TRANSCRIPT OF AUDIO FILE

Mark Vevers, Technical Design Authority, Glow Team, RM

Glow is Scotland’s national intranet, and it provides a collaboration space for students and teachers across the whole of Scotland. And within that you’ve got tools for web conferencing, tools for blogging, abilities to share teaching materials and documents and other information, and there’s also an embedded virtual learning environment within that. The user information that drives Glow from behind the scenes is actually provided from the schools’ MIS systems, and that information is fed to us automatically overnight through a process from various different vendors’ solutions. And that allows us to be able to provision user accounts across Scotland without users having to re-enter information. It also provides us with opportunities to do identity matching. So, for instance, where a pupil might attend two schools, which does certainly happen at the higher end of schools, and we don’t want to create two accounts for them, we want that pupil to only have one account and to take their information with them. So that collection of the user identities and information, and the processing behind the scenes, provides that user to take their account with them throughout the life of Glow.

And for instance a teacher moving between local authorities, they’ll take their account with them when they go. So that’s really quite a new thing, actually being able to take your data, in the same environment, from one local authority to another. The MIS provides us with sufficient information to do an identity match, but it also provides which establishment the user is in, what role they have within that establishment – so whether they’re a teacher, a student, a non-teacher – and it also provides information such as parent groupings. Because one of the things that we want to involve and we’re starting to involve is to get parents involved with this. So a parent might have a student – you know, students or pupils in more than one school. You know, it might be two or three schools. And it allows us to actually provide that parent with an overview, from one account, of all their children. The unique thing about Glow is that it’s a national solution for every local authority in Scotland, and this is the first time that something like this has actually been done. And it brings a whole group of tools together within a single sign-on environment, and it’s the same environment across the whole of Scotland. And it provides opportunities not previously possible for local-authority-to-local-authority

collaboration. You know, just because you’re a student in Glasgow doesn’t mean that you can’t be working with a student in Shetland now. It also provides other facilities for local authorities to pool resources, for instance specialist teachers and things like that, actually working across multiple schools in a way that just wasn’t possible before.

The Glow project is actually funded by the Scottish government, and it’s actually managed on their behalf by Learning and Teaching Scotland, the education and curriculum authority within Scotland, and it’s provided by the contractor, RM. Because Glow is a national solution, it allows Glow to act on behalf of the local authorities as far as providing identity services is concerned. So the local authorities outsource the IdP role to RM, who is the contractor delivering Glow. And that means that RM can take on the complexity of providing a highly available identity management service, and also handle all of the identity managing and the provisioning behind the scenes. So one of the great things that Glow allows users to do is it allows them to work, as I’ve said, across schools and local authorities. And a good example of that was on 16 June, when 90 schools and over 3,000 pupils met within the Glow web conferencing service. And the purpose of that was to meet an astronaut, two astronauts from Nasa, and to be able to ask them questions. So a number of questions were submitted beforehand and additional questions were actually asked on the day, and it allowed pupils to get a really good insight into what it was like to actually be an astronaut. To enable this to happen, what happened was a couple of schools took the lead in terms of actually making the contacts with Nasa, setting up the Glow group within the portal to invite all the other schools in and to collect together the questions beforehand. And then all that the schools that were participating needed was a webcam attached to a laptop. Some schools actually were able to use a projector and put that up on the whiteboard so that whole classes could join in. But it provided an easy way for, you know, a large number of pupils and schools to actually collaborate and get a much richer experience than they would normally have been able to do. One of the advantages of having the single sign-on service within Glow is that with their one account the users not only gain access to the portal but it was also then possible to grant them access to the web conference, without the user even being aware that it was being done behind the scenes. So when the user logged in they were just invited to join the conference. They went into the application software, the single

sign-on service took care of all of the authentication behind in the background, and they were seamlessly joined into the web conference, and only those users that were supposed to be there were there.

