Minutes VC-Subcommittee October 11th 2024

Challenges when defining VCs in educational and research sector:

- The solution should consider not only attributes most commonly used in education and research contexts (s. federation metadata the requested attributes).

- The VC concept considers a group of attributes to be combined which contradicts the current idea in federations' attributes as combined in a schema like eduPerson separated from other attributes.

Three possible **approaches** to define VCs in education and research contexts:

1. Group of one VC for each attribute (could work, but is quite uncommon).

2. Subsets of attributes grouped together (would align with the concept of the attribute bundles existing in REFEDS).

3. One VC called for example "eduPerson" for everything combined with selective disclosure mechanism helping to achieve the selection of specific attributes (could be difficult for educational and research institutions having concerns about including all information in a place/wallet). Selective disclosure only influences what is sent to the RP. In EU countries based on GDPR it is only allowed to ask for those attributes strictly needed for a particular usage scenario. However, technically "overasking" for attributes is not preventable.

Aspects to consider:

1. Which attribute can be reliably and trustworthily issued for users? This question relates to the levels of trust of which the technical trust level is just one of them. Most important: is the issuer trustworthy? This is always linked to a usage scenario. It is suggested not to limit a too small set of attributes.

2. Selected disclosure mechanisms should be trustworthy as well. The dilemma is how to prevent the users from giving everything and allow decision freedom. A way is to solve this dilemma is to define "not too content-rich credentials".

In W3C definition of VCs for federations users are considered to be IdPs. Responsibilities are shifted from institutions/organisations towards users. What is missing in the VCs definitions proposals is how to communicate and make the users understand how trustworthy are the parties in order to release information/credentials.

In the OpenID Federation there are some mechanisms for users' awareness: a trustmark ("sticker") that can be added to entities. But this is not always easy to use/interpret: for example, when students use the digital black-board service at a university, the concept of consent is not directly attached to the users, but to the institution (university) as the contracting party of the service embedded in the university digital system.

These different levels/forms/areas of consent in education and research sectors should be considered in the definition of the VCs. Also clarifying who is the user/ who are the parties defined in contracts in the usage scenarios are very relevant at this point.

3. Being authoritative as an issuer. Example open badges in the Netherlands: it is possible to ask for a diploma without personal information common in a diploma (normally the passport is used to verify the identity of the person holding the diploma credential).

The driving license could be a flexible and trustworthy verifier. It follows an international schema.

Wrap up

1. Being authoritative (what functional things do we need in our ecosystem, even derived from other sources).

2. Provide additional information about the issuer authority and how it was derived. (validation through a national ID or desk-based process for validation).

3. We must align with existing SAML and OpenID standards.

4. Most important to accomplish: **Semantic Interoperability**. There are/ will be many VCs definitions. We need a schema to make expectations clear and assure that other sectors understand what they get and viceversa.

Next steps

Technically define an overall VC that holds everything contained in eduPerson.

1. Specification. (There are already examples from DC4EU) -> Trial: What happens putting all attributes there, what are practical implications/ expected behaviours?

2. Later grouping the attributes in subsets.