Trust Network for Decentralised Personal Data Management

Harri Honko
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TrustNet Consortium
6 commercial companies, target for 3-4 pilots, 3 universities

Pilot organisations
Research Partners
Public steering, interest & communications
Decentralised Digital Identity

- Model for personal data sharing (MyData) in the context of DLTs
- Decentralised national trust network

Practical pilots

- Distributed Ledger Technologies such as Indy as the base for pilots (a common test sandbox)

New kind of platform economy

- Creating value streams based on enforced data portability & individual’s consent
- Piloting new consumer solutions

“DLTs as THE SOLUTION for implementing principles of MyData??”
Project Model

Companies
In-kind work

+ Pilots

Practice

Theory

Networked Pilot
Focus area (e.g. Money Flow)
Focus area (e.g. GDPR Readiness)
Focus area (e.g. Preference Profile)
Focus area (e.g. Verifiable Claims)

Productising a Sovrin Finland Laboratory → FIndy, Finnish Indy

Indy security DD, legacy API integration, national governance model and trust framework analysis
TrustNet’s Timeline

<table>
<thead>
<tr>
<th>Month</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>Oct</td>
<td>PDS demo</td>
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<tr>
<td>Nov</td>
<td>Universal DID Resolver lib</td>
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<tr>
<td>Dec</td>
<td>OAuth2 API authz with Indy</td>
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<tr>
<td>Jan</td>
<td>Wallet browser plug-in demos</td>
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<tr>
<td>Feb</td>
<td>OAuth2 API authz with Indy</td>
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<tr>
<td>Mar</td>
<td>FIndy Test Ledger</td>
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<td>Apr</td>
<td>FIndy Consortium and Governance Agreements</td>
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<td>May</td>
<td>Benchmarking Study (Sovrin, uPort, VeresOne)</td>
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<tr>
<td>Jun</td>
<td>Legacy API integration (OAuth2)</td>
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<td>Jul</td>
<td>Consent UX studies</td>
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<tr>
<td>Aug</td>
<td>Benchmarking Study (Sovrin, uPort, VeresOne)</td>
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<td>Sep</td>
<td>Sovrin security DD</td>
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<tr>
<td>Oct</td>
<td>eSSIF kick off</td>
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<tr>
<td>Nov</td>
<td>TIIME</td>
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<tr>
<td>Dec</td>
<td>IIW#27</td>
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<td>Jan</td>
<td>IIW#29?</td>
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<td>Feb</td>
<td>MyData Wallet (Tilaajavastuu &amp; TrafiCom)</td>
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<td>Mar</td>
<td>Mercury (Tieto et al)</td>
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Now at T=17/21 months

October 2017 → June 2019
Deliverables so far

**Code libraries - TrustNetFI@GitHub**
- VC verifier library
- VC issuer library
- VC data model Java implementation
- Agent-plugin backend

**Academic publications**
- On feasibility of DIDs in IoT devices with limited computational capability
- OAuth-ACE based DID processing proxy for IoT devices

**Reports (not yet in public)**
- Consent in Context UX Study
- Identity DLT Benchmarking Study

**National Indy ledger - FIndy**
- Consortium agreement (new entrants, not only TrustNet members, open project)
- Web site [Findy.fi](http://Findy.fi)
- Technical rulebook and agreements
- Business and legal rulebook
- Incorporation, Articles of Association
Project Mercury builds a business network for forming a limited liability company fully digitally

- A proof of concept on fully digital founding of a limited company
- Validates business, legal and technical feasibility of digital company founding
- Uses Hyperledger Indy and Corda
- Released publicly in May 2018
Digital document signing using global decentralized identities enable self-sovereign, globally verifiable signatures

**Shareholders**

**Board Members**

**Digital Signatures**

**Founding Documents**

**Patent & Registration Office**
- Verifies signatures
- Signs and registers company

**Limited Company**

Private/public keys associated with the signing technology (Indy for individuals, Corda for network)
Pilot 2: mydata.tilaajavastuu.fi (2019)
Pilot 2: mydata.tilaajavastuu.fi
FIndy

● A Finnish industry consortium-in-works for a national test ledger
● Based on Hyperledger Indy and some (new) developer tools
● Will serve as test bed for DLT identity pilots (e.g. Mercury or Tilaajavastuu)
● Open consortium model
● Needs governance rulebooks
Contacts

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