



EU Digital Identity
Wallet

ICANN 84 – TechDay - Prague

Jaromír Talíř • 9. 6. 2025

cz.nic | CZ DOMAIN
REGISTRY

Welcome to Prague for 2nd time



ICANN PRAGUE
No. 44 • 24-29 JUNE 2012

[Meeting Guide](#) (PDF, 4.32 MB)



[REGISTER](#)
Pre-register online now

[SPONSOR](#)
Web Sponsorship Opportunities

[Home](#) | [About](#) | [Schedule](#) | [Travel](#) | [Basic Info](#) | [Documents](#) | [Media Archive](#)

Local Time - Prague
Fri, 06 Jun 2025, 15:11

More

- Venue
- ICANN Meetings Homepage
- Mobile Meeting Site

Hosted by



CZ DOMAIN
REGISTRY

Thanks to our Sponsors



ICANN 44 | 24-29 June 2012

www.flickr.com



Welcome to the website for ICANN 44, Prague, Czech Republic, where you will find the most up-to-date meeting information.



About Prague
Prague is one of the oldest and most beautiful cities in the world.



Travel & Visa
Find out if you need a visa or request an invitation letter.



Schedule
See what's on the agenda for ICANN in Prague.



Venue & Hotels
Book now and take advantage of ICANN group rates.



Practical Information
Climate, Currency, Transportation, and more.



Maps
Find your way around the meeting venue.



**ICANN | PUBLIC MEETINGS**

[X](#) [f](#) [i](#) [in](#) [v](#) [d](#)

[About](#) | [ICANN83 Policy Forum](#) | [Calendar & Archives](#) | [Opportunities](#) | [Participation Tools](#) | [Resources](#)

ICANN83 Prague Policy Forum



[General Info](#) | [Travel and Hotels](#) | [F.A.Q.](#) | [Schedule](#)

Welcome to ICANN83 in Prague, the Czech Republic. ICANN's hybrid four-day Policy Forum is focused on current policy development work, outreach, and daily opportunities to network with the community.

ICANN83 will be held **9 - 12 June 2025** at the [Prague Congress Center](#).

Prep Week (Online Only): 27 - 28 May 2025

[REGISTER TODAY!](#)

In-Person attendance registration remains open until 8 June. (On-site registration will not be available.)

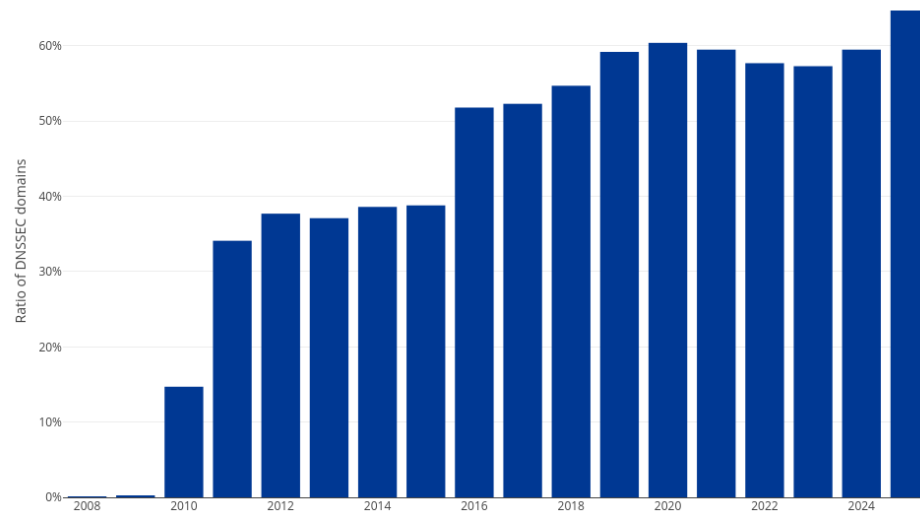
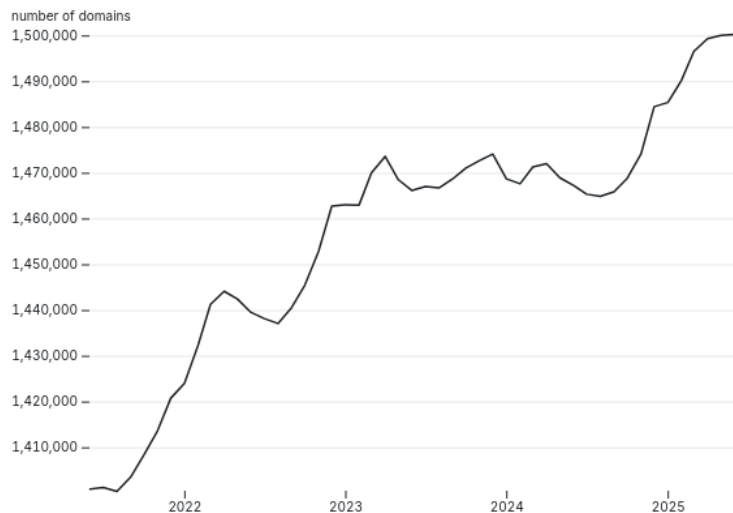
To request an invitation letter for visa applications, please [Register](#) as an in-person participant for this meeting.



