked upon deployment of Federated Access Management. The project was undertaken in-house by college staff from both library and IT disciplines, with technical support, training and some funding assistance provided by Nottingham Trent University.

While deployment is still ongoing, it is clear that the project has been largely successful but not without its challenges. As a result, several operations in the deployment process have been identified where particular care is required.

As deployment has progressed, the administrative burden on those responsible for handling student access to electronic resources has been dramatically reduced as thousands of ATHENS user accounts are replaced with a Shibboleth gateway requiring a single user ID. Further benefits are expected to be realised when deployment is completed in the coming months.

BACKGROUND

West Nottinghamshire College is one of the largest colleges in the East Midlands region. It is a Band G Further Education organisation employing 1000 staff. Some 20,000 learners per year access the college's programmes; of these, some 2500 are full-time students with the remainder undertaking part-time or flexible study.

In November 2006 JISC announced its decision to cease funding for ATHENS after July 2008. Learning Resources Manager Sue Sproston and VLE Coordinator Heather Peake then began investigating alternative access management systems. Sue's priority as a librarian was to achieve seamless access to e-resources for the college's users, while Heather's IT role was to become involved in the technical aspects of deployment and assessing the potential of Federated Access Management (FAM).

Other contributors from the college staff included Sue's line manager Keith Mellor; associate director for IT and learning resources, and Owen Williams, who deals with West Nottinghamshire's CIS system, and worked with Heather on active directory issues.

OPTIONS TO REPLACE CLASSIC ATHENS

One option briefly considered was to outsource the access management function – to another college, for example – but this was dismissed in favour of following the UK federation route. "I had seen ATHENS DA in use," says Sue, "but that didn't appeal for a number of reasons. The cost was certainly one factor but I was also interested in finding out more about the Shibboleth technology that we were using in another project."

The project in question was a joint endeavour with Nottingham Trent University and New College Nottingham, using Shibboleth as a means of sharing careers package resources. Involvement with the latter

provided Sue and Heather with access to technical support and training regarding FAM deployment, plus some all-important funding.

CURRENT SITUATION

At the time of writing, deployment of FAM is still ongoing at West Nottinghamshire. The college currently has access to 15 electronic resources, 11 of which use Shibboleth for access management. Once all e-resources are on board, the priority will be to create the remaining WAYFless URLs¹ to make access for users as simple as possible. As the process demands additional work on top of the normal roles of staff, it is expected to continue for some months but it is hoped that it will be completed during 2009.

TRAINING AND SUPPORT RESOURCES

Heather initially took part in a training session at NTU on how to install the Shibboleth server and the Shibboleth and Apache software. Throughout the project, Sue and Heather have found JISC's East Midlands Regional Support Centre (RSC)² to be a valuable and proactive resource in learning about FAM and keeping them informed about developments. The RSC also hosts and organises a Learning Resources Centre forum.

Other resources that are relied upon include the JISC access management team's blog³ and mail lists⁴, and the UK federation's web site⁵. In addition, Sue and Heather have joined some of the FAM discussion lists and receive useful alerts from the JISC Shibboleth libraries. Heather has also found the Internet2 wiki site⁶ useful on occasions.

DEPLOYMENT OBJECTIVES AND CHALLENGES

The initial objective for West Nottinghamshire was to maintain access to existing resources by having its IdP up and running ready for ATHENS closing down on 1 August 2008. While the college successfully met this deadline, not all of its e-resources made theirs. At least one resource still poses certificate problems, which causes browsers to flag it as a site that cannot be trusted, so students are unlikely to access it.

The process of deploying FAM at West Nottinghamshire has been ongoing since September 2007. Deployment was carried out in-house but with third party help from Nottingham Trent University, which was running a training programme at the time to help others – Heather included – to perform their own installations.

Deployment involved several challenges. Suppliers coming on board just on deadline or after the event were particularly difficult to manage, presenting difficulty in advising users how to access resources. The college produces printed resource access guides in addition to instructions online in the VLE, but on this occasion could not publish full details in time for September. Instead it was necessary to resort to publishing the URL of the VLE for each e-resource, then to update the instructions in the VLE as they became available. Once again the JISC access management team's blog proved invaluable and it was possible to check what was happening with different suppliers from the JISC lists.

The lack of consistent terminology remains a major irritation. Of the 11 e-resources using Shibboleth, seven different uses of terminology have been encountered for the logon script, making communication unnecessarily confusing for students. Examples include 'Enter authentication credentials through Shibboleth', 'Login by UK federation' and 'Login via your Institution'. This has been overcome to some extent by stating within the VLE for each e-resource 'to access from home, click on the xyz link and follow the instructions', but this is still far from ideal. A consensus on the terminology would be the ideal solution.

1 i.e. a URL that allows the WAYF (Where Are You From?) step of logging in to be bypassed in circumstances where the user's Identity Provider is known.

