

Accessible Foundation for Passwordless Experiences with FIDO Passkey





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FIDO Alliance maturity lifecycle



What is the FIDO Alliance?



A tech association standardizing phishing-resistant logins



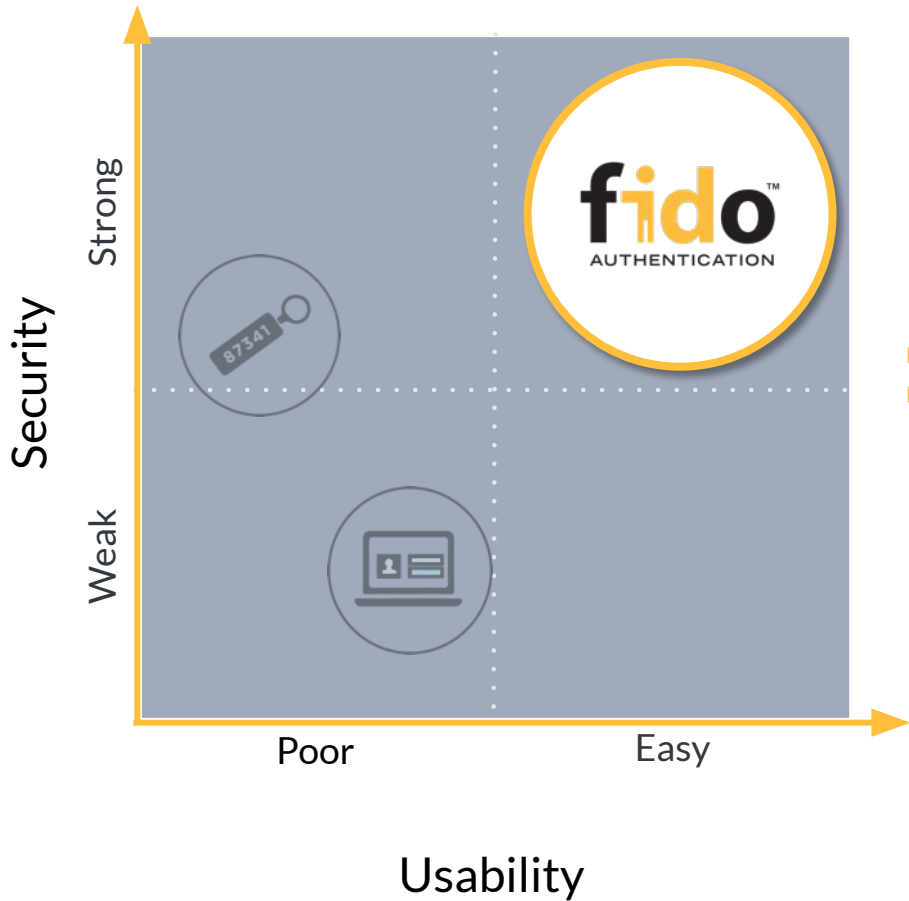
What does the FIDO Alliance do?

3 THINGS

- **Standards for phishing-resistant logins**
Like Wi-Fi or Bluetooth, we want this tech built into all the devices you use all the time
- **Certification programs**
Ensuring everything works – and works together
- **Adoption programs to get this tech out to the masses**
Technical education, implementation guidance, deployment experiences...



Simpler and stronger: Both must be true



=

Open standards for simpler, stronger authentication using **public key cryptography**

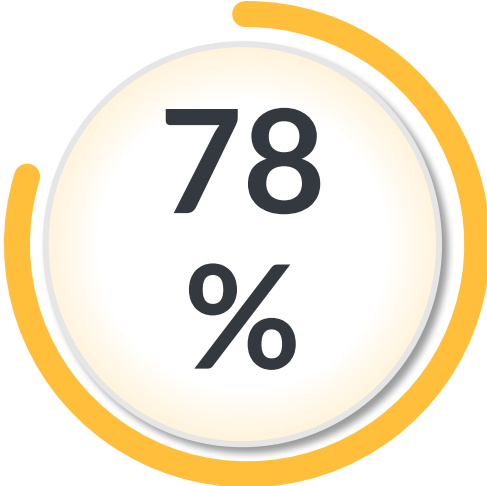
Single Gesture
Possession-based
Phishing-resistant
Authentication

How close is this to reality?

