

Tips for Painless Passwordless



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Who am I?

- DjtU3AQ_GOV9t6Xfc8hnzQ *(that's a passkey joke)*
- Self-taught WebAuthn expert
- Author of SimpleWebAuthn, and author of the revamped Duo Labs' py_webauthn
- Guiding WebAuthn adoption within Duo and the greater Cisco



"Just use WebAuthn" masks some complexity involved in making compelling authentication UX

- Why is my browser asking me to choose between **Security Key** or whatever **"This Device"** is?
- Why does the site **show an error** when I try to log in with **my phone**?
- I registered in **Chrome**, but **Safari** won't let me log in...help!

How might we create a **pleasant authentication experience**?



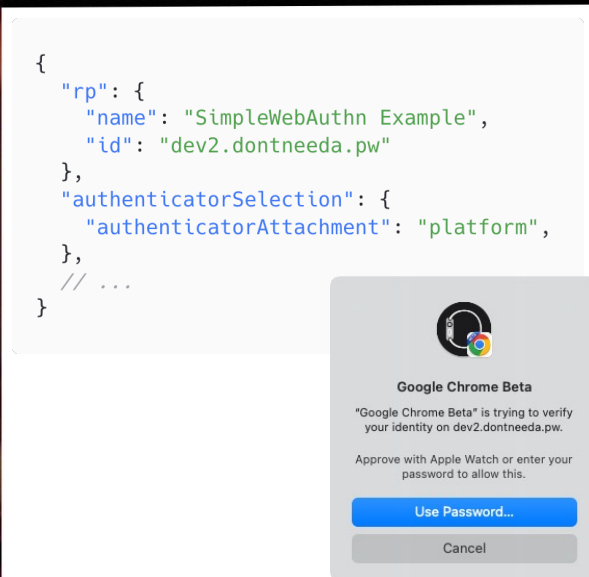
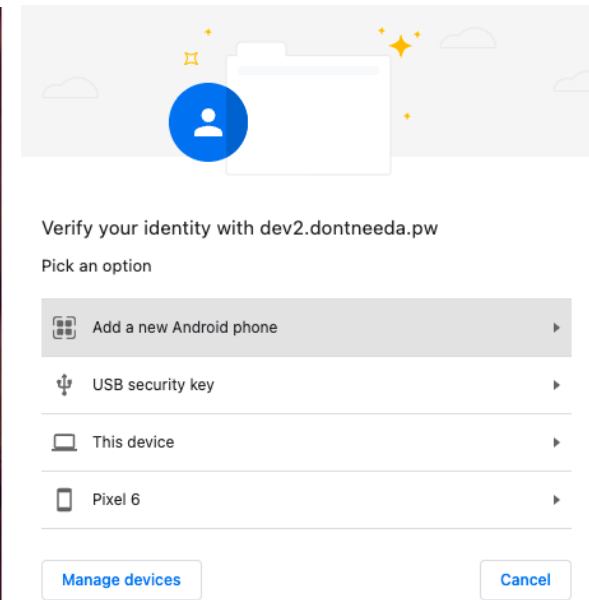
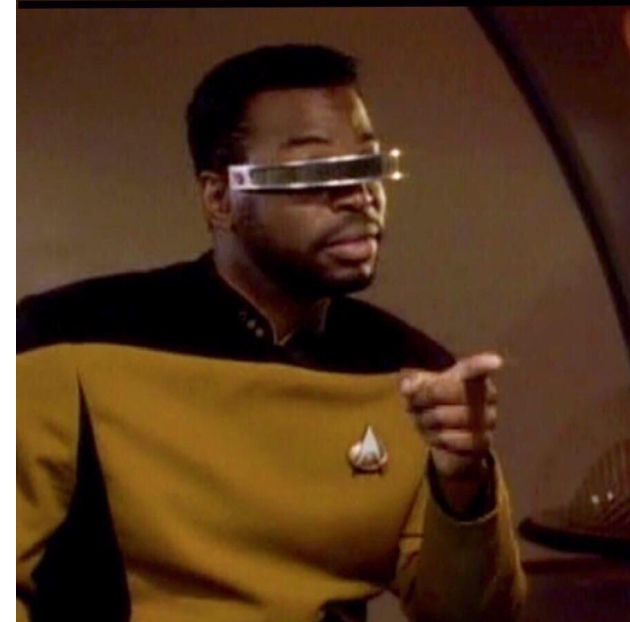
authenticate

