LIGHTest’s path to creating a realistic scope of Use Cases

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A Lightweight Infrastructure for Global Heterogeneous Trust Management

Lightweight Infrastructure for Global Heterogeneous Trust management in support of an open Ecosystem of Stakeholders and Trust schemes

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Agenda

- What exists …
  - State of the Art Analysis

- Where we are at now…
  - Use cases for the Lightest Project
  - Stakeholders and Requirement Management
    - Stakeholders
    - Requirements

- Where it could go
  - Open Questions
  - Future Use Cases
What Lightest Builds upon
State-of-the-Art Analysis

- Trust Schemes, Lists, and Formats
- Device Attestation Schemes
- Relevant Delegation Schemes
- Relevant Trust Policies and Policy Language
- Trust Translation Schemes
- Best Practice Derivation Schemes for Mobile Identity
- Best Practice of Interaction Design
### What Lightest Builds upon

#### A Deeper Look

<table>
<thead>
<tr>
<th>Trust Lists, Schemes, Formats</th>
<th>Trust Translation Schemes</th>
<th>Delegation Schemes</th>
</tr>
</thead>
<tbody>
<tr>
<td>- What we found:</td>
<td>- What we found:</td>
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<tr>
<td>- Many Variations of Trust Lists, Frameworks available</td>
<td>- Strong EU Sources</td>
<td>- Building off of Strork2.0</td>
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<tr>
<td>- Strong input for both Academic and Industry aspects</td>
<td>- Lack of Trust Translation Schemes in-use sometimes due to Maturity of Services</td>
<td>- Degree of Delegation is not as established</td>
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<tr>
<td>Bigger Question: How to Collect and Create a Flexible Interoperable System?</td>
<td>- Lack of Sources on Applicable Standards and Legal Norms in Non-EU countries</td>
<td>- Industry examples all across Europe, from Austria Finland</td>
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- What was missing:
Lightest Use Cases – Within the Scope of the Project

1. Supporting Trust Services
2. Translations between a variety of different Trust Schemes
3. Support of Delegation

- Verifying Electronic Transactions
- Trust Infrastructure for Identity Management
- Derived Mobile Identities
- E-Correos Trust Communication Services Pilot
- E-Procurement Pilot
Supporting Trust Services

- Make it automatic for Verifiers to **query Trust Lists**
- Combine multiple queries to **validate**
  - an **Electronic Transaction**
  - against an easy to author **Trust Policy**

**Trust policy:** List of Authorities that I trust, …

Electronic Transaction e.g. signed document

Trustworthy? (yes/no)
Trust Translations

Authority publishes Trust List on..
- which authorities from other trust domains are trustworthy
- how to translate foreign into native trust schemes
  - NIST: Level "3" == EC eIDAS: Level "substantial"

Bilateral agreements, University Diplomas, Credentials, etc.
Support of Delegation

Trust Delegation:

- Organization publishes Trust List on..
- ..who can sign/act in its name for which purposes

Authorizes employees to act/sign in its name
Stakeholders and Requirements Management

Interdisciplinary Approach
Corresponding the Design Science Methodology (Sweeney et al. 2009) the in the project worked out artefacts (Reference Architecture, implementation, Pilot) will be considered differential in the request, statistic and in the evaluation.

1. Meilensteintreffen, Berlin, 23.11.2016: AP 1.1 Anforderungsmanagement von Michael Kubach (Fraunhofer IAO)
# Lightest Stakeholder Overview - Brainstorming

## Participants of the ecosystem

### Active Stakeholder
- **End consumer**
  - Individual consumers
  - Companies
  - Public organizations

### Trust (Infrastructure) Provider
- Trusted Entities
- Developers of Software using Lightest
- Running Technical Infrastructure of Lightest or Parts

### Enabling Stakeholder
- **Enabler**
  - Public institutions
  - Research facilities
  - Disseminators

### Internal Stakeholder
- **LIGHTest Project**
  - Project sponsor (EC)
  - Lightest Project partners
  - Lightest Advisory Board

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Interdisciplinary Approach

Corresponding the Design Science Methodology (Hevner et al. 2004) the in the project worked out artefacts (Reference Architecture, Implementation, Pilots) will be considered differential in the request statistics and in the evaluation.

- Functional Requirements
- Security and Accountability Requirements
- Economic Requirements
- Usability Requirements
- Privacy Requirements
- Societal Requirements
- Legal Requirements

(Hevner et al. 2004, Design Science in IS Research. MIS Quarterly Vol. 28 No. 1, S. 75-105)
Lets Brainstorm together!

What are other potential Stakeholders?

What are other potential Use or Business Cases?
Use cases beyond the Lightest Project
Contact and Future Contribution

- Please contact me:
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- Interest in Participating in Potential Business Cases? Let’s Talk!