FIDO Authentication is supported in...



browsers



desktops



mobile devices



built-in OS support

...and still growing!



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How to Scale FIDO User Authentication?



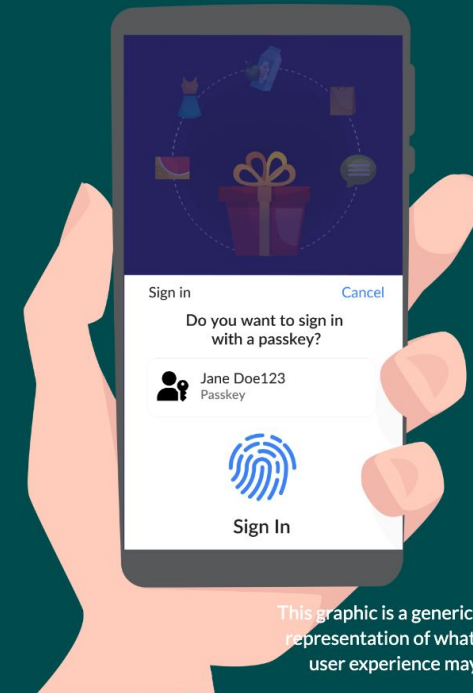
By furthering usability while keeping security top of mind





Passkeys

Accelerating the Availability of Simpler,
Stronger Passwordless Sign-Ins



This graphic is a genericized representation of what the user experience may be.

Passkeys

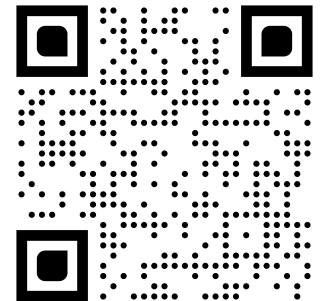
/ˈpas,kēs/

noun

Based on FIDO standards, passkeys are a replacement for passwords that provide faster, easier, and more secure sign-ins to websites and apps across a user's devices. Unlike passwords, passkeys are always strong and phishing-resistant.

Passkeys simplify account registration for apps and websites, are easy to use, work across most of a user's devices, and even work on other devices within physical proximity.

[Learn more!](#)



Focus on usability and accessibility

2021 FIDO UX guidelines on platform authenticators

2022 UX Working Group initiated

Passkey concept introduced

Security key UX Guidelines

FIDO Design System

2023 Accessibility guidance

Research and UX guidelines for passkeys



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FIDO Alliance UX Guidelines for Passkey Creation and Sign-Ins



Get the guidelines.
fidoalliance.org/ux-guidelines



Team, approach and demo



FIDO Alliance UX Working Group

... is comprised of 77 people from 32 companies.

AgileBits, DBA 1Password, American Express, Apple Inc., Axiad IDS, Inc. , Beyond Identity, Inc., BlinkUX, Dashlane, Duo Security at Cisco, Google Inc., HYPR, IBM, Idemia, Intuit, JP Morgan Chase Bank, NA, Mercari, Inc., Meta, Microsoft, Nok Nok, Okta, Inc., Onfido Ltd., PayPal, Samsung Electronics Co., Sony Group Corporation, Target Corporation, Telecommunications Technology Association, Trusona, Inc., TrustKey, U.S. Bank, VMware, Wells Fargo, WiSECURE Technologies, Yubico,

