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SEAL Project: User-Centric Application of Linked Digital Identity for Students and Citizens

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Keywords

*identity reconciliation; self-sovereign identity; identity
federation; know your customer; eIDAS*



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Our goal

SEAL service

The increasing demand for integrated online user services requires trusted, effective data interoperability. At the centre of this lies a key but usually ignored issue: how to determine if two sets of data identified by non-matching identifiers belong to the same individual.

SEAL tries to build a key element to formalise the management of data and their relationships, by coordinating the different involved actors to let the users be in the centre of it, bringing the data under a virtually unified and persistent identity, while still guaranteeing all his rights and giving full control over the traceability and anonymity.



Architecture

SEAL is divided in three layers, with information flowing from top to down:

- First, a data acquisition layer, where we find three specific interfaces that allow data into SEAL: identity data access, identity reconciliation and identity derivation.
- Middle layer containing the management and storage interfaces.
- Lower layer, the data presentation layer; any data consumer can access the data users want to deliver through multiple ways. It is divided into two main blocks: federated access and self-sovereign access.

Architecture

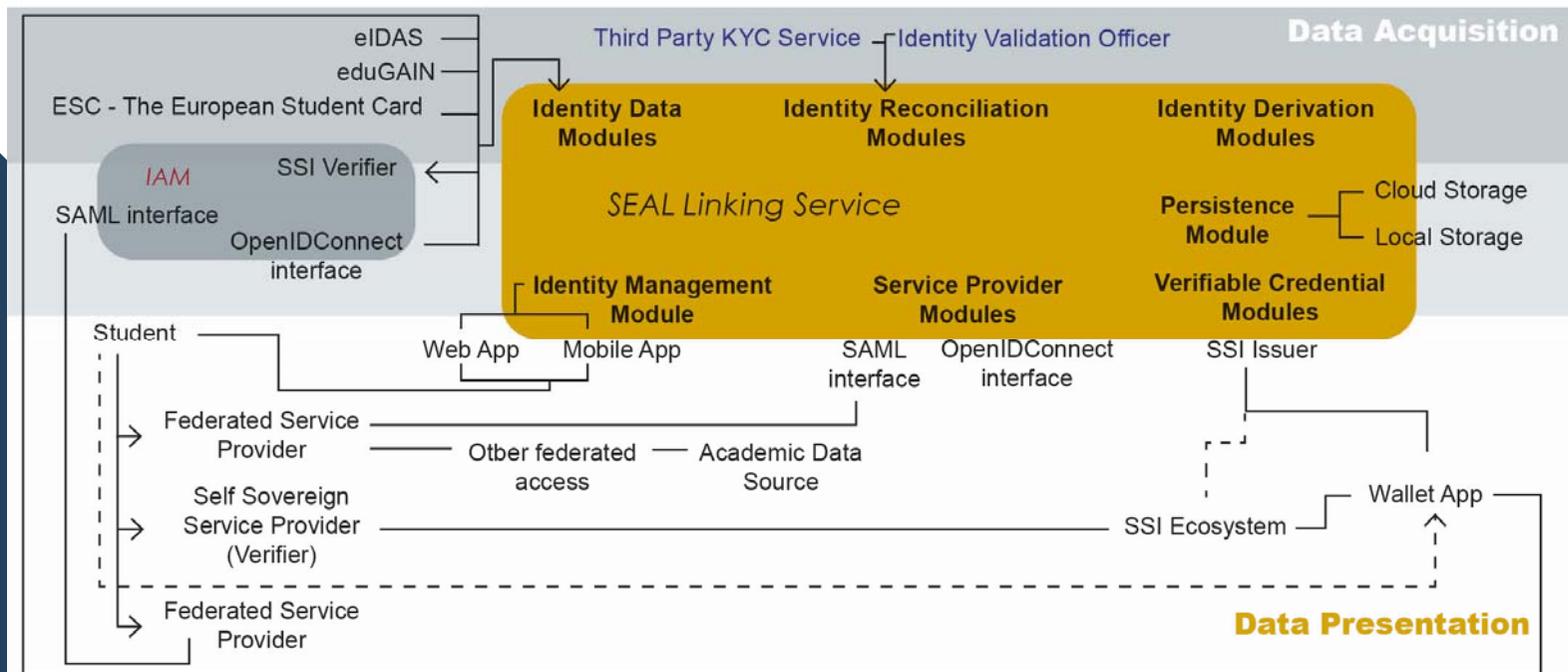
