

# TECH DAYS

## MFA/SSO Update 2021

(... and what Neil lied about last year)

Neil Sabol

April 23, 2021

# Agenda

- What is MFA?
- Lie #1: Pistol Pete (NMSU Aggie) hacked Lucy Lobo's account
- Lie #2: Azure MFA will become THE MFA provider UNM
  - This virtually eliminates the \$10 per day telephony charge with Duo
- Lie #3: Azure MFA eliminates the provisioning delay
- Lie #4: We will enforce MFA only if it is truly required (conditionally)
- Lie #5: By the end of 2020, we will apply Azure MFA to O365
- Interesting facts about the Spring 2021 MFA rollout
- Applications added to SSO (Azure AD) in 2020-2021

# Special shout out to the UNM IT Service Desk and UNM Learn Service Desk

- We could not have rolled out MFA without your dedication and support
- Many, many thanks for your time, patience, and assistance on the front lines

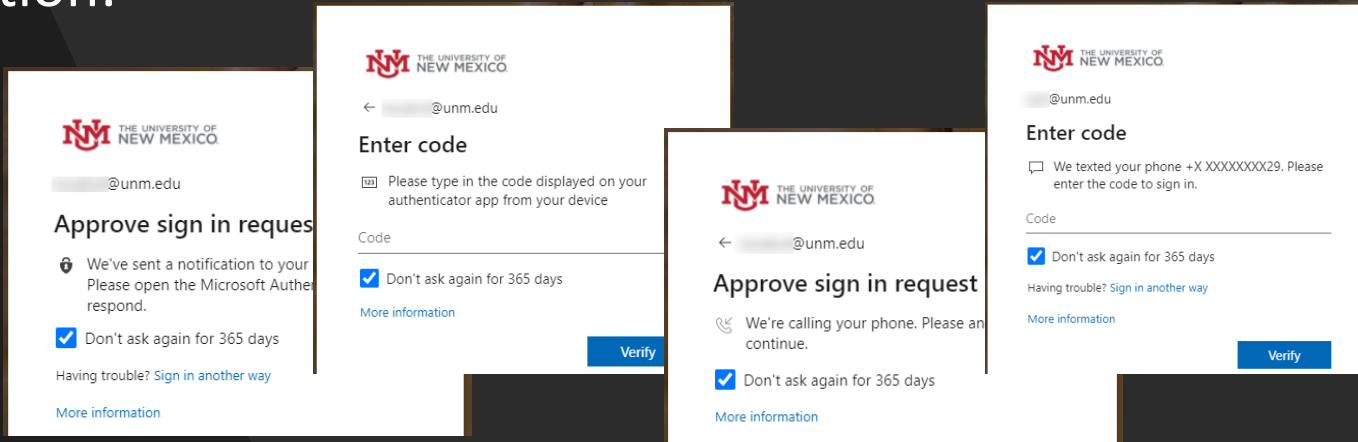
**GOOD  
JOB**

**WAY  
TO!  
GO!**

**WELL  
DONE**

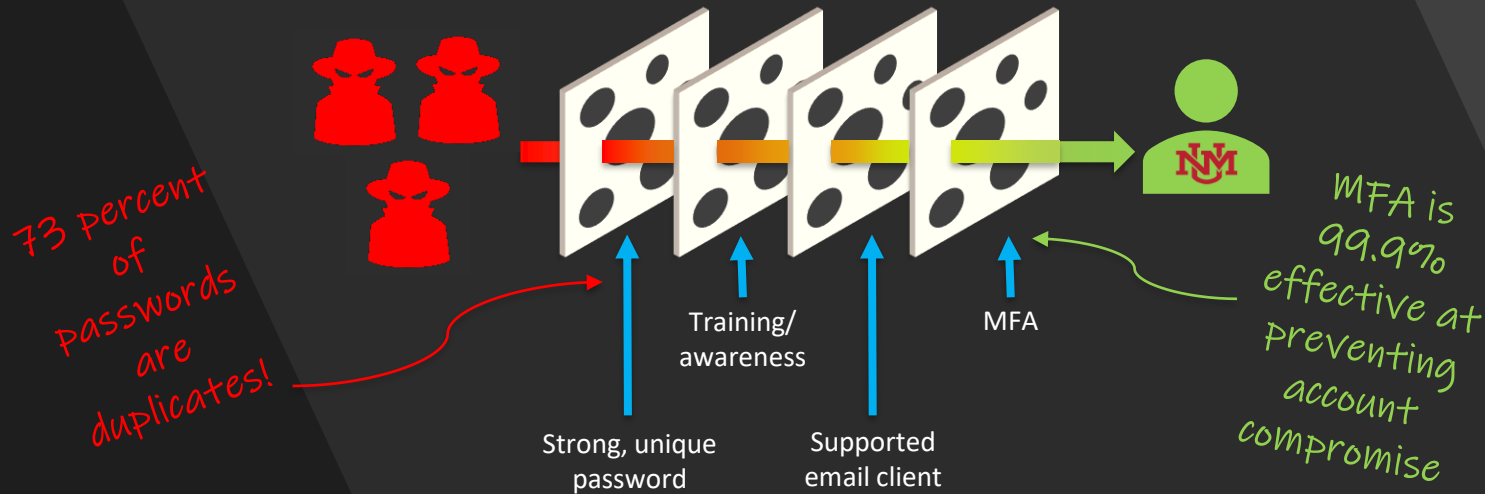
# What is MFA?