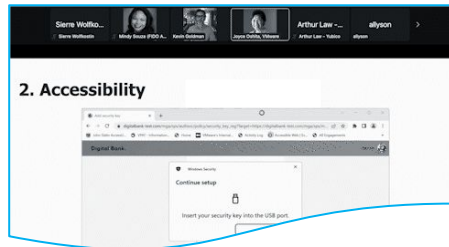
Matt Davey, Benji Debnam, Travis Hogan, Michael Horne, Sue Koomen, Ricky Mondello, Mitchell Armenta, Jing Gu, Bekki Lee, Sandra Barnat, Kate Ronkainen, Keri Vogtmann , Julia Chagnier, Hugo Leloup, Jake Ingman, Matthew Miller, Siere Wolfkoston , Dirk Balfanz, Christiaan Brand, Silvia Convento, Mitchell Galavan, Court Jacinic, Rebecca Shareff, Qingjie Du, Paul Tunick, Sunil George, Shane Weeden, George Huszar, Allyson Wagner, Elizabeth Beasley, Rakan Khalid, Yuting Liao, Calvin Ma, Arim Yoon, Judy Clare, Julia Trinidad, Robert Warne, Tatsuya Karino, Kotaro Oi, Alexander Board, Ellis Clarke, Yao Ding, Jinjing Song, Tim Cappalli, James Hwang, Jackie Comp, Vittorio Bertocci, Mark Opland, Amit Bhatia, Phil Catalfamo, Matt Welsh, Jongsu Kim, Cam Champeau, Tom Sheffield, JAEBEOM KIM, Kevin Goldman, Andrew Ward, Stephen Oh, Lissa Crosby, Pamela Degnan, Christina Devine, Antonio Guimaraes, Leslie Johnson, Dan Lundeen, Courtney Markuson, Michael Toth, Amanda Willis, Patrick Leahy, Joyce Oshita, Ginny Ellsworth, Bob Farrigan, Nithya Srinivasan, Amy Ulrich, Yueh Chin, Sunni Davis, Blake Henson, Arthur Law.

1 UX research firm, Blink. 4 financial underwriters: 1Password, Google, Trusona, U.S. Bank



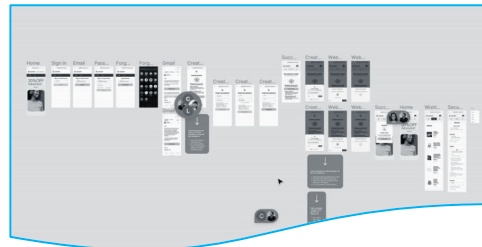
Approach

4x



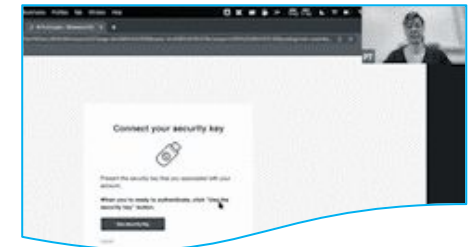
Empathize

Audited well-known passkey deployments, interviewed brands & platform providers.



Design

Diverged then converged on hi-fidelity clickable prototypes and a live reference website.



Test


Recruited target end users, asked to complete tasks, observed friction & delight.



Testing scope



26 U.S. consumers



iOS 16+
Android 9+



eCommerce use case



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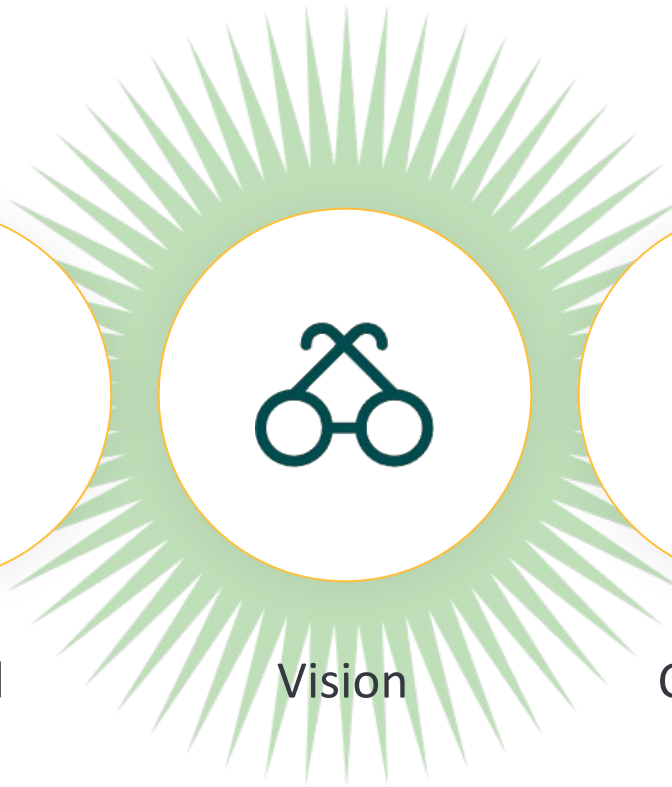




