Sharing an attribute credential from Self-Sovereign Identity to FIM Model

FIM4R 17th Workshop, February 2023
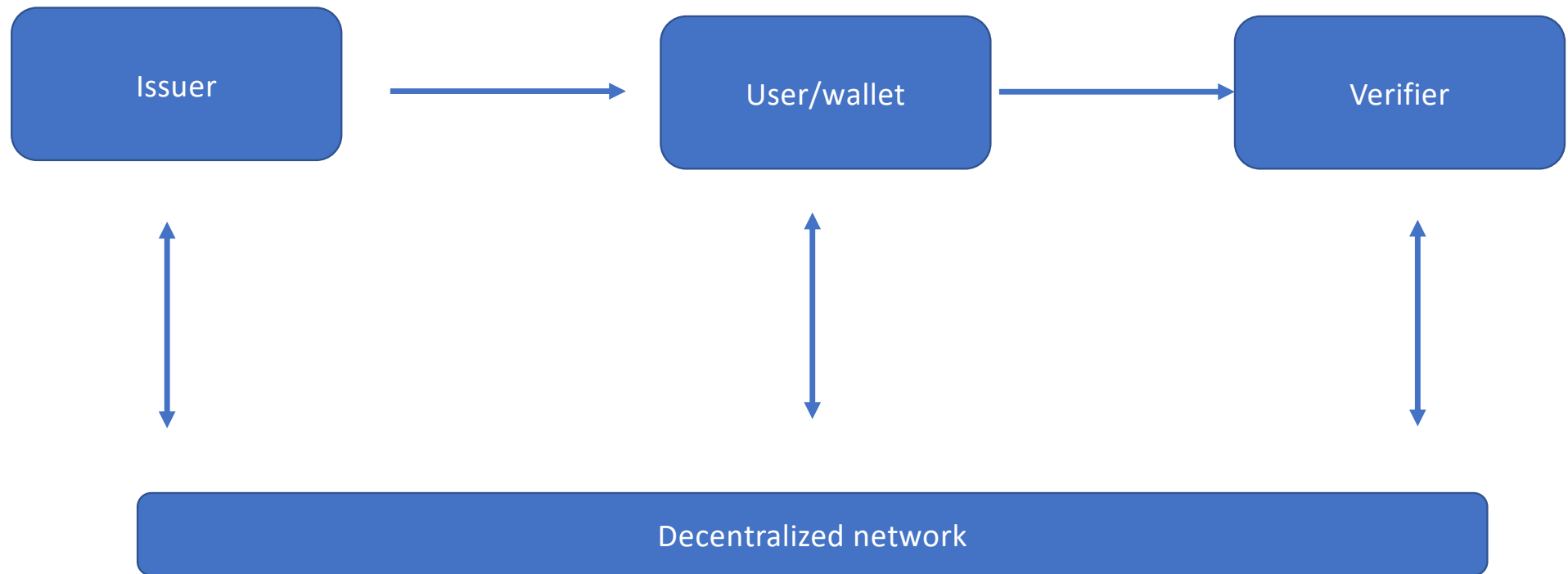
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