Cisco Confidential

Tip 1: Specify an **authenticator attachment**

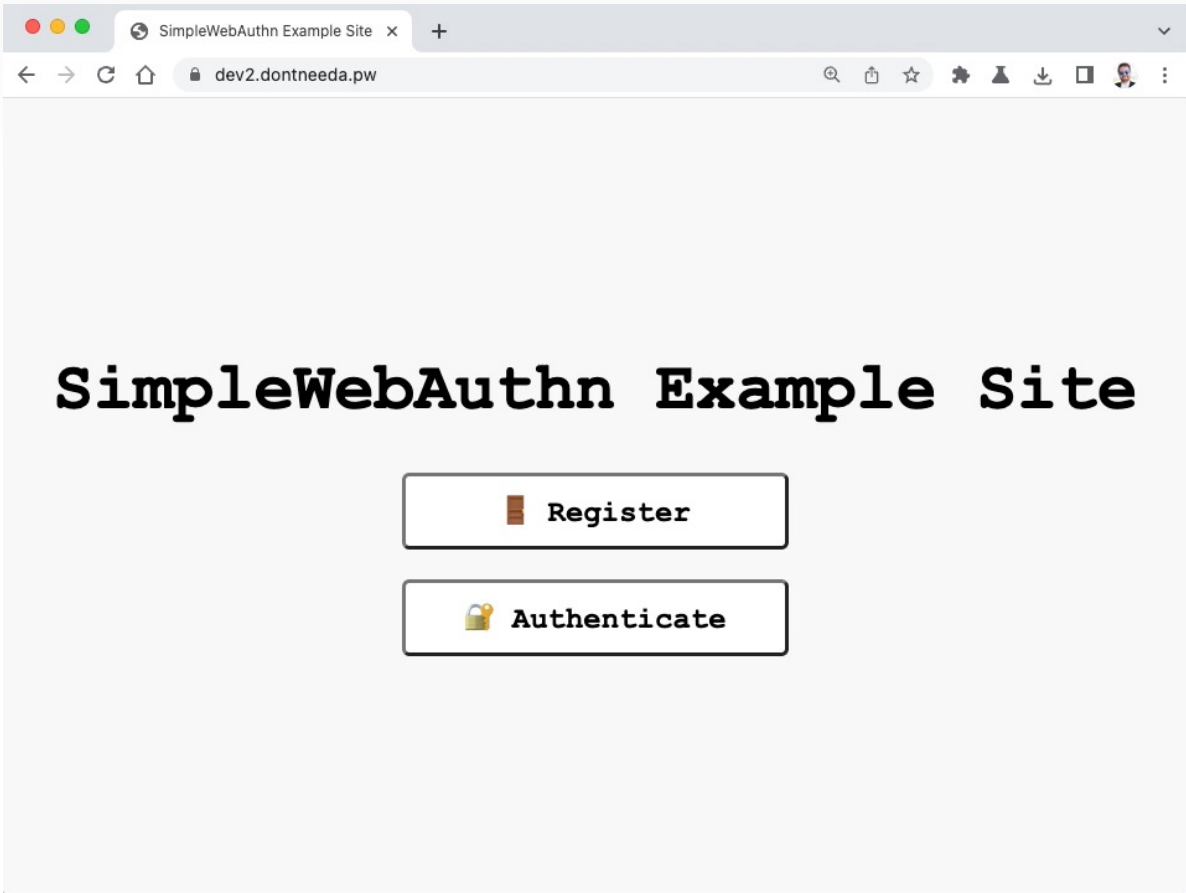
Skip potentially overwhelming browser modals.

Ask the user via UI you control, then invoke WebAuthn with that authenticator type pre-selected.