Audio



Physical



Vision



Cognitive



Voice

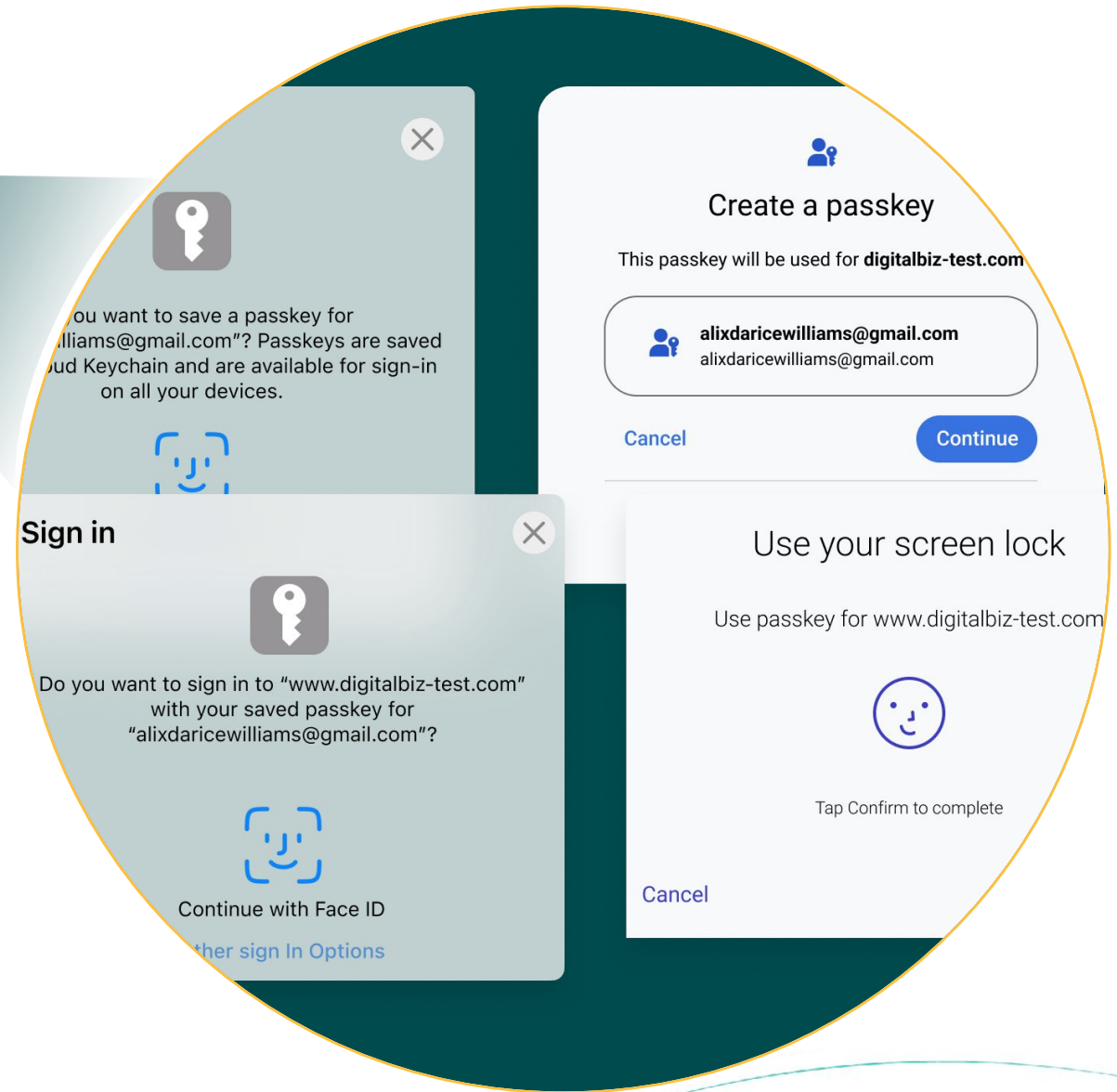


Accessibility scope

iOS and Android passkey dialogs

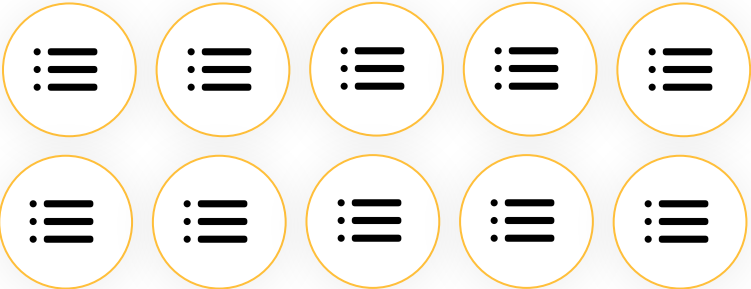
Results

- OS dialogs are highly accessible
