How can DomainID help this guy to remember his password (and keep ISPs relevant)

Vittorio Bertola Research & Innovation Engineer, Open-Xchange DNSSEC Workshop, ICANN 60, Abu Dhabi, November 1, 2017

Stay Open.



"We call this one the 'Password Manager.' The vest is made of Post-It notes."

The problem

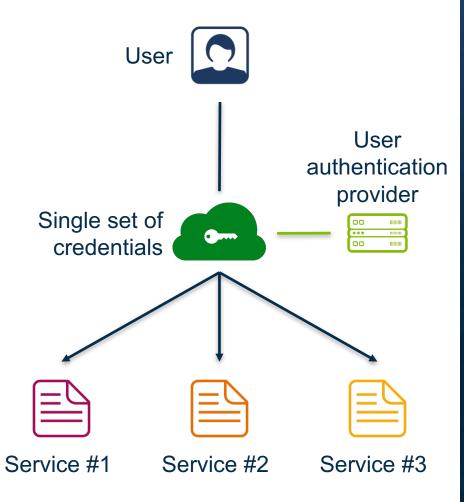
We have too many different user accounts.

AND STARTING TODAY, ALL PASSWORDS MUST CONTAIN LETTERS, NUMBERS, DOODLES, SIGN LANGUAGE AND SQUIRREL NOISES.



(and we can't even use the same password for all of them)

Stay Open. 🛛 🏹



The solution

Single sign-on (SSO)

 A single username and password couple that can be used on all existing online services

Requires an online service acting as user authentication provider (must be trusted by everyone)





Existing global SSO systems, #1

Official government-provided digital identity (e.g. eIDAS)

Problems:

- Usually hard to get and use
- Lack of privacy
- Overkill for most applications (scarce support)



© CC-BY-SA 4.0 European Commission

Login with Salesforce

Login with Facebook

Login with Google

Login with Twitter

Login with LinkedIn

Existing global SSO systems, #2

OTT-provided digital identity (e.g. social networks)

Problems:

- Owned & branded by the OTT
- No privacy guarantee
- No portability and choice for the user



DomainID





The real solution

Feels like "Login with Facebook", but

- public
- open and federated
- based on standards
- full control on data privacy
- could be extended to other applications



OpenID Connect plus...

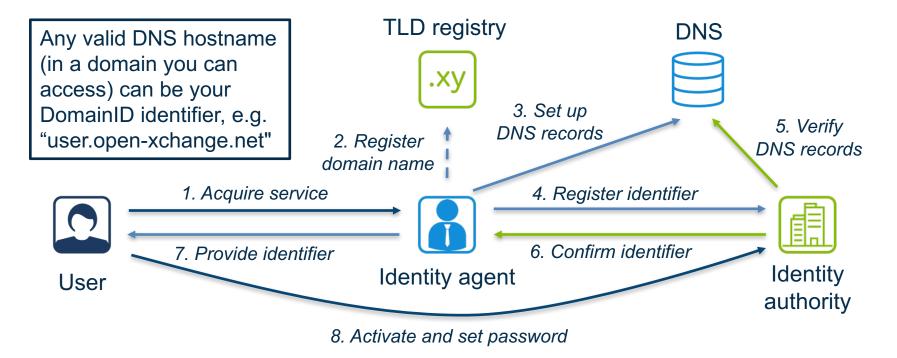
- 1. A better discovery process, enabling the use of any hostname as identifier
- 2. Support of all identity providers with a single entry point
- 3. Identifier portability (if you own the domain)
- 4. Separation of roles between authorization ("identity authority") and user data management ("identity agent")
- 5. Management of user consent for sharing data
- 6. Many more information fields ("claims") about the user

7 I How can DomainID help this guy to remember his password



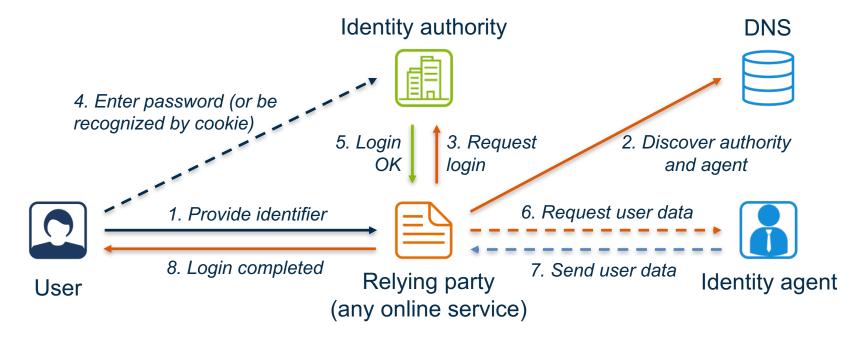
How do I get a DomainID identifier?

You do this only once



How do I use a DomainID identifier?

Just two user screens (and the second one is optional)



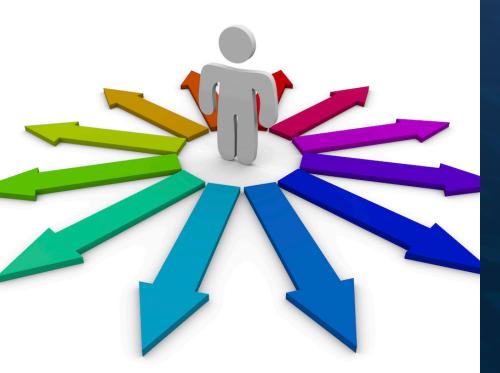




Pick your online brand

- No more "me@gmail.com"
- Can be in the domain name of any provider
- Or it can be in your own personal domain name





Pick your provider

- You can pick and change your provider (as long as you own the domain)
- Or you can host it yourself
- Choose who to trust with your data!





Easier and more secure

- You only need to remember one strong password
- You only share it with one trusted partner
- And if it's not trusted any more, you just change password and partner





Easier and more private

- You can have multiple identities
- You can automatically create new accounts
- You choose how much information to share with each website





What's in it for the domain people?

- Provide a crucial valueadded service to customers
- Manage their customers' online identity
- Sell more personal domain names
- Promote DNS & DNSSEC



Strategic value: very high

- Lack of proper, user-controlled authentication and identity management is at the root of many abuse, security and usability issues
- DNS (with DNSSEC) should continue to be the Internet's public directory, also for people and their services
- Identity tracking is the cornerstone for OTT-run walled gardens
- There is no public, open, federated, privacy-friendly, user-centered identity management standard for everyone else – and this is what we want to build

15 I How can DomainID help this guy to remember his password



