Webwallet for research use case
Trust & Identity Incubator Final Demo

Demo, Online
02 May 2024
Background of the work

• Europe is working towards a wallet-based identity ecosystem
  • The Architecture and Reference Framework (ARF) serves as a basis for the implementation of the proposal for the European Digital Identity Framework
• The initial assumption was that all interactions will be handled via an app on a mobile phone.
  • While this may suffice for many users, it will leave out groups that cannot or will not use such devices. In addition, it creates a dependency on the vendors of the devices and the software they run on
  • users may not be willing to store and aggregate work related data on a personal device
  • accessibility
• A first version of a web wallets has been developed as part of the eDiplomas Wallet Ecosystem activity
• This activity will investigated the usability of webwallet in the context of research use cases
Use case

MMS

Researcher

Research Service

Issuer

Issue

Issue

Credentials

Holder

Acquires,
Stores,
Presents

Verify

Identifiers
and
Schemas

Verifiable Data Registry

Maintain Identifiers and Schemas

Verifier

Requests,
Verifies

Send

Presentation

Register

Identifiers and
Use Schemas

Verify

Identifiers
and
Schemas

eduTEAMS

Perun

HEXF

eduGAIN

eduPerson

VOPerson
Work done

✅ Deployed wallet multiple times and exchanged credentials across deployments

   In - alpha heavily impacted our ability to work with

✅ Create Ansible deployment script for wallet ecosystem

😀 Various code and documentation changes made to SpruceID and SSP were accepted upstream

   TODO links

😀 Tested various passkey implementations, that seems to work well

😀 Hacked SpruceID Issuer, *many* incompatibilities noted in interpretation of specifications

⛔Selective disclosure not implemented

⛔SaToSa RP implementation not testable
GUI overview

National Verifiable ID Issuer

Consent

The following credentials have been found. Please review their

Personal Identifiable Information

Please review the following personal identifiable information (PII) that has been retrieved for you by the National Authentication Service:

First Name: John
Last Name: Doe
Social Security Number: 123-45-6789
Tax Identification: 123-45-6789

By continuing, you acknowledge that the information is correct and that you agree with its use for the retrieval of your University Degree.

Details of authorization:

Client: www.example.com
Expiration: 1 year

Consent

The following credentials have been found. Please review their details and select the one you want to receive.

Details of authorization:

Client: www.example.com
Expiration: 1 year
Architecture

wwwallet host

Wallet instance

Encrypted data

Browser

Decrypted wallet instance

PASSKEY
Welcome to wwWallet

- Learn about PRF Compatibility regarding browser/OS support and discover wwWallet via our Launchpad and Sample Scenarios.
- Make sure that your device's time settings and timezone are correctly set and accurate.

Login

Username

mhe.der

Password

*********

Login

OR

Login with passkey

New here? Sign Up
Activity results

- general direction is promising
- wwwallet is in development
  - convincing PoC
- limited browser compatibility
  - details of passkey protocol
- only tested with auth code flow
- data vocabulary for research TBD

Code developed

- spruceID improvements;
- Simplesaml improvements; php
- proof-of-concept; ansible;
- https://gitlab.software.geant.org/TI_Incubator/wwwallet-playbook