Hosted by
CZ DOMAIN
REGISTRY

.CZ domain

- Still growing! Reached 1 500 000 in March 2025
- Significant grow in DNSSEC in last year – 64,7%



Turris routers

- <https://www.turris.com/en/>
- Started 2013
- Turris 1.0, 1.1, Omnia, Mox...
- Turris Omnia NG is next in the row
 - 4 x 2.2 GHz armv8
 - 2G RAM
 - 4 x 2.5 Gbps
 - 2 x 10 Gbps SFP+
 - Wi-Fi 7
 - NVMe & 5G ready
 - Scheduled for availability later in 2025



Bird Internet Routing Daemon

- <https://bird.nic.cz>
- Used by leading companies worldwide
- Version 3 release in December 2024
 - Multi threaded
 - Even more performance of BGP

fastly

DE CIX

twitch

linx

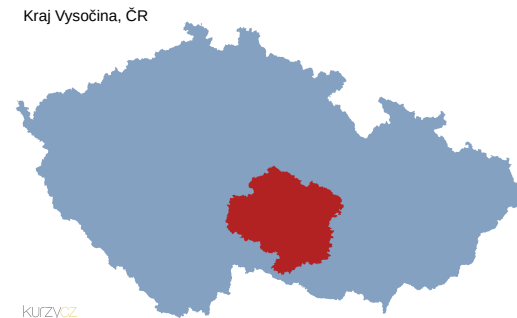
Akamai

amsix



Knot Resolver

- <https://www.knot-resolver.cz/>
- Major deployments this year
 - Filtering resolver for regional government of Vysocina
 - Dashboard for administrators
 - Client application to redirect DNS resolving (mobile, desktop)
 - DNS4EU
 - CZ.NIC is responsible for providing DNS resolving software
 - Public services launched last week - <https://www.joindns4.eu/for-public>



Knot DNS

- <https://www.knot-dns.cz/>
- Staying on the front line in implementing new standards (i.e. QUIC, DNSSEC automation, etc..)
- CZ.NIC started to do hosting as well
 - DNS Anycast for TLDs - <https://anycast.nic.cz/en/>
 - VIP domain for high profile national domain
 - CZ.NIC won tender for administration of gov.cz



FRED registry system

- <https://fred.nic.cz/en/>
- Open source software for administration of domain registry
 - High modularity and performance
 - Automated DNSSEC bootstrapping
 - Domain auctions
- New deployment model in progress
 - Containers, Cloud, Fred as a Service



Workshops

- <https://icann83.nic.cz/en/workshop/>

FRED workshop

 11. 6. 2025

 12:30 – 15:00

 Room 225 ([map](#))

- Features, Software architecture, Where is the focus in future
- Live demo (running demo from image, showcase of FRED features)
- Operational considerations.

DNS workshop

 11. 6. 2025

 15:30 – 18:00

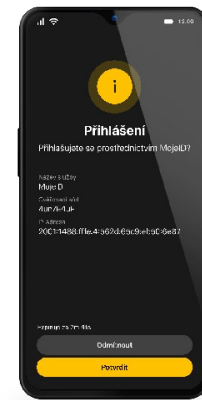
 Room 225 ([map](#))

- Building DNS Anycast
- Knot DNS masterclass (Using Knot DNS for zone administration and DNSSEC signing)
- Hands-on training - bring your own laptop

Unfortunately, the workshop is fully booked.

