

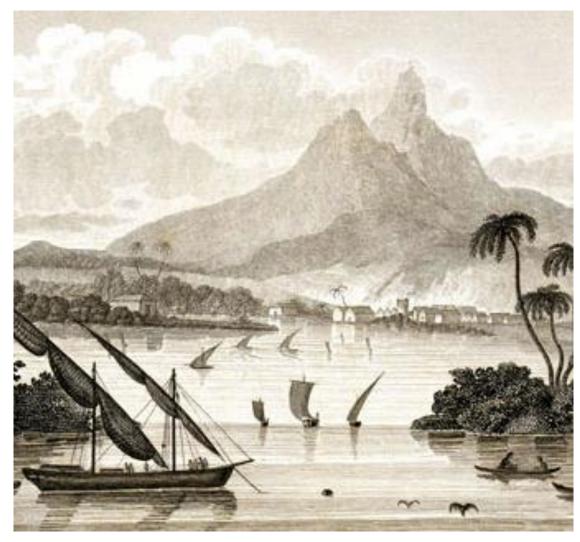
QWAC and QSeal – Identifying reliable sources Swiss army knives for identity-based online communication

Datum Ort Verfasser 28.10.2022 CA-Day

Enrico Entschew

Poyais – The land of opportunities



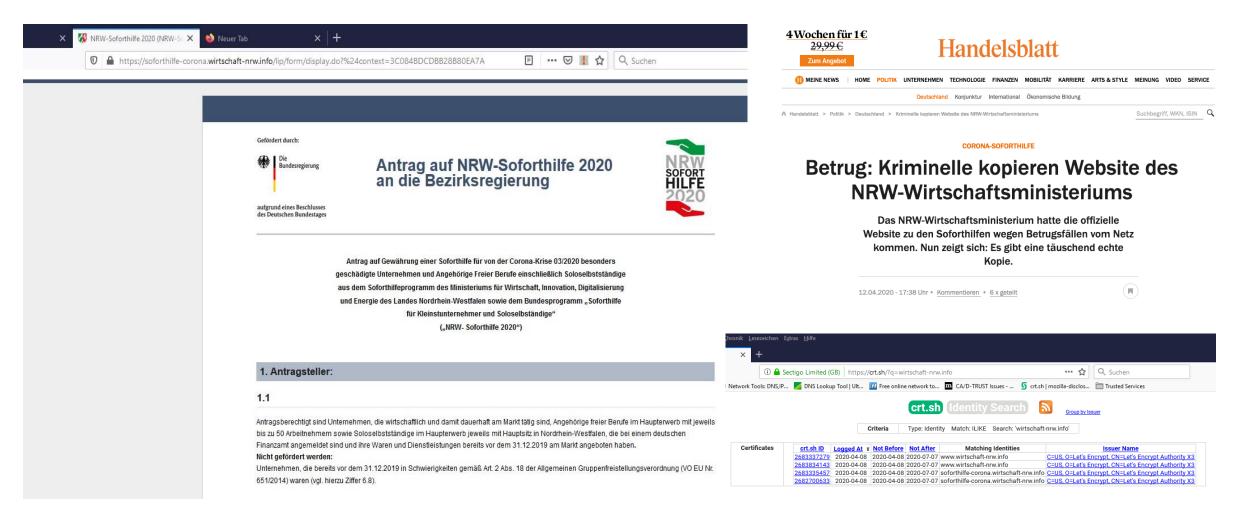




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Fake online websites for corona subsidies





2020: Complete clone of the original website except for where the application was sent

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Basis of the European digital trust space is the EU Regulation 910/2014 of 23 July 2014 / eIDAS

(electronic IDentification, Authentication and trust Services)

- Coming into force in 2014
- Gradual extension of the scope until 2018
- Revision in progress since June 2021
- Adoption expected in 2023

Qualified trust services according eIDAS (2014)



Qualified certificate for electronic signature (OSignature)



Qualified validation service



Qualified preservation service



Qualified electronic time stamp



Qualified electronic registered delivery service



Qualified certificate for electronic seal (QSeal)