- Enhanced form of authentication, based on “factors” like “something you know” (your password) and “something you have” (your mobile device, landline phone, etc.)
- If you’ve seen these login screens, you’ve seen MFA in action:



# A “cheesy” metaphor

- Similarly, to the “*Swiss Cheese Model of Pandemic Defense*”, here is the “*Swiss Cheese Model of Account Compromise Defense*”:



# Lie #1: Pistol Pete (NMSU Aggie) hacked Lucy Lobo's account

- This was fake news – apologies to our friends and colleagues down south

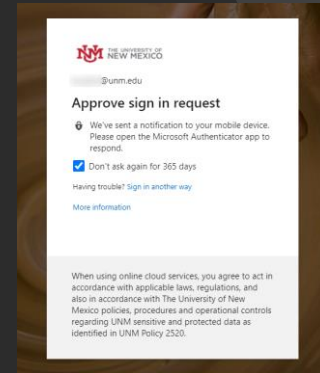
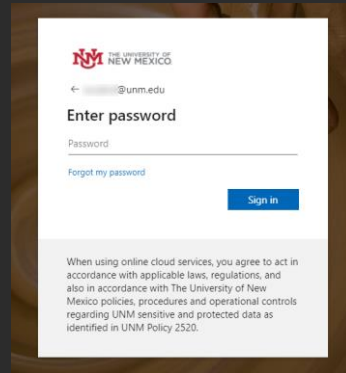
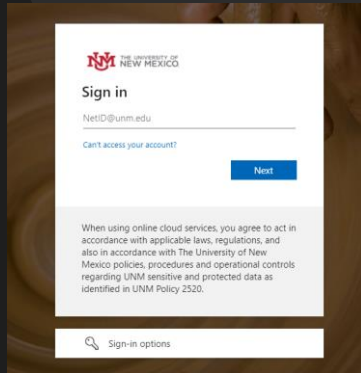


# Lie #2: Azure MFA will become THE MFA provider UNM

- It “sort of did” – for everyone besides Information Technologies employees
- Some privileged services (accessed primarily by IT employees) still use Duo for MFA
- All web applications that use Azure AD are now secured by Azure MFA (Learn, Office 365/Lobomail, Loboweb, Zoom, TouchNet, Adobe, etc.)

# Side Note: What do I mean by Azure AD?

- In short, these login pages:



- Anywhere you see these login pages, you know the application is using Azure AD to authenticate



