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Agenda

Introductions Microsoft IT Perspectives **Best Practices** Multi-Factor Authentication Passwords **Microsoft Services** Summary, Q&A and Closing

RSA*Conference2020

San Francisco | February 24 – 28 | Moscone Center



SESSION ID: IDY2-F03

Breaking Password Dependencies: Challenges in the Final Mile at Microsoft



Alex Weinert (@alex_t_weinert), Director of Identity Security, Microsoft Lee Walker, Principal Program Manager, Microsoft IT Identity and Access

https://www.rsaconference.com/usa/agenda/breaking-password-dependencies-challenges-in-the-final-mile-at-microsoft

>12

compromised accounts in January 2020

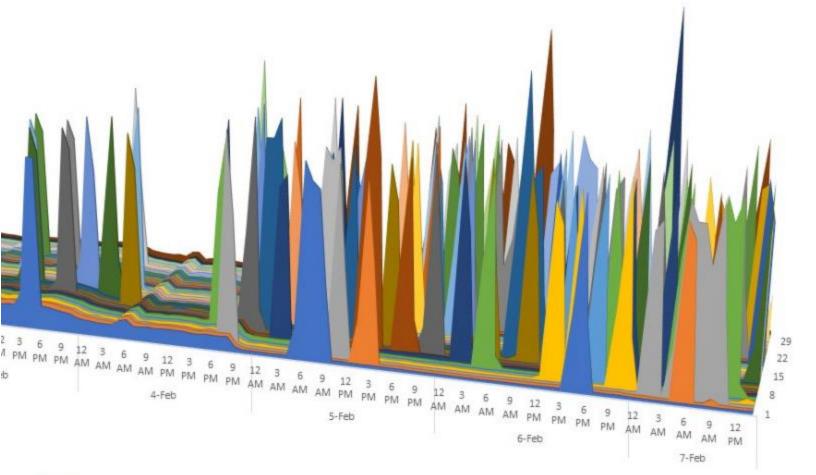


>99.9%

compromised accounts did not have MFA



~40% (480k accounts in January) compromised by Password Spray*



Josi@contoso.com	Spring2020!
Chance@wingtiptoys.com	Spring2020!
Rami@fabrikam.com	Spring2020!
TomH@cohowinery.com	Spring2020!
AnitaM@cohovineyard.com	Spring2020!
<pre>EitokuK@cpandl.com</pre>	Spring2020!
Ramanujan@Adatum.com	Spring2020!
Maria@Treyresearch.net	Spring2020!
LC@adverture-works.com	Spring2020!
EW@alpineskihouse.com	Spring2020!
info@blueyonderairlines.com	Spring2020!
AiliS@fourthcoffee.com	Spring2020!
M39@litwareinc.com	Spring2020!
Margie@margiestravel.com	Spring2020!
Ling-Pi997@proseware.com	Spring2020!
PabloP@fineartschool.net	Spring2020!
<pre>GiseleD@tailspintoys.com</pre>	Spring2020!
Luly@worldwideimporters.com	Spring2020!



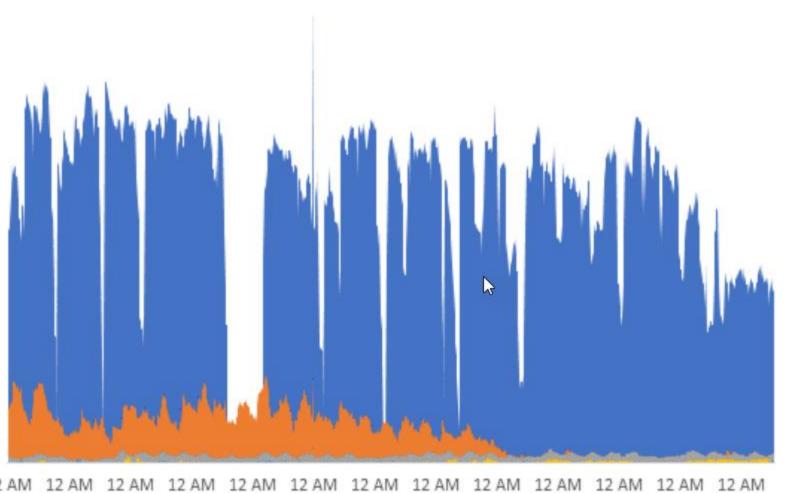
1



of Password Spray attacks use legacy auth



~40% (480k accounts in January) compromised by replay



2 AM 12 AM 14 AM 15 AM 16-Jan 16-Jan 19-Jan 22-Jan 25-Jan 28-Jan 31-Jan 3-Feb 6-Feb

- Microsoft.Exchange.Imap
- Microsoft.Exchange.SMTP
- 100
- Microsoft.Exchange.WebServices
- Microsoft.Exchange.Autodiscover
- Microsoft.Exchange.Pop
- Microsoft.Exchange.Mapi
- Microsoft.Exchange.RPC
- Microsoft.Exchange.Powershell
- Microsoft.Exchange.ActiveSync
- Microsoft.Exchange.Rest
- Microsoft.Exchange.OfflineAddressBook
- Microsoft.Exchange.ReportingWebServices
- Microsoft.Exchange.Psws
- Microsoft.Exchange.ECP