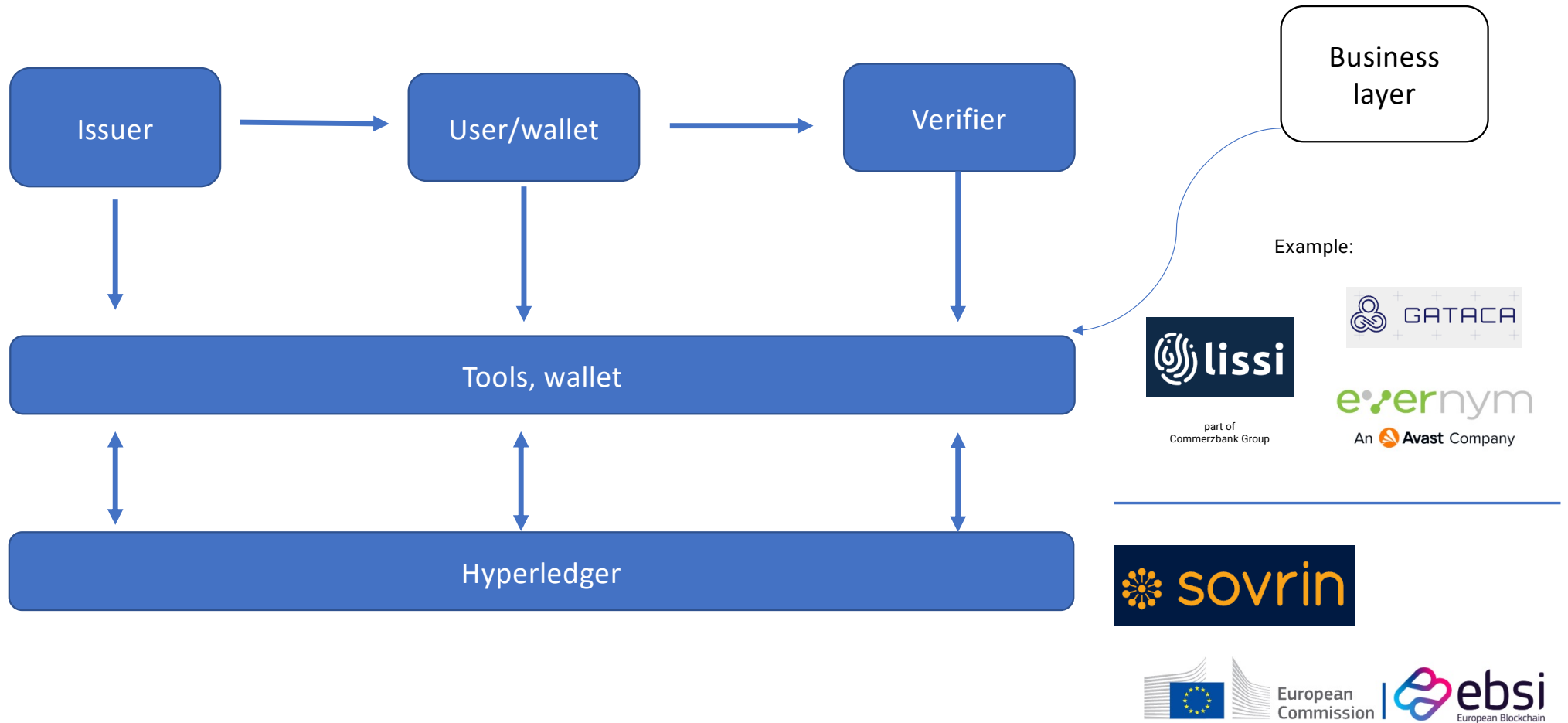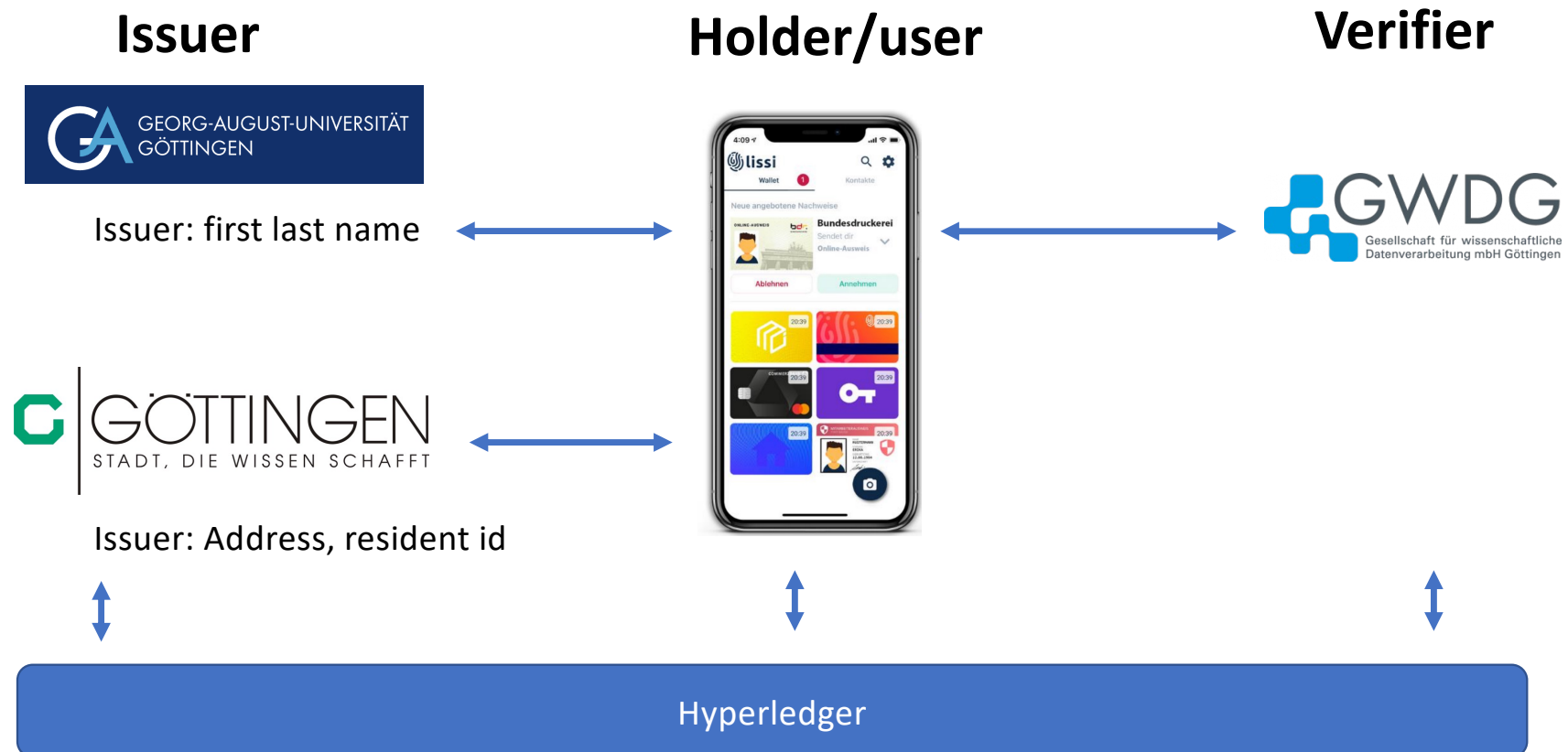
Member of eScience group GWDG, https://gwdg.de

