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Potential & Challenges with Solid in Industry Use Cases

Discussion Topics from the Solid Taskforce (Fraunhofer IIS & FAU TI)

Introduction

Our work: We utilize Solid in different projects mostly in industry scenarios. These differ from the traditional sovereign-citizen use case. Naturally, we encounter use cases with emerging potentials and challenges for a Solid adoption.

The state: We are in early research with no finished in-depth results. Some use cases are only theoretical yet.

The goal of these slides: Share your opinion on our use cases, potentials, and challenges! Share your use cases, experiences, and ideas!



Fraunhofer IIS

FAU TI

Smart Buildings with Web of Things

Use Case

Scenario

Model a building with floors and rooms
Include Thing Descriptions

Potential

- Use Solid Pod as Linked Data server with hierarchically structured data
- Discover Thing Descriptions by browsing Linked Data

Challenges

- Use LDP's container structure in the data model
- Use Solid's Description Resources in the data model

Data Sharing along Supply Chains

Use Case

Scenario

Share data with all direct and indirect partner enterprises in supply chain
Limited supply chain partners are known at individual enterprises

Potential

- Each enterprise in supply chain has a Solid Pod that links to direct partners' Solid Pods
- Shared data can be retrieved following the links without knowing all enterprises

Challenges

- Direct/indirect LDP containers to manage partners
- Nested groups for access control for all direct and indirect supply chain partners
- Delegation of authentication and authorization along supply chain with Verifiable Credentials

Shared Data Ownership

Use Case

Scenario

Enterprises combine data on one server

One enterprise provides raw data another enterprise aggregates the data

Potential

- Different access right combinations offer various application possibilities
- Consideration of privacy policies

Challenges

- Who “owns” which data?
- Control right gives all the power
- Usage of a trustee

Access Rights in Enterprise Structures

Use Case

Scenario

Give access rights to an enterprise
Conduct clearance to grant data access or add shared data

Potential

- Manage responsible individuals who represent the enterprise
- Possible transfer of rights/clearance to further required individuals

Challenges

- Groups that correspond to roles and hierarchies in enterprises
- Consider data handling policies (superiors, proxies, four-eyes principle)

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Thank you
for your time
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