Digital identity - MojID

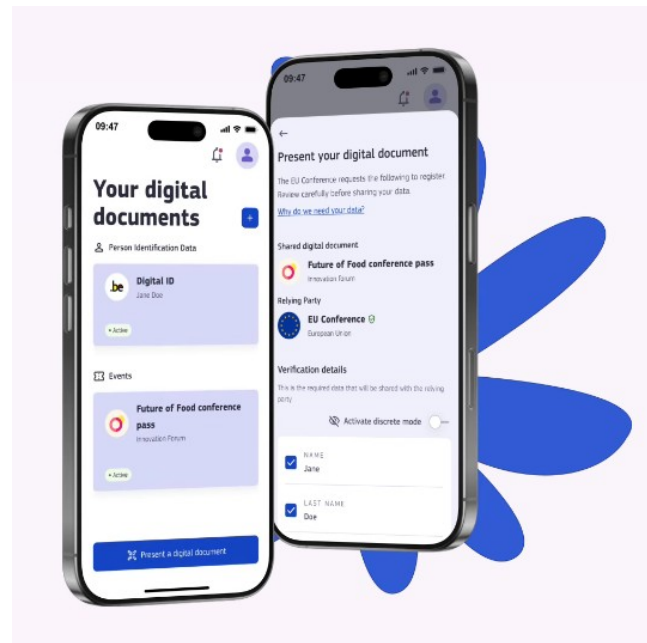
- <https://www.mojid.cz>
- Federated digital identity service accredited according EU eIDAS regulation
 - FIDO tokens and mobile app for authentication
 - Focus on strong identity verification
- Hundreds of thousands of users can use it for accessing
 - governmental services and range of private online services
 - our internal client services



