

Trust & Identity Incubator

Decentralised identity for Research - DI4R

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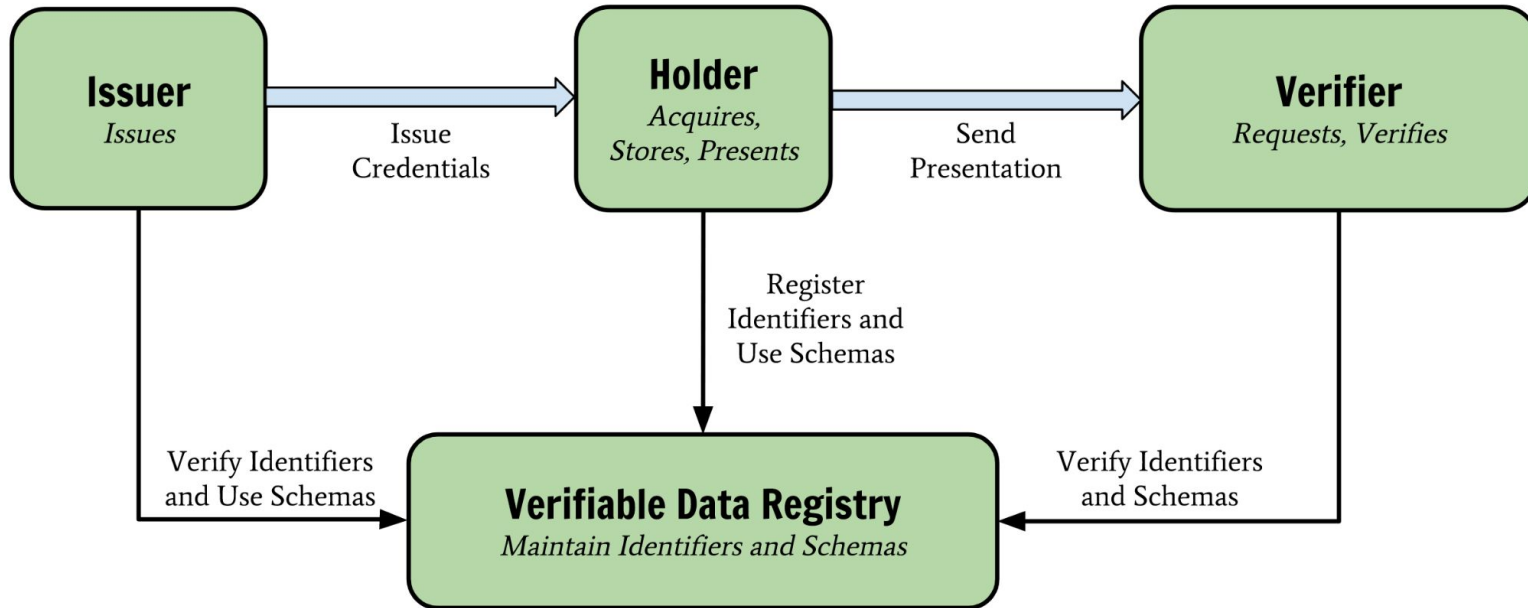
AARC BPA SSI Expert Group

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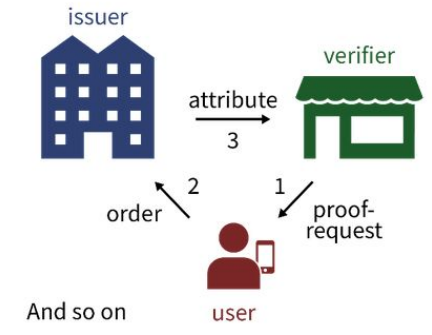
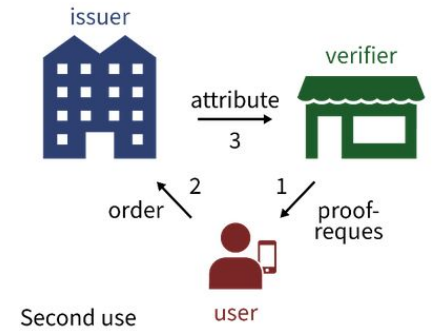
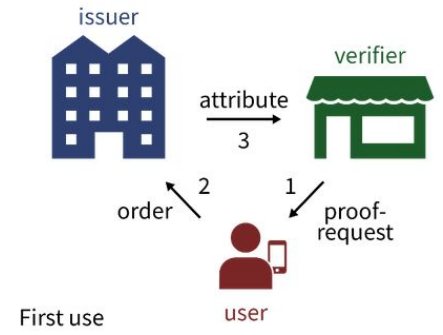
Decentralised identity