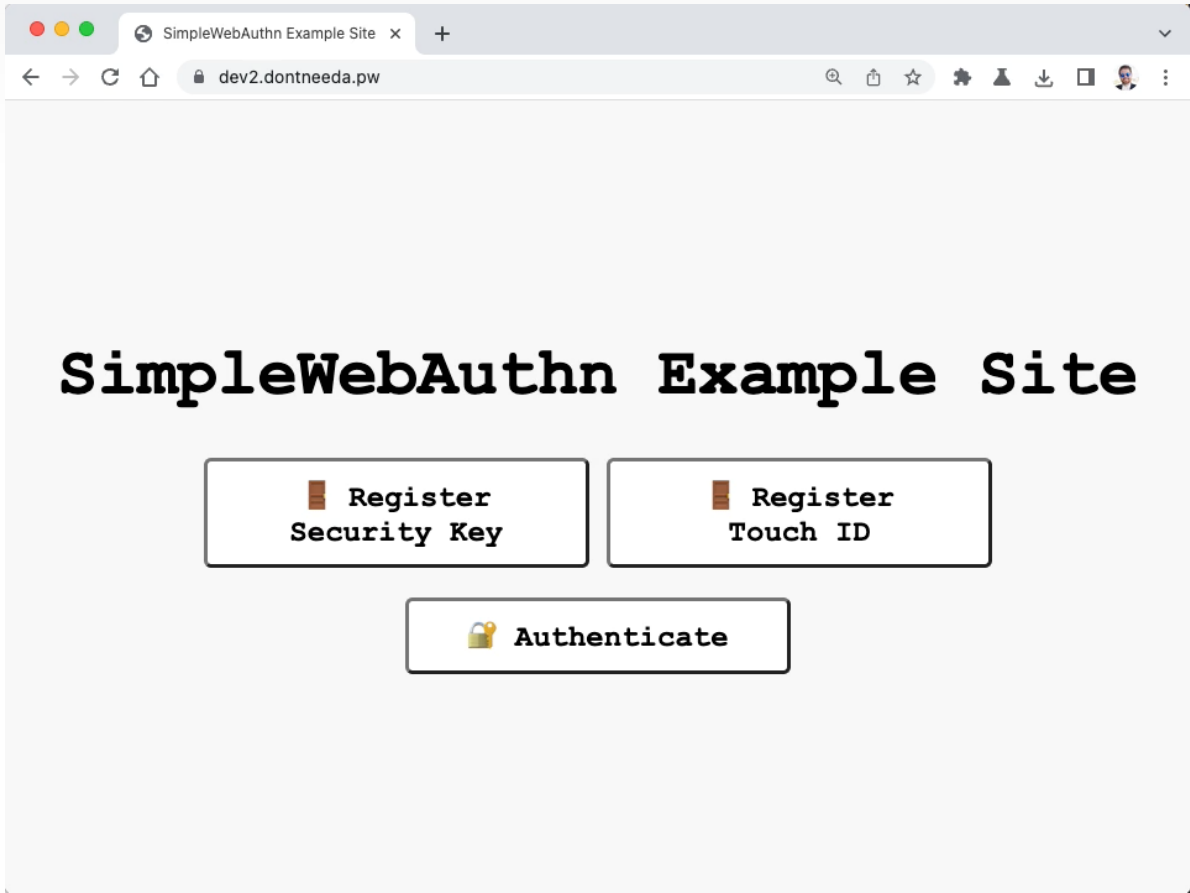


Tip 1: Demo Time

Without authenticator attachment



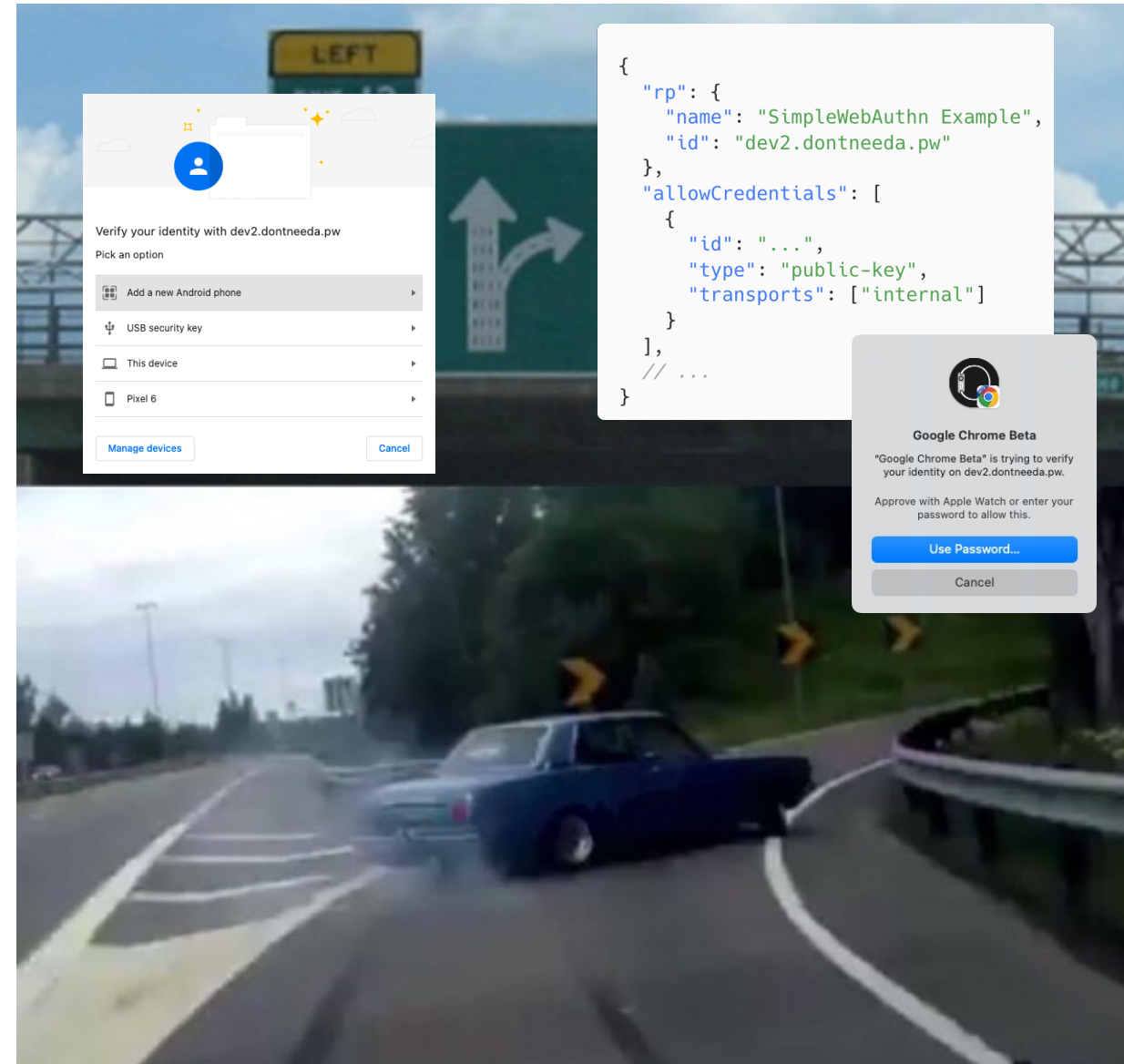