- Passkeys are 9x faster than 2FA w/ SMS

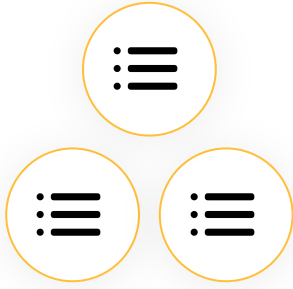


Account creation with a passkey

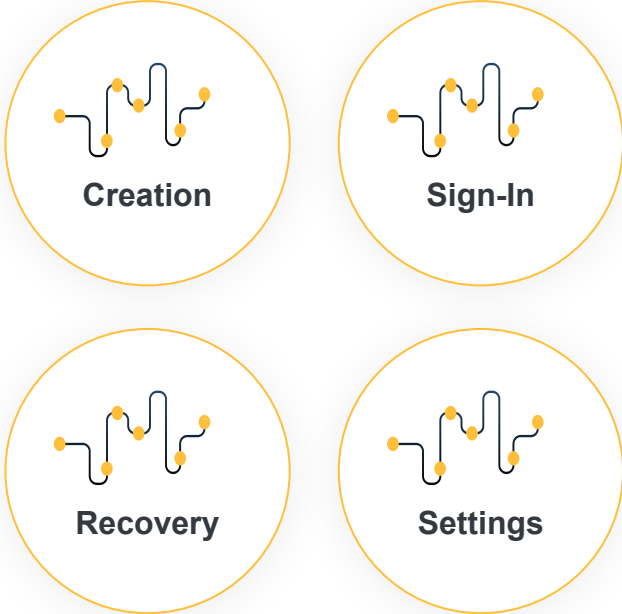
UX Guidelines



10 UX principles



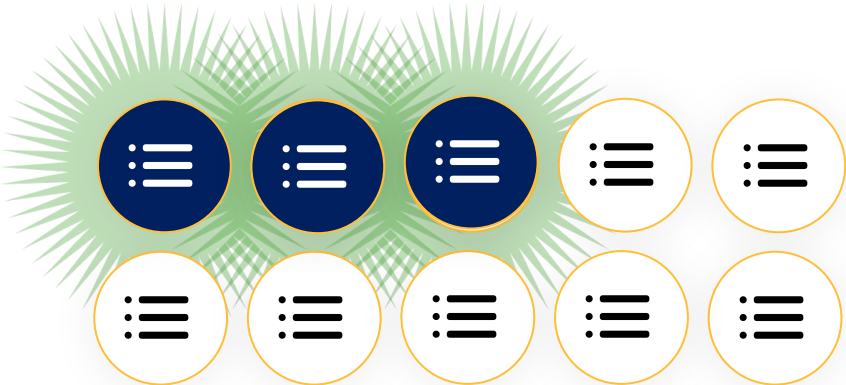