>97%

of Replay attacks use legacy auth



67%

Reduction in compromises in tenants who disable legacy auth



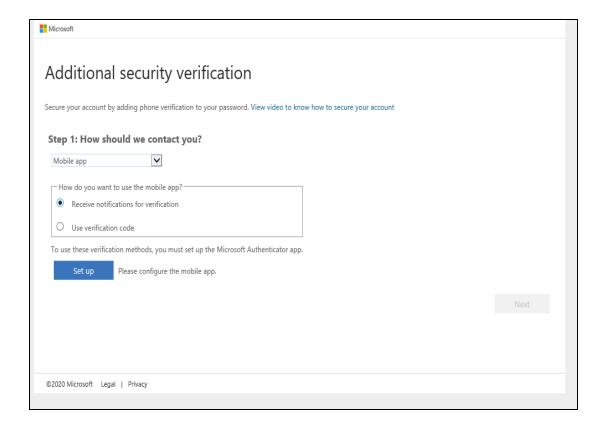
Office 365 Security Best Practices

- 1. Set up multi-factor authentication
- 2. Train your users (Educate)
- 3. Use dedicated admin accounts
- 4. Raise the level of protection against malware in mail
- 5. Protect Against Ransomware
- 6. Stop auto-forwarding for email
- 7. Use Office Message Encryption
- 8. Protect your email from phishing attacks
- 9. Protect against malicious attachments and files with ATP Safe Attachments
- 10. Protect against phishing attacks with ATP Safe Links

https://docs.microsoft.com/en-us/office365/admin/security-and-compliance/secure-your-business-data?view=o365-worldwide

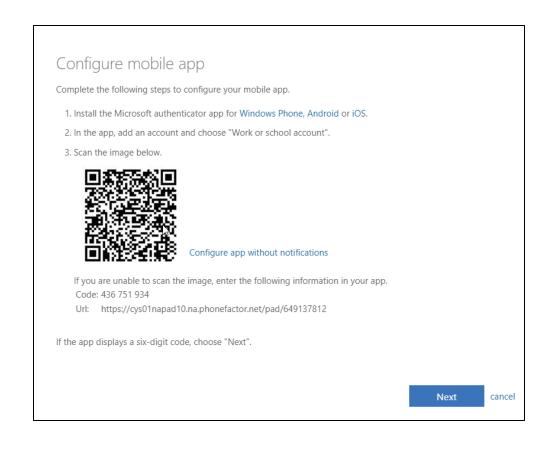
Multi-Factor Authentication Setup

- 1. Visit https://aka.ms/MFASetup
 on your desktop or laptop
 computer
- 2. Go through the Microsoft login with your account
- 3. Select Set up for the mobile app

