RS/Conference2022

San Francisco & Digital | June 6 – 9

SESSION ID: PART1-R03

Is Your Passwordless Really Passwordless? How to Tell and Why It Matters

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"Passwordless" Is a Hot Term



- All kinds of vendor claim to enable "passwordless" authentication
 - They mostly provide some of the benefits of passwordless, but many don't provide all
- In this session we will cover:
 - Definition of "passwordless"
 - Benefits of true passwordless
 - Technologies that are "pseudo-passwordless"



Why Passwordless Is a Hot Topic Today

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- Passwords have serious weaknesses
 - Security
 - User experience
 - Support
- MFA has a similar set of problems
- COVID has been a major forcing function





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- Better user experience
 - No forgetting passwords
 - No weak/reused passwords
 - Improved employee efficiency
- Reduced support burden
- Better security
 - Eliminates a whole list of password-based attacks

Phishing Credential stuffing Brute force attacks Dictionary attacks Social engineering MITM







- The user experience is a by-product of passwordless authentication
 - A password can be present even if the user doesn't know it
- A better user experience is a benefit but not the only benefit
- Passwordless is an architecture







- A shared secret is not passed across the network
 - Buried passwords are still passwords
 - Password wallets still use passwords
 - Password abstraction layers still use passwords
- In these cases the shared secret is still present, with its vulnerabilities



PINs Are Not Passwords



- A PIN looks like a password but is different in some important ways
 - Ensures the device is in its owner's hands
 - Does not travel across the open internet
- A second factor can share these properties of a PIN
 - e.g. biometric checks



True Passwordless Architecture Is PKI-based



- Asymmetric secrets prevent the many problems of passwords
- Certificates are secure, reliable, and well proven
 - Cryptographically secure beyond possible attack
 - Ubiquitous support across software, hardware, and services
 - A broad variety of options to meet all use cases
- Strong automation alternatives are available
 - Certificate Lifecycle Management
 - ACME
 - And more



Legacy Systems May Not Support True Passwordless



- Older systems with shared-secret credentials as a hard-coded authentication method
- These often mix with newer systems
- Look for closest-possible solutions
 - Implement passwordless where possible and live with passwords where you have no choice
 - Look at SSO or other options to lessen the pain for these old systems
 - When updates do occur, look to add passwordless
 - Don't fall for the lowest common denominator fallacy



How to Apply

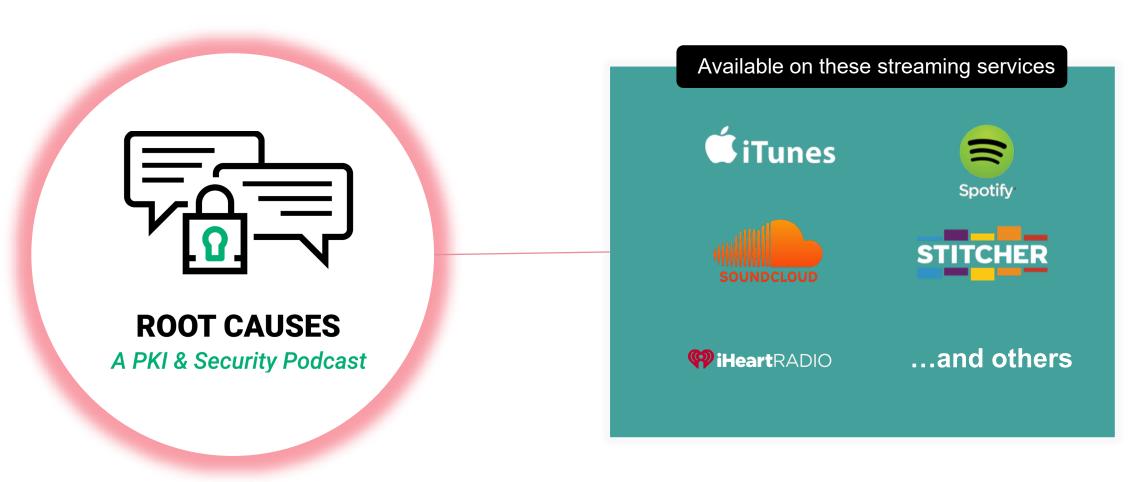


- Understand the security differences between passwordless and pseudo-passwordless
 - Pseudo-passwordless may still have benefits, but we must be clear on what we are getting
- Clarify these differences to stakeholders
- Consider phased-in and hybrid approaches to deal with pragmatic realities
 - For some use cases pseudo-passwordless may prove good enough, while others may require true passwordless



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Questions