3 content principles



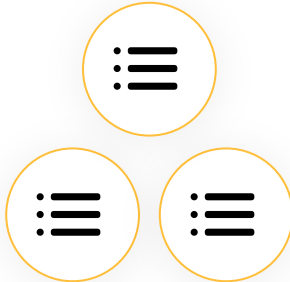
4 user journeys



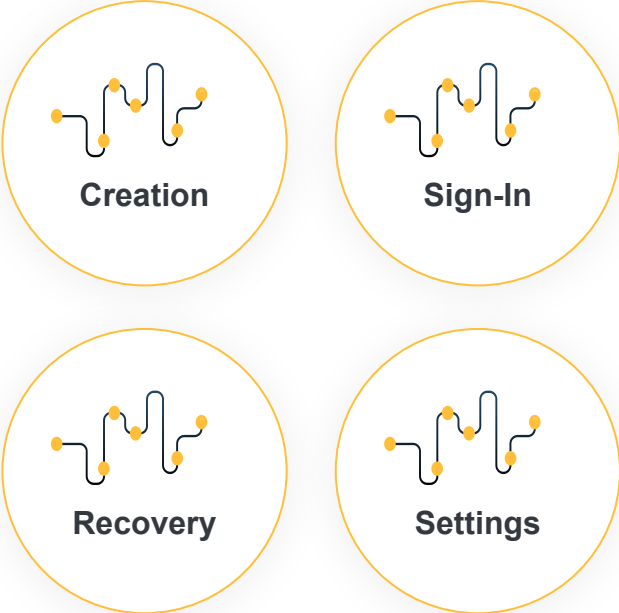
UX Guidelines



10 UX principles



3 content principles



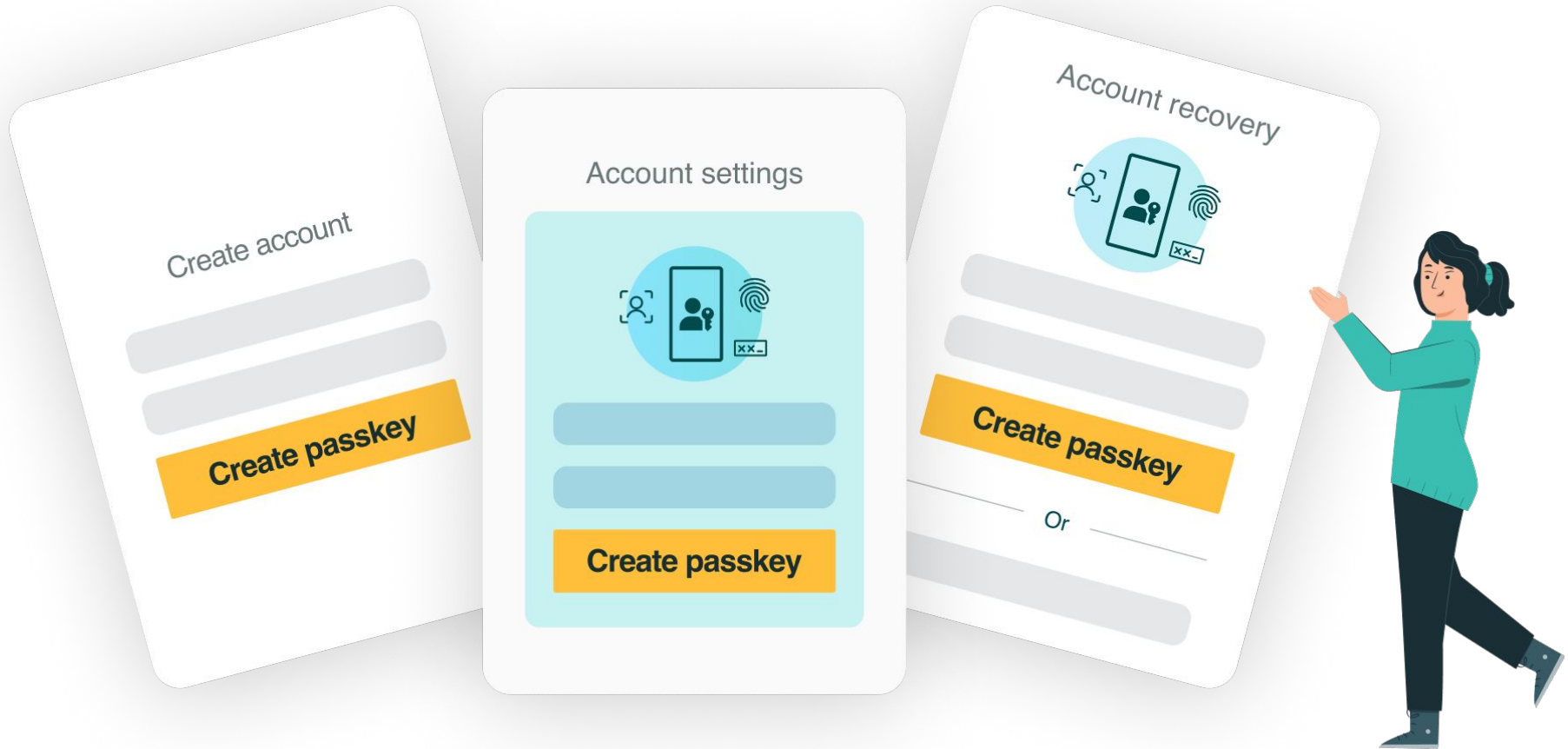