# Lie #3: Azure MFA eliminates the provisioning delay

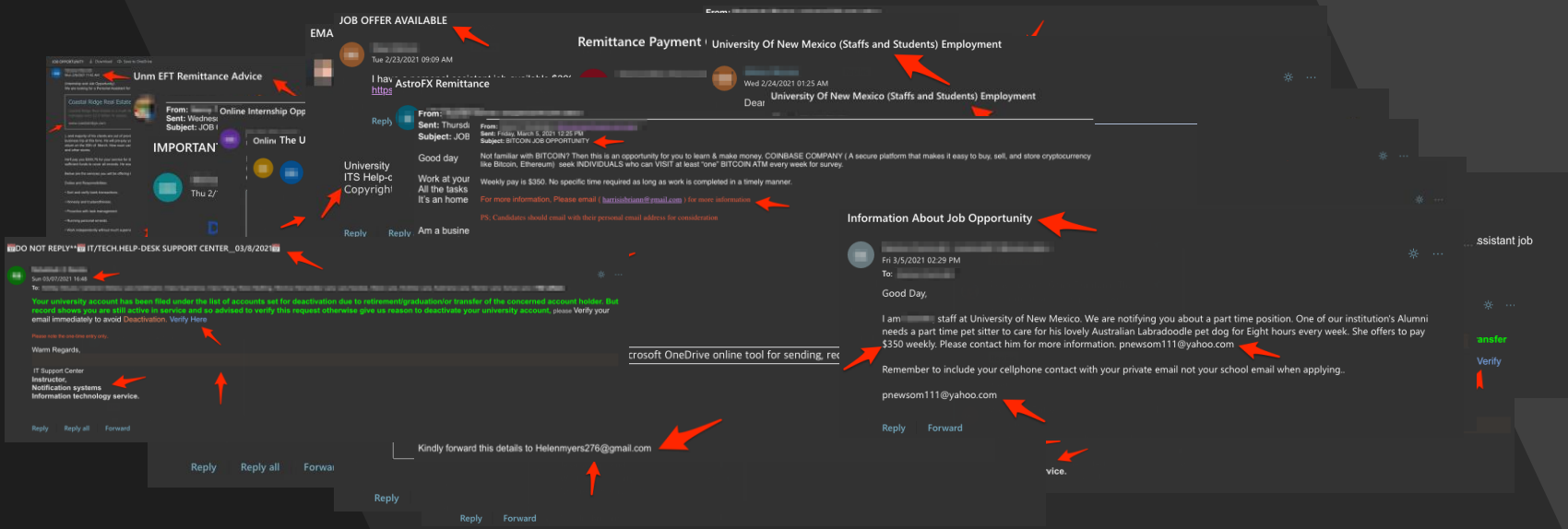
- Also “sort of” true – the provisioning delay for **UNM** users is now 4 hours or less
- BUT the provisioning delay for some **HSC** users can still be 24 hours
- Beats 48 hours, but still not perfect

# Lie #4: We will enforce MFA only if it is truly required (conditionally)

- Complete course change
- Azure MFA is required across the board for all applications in Azure AD and there are no conditions/exceptions
- Cost/licensing decision – “per user” Azure MFA is included with all Microsoft licenses we own, whereas “conditional MFA” required an additional purchase (cost) of ~\$90K/year

# Lie #5: By the end of 2020, we will apply Azure MFA to O365

- This did not happen, as evidenced by the following (just in February/March 2021):



# Lie #5: By the end of 2020, we will apply Azure MFA to O365

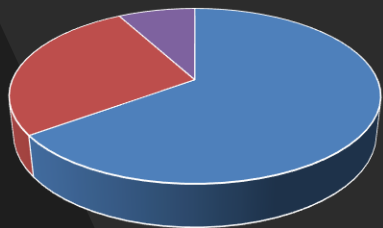
- Instead, Azure MFA was applied to Office 365 (really, all applications using Azure AD) on March 23, 2021
- Just a few months late
- Hopefully, you've noticed fewer fake internship, pet sitter, etc. opportunities circulating through email

# Interesting facts: Duo vs. Azure MFA

for Direct Deposit, Tax Forms, Benefits, etc.



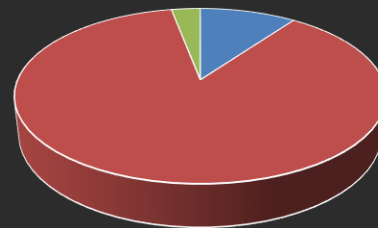
- Authentications by factor: 65% Phone call, 27% Text message, 8% Other, 0% Mobile app



■ Phone call   ■ Text message  
■ Mobile app   ■ Other



- Authentications by factor: 10% Phone call, 87% Text message, 3% Mobile app, 0% Other



■ Phone call   ■ Text message  
■ Mobile app   ■ Other

# Interesting facts: Duo vs. Azure MFA

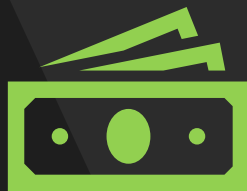
for Direct Deposit, Tax Forms, Benefits, etc.