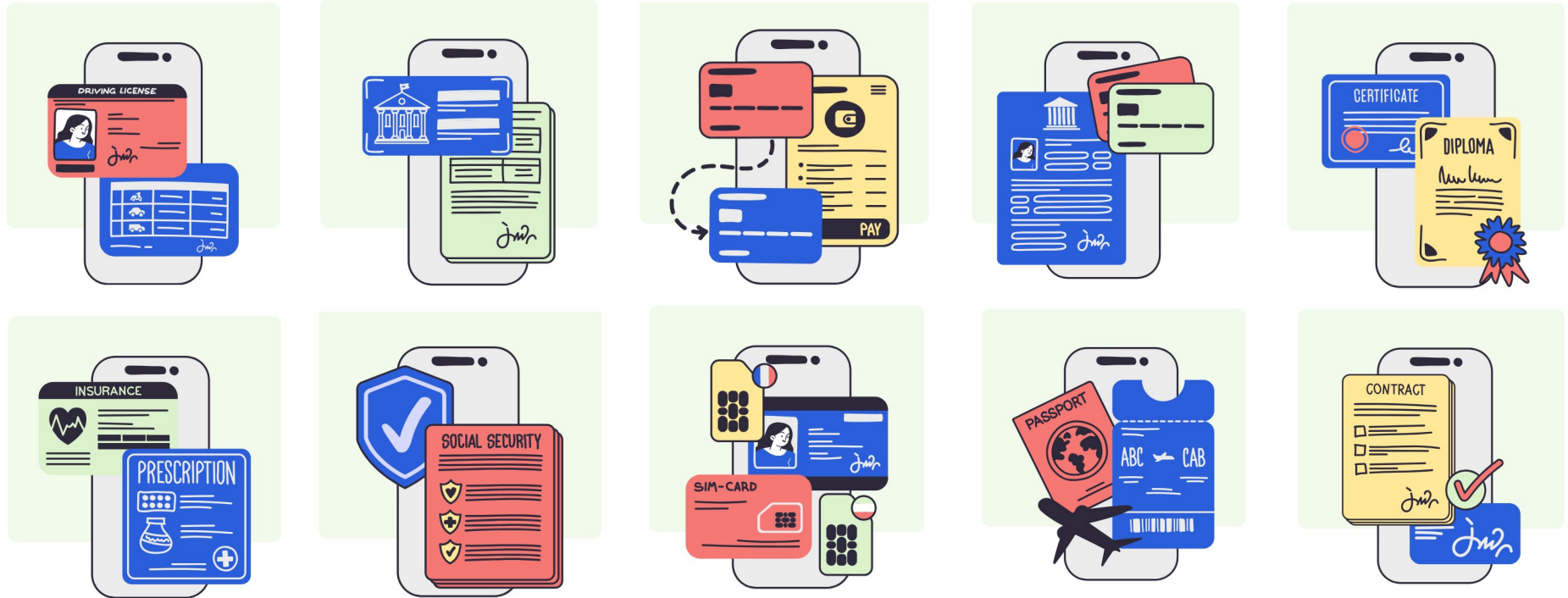
European Digital Identity Wallet

What is it

- New approach of European Commission to European digital identity
- Digital wallet, that will allow to
 - Authenticate online
 - Store and present (online and offline) various credentials, attestations or qualifications
 - Digitally sign documents
- Not application, but common standard
- Reaction to growing popularity of Google wallet and Apple wallet