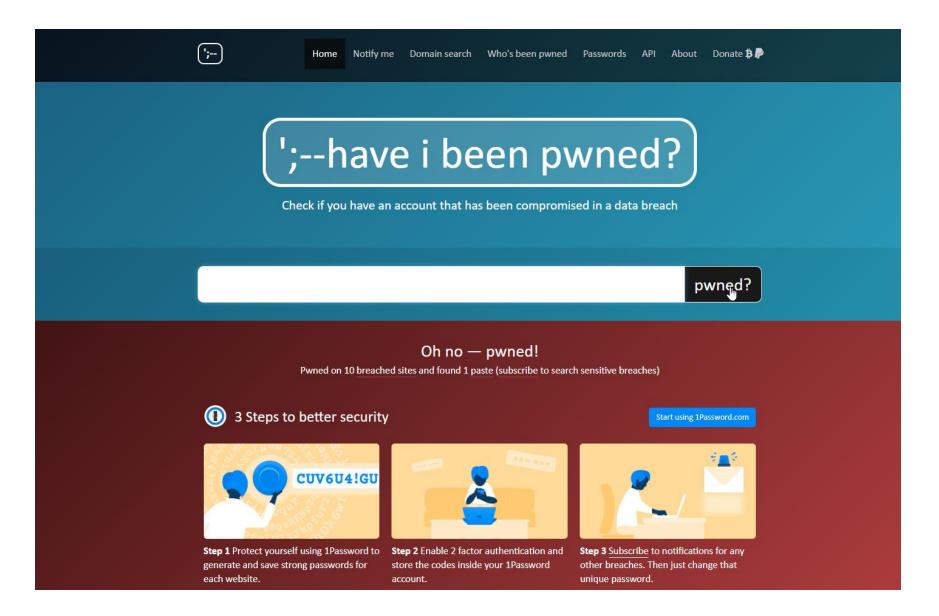


Multi-Factor Authentication Setup

- 4. Install the iOS or Android Microsoft Authenticator app from the App Store
- 5. Scan the image
- 6. Follow the instructions on the app
- 7. Complete the second verification step



Passwords



https://haveibeenpwned.com/

Have I been pwned results

- No hits
- 1 breach
- 2-9 breaches
- 10+ breaches

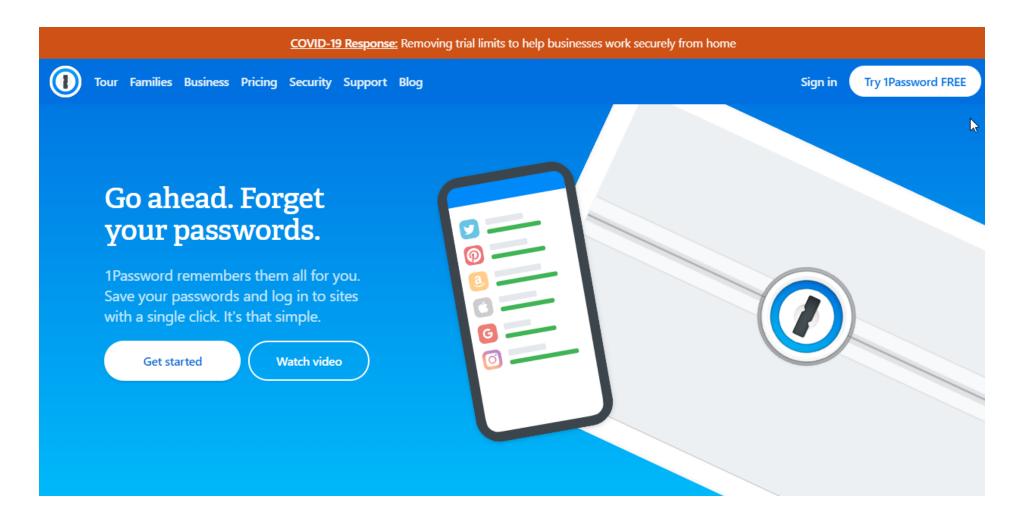
https://haveibeenpwned.com/

Password Policies

- NIST updated their guidance June 2017
- At least 8 characters in length, up to at least 64
- No complexity requirements
- No periodic password changes required
- No security questions or hints (e.g., "What was the name of your first pet?")
- Check for compromised passwords
- Provide a password strength meter

https://en.wikipedia.org/wiki/Password policy

https://pages.nist.gov/800-63-3/sp800-63b.html



COVID-19 Response

6 month full featured trial

https://1password.com/

Microsoft IT's Protection Plan

1

Passwords are weak

Continue to require MFA for modern authentication.

2

Close the backdoor

Apps not capable of MFA will be blocked.

3

Fix compromised accounts

Detect compromised accounts with Azure Identity Protection. Policy forces password change on risky users.

Licensing MFA

- All Office 365 subscriptions include basic MFA
 - No conditional access policies
 - Whitelisting of certain locations (such as inside the office network) can bypass MFA
 - Ensure guest WiFi is on a separate Internet IP address
- Azure AD P1 and P2 include Conditional Access Policies
 - Different policies can be applied
 - Include or exclude users groups, roles
 - Apps
 - Locations
 - Device Policies
 - Security Policies
 - Important to setup an Emergency account that bypasses these
 - Used if you lock yourself out
 - Password can be split across multiple people
 - Setup login alerts, this account should normally never be used

