A Vision for Browser-Assisted Web Authentication

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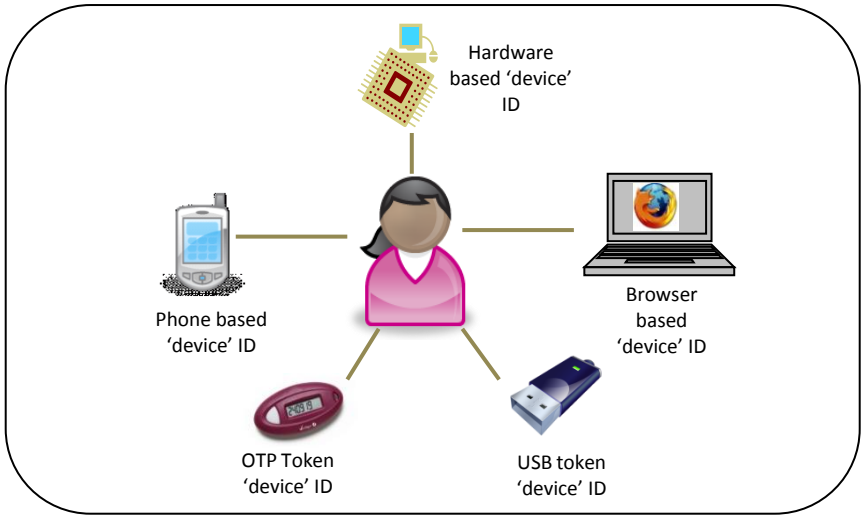
Symantec User Authentication

Observations & Key Concepts

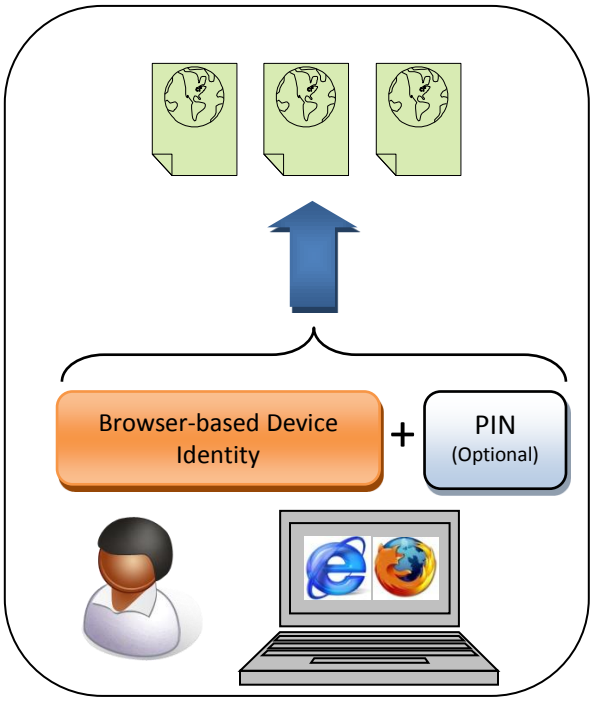
- Issues with Passwords
  - Too many passwords, users use same passwords, password policies don't work.
- What works today: ATM Authentication
  - Combines possession factor (ATM card) with knowledge factor (4-digit PIN)
  - High Security without compromising security
- OpenID, etc. help but don't completely address problem
  - You still need to authenticate to your OpenID/SSO provider.
- Separating Authentication (credentials) from Identity
  - Enables use of 'anonymous' device or 'browser' credentials

Separating Authentication (credentials) from Identity

- Enables use of ‘anonymous’ device credentials for auth.
- Credentials bound to user identity through a ‘registration’ workflow.
- Credentials
  - Based on user’s access device e.g. Browser-based
  - Token-based (OTP & USB tokens).



Browser Assisted Web Authentication



- ATM card analogy for the Internet
  - Browser based Device ID (Web-ID), similar to the ATM card is ‘something you have’
  - 4 digit PIN is ‘something you know’.
- Suggest using PKI ‘under-the-hood’ to implement Web-ID
  - High security, standard-based, widely deployed and proven technology
  - Create a focused ‘Profile’ of PKI for Web-ID use-case
    - Automate the lifecycle and usage based on policies
    - Consistent implementation across browsers

References

- Full paper:
  - http://www.w3.org/2011/identity-ws/papers/idbrowser2011_submission_43.pdf

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