Use cases

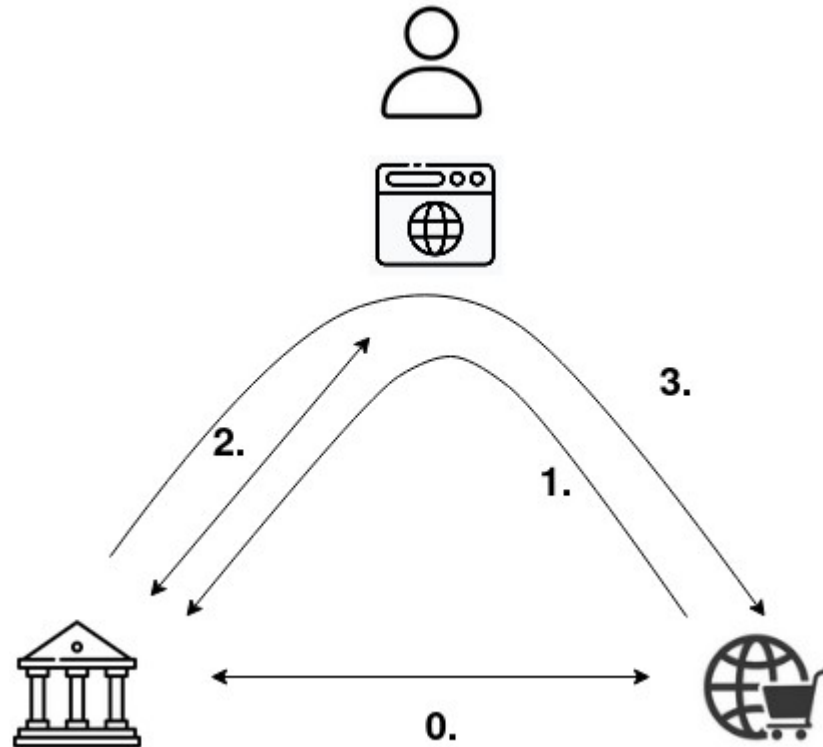


Timeline

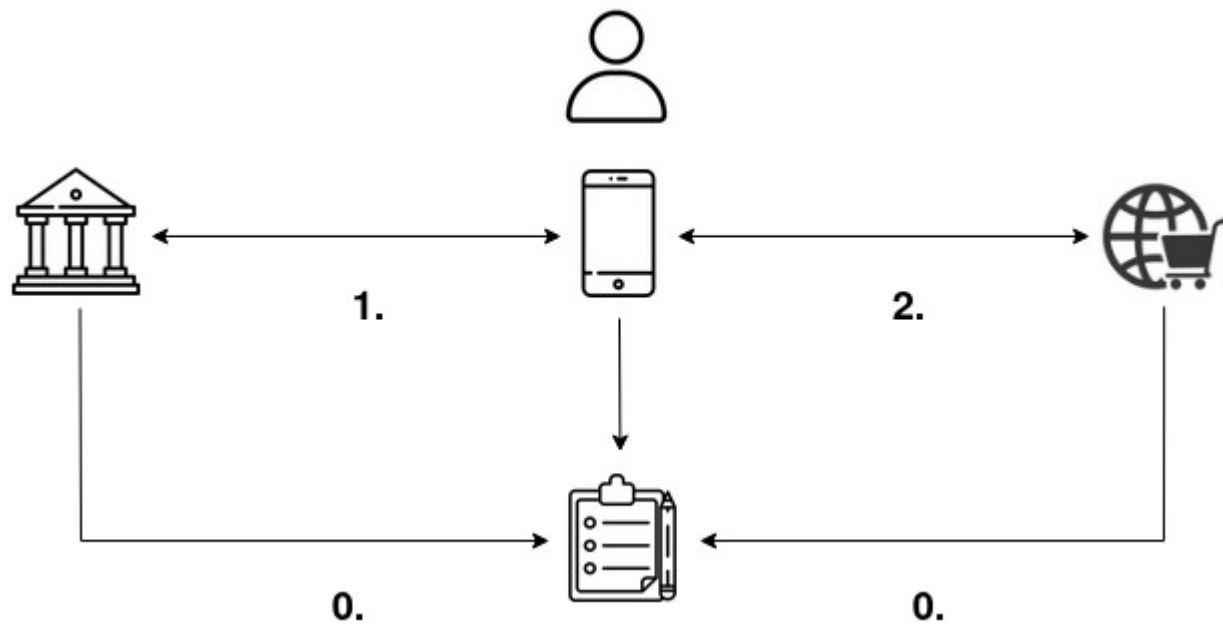
- 03. 06. 2021 – First text of eIDAS revision by European Commission
- 06. 12. 2022 – Common approach published by European Council
- 29. 02. 2024 – Final vote in EU parliament
- 20. 05. 2024 – Revision becomes effective
- 24. 12. 2024 – First batch of implementing acts is effective
- 24. 12. 2026 – All member states must provide wallets for it's citizens

Federated vs. Decentralized identity

Federated identity



Decentralized (Self-Sovereign) identity



Differences

- Advantages of SSI
 - More privacy for users, issuers should not be able to track usage of credentials
 - Easy usage directly on verifier/service side without involving issuer
 - Allows for offline usage
- Disadvantages of SSI
 - Credentials may become invalid/revoked in the moment of usage
 - Revocation mechanisms must exist

Technical parameters

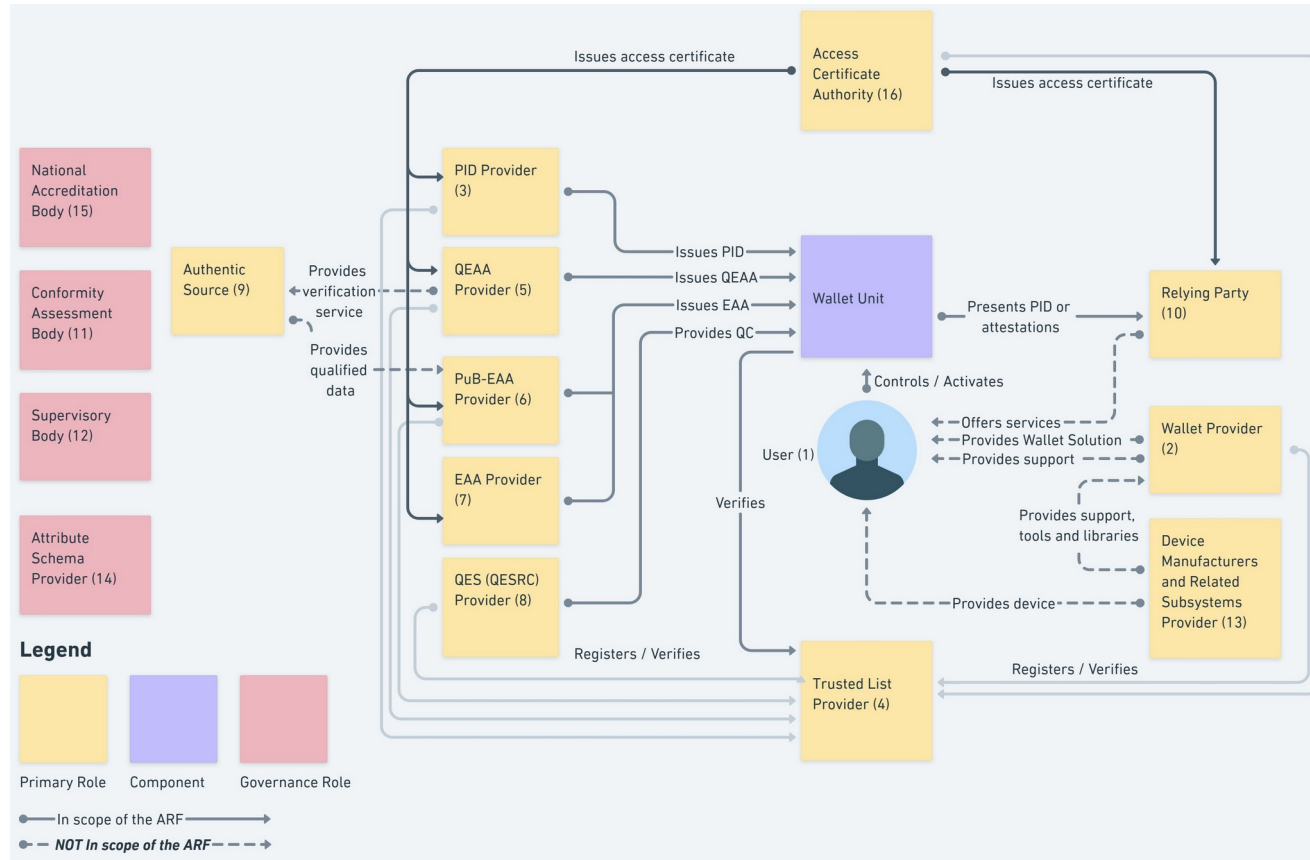
- Formats for credentials
 - **ISO mDOC, IETF SD-JWT VC(draft)**, W3C Verifiable Credentials
- Protocols for exchange
 - **OpenID4VP(draft), OpenID4VCI(draft)**, DIDComm
- Trust mechanism
 - **Trusted lists**, OpenID Federation, European Blockchain Service Infrastructure, DNS based solutions