- Average authentication cost per day (telephony): \$10



- Average authentication cost per day (telephony): \$0



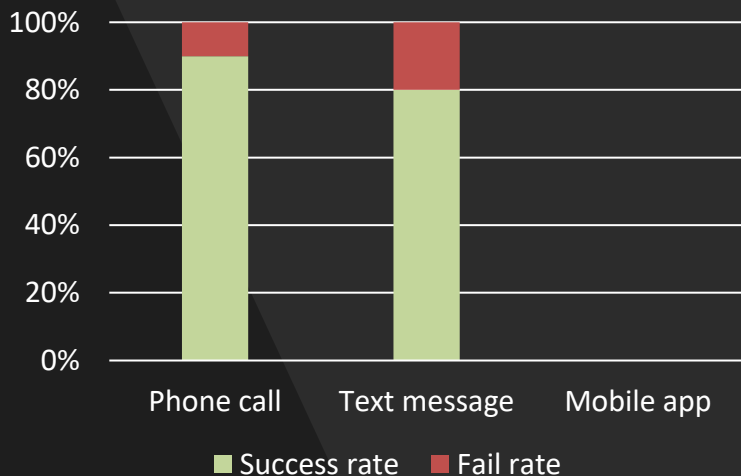
Projecting based on current Azure MFA usage; our Duo telephony costs would have been **at least \$50 per day** if we did not move to Azure MFA.

# Interesting facts: Duo vs. Azure MFA

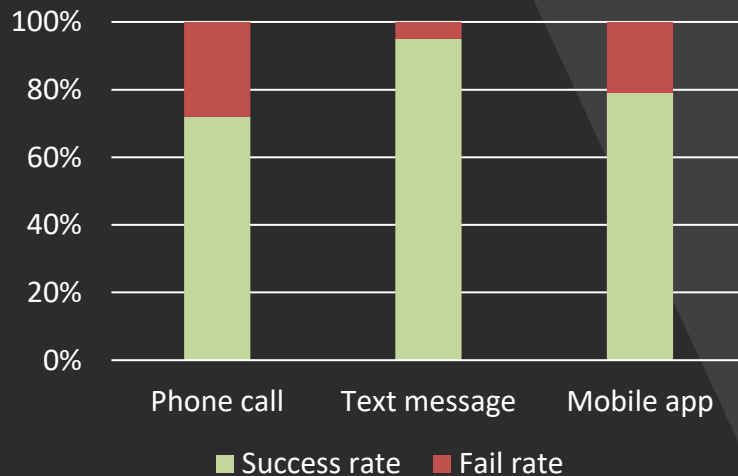
for Direct Deposit, Tax Forms, Benefits, etc.



- Authentication failure rate: 10% for Phone call, 20% for Text message, 0% for Mobile app



- Authentication failure rate: 28% for Phone call, 5% for Text message, 21% for Mobile app

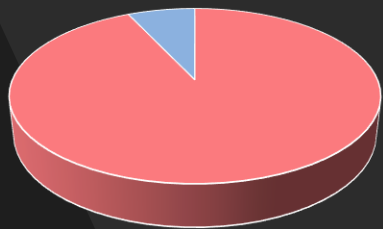


# Interesting facts: Duo vs. Azure MFA

for Direct Deposit, Tax Forms, Benefits, etc.



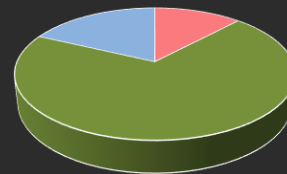
- Remembered device usage rate: 7%



- MFA Completed
- Remember device for 14 days



- Remembered device/stay signed in usage rate: 88%



- MFA Completed
- Stay signed in
- Don't ask again for 365 days



# Applications added to SSO (Azure AD) in 2020-2021

- **Adobe** (thanks Max)
- **AppTree** (thanks Desiree)
- **Brand Asset** (thanks Ethan)
- **Copy Center** (thanks Jennie)
- **Event Calendar** (thanks Matt)
- **Famis** (thanks Desiree)
- **Handshake** (thanks Keith)
- **Loboweb** Direct Deposit, Tax Forms, Benefits (thanks Bryant)
- **Office of Sponsored Projects** proposal review appointment (thanks Wisam)
- **Target X** (thanks Lachlan)
- **TouchNet** (thanks Daniel)
- **UNM Benefits open enrollment** (thanks John)
- **UNM Cohort Analytics** (thanks Wisam)
- **UNM COVID-19 Reporting** (thanks Wisam)
- **UNM Jobs** (thanks Gabe)
- **UNM Learn** (thanks Jon)
- **Xfinity on Campus** (thanks John)
- **Zoom** (thanks Max)

# TECH DAYS

**Thank You!**

**Questions?**

(find me on [Teams](#) or via [email](#))