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GWDG
Gesellschaft für wissenschaftliche Datenverarbeitung mbH Göttingen

Self-sovereign identity (SSI) flow (1)

Self-sovereign identity (SSI) flow (2)

Example of SSI case

Issuer

Holder/user

Verifier

Issuer: first last name

Issuer: Address, resident id

Hyperledger

Technical SSI challenges:

- Interoperability
  - Friends are the most important because we are only working on the same ecosystem
    - Sovrin Foundation
      - https://sovrin.org/
    - European Blockchain Services Infrastructure (EBSI)
   - https://ec.europa.eu/digital-building-blocks/wikis/display/EBSI/Home

- User device environment

Research questions

- How FIM user has a capability to control their attribute credential?

- How the IdP has an option not to save the user attributes?

- How the IdP and SP have verified attributes from the trusted source?

What are the possible attributes that IdP can share with SP in this context?

- First and last name
- Phone number
- Address
- Identity number
- Birthdate

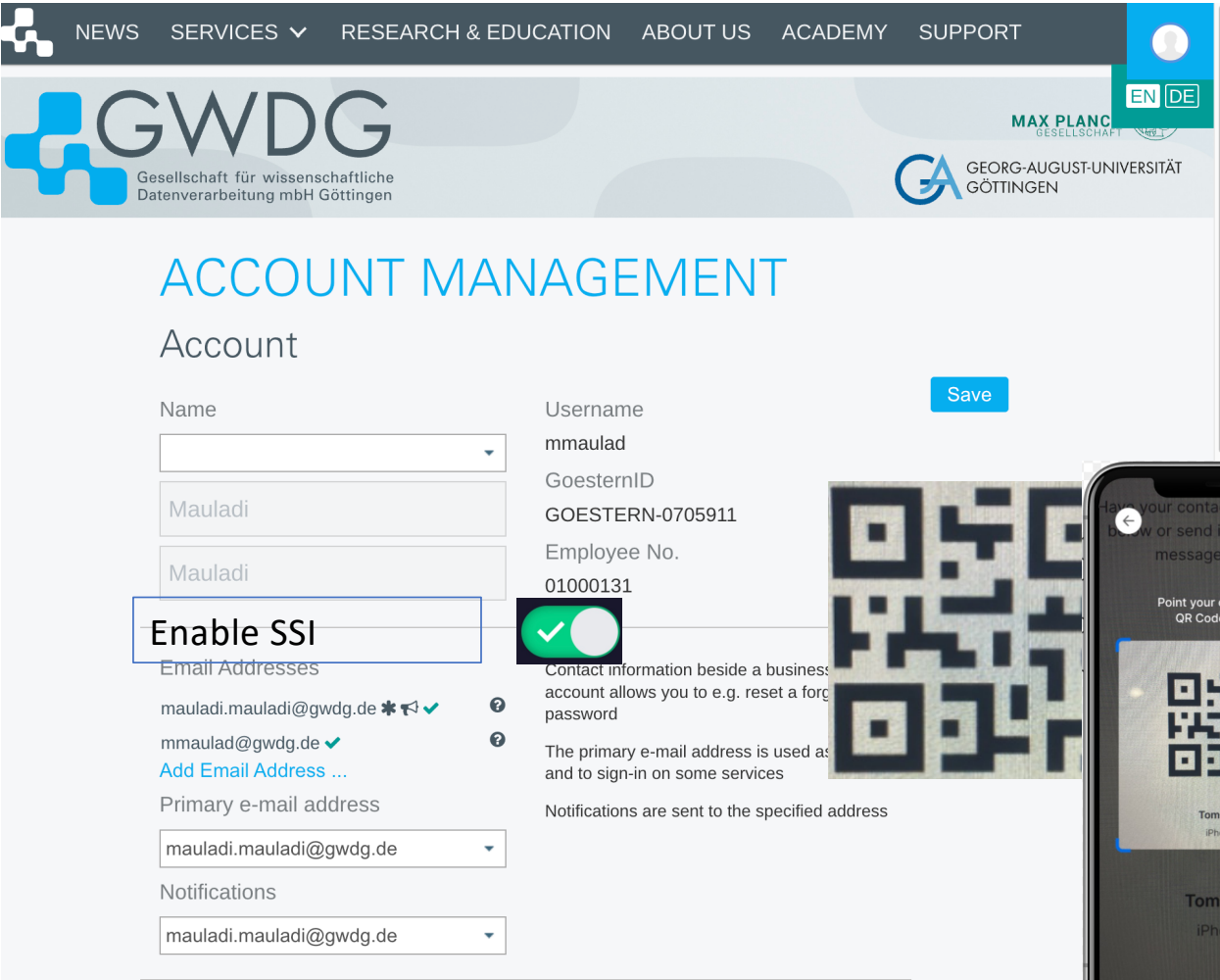- Organization name
- Tax number
- Bank account
- Any others string

