

Feasibility of a Cross-Jurisdiction Common Access Management Federation Agreement

Preliminary Report of Findings

January 2008

This document states the preliminary findings of JISC Legal in its investigation of the feasibility of a cross-federation common access management federation agreement. This project is funded under the JISC's Access Management Transition Programme.

1. Scope

The project considers the legal and organisational barriers to the adoption of common agreements in relation to federation-identity provider and federation-service provider agreements, and in relation to interoperability agreements between national federations. It will not consider the technical issues of federation operation or interoperability.

2. Context

This study has been undertaken at a time when the furthest developed federations have progressed beyond early stages, and are showing signs of embedding and stability. At the same time, other federations are progressing beyond the early stages of establishment. The stage of development of a federation is likely to affect the feasibility of common agreements being adopted: a well-established federation will need good grounds for undoing previous development, and accepting compromises.

In this light, it is important for the intended benefits of potential common agreements to be identified. In previous work done in this area, it was concluded that

“the divergent national federation policies in place (particularly in Europe) could hinder operability”.¹

To this end, the Curtis+Cartwright report recommended that JISC works in partnership with others to

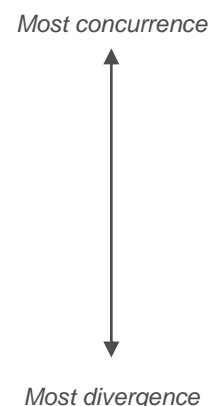
“encourage, as far as possible, concurrence between national federation policies to support future inter-federation interoperability”.²

¹ Curtis+Cartwright Consulting, *Federation access management: international aspects*. June 2007, paragraph 14

² *Op.cit.*, paragraph 19

To this end, JISC Legal has investigated whether, in legal and organisational terms, the development and adoption of common access management federation agreements. In considering the feasibility of concurrence, the following degrees of integration have been evaluated as outputs:

- A single set of templates adoptable as-is by participating federations in any jurisdiction
- A set of adaptable templates adoptable with local variation by participating federations
- A framework template, with detailed development left to participating federations
- A verification or information scheme, certifying that federation agreements meet certain criteria
- Independently developed federation agreements (as present)



Adoption of approaches with high degrees of concurrence is likely to lead to the greatest disruption to the present state of affairs. It is therefore clear that these approaches are only feasible if the federations involved are strongly committed to the achievement of convergence and its benefits.

The adoption of common frameworks and templates would have the effect of imposing compromises on some if not all of the participants. An evaluation was conducted of the benefits of convergence against the benefits of independent development of agreements, and the result of this analysis is as stated below:

<i>Benefits of convergence</i>	<i>Value of Benefit</i>
Aids interoperability between federations	<i>High</i>
Minimises agreement acceptance difficulties for service providers and federations	<i>High</i>
Reinforces knowledge of agreements	<i>Low</i>
Minimises focus on differences of policy	<i>Low</i>
<i>Benefits of independence</i>	<i>Value of Benefit</i>
May avoid a highly legalistic approach	<i>Medium</i>
Allows adaptation to local situation	<i>Low</i>

Looking to the objectives which are likely to drive the process of convergence, the following successful outcomes and failure outcomes can be identified:

<i>Success scenarios</i>	<i>Failure scenarios</i>
Federations undertaking agreement revision processes to adopt new common agreement	Few or no federations undertaking agreement revision processes to adopt new common agreement
Increased sign-up of service providers to national federations due to lower entry barrier	Federations making substantial changes to the common templates before adoption
Minimum focus on agreements, with risk managed in perspective	Agreements remaining an issue whilst federations and interoperability develop, with risk blown out of perspective

There is evidence to suggest that peering is taking place by way of informal bilateral or multilateral agreements between federations. This is likely to be *ad hoc*, and is likely to be unsustainable when scaled-up.