Qualified certificate for website authentication (QWAC)





Qualified certificate for electronic Seals (QSeal)

- Serves as evidence that the data was issued by a legal entity
- Proves the integrity and origin of the data (eIDAS Article 35)
- Legal effect and admissible as evidence in court proceedings
- A representative of the legal entity has been identified
- Secures the application layer

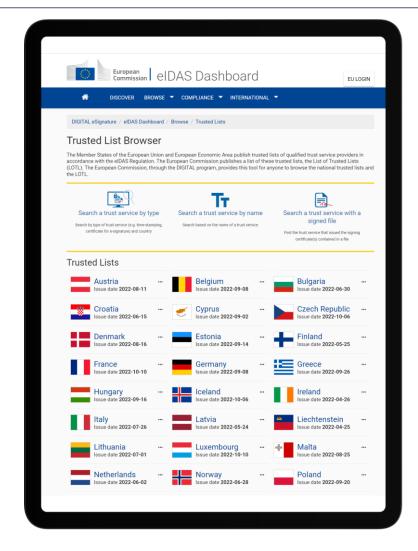


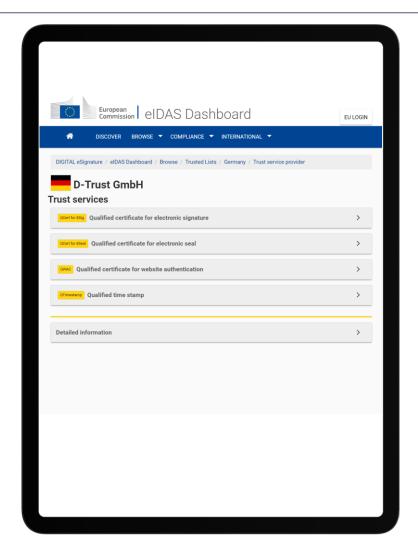
Qualified certificates for website authentication (QWAC)

- Assures the user that there is a genuine and legitimate entity standing behind the website (eIDAS recitel 67)
- A representative of the legal entity has been identified
- Secures the transport layer

The EU Trusted List – The source of trust







The EU Trusted List (EU TL) provides a European and vendor-independent directory of QTSPs

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What are reliable sources?

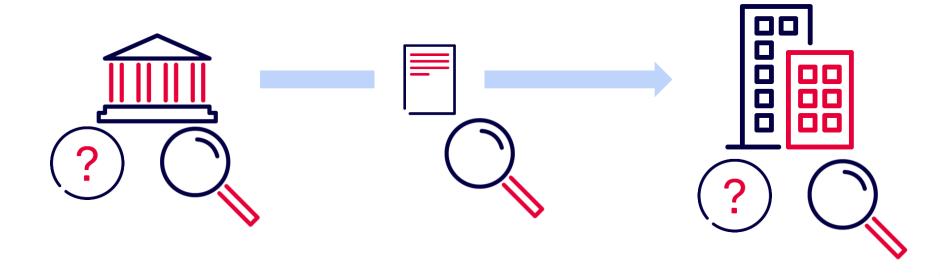
All sources of information whose identity can be verified in a trustworthy manner as well as the integrity and authenticity of information or data provided by it

Authentic source according to the draft of eIDAS revision by the commission (June 2021) (Article 3 Nr. 46)

'authentic source' is a repository or system, held under the responsibility of a public sector body or private entity, that contains attributes about a natural or legal person and is considered to be the primary source of that information or recognised as authentic in national law;

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Need for mutual authentication



The PSD2 Model

Problem was:

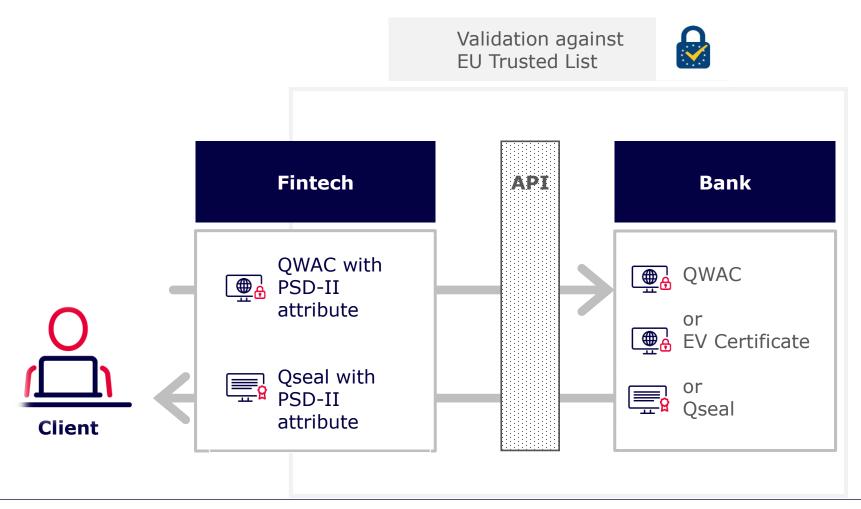
- Fintechs: unregulated access to banks' customer accounts
- Risk in IT security, data protection and consumer protection

Solution now:

- Activity of fintechs subject to licensing and government supervision
- Banks provide specific interfaces for online access by fintechs
- Regulatory technical standard for interfaces and mutual authentication

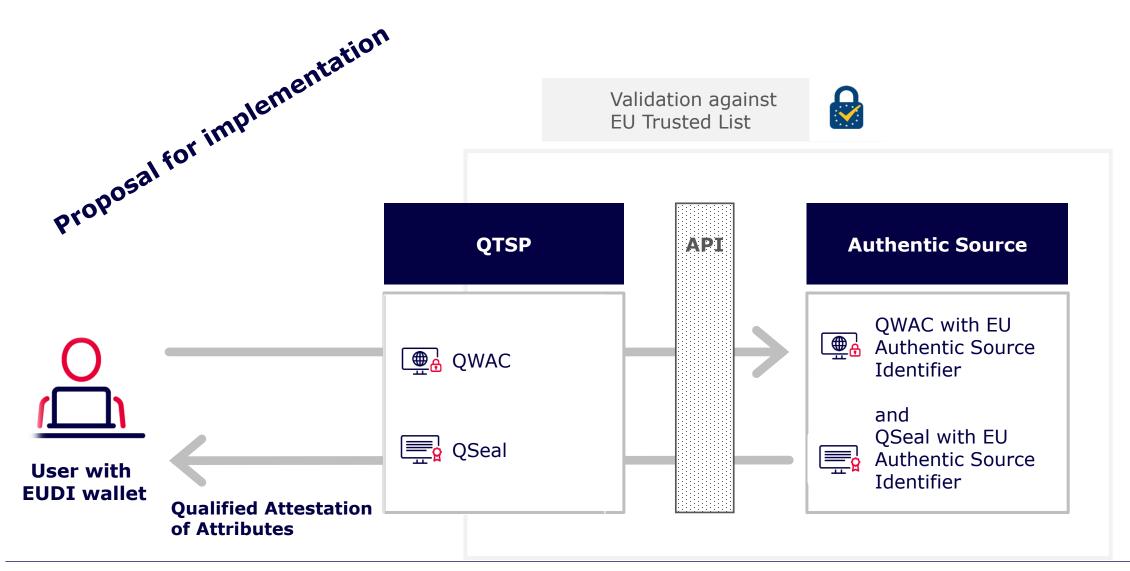
Mutual authentication with eIDAS means of verified and reliable market participants enables standardized, Europe-wide innovative business models in the financial industry





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Take away

- Reliable sources must be protected in order to reduce the risk in IT security, data protection and consumer protection
- Mutual Authentication and integrity and authenticity proofs can support this
- The technical implementation can be done by QWACs and QSeals and should follow a common standard
- Relying on the PSD2 model can help build a secure ecosystem for the new qualified attestation of attribute trust service
- Authentic source attributes can provide a consistent labeling of authentic sources without the need to know the local environment

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Thank you.

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