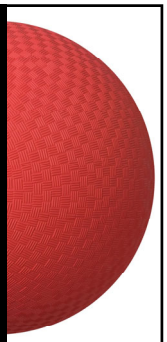
CYBERSECURITY: Everyone can do it.

Nathan Abbott, CISA, CFE, EA
Assistant Director



1

CYBERSECURITY: Everyone can do it.

Nathan Abbott, CISA, CFE, EA
Assistant Director

IF YOU CAN CLICK ON AN EMAIL, YOU CAN CHANGE A PASSWORD

2

DISCLAIMER

- ***The Opinions expressed during this presentation are my own. They do not necessarily represent the views of the Tennessee Comptroller of the Treasury, his representatives, or the Tennessee Department of Audit.***

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Elisha Crowell
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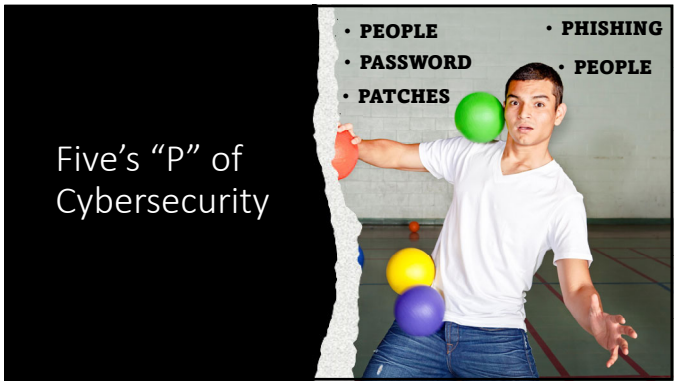
Five's "P" of Cybersecurity
• PEOPLE
• PASSWORD
• PATCHES
• PHISHING
• PEOPLE

5

Cyber security
PEOPLE
YOU ARE THE FIRST LINE OF DEFENSE.

6

Public schools on the Massachusetts island closed early after it endured the latest ransomware attack against the K-12 sector.

BY BENJAMIN FREED • JANUARY 31, 2023

7

Pennsylvania state employee accidentally deleted thousands of records

A Pennsylvania Office of Administration employee was fired after accidentally deleting files that included evidence logs from the state's crime labs.

BY SOPHIA FOX-SOWELL • JANUARY 24, 2024

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CYBERSECURITY

Collegedale, Tenn., Has Computer Systems Hacked, Restored

Data from the city of Collegedale, Tenn., was leaked this week after the city's computer systems were hacked, a spokesperson said, but it is unclear if, or how, those systems were affected.

April 13, 2023 • Ellen Gerst, Chattanooga Times Free Press

9

Cybersecurity tech only goes so far, with many attacks targeting human weaknesses. Bad actors trick employees with social engineering ploys and take advantage of human errors, like those leaving exploitable misconfigurations. But employee cyber awareness trainings can help close this chink in the armor — if done right.

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PASSWORDS

- Strong passwords
- Don't re-use passwords
- Change passwords
- Add Multi-Factor Authentication

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STRONG PASSWORDS

- Mix of letters
- Mix of Numbers
- Special Characters [*!@#?%^({$]
- Minimum 8 characters long
- Pass Phrases

Key Photo by Unknown Author is licensed under CC BY

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How secure is the password

Choose between

A. Weak
B. Moderate
C. Strong

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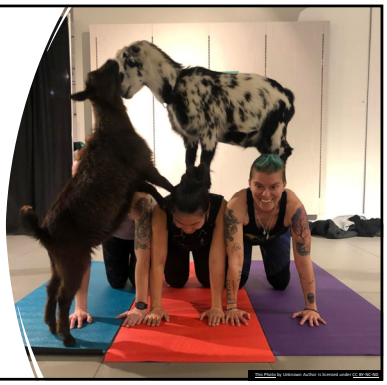
Password Creation Tip

- One way to create a strong, memorable password is to use a meaningful phrase. Follow these steps:

1. Choose a memorable, unique phrase that is made of at least 3 words, two of which should be 4 or more characters long. A visual phrase may be helpful for example:

Two goats kissing at yoga



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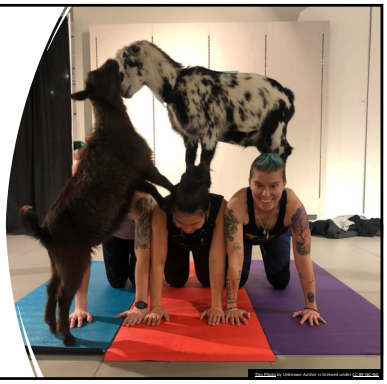
Password Creation Tip

2. Now add uppercase letters and remove the spaces between the letters.

TwoGoatsKissingAtYoga



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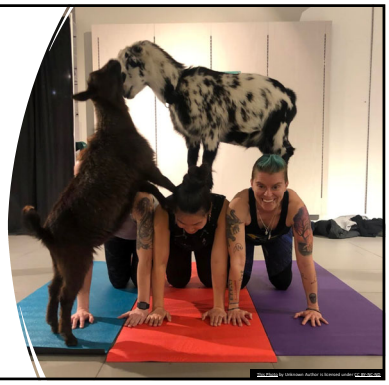
Password Creation Tip

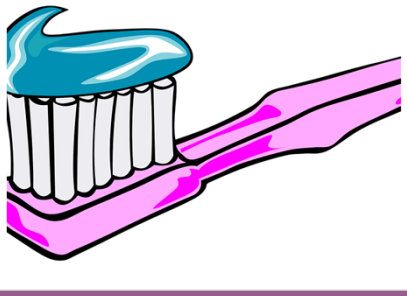
3. Finally, add a special character and number. In this case, we change the word "Two" to "2", put the special character "#"between "Goats" and "Kissing", change the first "s" to a "$" in "Kissing", change "At" to @ symbol.

