FUTURAE

Secure Customers Access

www.futurae.com

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Hello passkeys!
Goodbye passwords

SWISS CYBER STORM 2022

Agenda

FIDO authentication and today’s challenges

What is a passkey?

Security spectrum

User experience

Enterprise & high-value consumer use cases

FIDO authentication and today's challenges

FIDO authentication crash course

client / platform

roaming (external) authenticator

platform (internal) authenticator

relying party

FIDO authentication challenges

roaming authenticators

… cost money (and you probably need two)

… are needed to securely bootstrap a platform authenticator

consumers

… are not interested in buying them and carrying them around

“FIDO”, “WebAuthn”, “security key”

… don’t mean much to the average user

What is a passkey?

The vision

- Easy to use as a password
- Easy to understand, intuitive
- Leverages existing hardware
- Survives device loss/change
- Works at global scale

passkey

pass·key | / ˈpasˌkē /

noun

a password replacement that is safer, easier and faster to use

Image source: passkeys.dev

a password

a passkey

passwords

passkeys

friends & family edition

passkey

use your fingerprint or face
to sign into apps and websites instead of a password

passkey

tech savvy edition

a phishing resistant, password replacement
FIDO credential, usable across all your devices

technologist edition

passkey

a FIDO2 discoverable credential which requires user verification and is backed up to survive device loss

Security spectrum

Security spectrum

less secure — *more secure*

password	password + conventional MFA	(multi-device) **passkey**	(multi-device) passkey **+ DPK**	security key, platform authenticator (single device passkey)

User experience

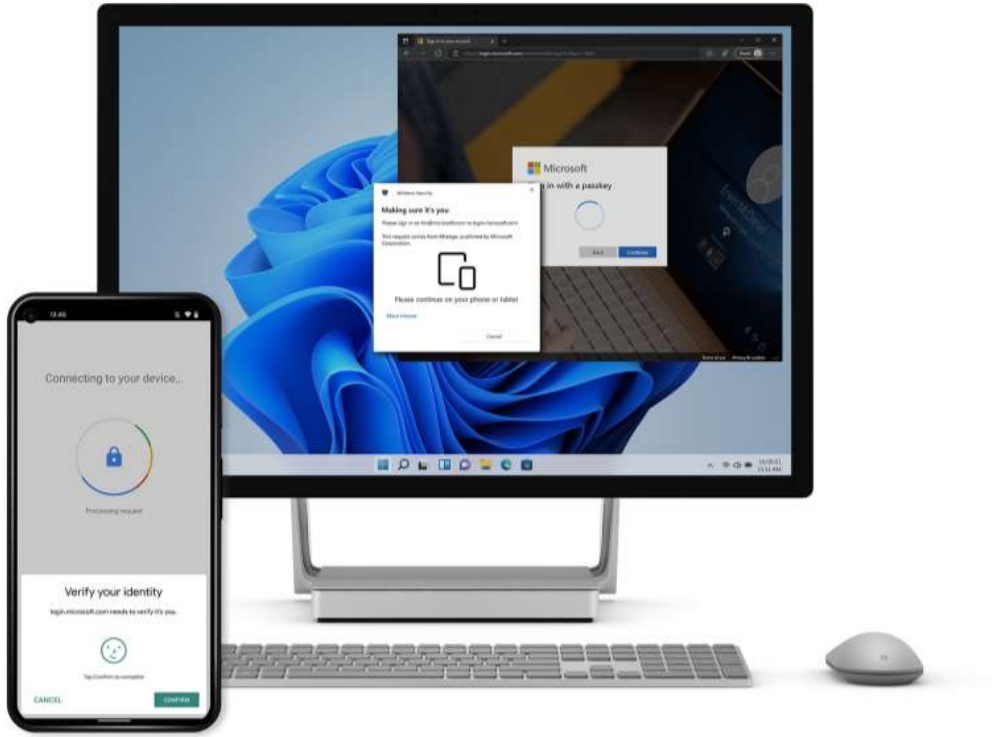
Inspiration from existing password manager UX

- Familiar experience
- UI/UX support by the platform
- Privacy preserving
- Simple integration for website developers