With authenticator attachment



Tip 2: Make use of transports

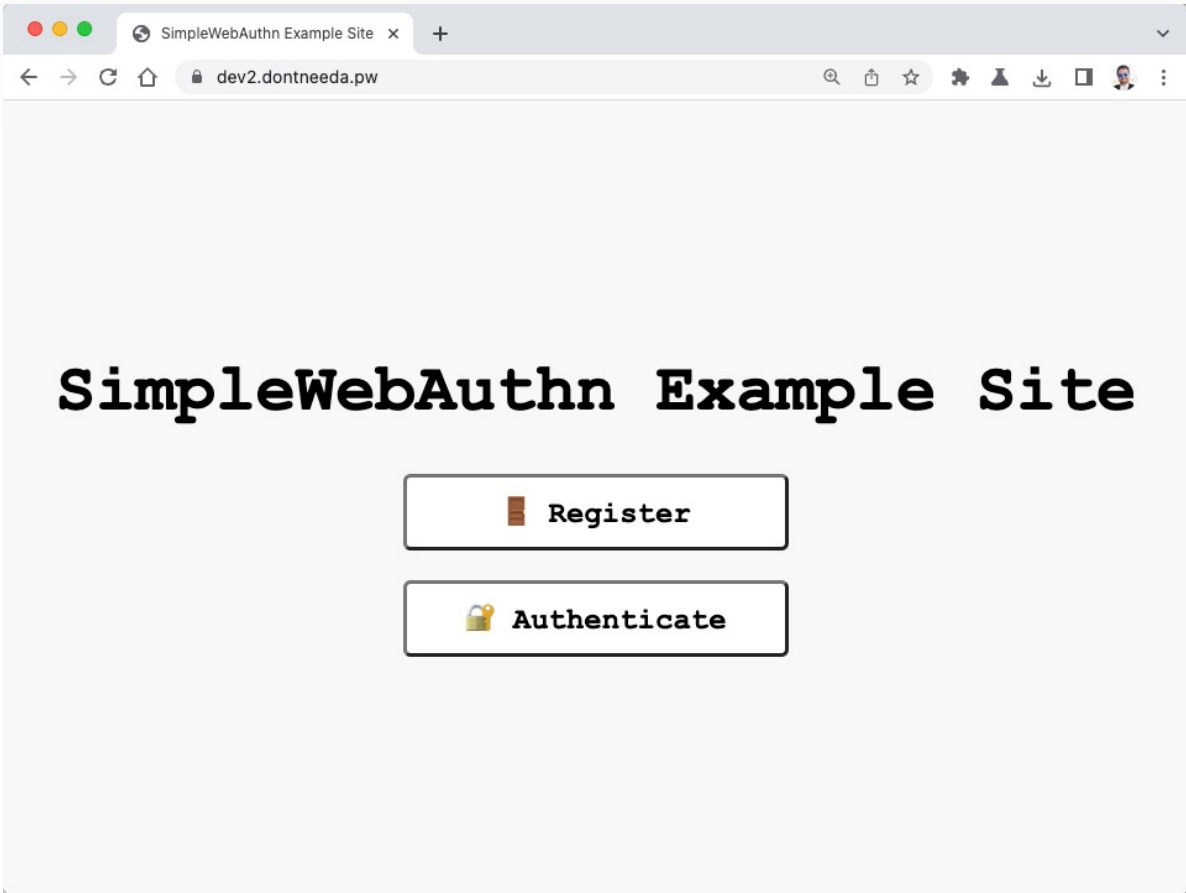
Skip potentially overwhelming browser modals.

Call **getTransports()** during registration, then pass the transports back during authentication to help the browser find the authenticator.

