Security
February 14, 2019

Topics

• Vulnerabilities
  • Devices
  • Types
• How you’re compromised
  • Hacking
  • Spoofing
  • Phishing
  • Scamming
  • Unintentional downloading

• Best practices
  • Application and OS Updates
  • Backups
  • Security Software
  • Passwords
  • Secure websites
  • Double Authentication
  • Avoid software you don’t need
Vulnerabilities: Windows, Mac, Android, iOS

- All devices are vulnerable
- Mac and iOS are a bit safer
- Windows has improved security
- Some vulnerabilities with Android apps

How you’re compromised

- **Hacking corporate servers** to obtain your IDs and PWs
  - ...then logging in to your accounts
- **Malware** that you unwittingly install via
  - Spoofing
  - Phishing
  - Careless downloads
- **Allowing access** to your computer
  - Scams
- **Eavesdropping**
Stuff

Hacking

Breaking into a computer
• Stealing data
• Inserting malware
• Corrupting files
Stuff

Stealing Data
Hacking
Step 1

Retrieves lists of names, ID's, and PW's

Hacking
Step 2

Logs into your E-mail account
Hacking
Step 3

Logs into your bank account

Malware (a.k.a Viruses)

- Software that does bad things to your stuff
  - Ad popups
  - Browser hijackers
  - Data exporters
  - Ransomware

Annoying
Disastrous
Spoofing and Phishing

• Via your E-mail
  • Spoofing – someone pretending to be you
  • Phishing – someone pretending to be someone else
  • Goal: Install malware or obtain ID’s and PWs

Spoofing

From: Susan Hoskins <steelingtin@aol.com>
Date: Wednesday, January 2, 2019 at 1:34 PM
To: Kathy Whalen <kwhalen@princetonsenior.org>
Subject: Re: Quick Assignment

Hi Kathy,

Are you available for a quick errand? Send me an email and let me know.

Thank you,
Susan Hoskins
Phishing

PayPal doesn’t send notices like this via email

Looks legitimate

Odd wording

Link to fake website

Poor grammar

Downloads

1. Click Download
2. Run and install
3. Enjoy your clean Mac

Download Printer Driver - Best Softwares & Apps
Downloads

Phony Support Desks (Scams)
Phony Support Desks (Scams)

Phony Phone Calls (Scams)

This is Microsoft calling...

...we've detected a virus...
Allowing access (Scams)

Eavesdropping

- Keystroke monitoring (keylogging malware)
- Using unsecure Wi-Fi (without a passcode)
Topics

• **Best practices**
  - OS and application Updates
  - Backups
  - File encryption
  - Passwords
  - Security Software
  - Secure websites
  - Double Authentication
  - Avoid software you don’t need

OS and Application Updates

• Windows and Mac OS
• Applications
  - MS Office
  - Flash (phasing out)
  - Java
  - Adobe Acrobat
• Computer drivers
  - Log in to your computer company’s website
Backups

• Local
  • Windows – File History
  • Mac – Time Machine
• Cloud
  • OneDrive
  • iCloud
  • Dropbox
  • Carbonite
• Both?

File Encryption

• Windows – Bitlocker
• Mac – FileVault
Passwords

- Different for every website (account)
- Strong: word combinations
  - Flaky-windmill4
  - mustard-raccoon-flax
- Use a password manager

Don’t write them down!

Password managers

- Chrome
- Safari (Keychain)
- Third-party – Better

![Password Manager Logos]
Device Passwords

• On startup and wakeup
• Fingerprint options
• Facial recognition
• Required to encrypt your files

Security Software

• Windows
  • Windows defender
    • Included with Windows
    • Automatic
    • Not intrusive
  • Malwarebytes Antimalware

• Mac
  • Sophos Antivirus
  • Malwarebytes Antimalware
Secure websites (https)

- Prevents eavesdropping
- Confirms legitimacy

Your stuff  
Encrypted  
Their stuff

Secure website – PNC Bank
Secure website – Google

UN-secure website - Winberie’s
Double authentication

Software you don’t need

• “Cleaners”
• “Optimizers”
• Driver update services
Q & A