

1. The NEN Technical Strategy Group meeting of 15th July 2008 discussed the available options for identifying individual schools sector organisations within the UK Access Management Federation. The outcome of the discussion was to form a working group which would formulate a “synthetic” scope for the deployment of federated access management in the schools sector. After preliminary discussions this group met via conference call on 30th July 2008 and these notes document the discussion and decisions taken at that meeting.
2. As schools are able to procure their own online services and the aggregation of procurement at Regional Broadband Consortium (RBC) and Local Authority (LA) level could also provide services to selected schools, a method is required to identify those individual schools to the service provider in the scope asserted for authentication.
3. The method currently deployed in the federation is to assert the organisation’s domain name in the scope; however, it was felt that the schools sector was subject to frequent change of this domain name and could be regarded, in some cases, as unreliable in uniquely identifying schools.

DCSF/DfES number

4. It is recognised that a school’s unique identifier is their DCSF number (formerly DfES number) and service providers also use this reference in identifying schools with whom they have a license agreement for the provision of services.
5. The number consists of a three digit local authority code and a four digit school code. Together these make up the 7 digit DCSF school reference e.g 123/4567 and it was proposed that the scope utilise this number in some way.
6. Some thought and discussion was given to whether the number needed to be separated into the different LA and School parts and, if so, how? One option was to keep the format of the number and separate it with a dot. This would be familiar to all concerned in dealing with the number, however, the domain name system reads the number from right to left and the alternative option, therefore, was for that hierarchal convention to be observed and for the three digit LA code to be placed on the right. It was agreed that this format would be adopted i.e 4567.123
7. A suggestion was put forward for the first four digits to be alphanumeric. This would allow identity providers to reference other organisations coming under their remit who may not have a DCSF number e.g libraries or city learning centres.
8. It would be up to the IdP to make sure that their service providers know the meaning of the locally defined reference.
9. An agreement was reached to format the first four characters as alphanumeric with the recommendation that where the reference was alphanumeric it began with an alpha character to make a distinction between the true DCSF number and a locally defined reference.

Example: member@z555.123... Note that scopes are case significant, even though the DNS names on which they are based are not. To avoid interoperability issues, IdPs should express any alphanumeric references as lower case throughout.

Country Code

10. There is a possibility that DCSF numbers may be duplicated across boundaries of naming authorities. In order to provide further clarification of the reference number it was

proposed that a country identifier also be included in the scope. This would be placed after the three digit LA number.

11. An action was set on the operator to canvass opinion on the format of the code for each country involved in order to provide a definitive list. A technical point was noted that given this flexibility we should make efforts to keep them all the same character length. Suggestions were made for those representing England and Scotland of “eng” and “sco” respectively. Agreement will be sought for these and the other codes when more was known of all parties preferences.

Example: member@5678.123.eng...

Organisation Type

12. The provision of an organisation type such as the addition of “sch” after the country code was discussed. It was noted that as the four character reference could be set to take account of different organisations, and the format of that could indicate to the IdP what organisation types they were, there was no need for an additional code. It was, however, agreed to allow an arbitrary local extension to permit the identification of things like sub-institutional licenses.

Example: member@xxx.5678.123.eng...

DNS “tail”

13. The final section of the scope has to be a registered domain name in order to preserve the unique quality of the scope. By using a registered domain name the DNS will give resilience against clashes.

14. It was proposed that the domain name “nen.gov.uk” was used as it was utilised by a school sector body and the promotion of that organisation was a useful aside to its deployment. It is, however, owned by the DCSF and may be subject to change on, for instance, government re-organisation. Although a change in name would not affect the working of the scope per se it would require that its meaning be retained in some way for future reference.

15. The other proposal was “ukfederation.org.uk” which was registered to JANET(UK) as the operators of the UK Access Management Federation. As such, the operators have control over the domain name format and it is less likely to be subject to change. However, if such a change occurred, the operator would be aware of the implications of this and obliged to document the process for the benefit of its members and future deployments. If, in the future, JANET(UK) ceased to be the federation operator then all registered federation domains would be transferred to any subsequent operator.

16. One of the reasons it was decided to formulate a synthetic scope for the schools sector was the chance of the sch.uk domain name being changed by the schools or LAs. It was suggested that the domain name used in the scope should have the greatest longevity possible at the time of discussion. It was agreed that “ukfederation.org.uk” offered the greater longevity and also allowed for the deployment of further synthetic scopes, if they should be required, for other sectors participating in the federation.

Summary

17. The discussions resulted in a well defined scope for deployment in the schools sector and consists of:

- A four character alphanumeric reference and a three digit local authority code to represent the DCSF number or a unique reference within the LA.
- A country code of which “eng” and “sco” were suggested with further work to be done to define codes for Northern Ireland and Wales.
- The domain name “ukfederation.org.uk”
- Provision was also made for the insertion of a reference before the four character reference if further definitions may be needed by this or other sectors in the future

Scope format therefore = [member@xxx.%%%%.nnn.ccc.ukfederation.org.uk](#) (where xxx is optional)

Examples:

Using DCSF number

student@**1234.567**.eng.ukfederation.org.uk

Using locally defined alphanumeric reference

student@**a234**.567.eng.ukfederation.org.uk

Using optional organisation type code

student@**lib**.1234.567.eng.ukfederation.org.uk

18. The recommendations set here will be implemented and documented by the UK Access Management Federation and published via its Technical Specifications.

19. Participants of working group to define this scope where:

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|-----------------|---------------------------------|
| Ian White | SWGfL |
| Ian Lehmann | LGfL |
| Patrick Kirk | Leeds Learning Network |
| Peter Thewlis | EMBC |
| Stuart Campbell | Learning and Teaching Scotland |
| Jonathan Hunt | Becta |
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