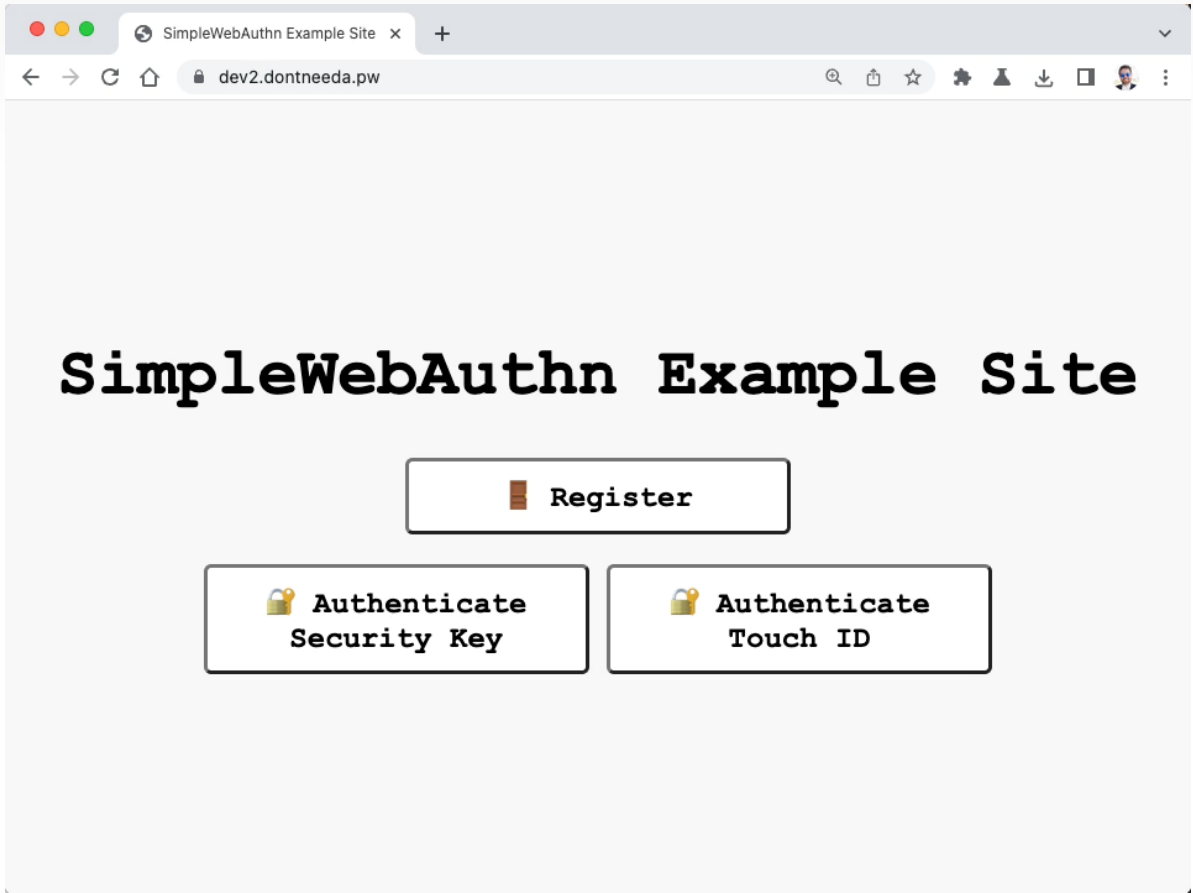


Tip 2: Demo Time

Without transports



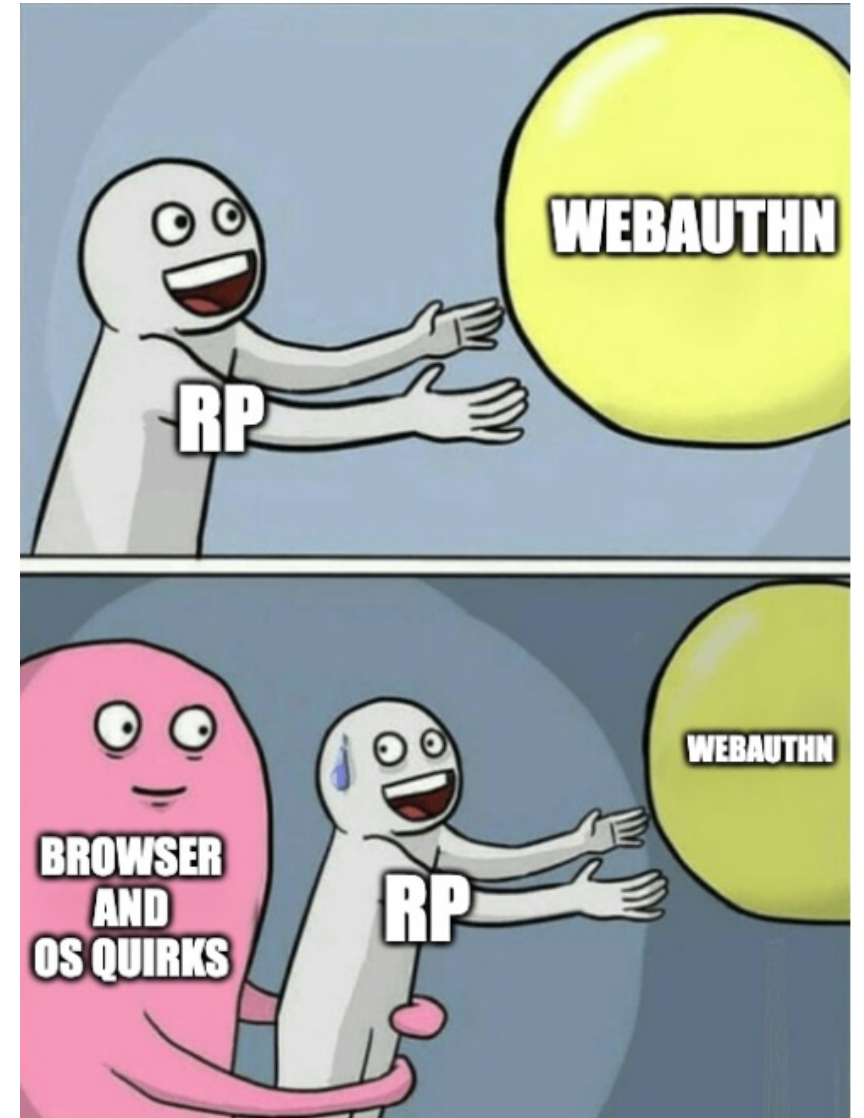
With transports



Tip 3: Leverage the browser's **user agent**

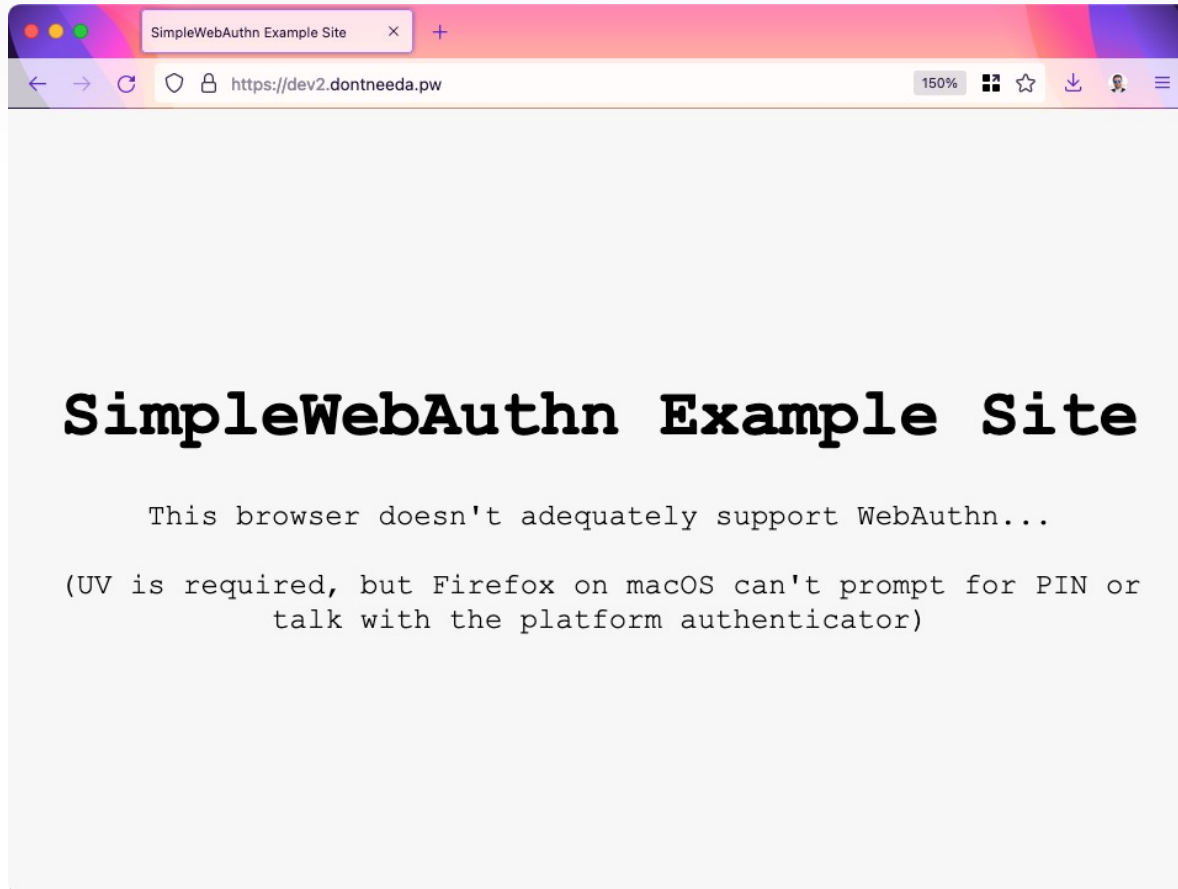
Relying parties should direct users away from guaranteed failures.

Learn to identify the OS and browser from the user-agent string, and then prepare to skip WebAuthn when you detect bad combos.

