

Leading Causes of Data Breaches



Weak Passwords



Insecure Remote Access



Unpatched Software







- Regular & privileged users
- Same password for different accounts
- Accounts sharing
- Poor passwords



of hacking-related breaches leveraged either stolen and/or weak passwords

Verizon Data Breach Report 2018

root



Enter Password



most common passwords would gain access up to



of user 2013

Security study by Deloitte 2013

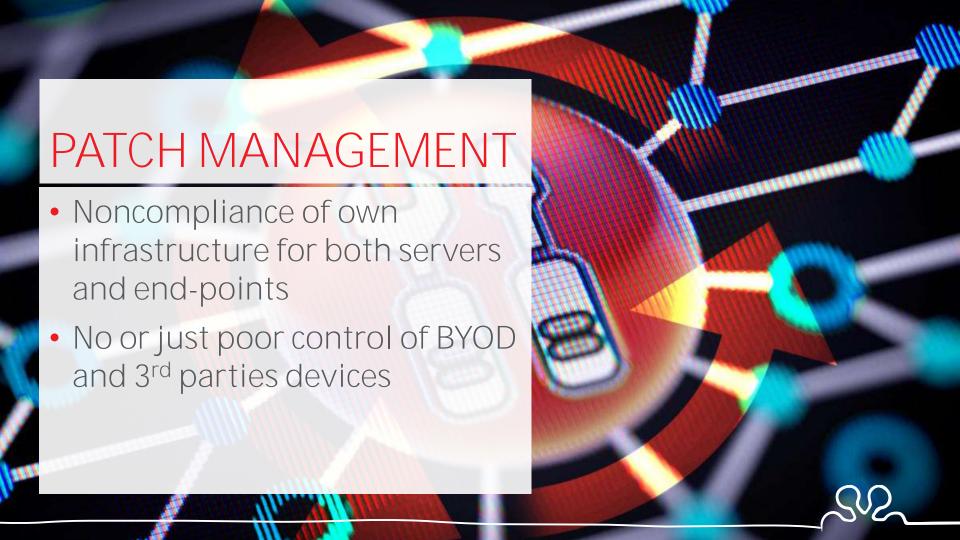


REMOTE ACCESS

- Vulnerabilities & backdoors
- Port forwards into production
- 3rd party shared accounts
- No audit of performed activities







7/10

7 out of 2019 top 10 most targeted vulnerabilities are known 2+ years

8/10

8 out of 2019 top 10 most targeted vulnerabilities target Microsoft products

Recorded Future 2019





Replace passwords

- Smartphone token
- Biometrics & PIN
- Geolocation
- Proximity
- Dynamic passwords











Key functions

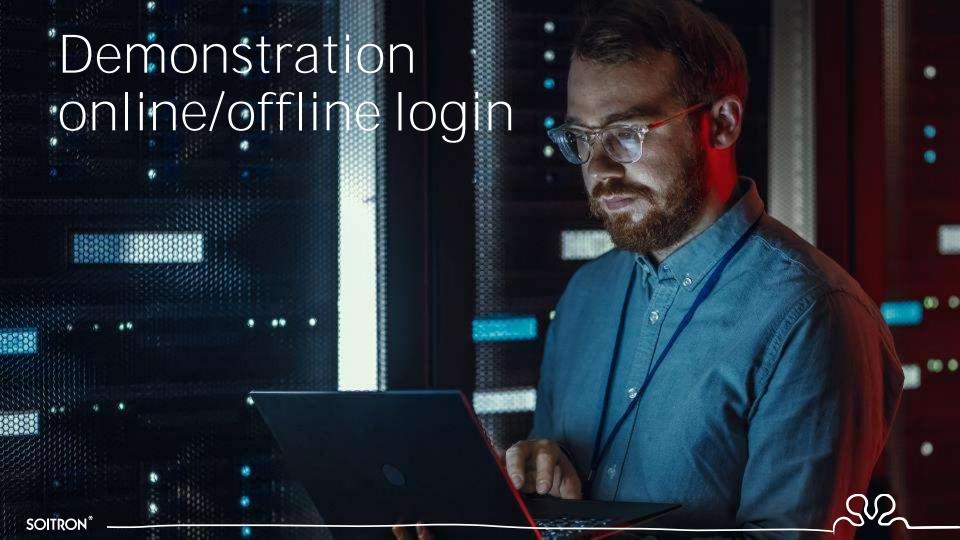
- Assisted or self registration
- Online & offline (OTP) login
- Scenario "I forgot my phone"
- Peer verification
- 4-eyes check
- Integration:



MS Active Directory, ADFS, Radius, custom applications







Never trust Always verify

ZERO TRUST



Don't trust any user or device by default

Prove identity (MFA)

Validate device (Desktop mgmt., MDM)

Validate source network (intranet, VPN, internet)

Apply access policies based on identity, device

and source network

Microsegment the network infrastructure and create microperimeters

Excalibur Approach

Minimize the attack surface

Utilize massive multi factor authentication

Separate the app processing from endpoint device

Containerize sensitive/vulnerable apps

Apply policies based on identity and geo-location

Integrate session recording and auditing

Microsegment the network infrastructure and create microperimeters



INTERNAL NETWORK
OR INTERNET

FIREWALL WAF



WEB BROWSER



EXCALIBUR

MFA

HTML5 proxy

peripherals connector

app launcher

session recording

session indexing

RDP/SSH/TELNET VNC/HTTPS

VNC

EXISTING APPS, SERVERS AND DEVICES



Containerized app

APP CONTAINER

WINE

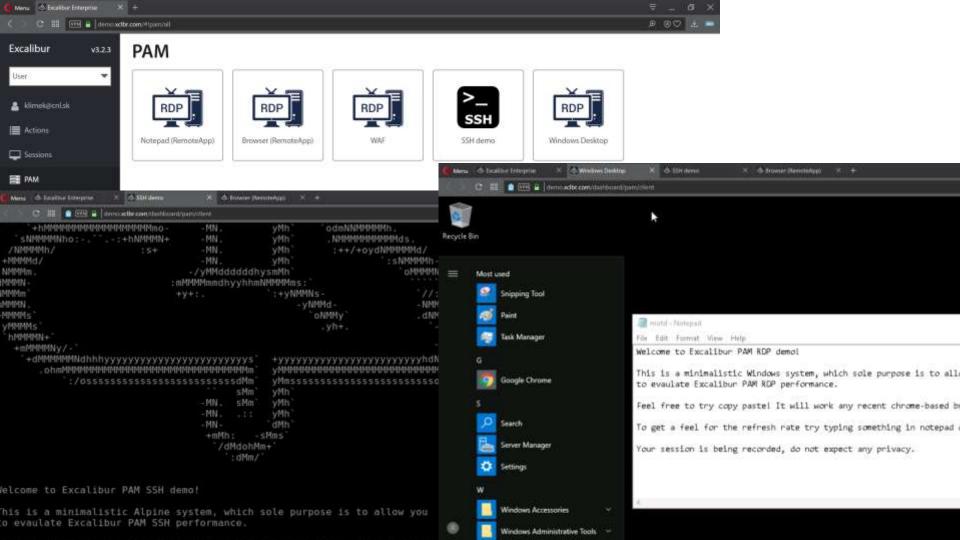
XVNC

Hardened Linux OS

traffic whitelisting

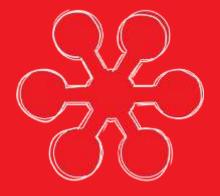
syscalls whitelisting











THANK YOU