Image source: passkeys.dev

Cross-ecosystem experience

Cross-device,
cross-ecosystem
FIDO authentication



mobile device can
bootstrap another
device and/or
ecosystem

1. Access site/app on new device
2. Use mobile device to sign in
3. Create new passkey on the new device

Concept render only, UI subject to change

Image source: FIDO RSAC/Authenticate presentations

Enterprise & high-value consumer use cases

Higher security use cases

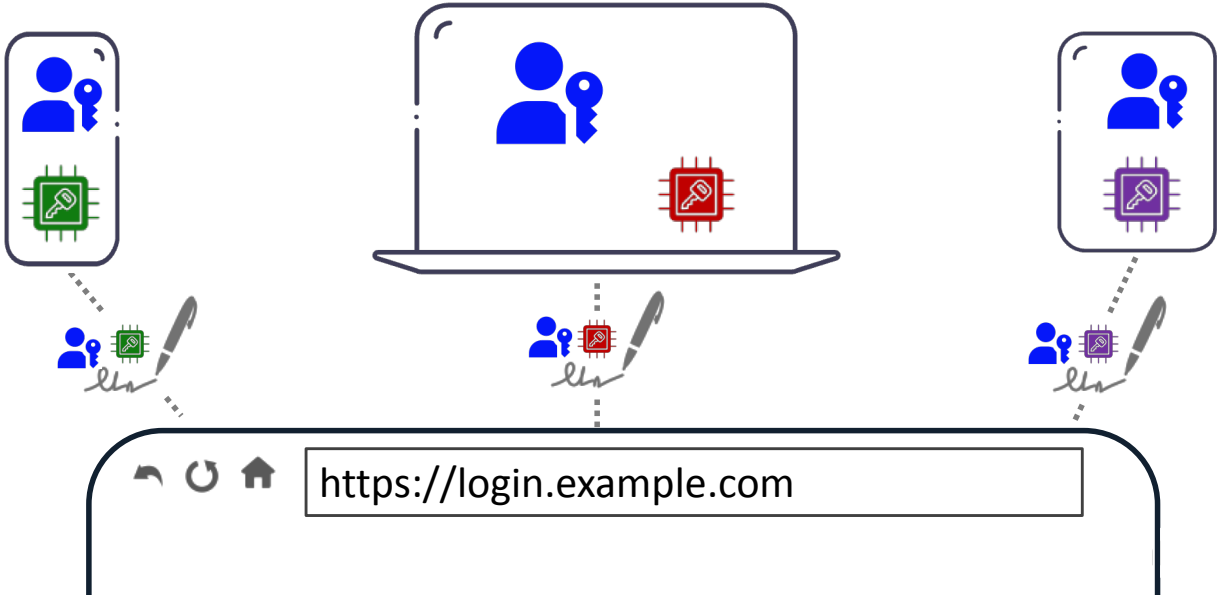
regulated industries
(financial, government, healthcare, …)

politicians, journalists,
executives,
…

enterprise access

Device public key (DPK)

per relying party, device bound key in addition to the passkey



Adapted from: FIDO RSAC/Authenticate presentations

Not addressed directly by passkeys

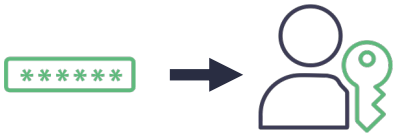
Cloud-based cross-ecosystem syncing

… third-party solutions

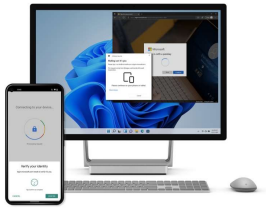
Payment confirmation

… Secure Payment Confirmation → www.w3.org/TR/secure-payment-confirmation

Takeaways - passkeys



drop in replacement of passwords, enhanced security



cross-platform, cross-ecosystem

familiar UX

device context for higher security cases

Hello passkeys!
Goodbye passwords…?

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Want to learn more?

- *passkeys.dev*
- *fidoalliance.org/passkeys*

Thank you

Acknowledgements: This presentation was based on the work of Tim Cappalli, Scott Bingham, Shane Weeden and the FIDO Alliance

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