2 <http://www.rsc-em.ac.uk/>

3 <http://access.jiscinvolve.org/>

4 <http://www.jisc.ac.uk/whatwedo/themes/accessmanagement/federation.aspx>

5 <http://www.ukfederation.org.uk/>

6 <https://spaces.internet2.edu/display/SHIB/WebHome>

COSTS INVOLVED

While a formal balance sheet for the project has yet to be prepared, a considerable input of staff time and effort was required to realise the outcome. Each e-resource had to be checked for federation compliance, tested with different platforms and browsers, and have screen shots sent to suppliers to highlight problems needing solutions. The team members even undertook almost nightly testing of resources from home. However, on the equipment side, another advantage of the Nottingham Trent University project, besides training, was that the Shibboleth server was provided and funded by them.

HINTS AND TIPS – AND PITFALLS TO AVOID

Based on their personal experiences during deployment of FAM at West Nottinghamshire, Sue and Heather offer the following advice to others starting out on similar projects:

- Read as much as you can find about the subject first; understand the task in hand and how to approach it before starting. This should continue to become easier as more users share their experiences.
- Familiarise yourself with the terminology and its usage.
- Find out what help and support is available before embarking on the exercise, rather than later stumbling across resources such as discussion lists that could have been useful.
- Know exactly what you should be looking for. For example, it's not sufficient to check that a supplier is a registered federation member on the federation web site;⁷ you also need to check that they are compliant.⁸
- Simple measures such as creating a spreadsheet detailing resources and their membership and compliance status can help to keep track of information being received from multiple sources, and provide a rolling progress report.
- Make sure you get the correct SSL (Secure Socket Layer) certificate. West Nottinghamshire initially had the wrong trust certificate, which only became apparent when Firefox was upgraded and highlighted the problem.
- Allow a lot more time than you anticipate will be needed to allow for unforeseen delays. Registration of West Nottinghamshire's IdP with the UK federation happened almost overnight but registering a Service Provider took a fortnight due to a huge backlog.

So, how difficult an undertaking was it to deploy FAM using mainly in-house resources?

"If you have the pick of the skill sets and you've got an IT team that is familiar with using Apache then you're halfway there already, but if it's all brand new to you it's going to take a bit longer," advises Heather Peake. "I'd done some Apache work with Moodle but decided to use a later, more secure version of Apache for FAM so there was still a learning curve for me. Technicians who are only familiar with Microsoft and IIS might struggle at first, compared to others who are more familiar with open source applications."

WINDOWS OR LINUX?

Mention of open source raises another question regarding choice of operating system. West Nottinghamshire has deployed FAM on a Windows-based platform but Heather advises not to dismiss the open source option if in-house Linux capabilities exist.

"There's a wealth of useful resources available for Linux," she says. "Because Shibboleth was written on open source software, if you trawl the Internet, most of the instruction is for Linux-based servers. If you already

⁷ <http://www.ukfederation.org.uk/content/Documents/MemberList>

⁸ <http://www.ukfederation.org.uk/content/Documents/AvailableServices> and <http://access.jiscinvolve.org/federated-access-and-publishers/>

have Linux experience and Linux servers in your college, you're going to find it a lot easier than working on Windows, because there's so much more help available."

BENEFITS

The most obvious benefit since deployment is a reduction in the administrative workload. This has made a huge difference to Heather, who no longer has to deal with individual ATHENS accounts. While not every student previously had an ATHENS account, most at levels three and four did, so there were literally thousands to administer.

"We used to have to export data out of our MIS and import it into the ATHENS system," recalls Heather; "but that isn't required any more. If a student forgot their password or made a mistake in their e-mail address, the problem ended up at my door. But Shibboleth reads the username and password directly off the active directory, and now there's a mechanism in place – one that doesn't involve me – to help users who forget their username and password. Having the same username and password across the board is another obvious benefit, as there's less for the learners to remember."

FUTURE DEVELOPMENTS

As Autumn 2008 was the first term that the new system saw use, both Sue and Heather think additional benefits are likely to become apparent as usage becomes simpler and more widespread. Access was a little long-winded at first – after clicking on the link to a resource, there were a number of subsequent steps needed to gain access. WAYFless URLs were set up to bypass these stages and get straight to the institutional sign-on page; however, these still had to be created individually for each resource which required more work.⁹

While the current focus is on federating only external services, in the longer term the college also hopes to act as a provider of resources for internal use. There has been some progress on a project with a local school regarding information about learners' attendance but that is currently on hold until the school has its IdP set up – it may still come to fruition in the longer term. In the future West Nottinghamshire is likely to use Shibboleth for any other applications that it wants to share; for example, it may be possible to use Shibboleth authentication for West Nottinghamshire's various Moodles.

CENTRALISED EFFORT?

On top of planned developments, there is the hope that some form of centralised effort may eventually be realised, perhaps via JANET intervention. In particular, Sue Sproston comments that while some resource suppliers create WAYFless URLs on behalf of their users, in most cases it seems to come down to individual colleges or universities to do this for themselves. If a single organisation were to collate WAYFless URLs from their various creators and make them available as a central list, this would certainly make life easier.

⁹ A list showing the services that have created WAYFless URLs is available at:
<http://www.ukfederation.org.uk/content/Documents/WAYFlessServices>