2Goats#Ki$sing@Yoga

It's that easy. And I bet this visual will remain in your memory.



16



Change Your Passwords Frequently and Don't share

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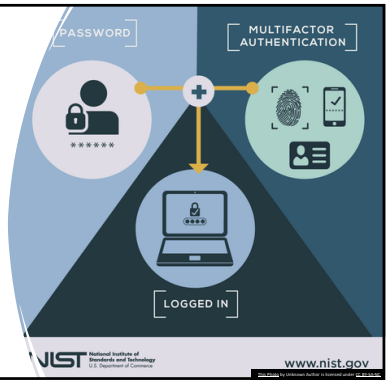
MFA

- Set up MFA where possible



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Phishing

Over 255 million phishing attacks in 2022

21

Ransomware Payments Hit a Record $1.1 Billion in 2023

After a slowdown in payments to ransomware gangs in 2022, last year saw total ransom payouts jump to their highest level yet, according to a new report from crypto-tracing firm Chainalysis.

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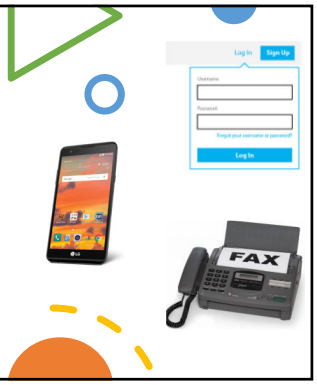
Phishing Messages

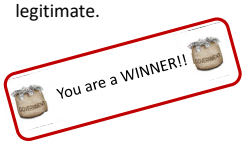
- A phishing message can arrive by email, phone (call, voice mail or text), social networking message, instant message (IM), or fax.



23

But why do we fall for it? Why do we take the phishing bait?

Phishers are masters of disguise, making malicious messages look legitimate.



Click here to claim your Amazon $100 gift card.

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How else do phishers trick us?

Emotions

- They play on our emotions and desires.

25

But why do we fall for it? Why do we take the phishing bait?

Curiosity

High profile news stories, gossip, and celebrity photos have some of the highest page views on the Internet. That's why phishers send so many phishing messages related to these topics.

26

FEAR

Notice of Unpaid Taxes. Review the attached tax statement.

SPECIAL AGENT
SOCIAL SECURITY ADMINISTRATION
USA
SSA OIG

IRS
Department of the Treasury
Internal Revenue Service

27

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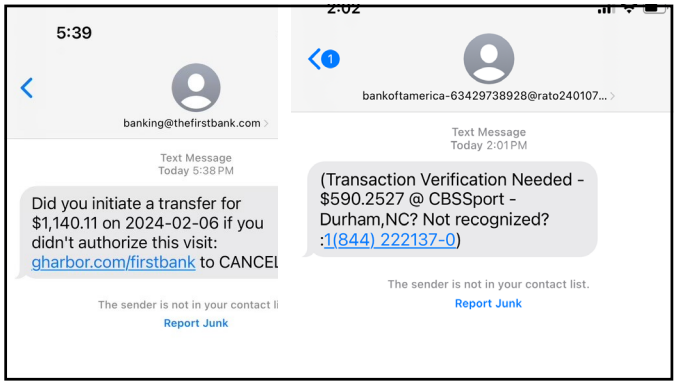

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But why do we fall for it? Why do we take the phishing bait?

Generosity

Phishers know people are generous, especially when there is a disaster, and sadly, they exploit this generosity.

American Red Cross

Example phishing message:

Donate to the Hawaii Emergency Relief Fund – Support the victims of fire.

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Clues

1T HelpDesk@cot.tn.gov shared (03) pages document.

Source: Xeros Scanner INV3682T0837BB

The words or phrases in the text or the message are confusing when you read it. Text that contains errors or is hard to understand is less likely to have come from a legitimate source.

Sent: Thursday, January 13, 2022 10:42 AM
To:
Subject: Payment Advice Note from 01.13.2022

cot.tn.gov SharePoint

1T HelpDesk@cot.tn.gov shared (03) pages document.

Source: Xeros Scanner INV3682T0837BB

Date: 01/13/2022

Find attached file.

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https://amazon.com.1992zebra.info/security/login.html

Fake Site name

Real Site name

separated by a '.'

3) Remember that phishers try to trick you into clicking on phishing URLs by including a "Fake Site Name" that looks legitimate. This often put at the beginning of the URL. Don't Fall for it.

https://amazon.com.1992zebra.info/security/login.html

Fake Site name

Real Site name

32

Help, I think I was Phished!

At Work:

- Stop what you are doing.
- Call your IT security team or help desk

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Help, I think I was Phished!

At Home:

- If you exposed a password, change it immediately.
- Jot down everything you can remember about what happened.

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Help, I think I was Phished!

At Home:

- Call the account provided and tell them exactly what happened. Refer to your notes.
- If you are the victim of identity theft, have credit bureaus put fraud alerts on your credit reports.
- In the US, report identity theft to the police and Federal Trade Commission (FTC).

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PEOPLE

- Make sure files are backup
- Test backups
- Off-site backup

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Data Backups

Your data is what business is built on: Make backups and avoid the loss of information critical to operations.

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BACKUPS

Identify where you information is stored.

Your Systems

38

Five's "P" of Cybersecurity

39

Questions, Comments or Snide Remarks

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TENNESSEE COMPTROLLER OF THE TREASURY

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