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## Are you ready to get hacked?

Cybersecurity: Top 5 things you can do to protect your office (and personal)

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## Objectives

Review basic cybersecurity terms and frameworks to suggest

Top 5 small business cybersecurity issues

- Password protection
- Social engineering – Phishing, SMSishing, Vishing
- Wi-Fi security
- Response and Incident Plan
- Dont delay

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## Basic Cybersecurity Terms

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### Cyber History

- 'Cyber' is from the Greek word for navigator
- Norbert Wiener coined 'cybernetics' around 1948
- Cybernetics - the science of communications and automatic control systems in both machines and living things

Norbert Wiener

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### Cybersecurity - CIA



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### The Right Mindset

Cybersecurity is about much more than IT



"I've installed a comprehensive program that will protect our computers against viruses, Trojan horses, worms, rootkits, binary files, connotations, and the boogie-woogie."

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**TEXAS A&M CYBERSECURITY CENTER** 

**NIST 800 series publications**

Information Technology Laboratory

**SMALL BUSINESS CYBERSECURITY CORNER**

- Cybersecurity Basics
- Planning Guides
- Guidance by Type
- Responding to a Cyber Incident
- Training
- Compliance Directory
- FAQ

CONNECT WITH US

<https://www.nist.gov/it/smallbusinesscyber>

**NIST**  
National Institute of Standards and Technology

Example publications...

- 800-53 Security and Privacy Controls for Information Systems and Organizations
- 800-61 Computer Security Incident Handling Guide
- 800-63 Digital Identity Guidelines
- 800-171 (Manufacturers in DoD Supply Chain) Protecting Controlled Unclassified Information

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**Why should you care about online security?**

Understand what is at stake when you create an account online!

- Think about the data you are giving them?
- How and where do they share data?
- Places like: Facebook, Instagram, etc.

Your email is a **VALUABLE** asset

**Create an account**  
It's quick and easy.

First name  Surname

Mobile number or email address

New password

Birth day  /  /

Gender  Female  Male  Custom

I agree to the Terms, Privacy Policy and Cookies and give consent to use Cookies. (You may remove this consent at any time.)

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**TEXAS A&M CYBERSECURITY CENTER** 

**Top 5 Small Business Issues**

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1. Password Protection



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Passwords....

Forget Tough Passwords: New guidelines Make It Simple!

- o Keep passwords long and memorable
- o Experts no longer suggest special characters
- o No mix of lower and uppercase letters
- o Passwords never need to expire

Here's what we've been told about passwords:

- Make them complicated.
- Use numbers, question marks and hash marks.
- Change them regularly.
- Use different passwords for each app and website.

NIST National Institute of Standards and Technology

John Romero

Source: <https://www.nist.gov/iaid/interim/draft/2017/08/14/5414488/forget-toughpasswords-new-guidelines-make-it-simple>

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2. Social Engineering

- Phishing
- SMSishing
- Vishing



Social Engineering – Hacking the Mind

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## Vishing ...

Voice solicitation in order to get information

- o Never give out personal information over a call
- o Use a VPN – it spoofs your IP

DEF CON – Hacker Convention, Las Vegas

- Jessica Clark, Social Engineer Competitor
- Super Intelligent
- Uses "giddy" tactic
- Uses special tool in order to persuade...



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**WATCH THIS HACKER  
BREAK INTO  
MY CELL PHONE ACCOUNT  
IN 2 MINUTES**

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## Vishing ...


For small / medium business....

- Do you have Customer Service checks?
- Do you have security procedures?
- Have you discussed this with your employees?
- Would your company have fallen victim?

## Post Video Breakdown

DEF CON – Hacker Convention, Las Vegas

- Jessica Clark, Social Engineer Competitor
- Super Intelligent
- Uses "giddy" tactic
- Uses **CRYING BABY** in order to persuade...



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### 3. Secure your Wi-Fi



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*Have you taken a "set it and forget it" approach with your Wi-Fi network?*

- Change your admin username and password upon setup
- Activate encryption
- Disable guest networks
- Check your router for firmware updates once a month
- Turn down the transmit power control (if able)

These steps are easy to take.  
They can also go a long way in keeping your Wi-Fi network secure.

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### Internet of Things (IoT)

Griener hacks baby monitor, terrifies toddler with spooky voices

- NEST or other Thermostats
- Alexa, Google Home, Apple Home
- Television, Xbox (gaming consoles)
- Ring (doorbells)
- Cameras



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### Dangers of Public Wi-Fi



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4. Have a Response Plan (Incident Plan)

NIST SP 800-61, Computer Security Incident Handling Guide

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Do have plans...?

- Ransomware
- Social Media
- Network Breach
- Data Breach

**“EVERYBODY HAS A PLAN UNTIL THEY GET PUNCHED IN THE FACE”**

- MIKE TYSON

Turn your Plans into procedures...

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5. Don't delay if you spot a security concern

- "It's better to be safe than sorry" absolutely holds true in regard to security for your small business.
- If you have any reason to believe something has gone wrong, no matter how big or small the issue, it's imperative to pinpoint the problem and implement an immediate solution.

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**Implement a cybersecurity program**

- Train employees on cybersecurity issues
- Inventory / count your IT assets
- Patch all software and OS's
- Refresh networking gear software (routers, etc.)
- **Have great backups**
- Get a cybersecurity audit and heed its findings
- Use Access Control
- Revisit or create cybersecurity policies
- Have procedures for a cyber incident
- **Utilize a Cybersecurity Framework!!!**

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**Thanks and remember....**

1. Password protection
2. Social engineering awareness
3. Wi-Fi security
4. Response and Incident Plan
5. Don't delay

  
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 Education  
 Research  
 Partnerships

John M. Romero  
john.romero@tamuedu

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