

Integrated Personal Data Store (iPDS) for Identity Wallet

Proposed Pilot: Person takes mortgage quotes

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Presented by: Linux Foundation IAM-Project [IAM Project \(github.com\)](https://github.com/IAM-Project)

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Expanding Wallets to include a PDS

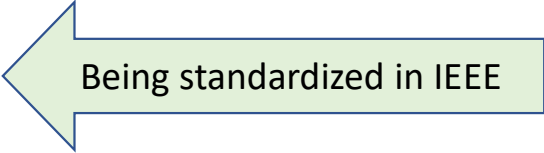
- Verifiable Credentials include claims regarding personal data
 - Birth Date
 - Income
 - Property Ownership
 - Address
 - Name
- WC3 VC Data Model is about VC, not the personal data within claims
- Common schemas can work within narrow use case
 - Can't scale or cross domains (standard ontologies can)

Problem with Data

- Problem: Data from different systems is disparate (unique and meaningless to other systems)
 - Most personal data comes from vendors systems
 - E.g., Income, credit rating, etc.
 - Without a standard personal data model, this data will be of little use
- Small-scale Solution: Map data model elements
 - But doesn't scale due to n-squared growth of mappings
- Our Solution: Single mapping to hub model
 - But hub can't be a traditional data model
 - Our hub: Hierarchy of standard ontologies (reality-based)

Hierarchy of Standard Ontologies

- Top Level: ISO/IEC-JTC1-21838-2 Basic Formal Ontology
- Mid-Level: Common Core Ontology (CCO)
 - <https://github.com/CommonCoreOntology>
- Domain: MyData Ontology
 - <https://github.com/CommonCoreOntology/my-data-ontology>



Being standardized in IEEE

Most Personal Data is from Vendors (and Disparate) How we deal with it?

- Vendors:
 - Map disparate data models to standard ontologies (just once)
 - Transform instance data into conforming triples
 - Provide triples to individuals
- Individuals:
 - Accept/ingest conforming triples into personal data store
 - Use apps that query across all triples
 - Interface with vendors
- Vendor:
 - Transform user instance data back into disparate data models



Tech Demo of our Open Source iPDS + Identity Wallet

Propose Pilot: Real Person Takes Mortgage Quotes

- Team: Identify data and credentials
 - Extend standard ontologies to cover them
- Borrower: Gathers data and credentials
 - Team transforms data into common ontology
- Borrower posts Request for Quotes (RFQ)
 - Lenders agree to Borrow T&Cs
 - Borrower shares data and credentials
 - Lenders map common data into their applications
 - Lenders provide quotes