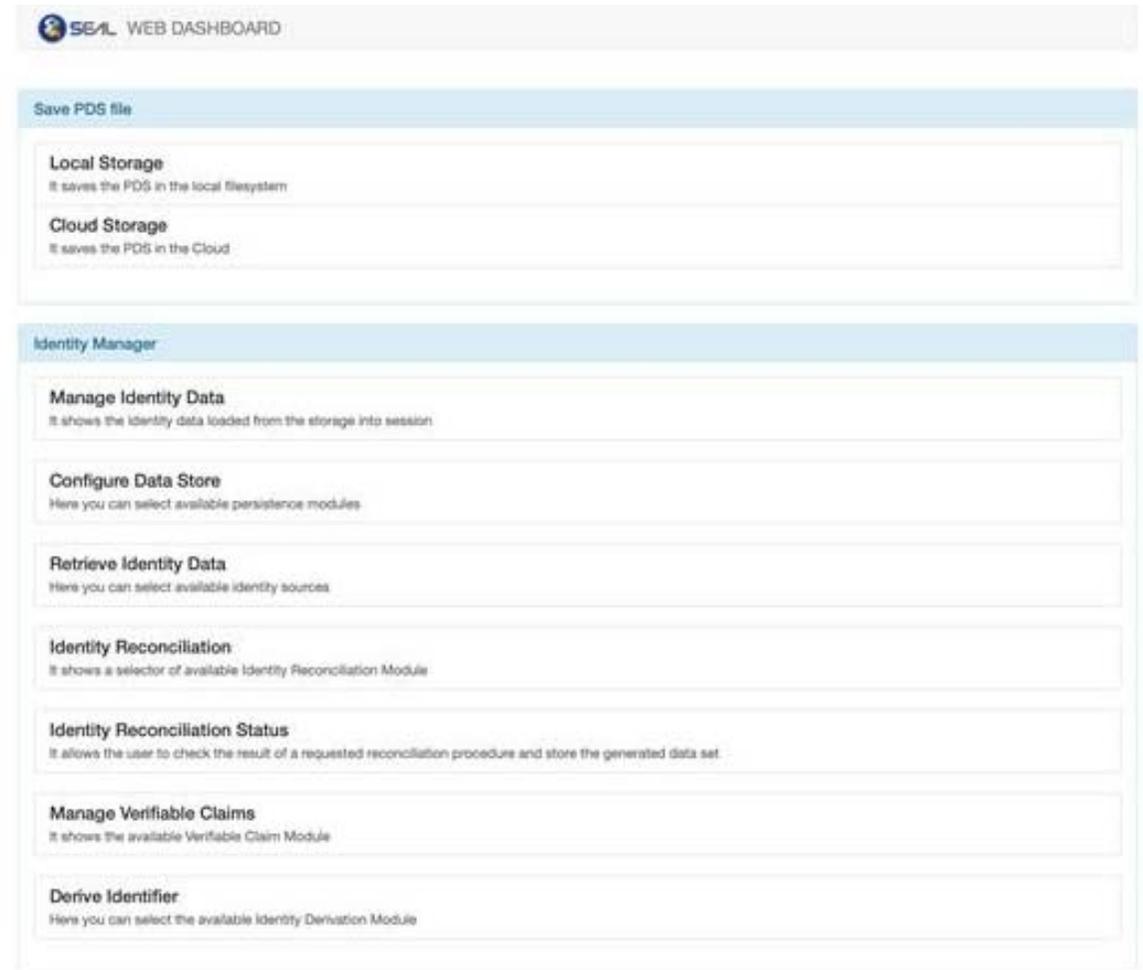


Figure 1. SEAL service architecture structure layout.

User-centric Approach

Dashboard design

The paradigm that SEAL proposes for dealing with identity reconciliation issues and its contribution to secure digital identities, and how users can control all of this through the SEAL service dashboard.




Co-financed by the Connecting Europe Facility (CEF)
of the European Union, Grant Agreement No
INEA/CEF/ICT/A2018/1633170

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Figure 2. SEAL service web Dashboard (work in progress).

Conclusions

- Purpose

Features and functionalities of the SEAL service are designed from a user-centric approach, focusing on the final user' benefits and the compliance of the service interoperability with the EU information systems.

- Result

SEAL linked digital identity can be used as a multiple identity detector becoming a keystone in the EU ecosystem. Its platform allows both authorities and users to obtain limitless digital resources from authentication and identification mechanisms.

Users are in full control of their single lifetime identity and data across borders - in a trusted and secured manner.

- Future Work

More than competing with existing infrastructures, SEAL service tries to fill a gap in the management of identities: the reconciliation of identities. And it tries to do so in a manner to open the way for standardization of procedures, and minimisation of efforts for the implied stakeholders, coordinating the actions of all of them in the most efficient way.