In order to achieve certainty and credibility, it is clear that a more consistent approach be adopted. However, an important prerequisite is sufficient convergence at national federation level in order to make dealing with interoperability agreements manageable:

“One [interoperability] model is where identity providers within a federation can gain access to specific services within another federation by exposing the federation metadata to that federation. [...] This model could work where federation policies are very similar and little trust is required.”

2.1. Analysis of Service Provider Attitudes

From the survey feedback and other evidence, it appears that although service providers are in favour of consistency, they are nonetheless used to dealing with varying agreements. This is particularly so because they have the expertise ‘on tap’ to review such agreements. Publishers have expressed a preference against overly bureaucratic or legalistic frameworks, though they expect certain basic criteria to be met. Likewise, and unsurprisingly, they would oppose any more onerous provisions which may be put upon them in terms of liability or data protection.

3. Analysis of the Legal Context

As part of its work JISC Legal has conducted an analysis of the following areas of law:

3.1. Intellectual Property Rights

AAI will typically be used to manage user access to resources dependent on the contractual right (licence) held. Where a user is incorrectly permitted to access copyright-protected resources, that access will usually be an infringement of

intellectual property. The licensing of resources to users takes place between the service provider and identity provider, without the involvement (in legal terms) of the federation organisation. However, the service provider may lose trust in a federation if it recognises intellectual property breaches taking place, irrespective of responsibility.

An intellectual property issue may arise in relation to the federation in the case where it is the erroneous operation of the federation's AAI which allows a user to access materials without the relevant right. This could give rise to a liability as secondary infringement of copyright, as breach of a contractual obligation (the federation agreement with the service provider), or actionable negligence for failing to take reasonable care.

3.2. Contractual Relationship Issues

Federation agreements will typically have contractual status. This requires that the parties involved are constituted as legal entities having the power to enter into a contract. This may be an issue in relation to federations formed by loosely-cooperating bodies. The agreements must be in a form recognised by the applicable law as capable of forming a contract, and the parties must have sufficient notice of all the relevant terms and conditions pertaining to the obligations prior to contract. There may further be issues of the validity of certain terms, particularly in relation to the limiting of liability, which may be subject to legal controls (such as those under the Unfair Contract Terms Act 1977 in the UK).

3.3. Allocation of Responsibility, Liability and Disclaimer of Liability Issues

Legal systems typically allow, with some restrictions, the allocation of risk by way of contract. This allows federations to specify which party will be liable in the event of a particular type of breach of the agreement, or other actionable loss.

3.4. Data Protection Issues

As a result of the European Data Protection Directive, the member states of the European Union are required to have implemented laws which protect the accuracy and security of personal data (information about living persons). Beyond the European Union, other jurisdictions may have laws which protect personal privacy in different ways. Typically, an organisation in one jurisdiction acting within another jurisdiction must comply with that second jurisdiction's data protection and/or privacy laws. In the case of identity management systems, the identity provider will typically hold personal data about users. Where the system invokes propagation of information that could identify a living individual, this will represent a transfer of personal data, and compliance with data protection/privacy laws must be ensured.

3.5. Identification of the Applicable Law

Where activities take place across jurisdiction borders, or involve parties in different jurisdictions, the rules of private international law specify under which law and in which jurisdiction any disputes will fall to be decided. Each country has its own rules of private international law which will decide upon applicable jurisdiction (which country's courts could decide the matter) and applicable law (which jurisdiction's laws will apply). It can be noted that these are two separate issues, and a dispute subject to one country's laws may be decided by a court in another country.

In relation to non-consumer contracts, such as federation agreements, the parties are commonly permitted to specify under which jurisdiction and law they wish their

contract to be subject. Some jurisdictions insist that the selection be limited to those jurisdictions to which there is a connection by virtue of the contract or the parties. Therefore a party in jurisdiction A contracting with a party in jurisdiction B for the performance of services in jurisdiction C may be restricted to those jurisdictions. In the event of the parties not specifying a choice of law, default rules will apply to allocate jurisdiction and law. The explicit selection of a jurisdiction and applicable law as part of the agreement will increase certainty and remove a potential area for dispute.