4 user journeys



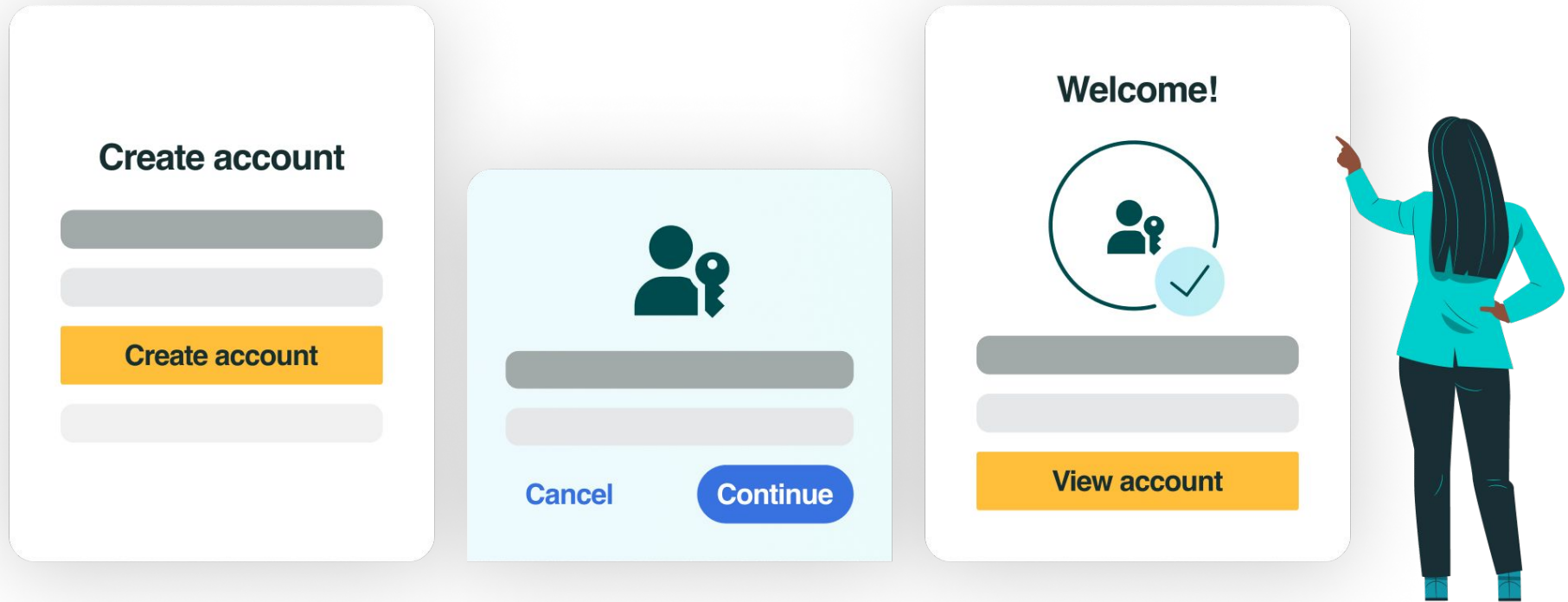
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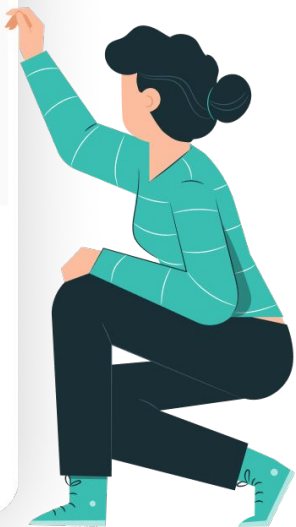
Prompt to create passkeys alongside account-related tasks.