Propose a technical flow
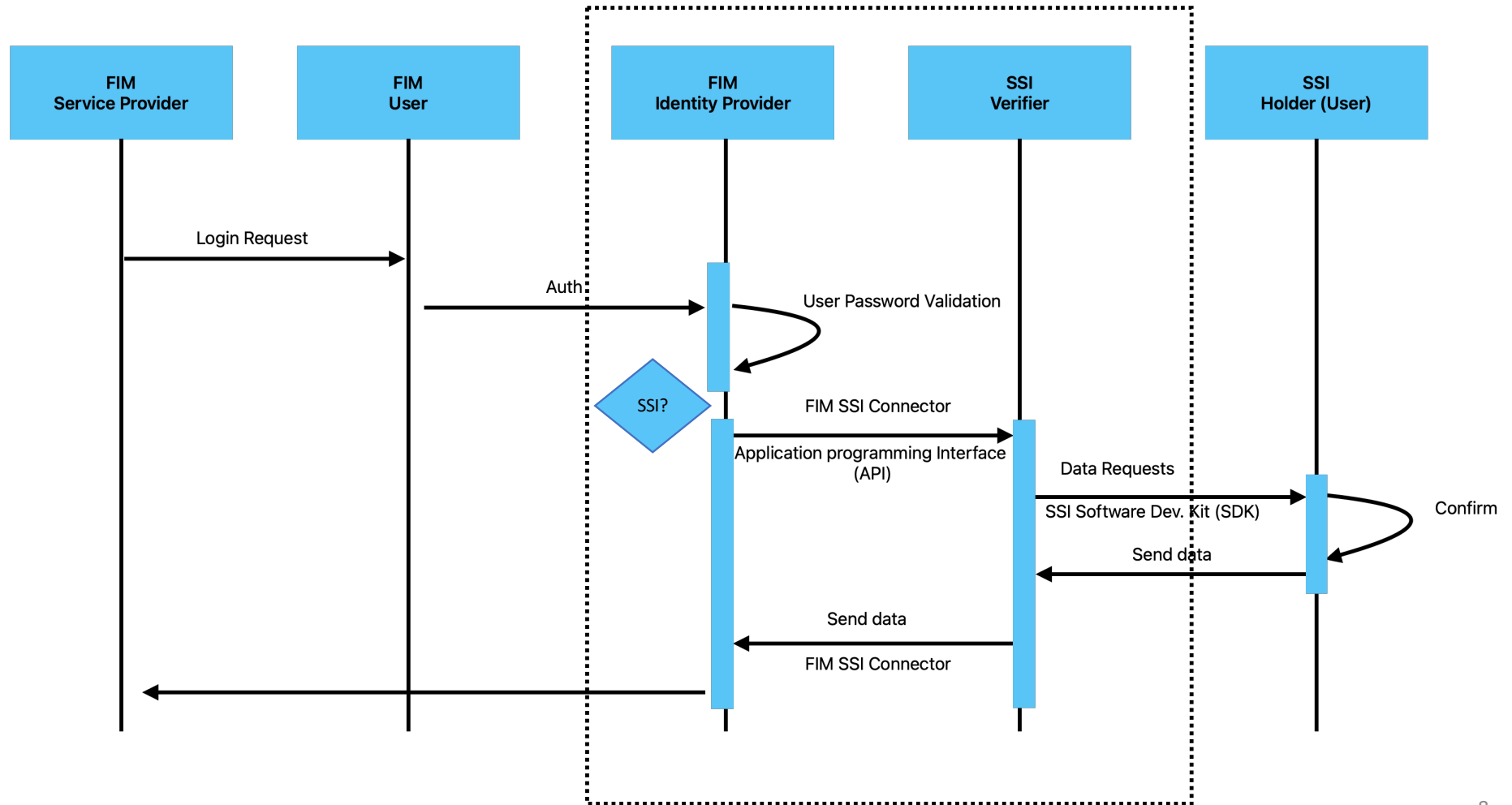
How to enable SSI on FIM

