

CYBERNETICA

Digital identity – the Estonian approach

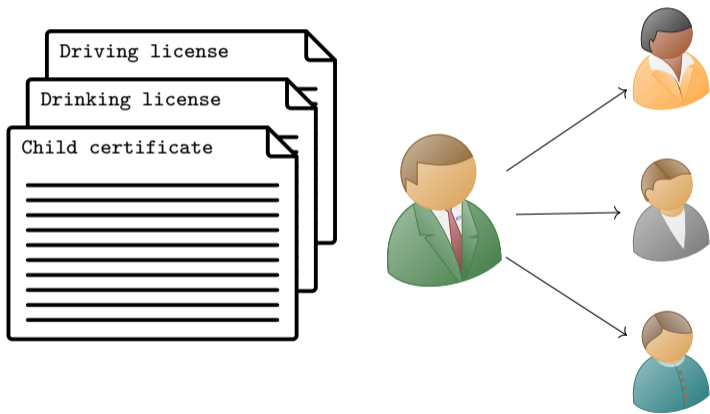
37407302718 @Estonia



Estonian approach: central identity



Alternative: identity as “all the info about me”



Conflicting interests and confusing terms

- State vs. individual:
 - In order to provide services, the state needs to collect, store and process information about the individuals.
 - The individuals want the services, but do not want to trust the government. As a result, we get an inefficient state.
- The term “digital identity” may mean different things:
 - a technical tool that allows one to authenticate to systems,
 - or a separate identifier, sometimes distinct from the real world identifier.

Isn't centralised identity risky?

- **Claim:** Central identity can be misused to violate privacy.

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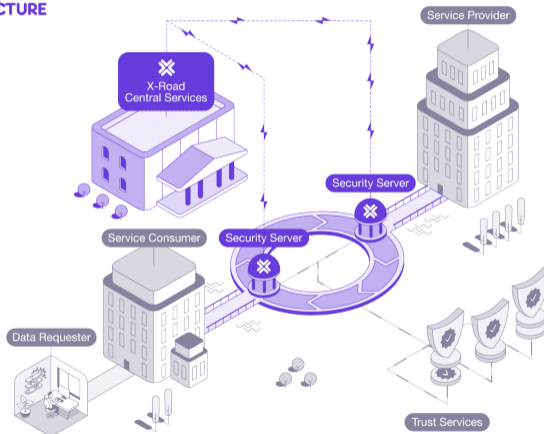
- **Claim:** Central identity can be misused to violate privacy.
 - **Counter-claim:** Attributes are also issued by authorities who keep the relevant databases. Malicious re-identification is possible (and easy) based on attribute datasets as well.

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- **Claim:** Central identity can be misused to violate privacy.
 - **Counter-claim:** Attributes are also issued by authorities who keep the relevant databases. Malicious re-identification is possible (and easy) based on attribute datasets as well.
- The correct way to approach privacy concerns is to improve information security level of the datasets.
- In Estonia, we have introduced a national security standard for data registers, and a secure data exchange layer between them.




X-Road data exchange layer

X-ROAD ARCHITECTURE



<https://joinup.ec.europa.eu/collection/ict-security/solution/x-road-data-exchange-layer/about>
June 22, 2022

Conclusions

- Introducing wallets and providing attributes does not eliminate the need for information security.
- If adequate security mechanisms are in place for registers, central identity does not pose a major risk *per se*.
 - Privacy is a consequence of strong information security.
- ,  and  enable citizens easy access to digital services.
- Wallets, SSI, etc. solve a similar problem, but add an unnecessary risk of considerably higher complexity.