In relation to federation agreements with identity providers and service providers, there will typically be an expectation the law and the jurisdiction of the federation's jurisdiction will apply. However, the submission of a confederation agreement or a peering agreement to a single jurisdiction is likely to be more contentious.

4. Summary of the Analysis of Existing National Federation Agreements

JISC Legal analysed federation agreements in place in nine jurisdictions, in order to determine the current degree of variation of content, structure and approach.

4.1. Variation of Content

Analysis of the agreements applicable to the nine federations involved in this study revealed, for the most part, similarity of content. This broadly mirrors the content suggested the Liberty Alliance Project's Contractual Framework Outline for Circles of Trust.³ As noted in the preliminary work on policy in establishing the Kalmar Union,

“Preliminary comparisons of these policies ... make evident that the similarities far outnumber the differences. Furthermore, many of the differences appear to be caused by chance rather than by choice”.⁴

4.2. Variation of Structure

There is a significant diversity amongst the nine federation agreements studied as to their structure. Some are presented as single documents, some as agreements with appendices, and some as multiple documents. There is also variety as to the extent to which service provider agreements and identity provider agreements are presented separately.

However, analysis of the structures show that the differences appear cosmetic, and no substantive difference can be found which identifies intentional differences of approach. It is therefore considered that the adoption of a different structure of agreements is unlikely to represent a barrier in itself.

4.3. Variation of Approach

A more significant (and potentially difficult) variation arises in relation to the differences in approach to the formality of the federation agreements. At one end of the scale, one federation agreement states: “These responsibilities... should not be interpreted as rules intended to assign financial or legal sanctions against those who

³ Liberty Alliance Contractual Framework Outline for Circles of Trust, www.projectliberty.org/liberty/files/whitepapers/liberty_alliance_contractual_framework_outline_for_circles_of_trust/

⁴ Tveter, WM. Melve, I. Linden, M. *Towards interconnecting the Nordic identity federations*. 2007

transgress, but more as a system of ‘best practices’”. On the other hand, a number of other federation agreements reviewed adopt a formal legal approach. These differences of approach may be simply a product of the particular processes by which the agreements were devised, or may reflect differing risk cultures. Where differences rest on attitudes to risk and expectations of formality, this is an area in which compromise may be more difficult.

A review of the existing access management federation agreements shows a variety of formality and maturity of development.

5. Summary of Preliminary Findings

1. There is a substantial advantage in the standardisation of access management federation agreements across jurisdictions, both at the individual national federation level, and at the federation interoperability level.
2. Differences between current national federation agreements are generally insignificant in terms of content and structure. However, a diversity of approach to the legal formality of the agreements exists.
3. Current agreements do not contain a substantial number of ‘active’ clauses. The majority of content states what the case would be by default, or state under a title ‘responsibilities’ what is needed for the infrastructure to operate.
4. As yet, national federation agreements do not typically address issues related to out-of-jurisdiction members.
5. In order to succeed, strong ownership of the process of convergence would need to be shown by participating federations. The feasibility of common agreements will depend on focus on the benefits to be achieved, and the ability to develop agreements proportionately to risk. Such a body is likely to be the reviewer and driver in order to meet any changing legal, organisational or technical requirements.
6. There is no legal impediment to the development of common agreements for use across jurisdictions. There are few significant differences between laws to make necessary differences in federation agreements. The most significant issues will be compliance with data protection requirements and selection of jurisdiction. Neither of these issues is likely to be insurmountable.
7. The adoption of common of common access management federation agreements is likely to be disruptive to federations in the short term. The requirement for existing federation members to agree to a new contract is likely to be seen as a distraction from other priorities, and in particular, the take-up by institutions and publishers.
8. Any common agreements will need to be reviewed periodically to ensure their currency and relevancy in relation to legal and technological change. This should be undertaken by a body representative of the participating federations.