Use proven passkeys messaging and icons before and after OS dialogs






Display “passkeys cards” with meaningful content to give shape to passkeys





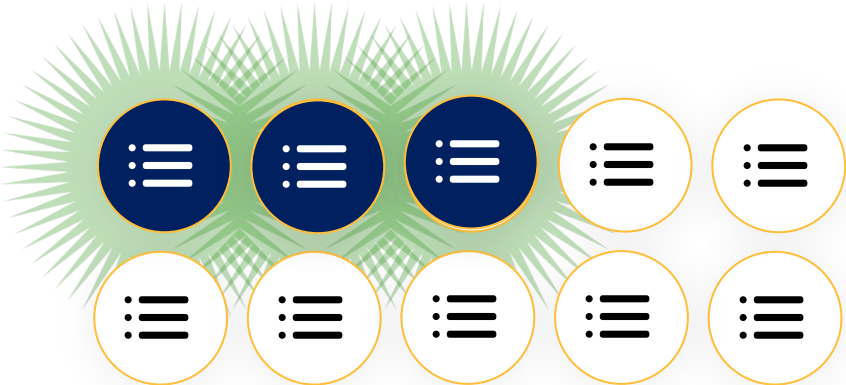
Saved with iOS 16.2 to my password manager on April 11, 2023, 12:01am

Last used 

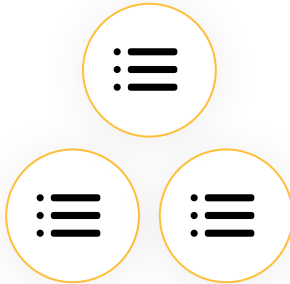
-  iOS 16.2, April 11, 2023, 3:42pm
-  MacOS 13.0.1, April 11, 2023, 4:21pm



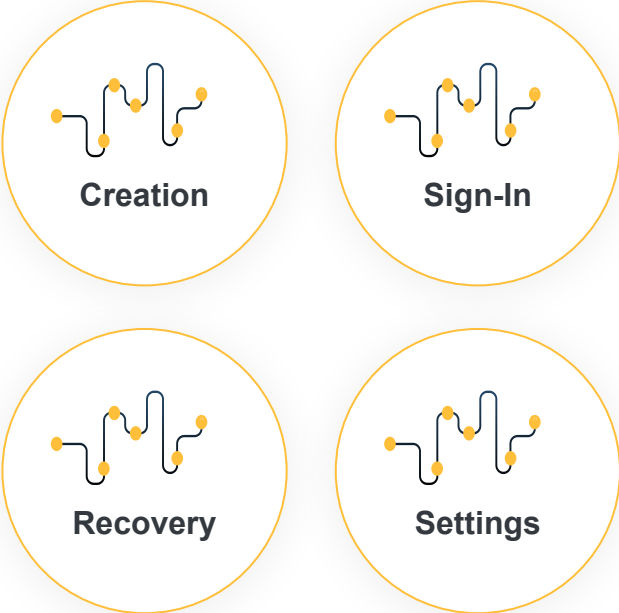
UX Guidelines



10 UX principles



3 content principles



4 user journeys



Get the guidelines.
fidoalliance.org/ux-guidelines



Passkey accessibility overview and demonstration videos



Foundations for Passkey Accessibility

Summer 2023

FIDO ACCESSIBILITY TEAM

Patrick, Allyson | Co-leads

Cam | RP lead

Joyce | Accessibility/assistive Technology User Lead

Finding 1: Passkeys are accessible regardless of the RP's level of accessibility awareness.

- What can FIDO Alliance think about as we continue to ensure FIDO technologies are accessible?
- We believe Platforms could handle even more of the passkey registration process, what do we need to consider?



Finding 2: We see an opportunity to raise awareness for accessibility with site owners as part of passkey implementation.

- What is the best approach to guide partners to get started on learning about accessibility?



Finding 3: We see an opportunity to address current gaps in accessibility support for autofill and QR code features with potential for new innovations to accelerate accessibility.

- Autofill support – What guidance does W3C have that can stabilize autofill across browsers/AT?
- QR codes – Does W3C have guidance/initiatives to improve/replace QR codes to support hybrid flows?



Q&A

REFERENCE LINKS:

FIDO Passkey UX Guidelines

<https://fidoalliance.org/ux-guidelines/>

FIDO Whitepaper Guidance for Making FIDO Deployments Accessible for Users with Disabilities

<https://fidoalliance.org/white-paper-guidance-for-making-fido-deployments-accessible-to-users-with-disabilities/>

Passkey Test Site: Digital Biz

<https://digitalbiz-test.com/>

Thank you