Another great example of Glow in action was towards the end of June when a primary school in West Dunbartonshire hosted a Dr Who event, from the BBC’s Dr Who series, where Steven Moffat, who’s the head writer and executive producer, and Nicholas Briggs, who’s the voice of the Cybermen and the Daleks, came to visit. And a number of schools gathered on Glow Meet for that. In total over 6,000 pupils were able to watch this event take place. And within the primary school itself it was typically pupils from ages about three to seven, and they gathered in the assembly hall and they asked questions directly with Steven and Nick. Questions were received both before the event using the collaborative tools within Glow and then during the event using the web conferencing service. And it was great to actually see questions being answered for pupils who would never have been able to ask those questions, and get the answers, get some really quite interesting answers as to how the characters were created. And it was a really great experience for pupils across Scotland.

Glow is actually quite a big project. One of the things that we had to deal with was with the solution’s scale. When you consider that we’ve got 700,000 potential pupil accounts and 50,000 teacher accounts, not to mention other local authority staff and users, and on top of that we hope to eventually have another probably about 700,000 parents actually provisioned within the environment, so we’re talking eventually ending up with the possibility of one and a half million users. Now, at this stage we have over 700,000 accounts provisioned. Not everybody’s used their accounts yet, but their usage and uptake are definitely increasing and we’re seeing a lot more activity across Scotland with Glow. One of the things that was very important in order to allow users to be able to access all of these services was that they didn’t have to remember half a dozen usernames and passwords, which would have been a huge barrier to uptake. And so one of the key requirements in the original statement of requirements for Glow was that it was a true single sign-on service. When you log into Glow, whichever component you log into – whether that’s a virtual learning environment or whether it’s a web conference – when you visit another component of Glow you’re not asked for your login again. Glow already knows who you are, and you go straight into the service you want. The

federated access management and single sign-on services within Glow are coupled fairly tightly together. The single sign-on service is actually provided by Oracle COREid, and that’s dependent upon Active Directory. But then in order to actually make use of the sign-on service and to allow users to access resources not just within Glow but actually resources outside of Glow without having to log in again, we then use the Shibboleth service. And that is actually part of the UK Access Management Federation, and we tie into that, and it allows a user just to be able to click on a link within Glow and access a resource provided by a completely different company or resource provider without actually having to sign in again. Because Glow is actually a member of the UK Access Management Federation it actually allows users within Glow – so teachers and pupils – potentially to access resources not just within the schools sector but actually to allow teachers, for instance, to access materials that might be within a university environment. So because the universities are members of the federation as well, if they trust our authentication service to provide them with the credentials that they need, it will enable that to happen without the users actually being issued with another username and password.

One of the key differences that integrated identity management and federated identity management within Glow has made is that not only does it allow users to connect to resources and service providers that we would never have dreamed of at the inception of Glow, it also is allowing us now to start to actually plug in newer services in a much easier way. So some of the newer services such as the blogs and the wiki service, they actually make use of Shibboleth as a service provider, and they retrieve their identity information and their sign-on information into that. And the great thing about that is the blog service is actually a version of WordPress. Somebody else has already written the Shibboleth plugin module for WordPress, and with only a small amount of adaption we were able to integrate an off-the-shelf best-of-breed product into our environment and provide identity-managed access into that product without actually having to take it to pieces first and rebuild all of the authentication mechanisms within it.

More recently, one of the things that having a federated identity service within Glow, the single sign-on service within Glow, has enabled us to do is actually to provide effectively a directory service to the new National Assessment Resource that’s being jointly developed by the Scottish Qualifications Authority and Learning

and Teaching Scotland. Now, this resource will be holding things like example exam questions and tests and other resources that teachers can combine together into example papers to work with their students. And it will also allow the SQA to collect questions together in order to provide the actual national assessments. So obviously this has to remain separate to the Glow environment. But by using Shibboleth and the single sign-on service within Glow, and the federated access, federated identity management, into that, it means that the users still only have to use one username and password but that NAR, the National Assessment Resource, doesn’t have to build another national directory of users.

ENDS