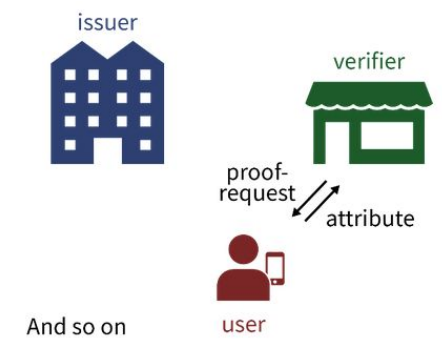
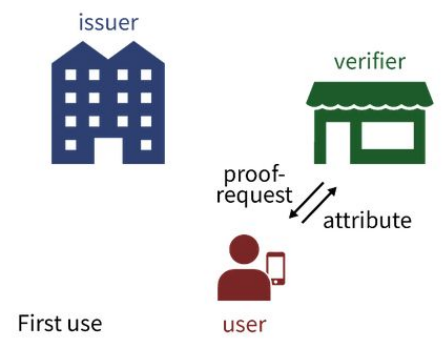
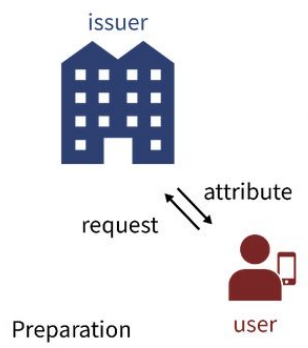
Source: W3C Verifiable Credentials Data Model, <https://www.w3.org/TR/vc-data-model/>

Attribute flow

Federation



Distributed Identity





Use cases & Demo

The image shows a side-by-side comparison of a mobile application and a web browser interface. On the left is a mobile app screen titled 'IRMA cards' with a lock icon. It features an illustration of a person holding a card next to a smartphone displaying a card. Below the illustration, it says 'Your data securely on your mobile'. At the bottom, there are four data categories: 'Personal data', 'Email address', 'Home address', and 'Demo LinkedIn', each with a three-dot menu icon. There are also 'Help' and 'Scan QR' buttons at the bottom.

On the right is a web browser window titled 'Screencast 2021-10-04 12:45:39.mp4' showing the URL 'https://issuer.irma.incubator.geant.org'. The page content is titled 'Issuer' and lists several issuer options with links: 'Local Issuer (simpleSAML.php authsource)', 'Proxy Issuer (simpleSAML.php proxy)', 'ORCID Issuer', 'SRAM Issuer', and 'HEXAA Issuer'. At the bottom of the browser window, the URL 'https://issuer.irma.incubator.geant.org/proxy' is visible.



Use cases – Researcher identification and authorization

- In research collaborations, researcher identity is an aggregate of multiple sources (institutions, VOs, others)
- Need for a flexible ‘Guest / External identity’
- AARC BPA proxy model has usability challenges
- Long-tail of those who are still struggling to use FIM
- Only run centralised infrastructure to hold VO credentials, but not AuthN proxy
- Leverage ‘external’ credential sources, e.g., for guest login, MFA or addition identity validation
- Removing the need to switch between multiple accounts
- Agility in establishing trust relations



Where might SSI make a difference?

- Reduce the cost of trust establishment
- Scales better and allows for a longer tail
- Engaging with other sectors, both in the ability to (re)use, but also to deliver relevant data
- Better and easier end-user interaction and control over personal data
- Removing the need to switch between multiple accounts
- Agility in establishing dynamic or 'ad-hoc' relations between entities



EU Digital Identity Wallet (EDIW) and framework

- Usage is getting more mobile in terms of technology and cross-border access.
- Huge discrepancies in availability and adoption of national digital IDs and cross-border authentication (eIDAS '1.0').
- Integrative EU-wide legal and technical framework for (national) wallet implementation.
- For service providers: bring together the customer base, save costs and time, streamline interactions, build cross-border trust.
- Scenarios: rent a flat or car; open a bank account; driving licence; diplomas...
- Working on detailed requirements and implementation toolkit; wallet is a qualified electronic signature/seal creation application.
 - Any entity that collects, creates and issues attested attributes should be able to become a provider of attributes
 - RPs should use the electronic attestations as equivalent to paper
 - Private RPs should accept the use of EDIW for strong user authentication
 - Very large online platforms to be mandated to accept EDIW authentication
- eIDAS 2.0 will define Personal Identification Data (PID) and related EDIW features.



Researcher ID using SSI: value?

- Researchers need a trusted digital identity to collaborate
- Ability for collaborations to issue community-created entitlements towards the researcher
- Research collaborations can act as verifiers for researchers
- Wallet approach makes combining credentials more easy
- The current FIM model requires a home organisation and federation – not every researcher can join a federation for various reasons.
- Leverage external identity, with proper assurance, for collaboration with users and partners from other sectors
- Just like FIM, SSI relieves services from establishing their mechanisms for identification of individuals
- May reduce the need for proxies
- Can be built on top of eduID like initiatives
- Ability to directly establish trust relations between entities participating in collaboration

Thank you

Any questions?

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