

A consultation on the governance of global federated identity management

1 Background to this consultation

Federated identity management has become one of the essential services for the research and education community. It increases the possibilities offered by ICT, through facilitating collaboration, increasing efficiency, and reducing the cost of service delivery.

In order to improve the availability of federated services globally, the NRENs' identity federations must interconnect. Starting in Europe, the GÉANT eduGAIN service has made good progress towards global interconnection in recent years.

In an effort to create a breakthrough in realising a truly global federated identity management system, the CEOs participating in the Global NREN CEO Forum ("CEO Forum") have committed themselves to connect their NRENs' federations to eduGAIN. They have also concluded, as many have before, that for eduGAIN to be truly global, its governance must be organised as such. Although GÉANT has made considerable effort to accommodate non-European voices, the current governance model does not provide a truly equitable global representation.

In the light of this Janet and SURFnet, which both participate in the CEO Forum, have reached out to GÉANT to jointly organise a consultation process to discuss and propose more equal governance for global federated identity management as the logical next step in its evolution.

Although this consultation considers eduGAIN specifically, it has been recognised that, once established for eduGAIN, other federated services such as eduroam could also share this system of governance. A single converged governance structure that is extensible for a number of federated services could yield benefits of increased administrative efficiency, coherent development, and improved engagement with industry.

1.1 Consultation objectives

A range of primary use cases have been identified and categorised as follows:

- Facilitation of easy access to Global Services by providing a business and policy framework that addresses common contractual and deployment issues for Identity and Service Providers.
- Paving the way for partnerships between institutions and facilitate closer industrial and commercial links.
- Encourage sharing of services between NRENs.
- Enable international collaboration for researchers.

The challenge, therefore, is to devise a governance framework facilitating the development of a common global access management system for research and education by enabling the federation of trust and identity internationally, with a particular focus on supporting the development of a global marketplace for research and education services. In order to address this challenge and the specific use cases identified above, the global NREN community will need to consider a range of technical, architectural, policy and governance issues. This consultation exercise focuses on developing the requirements for this global governance. The purpose of this

paper and its associated consultation is to engage with stakeholders to discuss possible models of governance.

1.2 eduGAIN governance today

eduGAIN is currently funded by the European Consortium of NRENs and the European Commission through GÉANT and is, therefore, ultimately governed by the GÉANT Consortium's Assembly. Nonetheless, participation within eduGAIN has now extended beyond Europe with examples of Brazil, Canada and Japan participating¹.

At the national level federation operators have their own governance, policy and funding structures. Each connects to eduGAIN, and is represented within the eduGAIN Steering Group, but not within the umbrella GÉANT governance structures.

1.3 Summary of options

In order to provide some structure for discussion, three basic options are presented as part of this consultation:

1. Status quo: no change to governance and funding of eduGAIN

This option proposes no changes to the governance of eduGAIN. This provides a default option in the event that the options presented below are not considered appropriate.

2. Evolution: extend and harmonise existing structures

This option builds on the organisational and legal structures already established, while extending the international representation within eduGAIN. An ultimate goal could be a single converged governance structure for a number of federated services.

3. Clean slate: form a new body to manage governance for federated services

This option establishes a new global organisation dedicated to the governance of federated services for the global research and education community.

¹ See <http://edugain.org/technical/status.php> for current membership

2 Description and discussion of options

This section describes and discusses these options.

2.1 Option 1: status quo

This option provides all NRENs with influence, but it does not address the need for a more equitable global representation. It also does not facilitate or support, at a global level, the market for services consuming federated trust and identity.

This impedes a coherent, representative, transparent, and global approach where there are clear synergies to be gained through the development of a more unified framework. It also does not address the challenges highlighted by the use cases associated with the delivery of these services in support of broader global service delivery goals.

This option has the advantage that it avoids the expenditure of effort necessary to change the existing arrangements.

2.2 Option 2: evolution

This option builds on the existing organisational and legal structures already established to support eduGAIN, while extending the international representation in governance and making it extensible to support other federated services and so avoid the need to reinvent their own governance mechanisms.

In this model an existing organisation, having demonstrable experience in coordinating and operating large-scale international services, will be selected to act as a host organisation. As the host organisation, it will be responsible for the provision of a secretariat to a global federation governance body and the management of financial and legal transactions on its behalf. This role will not confer any special privileges in the governance body. The composition of the governance body will need to be globally representative but, as this paper is only considering the broad approaches, it does neither suggest a specific means to achieve this nor the financial implications. This will need to be considered in future work.

The global federation governance body will appoint an operator to deliver eduGAIN (and possibly other operators, in the event that other services fall within its scope). The governance body will provide strategic requirements to the operator(s) and their delivery group(s), which will be responsible for their implementation. The global federation governance body will receive input from relevant national and international stakeholder fora such as REFEDS.

This structure provides a framework to incorporate other services in the future. This avoids the duplication of effort and provides a single point of focus for the operation, extension and development of services. This option offers a pragmatic solution that could be implemented quickly and at modest cost. This model could potentially evolve towards option 3 (described next), depending on the evolution of the legal environment and marketplace (for example, if a new entity is required to limit legal liability or reduce the overheads on the host organisation)

2.3 Option 3: clean slate

This option is structurally similar to option 2, but proposes establishing a new legal entity rather than reusing an existing one. This option has the advantage of avoiding the imposition on an existing organisation of legal liabilities that may arise in the future as the environment evolves. Being independent of any existing organisation, it could be positioned as being globally representative. It would provide a single point of engagement for governments, industry, and standards development organisations.

The disadvantage of this approach is the time required to establish the global organisation and the costs of operating it. However, having established an independent organisation it would provide a focal point for establishing and developing the policy and governance environment to enable a global market place for services.

2.4 Preferred option

Subject to the outcome of this consultation, the authors, having already consulted some key stakeholders (namely TERENA, CERNET, Internet2, and GÉANT), recommend option 2. This is a pragmatic approach that satisfies the key requirements at hand today without incurring material costs or complexity.

This approach does not prevent the establishment of, and migration to, a new legal entity (as described in option 3) if that becomes more desirable in the future.

3 Consultation process and next steps

This document has been circulated to the GN3plus Executive Board, the CEO Forum's participants, and the eduGAIN Steering Group for consideration. The authors welcome feedback during this consultation process, in English, to **gfidm-gov-consult@list.surfnet.nl**. All responses will be treated in confidence.

The authors will discuss this consultation with the eduGAIN Steering Group at one of their forthcoming videoconferences. In addition, the authors will also be available by videoconference at the following times:

- 1600 UTC / 1700 CET / 1200 EDT / 0000 CST (+1 day) on Tuesday 29 October
- 0800 UTC / 0900 CET / 0400 EDT / 1600 CST on Thursday 31 October

Connection details will be made available on request to the email address above.

This consultation will close on 15th November 2013 at 1200 UTC.

On the basis of this feedback the present authors will draft a specific proposal on governance and discuss it further with the CEO Forum and GÉANT. This governance proposal will include recommendations on the next steps for this activity. These next steps are likely to include a concrete proposal on a governance model, and the process by which that should be achieved through the existing governance structures.

3.1 Feedback questions

The following questions are provided for guidance only. Respondents to this consultation are encouraged to provide as much feedback as they consider necessary.

1. Is the motivation for this work clear?
2. Which governance option is preferred, and why?
3. Do you see any other governance options?
4. How important is the incorporation of other federated services, beyond eduGAIN?
5. Are there other use cases that should be considered?
6. Do you have any other comments?