1. We define an option at the user account management

2. User account management (GWDG) issued a credential: "you are GWDG user"
   - SSI running on the backend

3. User saves the new credential into their wallet

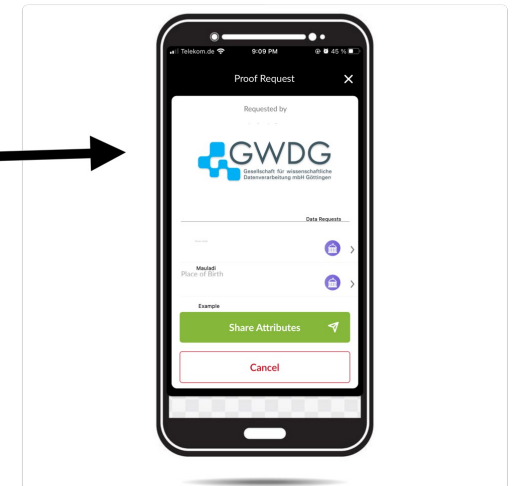# Design of Implementation

Federated Identity
Management

Self-Sovereign Identity

Service provider
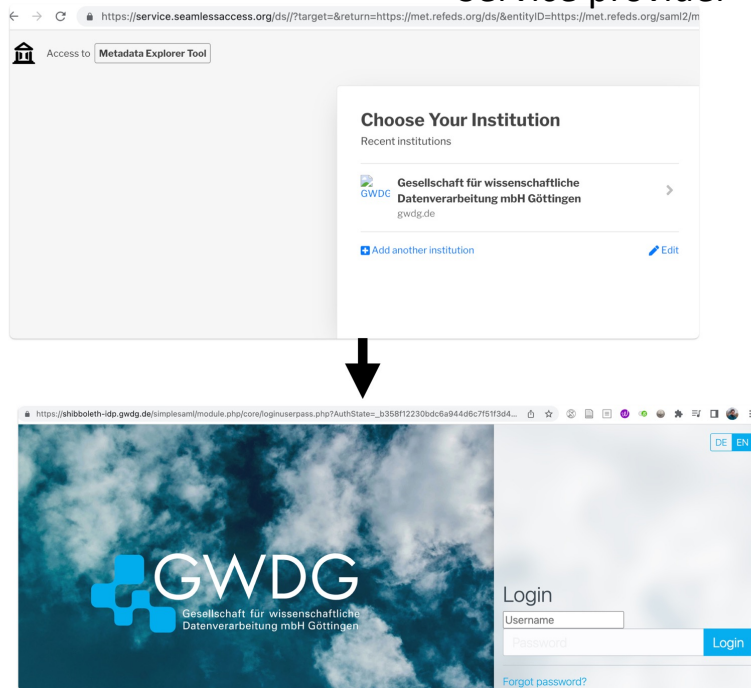
Identity Provider | SSI Verifier
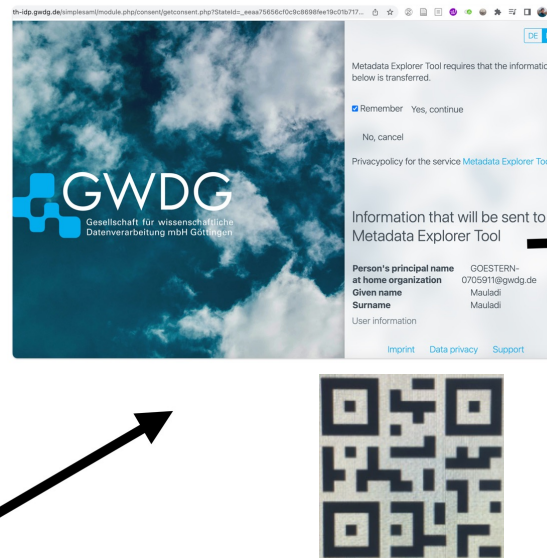
SSI Holder/user

Thank you!

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