Wallet ecosystem

This page tries to visualize the EU Digital Identity wallet ecosystem in different ways to create an understanding of how it could work.

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Aspects relevant to the wallet ecosystem

- The EU Digital Identity Wallet overview
 - EUDIW implementation
- · The regulatory aspects in eIDAS
 - o elDAS
 - eIDAS 2 (not finalized)
- The Architecture and Reference Framework (latest release on Github)
- · Wallet reference implementation
 - Being built by Netcompany and Scytales
 - Tender information for the Wallet Reference Implementation
- Large scale pilots
 - DC4EU Digital Credentials for EU
 - EWC EU Digital Identity Wallet Consortium (wiki)
 - Potential PilOTs for EuropeaN digiTal Identity wALlet
 - O NOBID Nordic-Baltic eID

Related projects

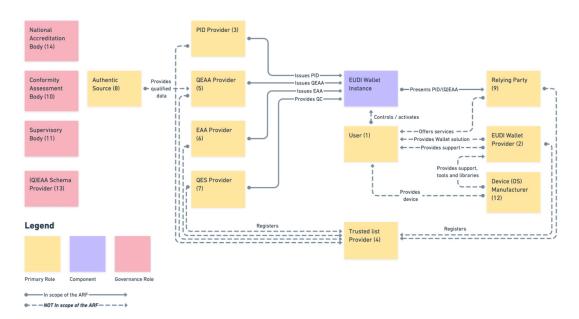
- VECTOR Verifiable credentials and Trusted Organisations Registries
- Standards
 - W3C VCOID4VCI
 - OID4VP
 - ° SIOPv2
 - SD JWT
 - ISO/IEC 18013-5:2021
- Trust frameworks
 - The European "List of Trusted Lists" (LOTL)
 - ETSI information on trusted lists
 - EU/EEA trusted list browser
 - Ledger Based infrastructures (DLT)
 - W3C DID definition
 - OpenID Federation
 - EBSI
- Code
 - DC4EU repositories
 - Wallet Interoperability Framework (WIF)
 - wwWallet

The ecosystem according to the ARF

Below picture is taken from the ARF v1.0.0. For a more detailed explanation of each role see the ARF.

4.1. Roles in the Ecosystem

The roles of the EUDI Wallet ecosystem are described in Figure 1 and detailed in the following sections.



End Users of EUDI Wallets

Users of EUDI Wallets use the EUDI Wallet to receive, store and present attestations (PID, QEAA or EAA) about themselves, including to prove their identity.

EUDI Wallet Providers

EUDI Wallet Provider are Member States or organisations either mandated or recognized by Member States making the EUDI Wallet available for end

Person Identification Data Providers

PID Providers are trusted entities responsible to:

- verify the identity of the EUDI Wallet User in compliance with LoA high requirements,
- issue PID to the EUDI Wallet in a harmonised common format and
- make available information for Relying Parties to verify the validity of the PID.

Trusted Lists providers

The specific status of a role in the EUDI Wallet ecosystem shall need to be verified in a trustworthy manner.

Qualified Electronic Attestation of Attributes (QEAA) Providers

Qualified EAA are provided by QTSPs.

Non-qualified Electronic Attestation of Attributes (EAA) Providers

Non-qualified EAA can be provided by any Trust Service Provider.

Qualified and non-qualified certificate for electronic signature/seal Providers

Article 6a(3) of COM(2021)281 final requires the EUDI Wallet to enable the User to create qualified electronic signatures or seals.

Authentic Sources

Authentic Sources are the public or private repositories or systems recognised or required by law containing attributes about a natural or legal persons.

Relying Parties

Relying Parties are natural or legal persons that rely upon an electronic identification or a Trust Service.

Conformity Assessment Bodies (CAB) Supervisory bodies

The EUDI Wallets must be certified by accredited public or private bodies designated by Member States. QTSPs need to be audited regularly by Conformity Assessment Bodies (CABs).

Supervisory Bodies

The supervisory bodies are notified to the Commission by the Member States, which supervise QTSPs and act, if necessary, in relation to non-qualified Trust Service Providers.

Device manufacturers and related subsystems providers

EUDI Wallets will have several interfaces with the devices they are based on.

(Q)EAA Schema Providers

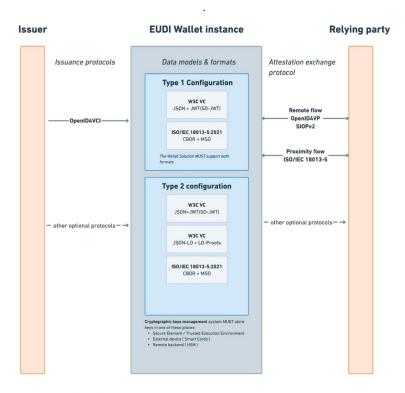
(Q)EAA Schema Providers publish schemas and vocabularies describing (Q)EAA structure and semantics.

National Accreditation Bodies

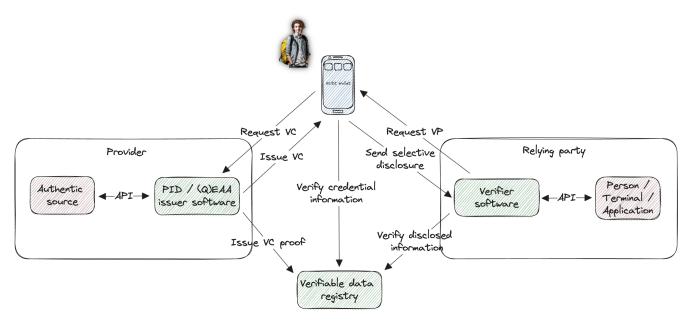
NABs monitor the CABs to which they have issued an accreditation certificate.

Ecosystem visualisation and examples

Wallet configuration according to the ARV v1.0.0



Figure~7.~EUDI~Wallet~configurations.



Simple design of the EUDI Wallet ecosystem for Verifiable Credentials (VC) and Verifiable Presentations (VP).

Other resources

Mindmap of EUDIW ecosystem

Provider and relying party architecture

Presentations

2023-04-19 Sunetdagarna - slides (in Swedish)

2023-06-07 TNC23 - slides - recording (presentation starts at 2:00)

2023-09-11 TF-EDU meeting - slides - recording (presentation starts at 6:25)

2023-10-10 eduGAIN Town Hall - slides

Videos

Evolution of identity management