Azure AD P1 vs. P2

Azure AD Premium P1

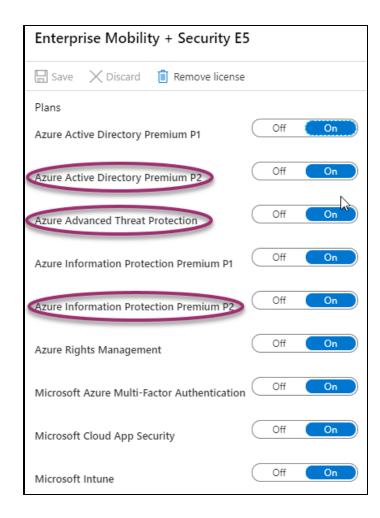
- Multi-factor authentication with Conditional Access
- Hybrid Identities
- Password protection (custom banned passwords)
- Advanced Security and Usage Reports
- Conditional Access based on group, location, and device status
- AIP integration
- And Much More

Azure AD Premium P2

- Everything offered in P1
- Identity Protection
- Privileged Identity Management
- Access reviews
- Entitlement Management (Preview)

EMS E3 and E5













Microsoft 365 E3

- Office 365 E3
- EMS E3
- Windows 10

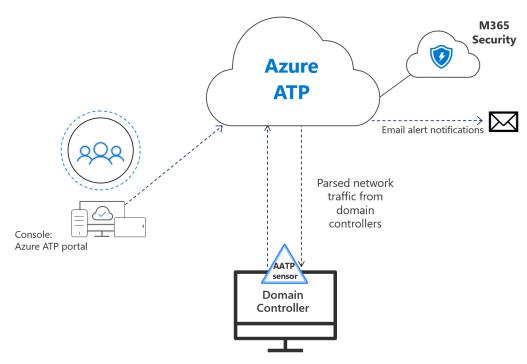
Microsoft 365 E5

- Office 365 E5
- EMS E5
- Windows 10

Azure Advanced Threat Protection (ATP)

- Cloud-based security solution that leverages your onpremises Active Directory signals to identify, detect, and investigate advanced threats, compromised identities, and malicious insider actions directed at your organization.
- Monitor users, entity behavior, and activities with learning-based analytics
- Protect user identities and credentials stored in Active Directory
- Identify and investigate suspicious user activities and advanced attacks throughout the kill chain
- Provide clear incident information on a simple timeline for fast triage

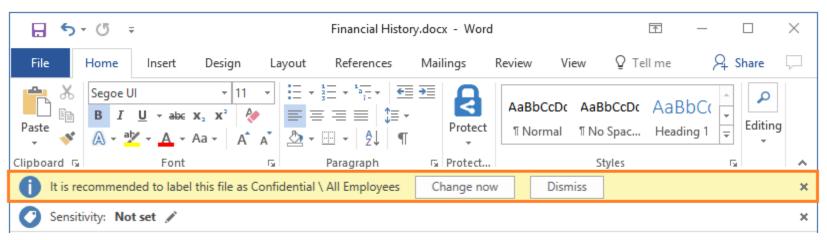
Azure ATP Architecture



https://docs.microsoft.com/en-us/azure-advanced-threat-protection/what-is-atp

Azure Information Protection (AIP)

- Cloud-based solution that helps an organization to classify and protect its documents and emails by applying labels
- Labels can be applied automatically by administrators who define rules and conditions, manually by users, or a combination where users are given recommendations
- Uses Azure Rights Management protection that is applied by using Rights Management stays with the documents and emails, independently of the location—inside or outside your organization, networks, file servers, and applications.



https://docs.microsoft.com/en-us/azure/information-protection/what-is-information-protection

Layering Up Your Security Implementation

1. MFA is the most important feature you can turn on

- Office 365 provides basic MFA which prompts on every login
- Conditional access lets you define rules for MFA
 - Managed versus unmanaged device
 - Risk level
 - Locations
 - Apps

2. Azure Information Protection can classify content

- Can be used with Conditional Access to determine policy
- Can be manually or automatically applied
- 3. Advanced Threat Protection can help secure your on-premise environment

Microsoft Security Licensing Options

- Purchase as part of a bundle
 - Microsoft 365 E3 or E5
 - Superset of Office 365 E3 or E5
 - Enterprise Mobility + Security
 E3 or E5
 - Bundled into Microsoft 365

- Individual step up plans
 - Azure AD Premium P1 or P2
 - Azure Advanced Threat Protection
 - Azure Information Protection P1 or P2
 - Azure Rights Management
 - Cloud App Security
 - Intune

Office 365 MFA is included in all Office 365 subscriptions

Upcoming Events



Extranet User Manager Webinar
Extending Office 365 and Teams to your Partners
March 25, 2020
12 pm – 12:30 pm EST

Eum.co/events



Extranet User Manager Webinar
Forms and Flow Employee Self-Service (Part 1 of 2)
April 7, 2020
12 pm – 12:30 pm EST

Eum.co/events

Thank you!

Questions?

