



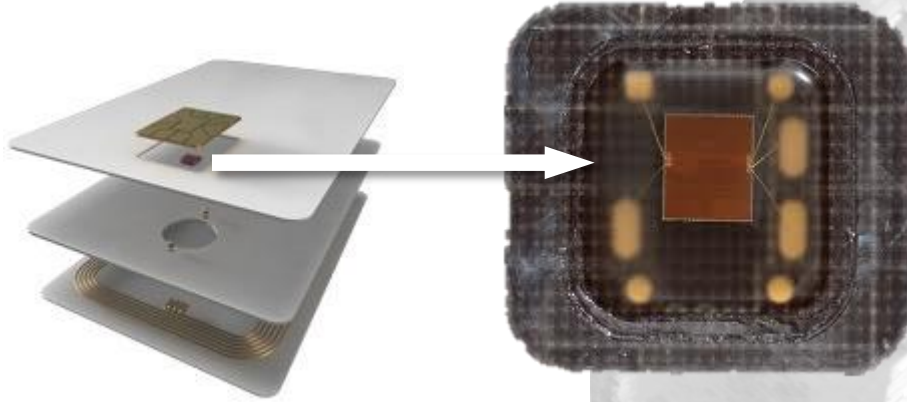
Why W3C needs to Remain Neutral and
Endorse 'Brand-free' Hardware Security

Web + Hardware Security is much, much more than just:



Image source: halfelf.org

It is about decentralizing ID validation and key storage...



(“my religion”) Smart Card Chips:
Proven
Scalable
Ultra low cost
Form factor agnostic

Myth 1:

Smart cards chips are old

Instead smart cards are rooted in well-defined standards and evolve through various industry bodies to keeps pace with the practice of Moore's Law.

Maturity = Significant investment in certification!

Myth 2:

Smart cards chips are proprietary

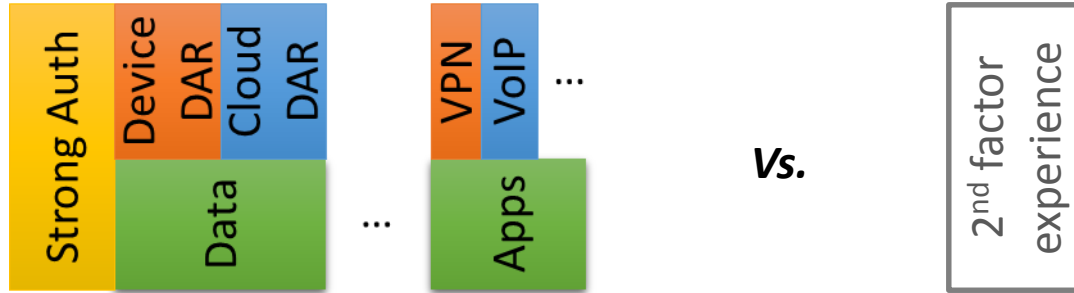


Certified Smart card chips must follow various rigorous international interoperable standards (see position paper submitted by Smart Card Alliance). These erroneous opinions on smart cards being proprietary must have come about because many current integrations to web applications have been implemented in the absence of web standards, thereby further supporting the need for such standards.

Fact:



Smart cards chips enable...



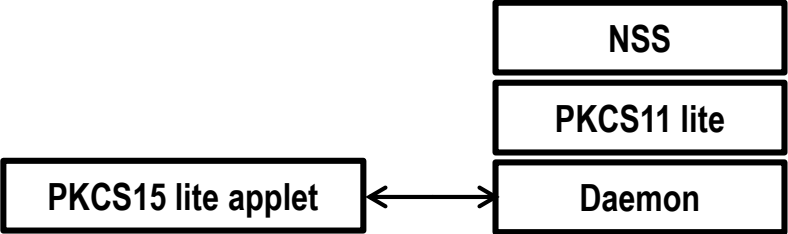
But even 2nd factor is that is all we wanted...there is no reason
For W3C to only support FIDO...

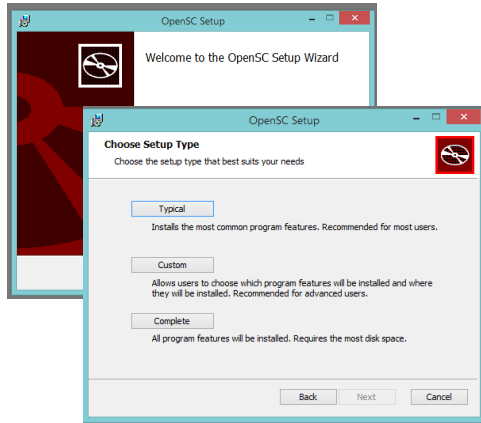
There is already a solution without the trademark!

