

The European Regulation on eID and trust services move toward self-sovereign use of identities

Sylvie Lacroix, SEALED partner

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- The eIDAS Regulation "as is" and "to be"
- A glimpse on two new concepts :
 - the EU Wallet for identification & signature, a user-centric eID means
 - eLedgers, a new trust service

The eIDAS Regulation

dated 2014 - replaces the 1999 directive on eSignatures

eIDAS 2 pillars:

- Trust services
- Issuance of eID Means by Member States

Closed list of trust services:

- Creation, verification, and validation of **electronic signatures**, electronic **seals** or electronic time stamps, electronic registered delivery services and certificates related to those services;
- Creation, verification and validation of certificates for website authentication;
- The preservation of electronic signatures, seals or certificates related to those services;

Voluntary notification of eID means by issuing Member States under 3 LoAs: low, substantial or high

- CIR (EU) 2015/1501 on interoperability framework
- CIR (EU) 2015/1502 on LoA + guidance document
- No audit but a peer review

2 species

- Normal
- Qualified
 - Must be notified, audited and pre-authorized (scheme left to member states)
 - Offer additional guarantees (e.g. burden of proof, QESig equivalence to hand-written signature)

The eIDAS Regulation revision (proposal 1/5)

eIDAS 2 pillars:

- Trust services
- Issuance of eID Means by member states

eIDAS 2.0

EU Wallet for identification & signature (EUDIWallet): an eID means of LoA High with PID (Person Identification Data) and (Q)EAAs (Qualified electronic attestations of attributes)

eIDAS 2.0

Closed list of trust services:

- Creation, verification, and validation of **electronic signatures**, electronic **seals** or electronic time stamps, electronic registered delivery services and certificates related to those services;
- Creation, verification and validation of certificates for website authentication;
- The preservation of electronic signatures, seals or certificates related to those services;
- Creation, verification, and validation of **electronic attestations of attributes (EAA)** and certificates related to those services
- Electronic archiving of electronic documents;
- Management of remote electronic signature and seal creation devices
- The creation of electronic ledgers

The eIDAS Regulation revision (proposal 2/5)

→ EUDIWallet:

- An harmonized eID means of level of assurance high

“the Commission shall establish technical and operational specifications and reference standards ”

- A certified eID means

“The conformity of European Digital Identity Wallets with the requirements laid down in article .. shall be certified ” and “the Commission shall, by means of implementing acts, establish a list of standards for the certification of the European Digital Identity Wallets ”

→ EUDIWallets shall:

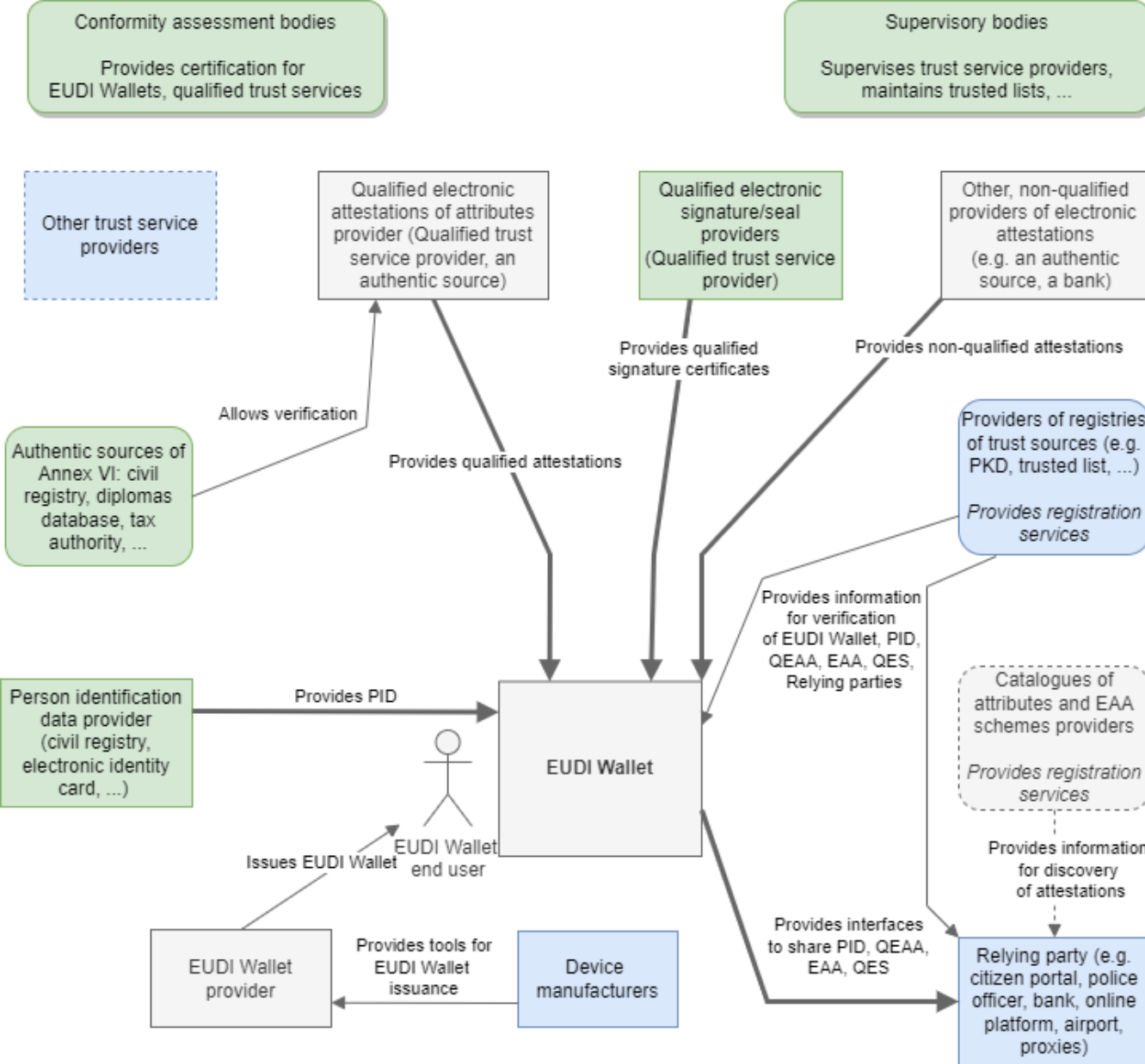
- enable the user to securely request and obtain, store, select, combine and share, in a manner that is transparent to and traceable by the user, the necessary legal person identification data and electronic attestation of attributes to authenticate online and offline in order to use online public and private services; [...]
- ensure that trust service providers of qualified attestations of attributes cannot receive any information about the use of these attributes

The eIDAS Regulation revision (proposal 3/5)

→ EUDIWallets:

- The user shall be in full control of the European Digital Identity Wallet
 - The issuer of the European Digital Identity Wallet shall not collect information about the use of the wallet which are not necessary for the provision of the wallet services
- ... nor shall it combine person identification data and any other personal data stored or relating to the use of the European Digital Identity Wallet with personal data from any other services

These requirements, and also under light of recitals, show a strong will for user's control and user's centricity, even if IDP centric solutions cannot be excluded



The wallet specifications are currently discussed between the member states <https://digital-strategy.ec.europa.eu/en/library/european-digital-identity-architecture-and-reference-framework-outline> (ARF) including amongst other topics:

- Selective disclosure
- Trusted Registries providing the status of specific roles (e.g. trusted attribute issuer)

No format or protocol decided yet (e.g. W3C verifiable credential, with or without DID, with or without eLedgers, etc.).

The eIDAS Regulation revision (proposal 5/5)

- “electronic ledger’ means a tamper proof electronic record of data, providing authenticity and integrity of the data it contains, accuracy of their date and time, and of their chronological ordering’ ”
 - No mention of ‘decentralized’
 - Technologically neutral (no reference to block-chain)
 - No overlap with existing trust services (e.g. timestamping)
 - As any qualified service, benefits from a legal meaning
 - As any qualified service, benefits from trust based on audit and supervision, including the governance of the eLedger (qualities / skills / capacities of the provider)

... this is all based on the original eIDAS revision proposal, which may change before being adopted

The eIDAS Regulation revision (timeframe)

- New version of the Architecture & Reference Framework (ARF) is expected around October 2022
- Procurement to implement PoC & wallet components as per ARF outline has been launched (<https://digital-strategy.ec.europa.eu/en/funding/european-digital-identity-wallet>)
- Negotiations between EC, EU Council and Parliament should lead to a final text in the coming months, followed by the adoption and publication of the revised eIDAS Regulation, then followed by the adoption of the related implementing acts (IA)