

# Keyoxide in 5 minutes

Yarmo Mackenbach [he/him/his]



# Cryptography-based identity

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Traditional passport	OpenPGP-based "ID"
Centralized	

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Physical appearance	Online presence
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# Cryptography-based identity

Traditional passport	OpenPGP-based "ID"
Centralized	Decentralized
Physical appearance	Online presence
Linked to person	Linked to persona



# Bidirectional linking

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[Key 909F6BD6]

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[Key 909F6BD6]: Hey, I am Alice's key  
and I claim to be associated with  
@alice on Twitter.

# Bidirectional linking

[Key 909F6BD6]: Hey, I am Alice's key and I claim to be associated with @alice on Twitter.

@alice Twitter account: Hey, I confirm that I am associated with key 909F6BD6.

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[Key D713546F]

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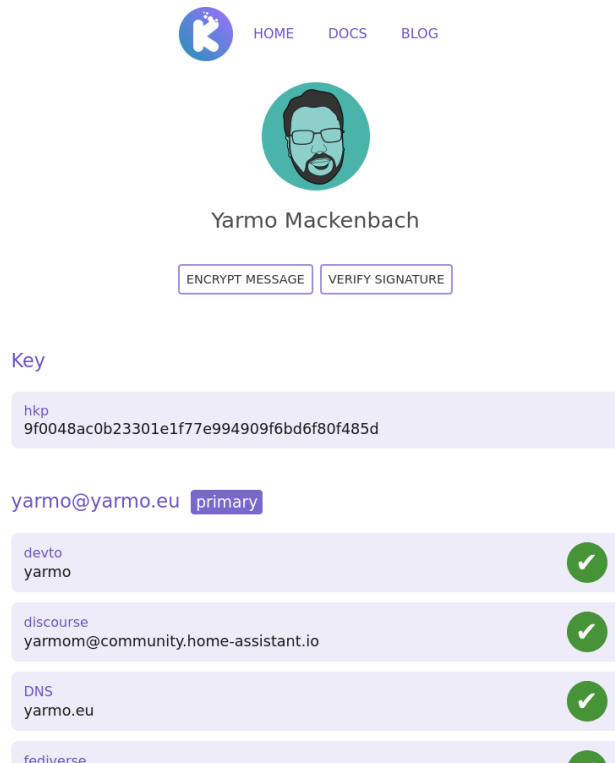
# Keyoxide

- Open source project
- Decentralized identity
- Based on secure cryptography
- Linked to personas

# Interacting with Keyoxide

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- Website (selfhostable)



The screenshot shows the Keyoxide website interface for a user named Yarmo Mackenbach. At the top left is the Keyoxide logo (a blue circle with a white 'K' and a key icon). To its right are navigation links: HOME, DOCS, and BLOG. Below the logo is a circular profile picture of Yarmo Mackenbach, a man with glasses and a beard. Underneath the profile picture is the name "Yarmo Mackenbach". Below the name are two buttons: "ENCRYPT MESSAGE" and "VERIFY SIGNATURE".

Key

hkp  
9f0048ac0b23301e1f77e994909f6bd6f80f485d

yarmo@yarmo.eu **primary**

devto yarmo	✓
discourse yarmom@community.home-assistant.io	✓
DNS yarmo.eu	✓
fediverse	✓

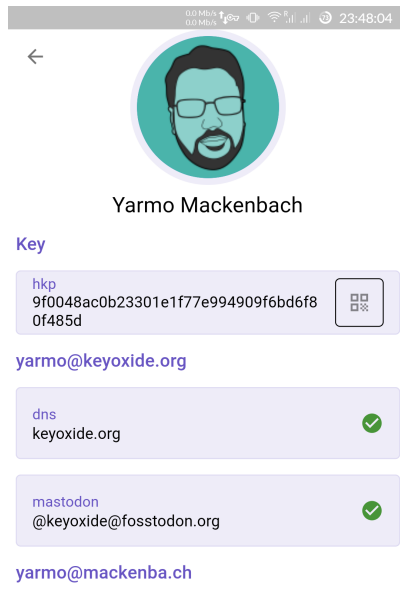
# Interacting with Keyoxide

- Website (selfhostable)
- Command Line Interface

```
[yarmo@agincourt ~]$ keyoxide verify hkp:9f0048ac0b23301e1f77e994909f6bd6f80f485d
Verification results:
Yarmo Mackenbach <yarmo@yarmo.eu>
  ✓ yarmo (devto)
  ✓ yarmom@community.home-assistant.io (discourse)
  ✓ yarmo.eu (dns)
  ✓ @yarmo@pixelfed.social (fediverse)
  ✓ yarmo@codeberg.org (gitea)
  ✓ YarmoM (github)
  ✓ yarmo@gitlab.com (gitlab)
  ✓ Yolta (hackernews)
  ✓ irc://irc.libera.chat/yarmo (irc)
  ✓ yarmo (lobsters)
  ✓ @yarmo@fosstodon.org (mastodon)
  ✓ yarmo.live (owncast)
  ✓ YarmoM (reddit)
  ✓ @YarmoM (twitter)
  ✓ yarmo@404.city (xmpp)
Yarmo Mackenbach <yarmo@keyoxide.org>
  ✓ keyoxide.org (dns)
  ✓ @keyoxide@fosstodon.org (mastodon)
Yarmo Mackenbach <yarmo@mackenba.ch>
  ✓ @yarmo:mackenba.ch (matrix)
[yarmo@agincourt ~]$
```

# Interacting with Keyoxide

- Website (selfhostable)
- Command Line Interface
- Android app (F-Droid store)



# An open ecosystem

# An open ecosystem

## > Libraries

`doip-js` -> javascript + node

`doip-rs` -> rust (in development)

# An open ecosystem

## > Libraries

doip-js -> javascript + node

doip-rs -> rust (in development)

## > Documentation

<https://ariadne.id> (in development)



# Example in rust

```
// Prepare the identity claim
let uri = "https://codeberg.org/yarmo/gitea_proof";
let fingerprint = "9f0048ac0b23301e1f77e994909f6bd6f80f485d";
let mut claim = Claim::new(uri, fingerprint);

// Find matching service providers
claim.find_match();

// Verify the claim
claim.verify().await;
```

# Dank je wel! Merci!

NLnet + NGI0

Wiktor

Seferi

<https://keyoxide.org>

<https://codeberg.org/keyoxide>

[yarmo@keyoxide.org](mailto:yarmo@keyoxide.org)