Smart Card
Hardware

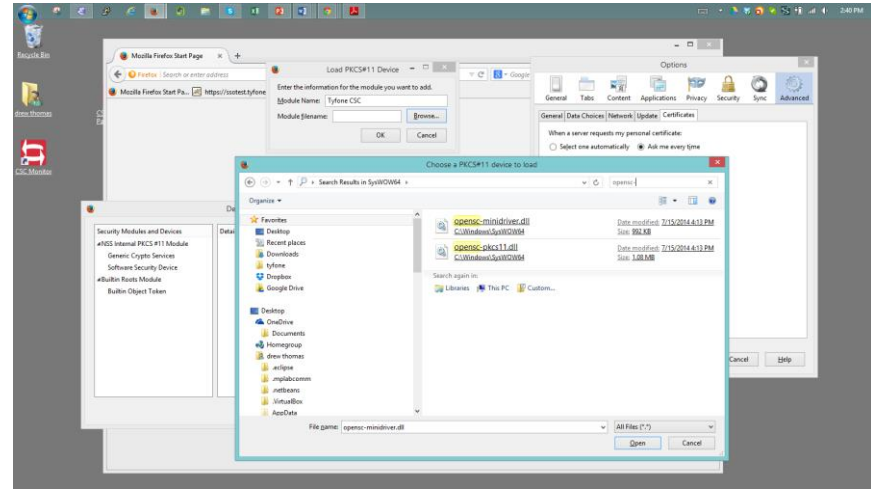


Browser



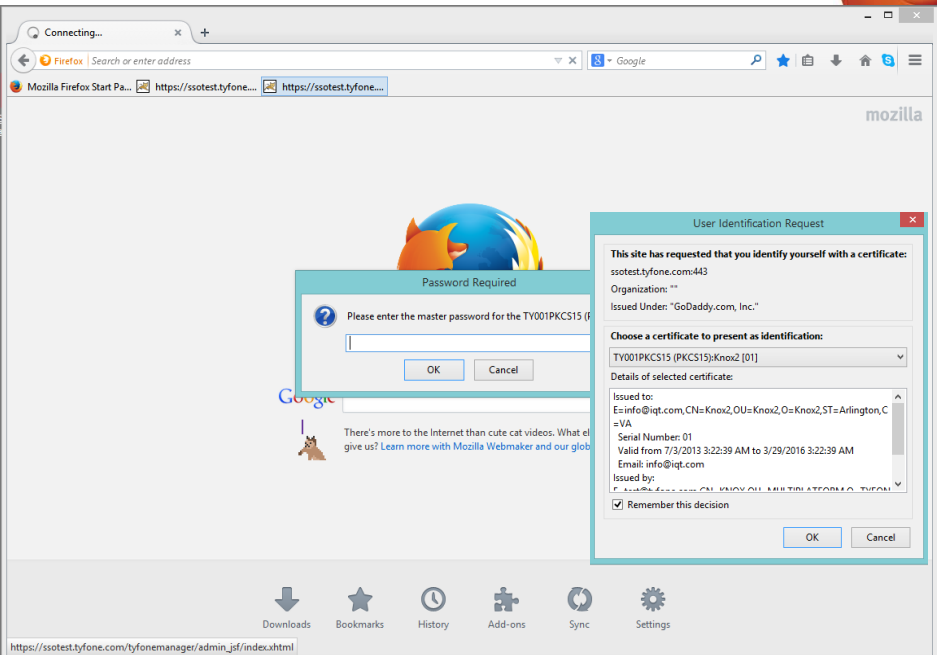


Install OpenSC & middleware

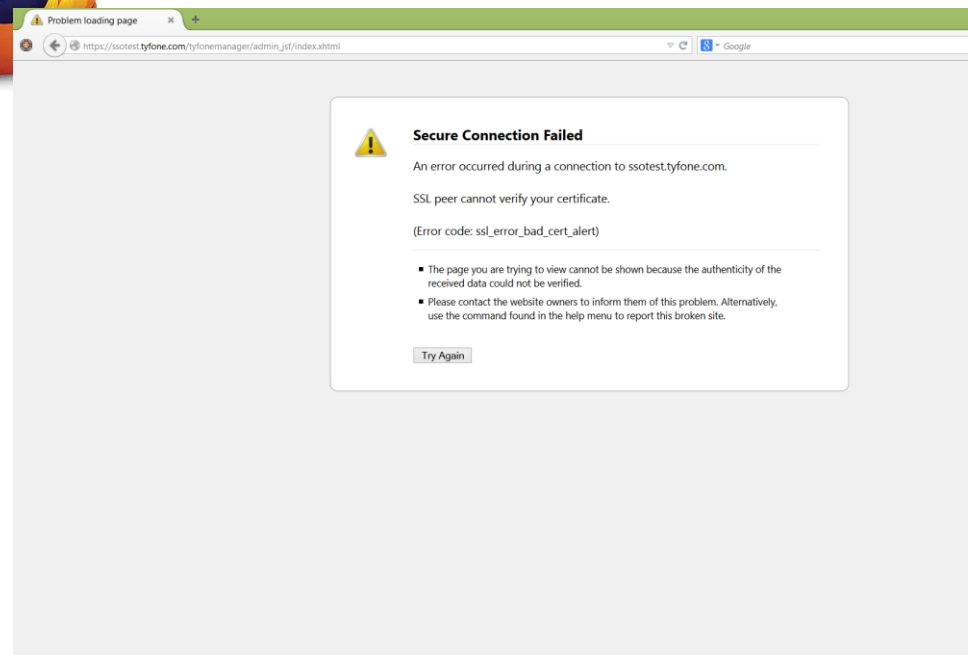


Configure Firefox to Add Security Device





When hardware is detected:
Decentralized validation and client certificate

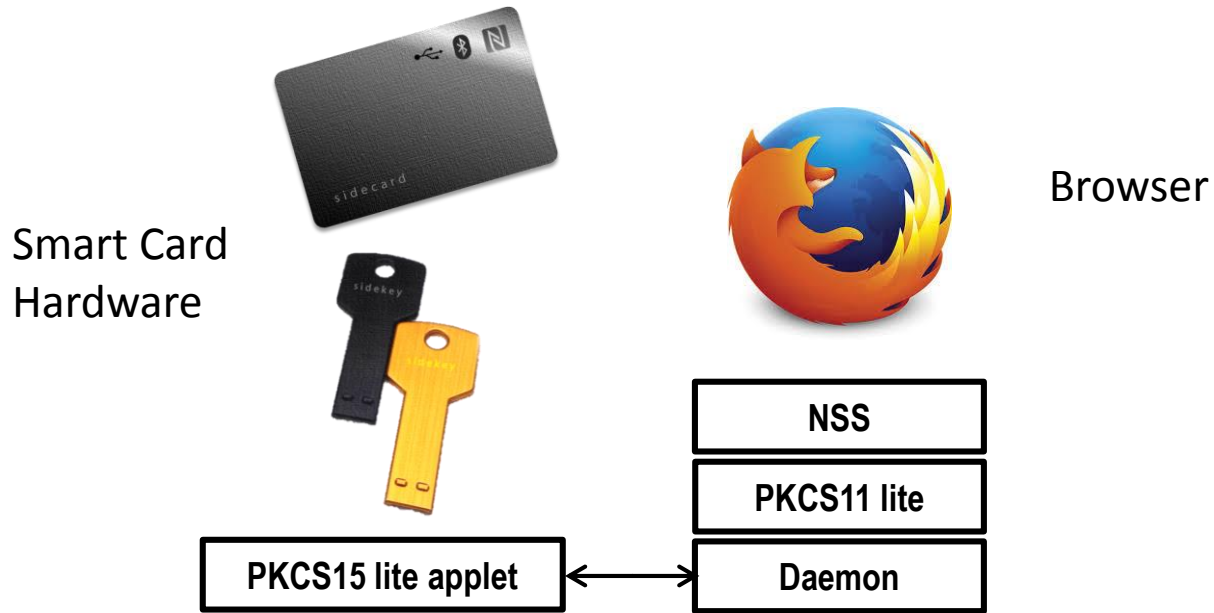


When hardware is not detected:
Error!



Works on both Mac and PC

Form factor and interface agnostic...



So what?



(“my religion”)

Smart card community will benefit if

W3C enables technology on browsers to:

- Configuration management of Smart Card Hardware Tokens
- Smart Card-based H/W Token discovery and registration
- Select a specific Smart Card-based H/W Token



Separation of “church” and “state”

Entire community will benefit if

W3C enables technology on browsers to:

- 👍 Configuration management of ~~Smart Card~~ Hardware Tokens
- 👍 ~~Smart Card-based~~ H/W Token discovery and registration
- 👍 Select a specific ~~Smart Card-based~~ H/W Token
- 👍 Be neutral to the browser-server protocol and use cases
- 👍 Be neutral and ‘brand’ free for hardware and protocol

Browsers

W3C →

Browser “Box” (W3C)

“State”

Common API Extensions

Not W3C →

Box1
(WebRTC)

Box2
(PKCS)

Box3
(FIDO)

Box4...

“Church”