

Domain ownership digital credentials

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Digital credentials and digital wallets

- European Digital Identity Wallet will soon bring an application to all EU citizens that will allow to store and present various types of digital credentials both online and offline
 - Personal identity
 - All forms of other digital credentials (university diploma, driving license,)
- Legislation was approved last week by EU parliament
 - 3 years after proposition from European Commission
 - EUDIW must be available for every EU citizens by the end of 2026

Domain ownership certificates

- There were always some registries and registrars that provided paper certificate about domain ownership of domain. Apparently there were always people that bought it
- Now we have unique possibility to take advantage of technology and transfer this to the world of digital credentials
 - To be fair, some organizations already provides digital form, but in proprietary way



Domain ownership verification

- Verifier used to check WHOIS/RDAP output against provided ID
 - All useful information has been already ripped off
 - WHOIS response cannot be trusted
- Approaches based on information in DNS
 - Sending e-mail with one time links to guessed e-mail addresses
 - Trust based on e-mail is always questionable
 - Adding DNS records
 - DNS is in the hands of DNS operator and this approach requires some additional steps

Domain ownership digital credentials

- Digital identity is on the rise, we will soon be able to properly verify identity of registrant using digital wallet (or other form of eID)
 - Many organizations do this voluntarily and the rest is being forced by regulations
- We could agree about standard way how to represent a domain ownership as digital credential and offer a service where it is possible to download it into registrant's digital wallet
- Service can be provided by registry or registrar
- Can solve some of previously mentioned drawbacks of current methods

Will anybody use it?

- Since it exists already (at least in proprietary form) there are probably some clients
- Generally, the most prominent domain ownership verifiers are TLS certificate issuing organizations (CAs, TSPs)
 - Instead of complex DNS based verification procedure they would just send credential request into your wallet
 - It is expected that even organizations will have their digital wallet (imagine a cloud service instead of mobile app)
 - EV/OV certificates are not dead (QWAC in EU) and these certificates require identity checking. In this case CAs could get identity and domain ownership credential in one request

LSP and EWC

- CZ.NIC participates in Large Scale Pilots for EUDIW as part of EWC consortium (together with about 60 other organizations)
 - One focus of this consortium is implementation of digital wallet for organizations
 - As part of this we are proposing to pilot some aspects related to domain industry
 - Using EUDIW for registrant verification
 - Using EUDIW as the storage and presentation for domain ownership credentials
- We are looking for partners to discuss this topic with
 - Registries, registrars, certificate authorities

Some related aspects

- Why not to issue TLS certificates directly?
 - It is definitely possible but there is some push back about entering into existing business area for non commercial organizations
 - Digital ownership credential can potentially have wider audience
- How will verifier trust us?
 - This is certainly a topic to solve and already opened by CIRA's initiative
 - One option considered in EU is to have public trusted lists of digital credential issuers

Thank you for listening!