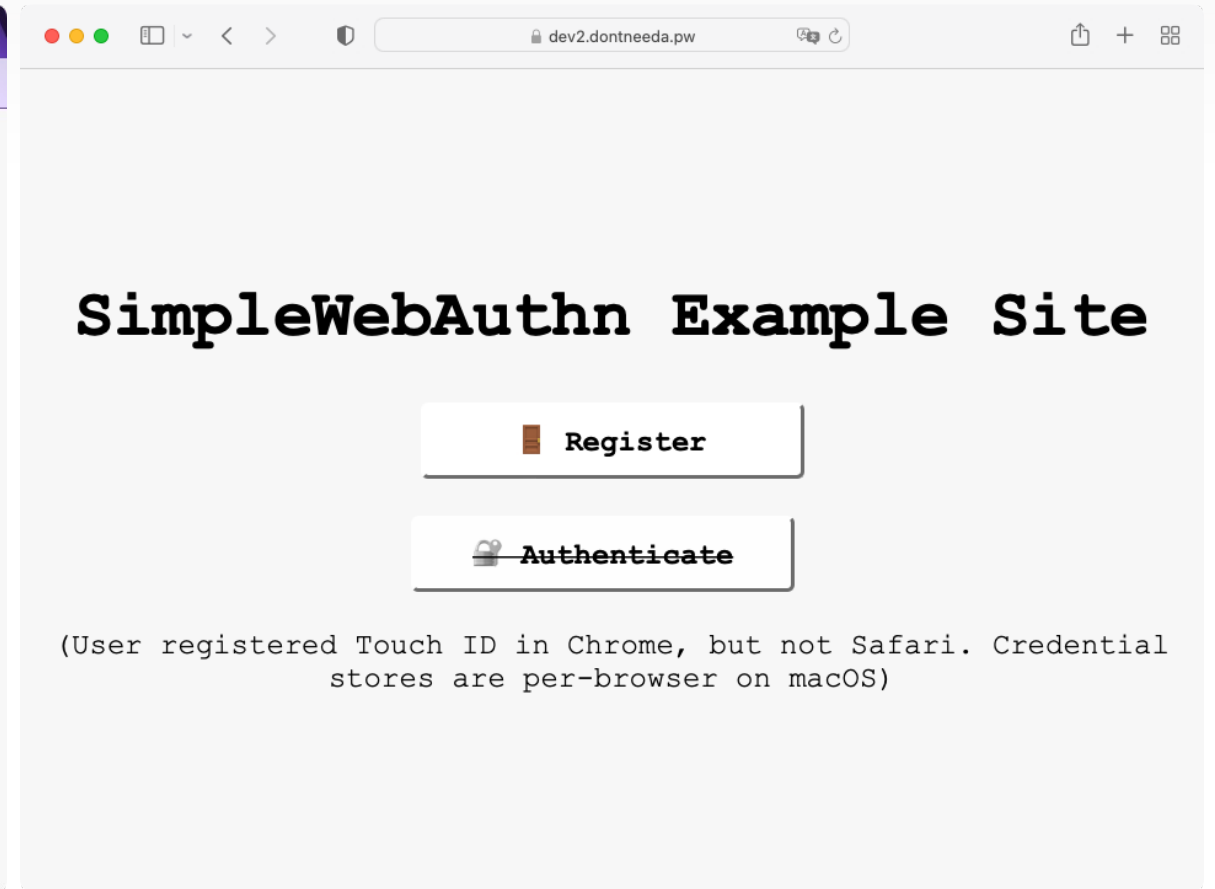


Tip 3: Demo Time

Handling no support

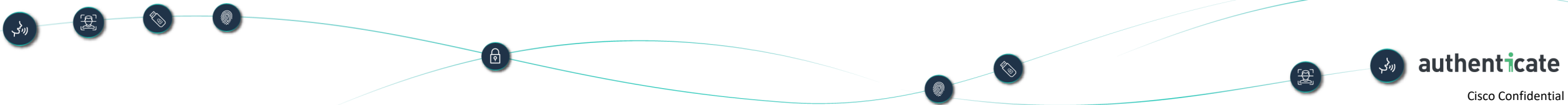


Handling OS quirks



WebAuthn is evolving...

- How do you handle registration of a platform authenticator via the hybrid transport?
- How do you encourage use of a platform authenticator via hybrid authentication?
- What the heck are backup state flags? Do I need DPK? *(no)*
- How do I stay on top of all this??



Where to find me

Twitter: [@IAmKale](https://twitter.com/IAmKale)

WACG: <https://www.w3.org/community/webauthn-adoption/>

Libraries (GitHub):

- [MasterKale/SimpleWebAuthn](https://github.com/MasterKale/SimpleWebAuthn)
- [Duo-Labs/py_webauthn](https://github.com/Duo-Labs/py_webauthn)



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Thank you.



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