Features of EUDI Wallet

Guiding documents

- Revised regulation
- “Floating” Implementing Acts
 - First publications are missing key specifications required for implementation
 - Commission promise to reopen them when details will be known
- Architectural and Reference Framework
 - Non legislative document continuously updated by member state representatives
 - <https://eu-digital-identity-wallet.github.io/eudi-doc-architecture-and-reference-framework/>
- Specifications – IETF, ISO, ETSI, OpenID Foundation, W3C

Framework



Wallets

- Top security – Remote HSM? Secured eSIM? External tokens?
- Must be certified
- Form factor is not prescribed (mobile app, web app, desktop app)
- Issued by member states or recognized by member states
- Must be open source
- Providers must not track user's activity

Relying Parties (Verifiers)

- Mandatory for public services, private services that requires strong customer authentication (like finance sector) and big online platforms
- Voluntarily by any services upon registration
- Online and offline transactions
- Wallet to wallet interactions

Q/EAA Providers (Issuers)

- Each use case will require definition of rulebooks for attributes
- Attribute schemes will be stored in catalogs
- Rulebooks and schemes are expected to be governed by organizations in which, insofar possible, all stakeholders are represented

What is available now

Referential implementation

- Commission is funding a lot of development
- Github account with over 60 repositories
- Libraries for building wallets, issuers and verifiers
- Referential wallet for Android and iOS
 - <https://github.com/eu-digital-identity-wallet/eudi-app-android-wallet-ui>
 - <https://github.com/eu-digital-identity-wallet/eudi-app-ios-wallet-ui>
- Demo issuer - <https://issuer.eudiw.dev/>
- Demo verifier - <https://verifier.eudiw.dev/>

Large Scale Pilots

- Commission is co-funding 4 consortia to pilot various use cases
 - April 2023 – July 2025
- CZ.NIC is part of consortium EWC
 - Issuer of personal identity data linked to MojID
 - Testing getting information from wallet for usage in domain registry
- Public website to get full experience - <https://ewcpilot.eu/>

What is there for domain industry

Use cases

- Using wallet for verification of registrant data (NIS2)
- Authentication to registry or registrars portals
- Authorization of transfers, registry lock or other changes in registry
- Issuing some domain specific credentials into wallet

Domain ownership credential

- Directly issued by registry or registrar to registrant wallet
- Confirming domain ownership easy way
- No involvement of DNS operator
- Requires agreement on:
 - Format and data model
 - Trust mechanism
 - Revocation mechanism

Next steps

- Informal taskforce of a few CENTR members
- Deeper exploration of potential use cases
- Providing feedback to Commission and potentially governments
- CZ.NIC continues to work on piloting several of mentioned use cases

Thank you for watching!