

The National Center for Supply Chain Automation

Top 5 Manufacturing/Business Cybersecurity Issues

What can you do right now – to be ready?



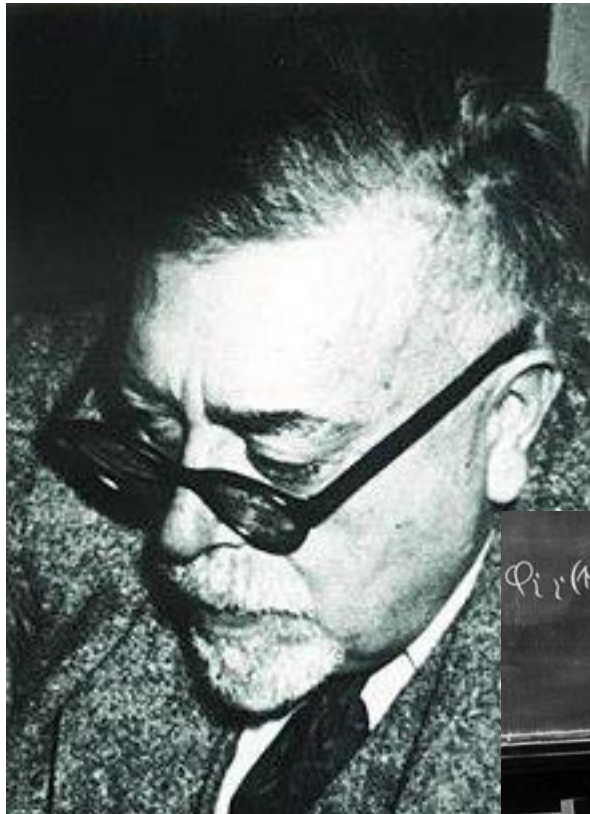
Objectives

- **Review basic cybersecurity terms**
- **Top 5 small manufacturing/business cybersecurity issues**
 - **Password protection**
 - **Social engineering – Phishing, SMSishing, Vishing**
 - **Wi-Fi security**
 - **Response and Incident Plan**
 - **Don't delay**

Basic Cybersecurity Terms

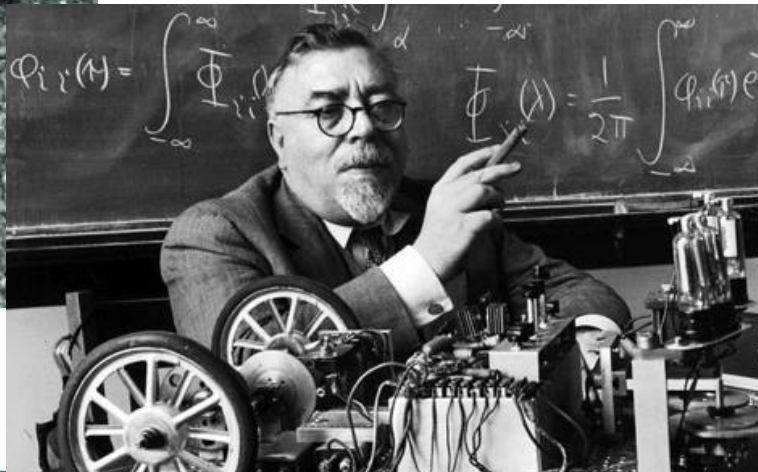


Cyber History



Norbert Wiener

- '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



Cybersecurity - CIA



The Right Mindset

Cybersecurity is about much more than IT



"I've installed a comprehensive program that will protect our computer against viruses, trojan horses, worms, cooties, hissy fits, conniptions, and the heebie-jeebies."

Copyright 2005 by Randy Glasbergen.
www.glasbergen.com

Computer security, physical security, information security

- Hardware
- Software
- Policies / procedures
- Plans
- Training
- Physical security (controlled access, locked)
- Personnel security (screening process, background checks)
- 3rd Party Access security - Pivoting





Basic

- 1 Inventory and Control of Hardware Assets
- 2 Inventory and Control of Software Assets
- 3 Continuous Vulnerability Management
- 4 Controlled Use of Administrative Privileges
- 5 Secure Configuration for Hardware and Software on Mobile Devices, Laptops, Workstations and Servers
- 6 Maintenance, Monitoring and Analysis of Audit Logs

Foundational

- 7 Email and Web Browser Protections
- 8 Malware Defenses
- 9 Limitation and Control of Network Ports, Protocols, and Services
- 10 Data Recovery Capabilities
- 11 Secure Configuration for Network Devices, such as Firewalls, Routers and Switches
- 12 Boundary Defense
- 13 Data Protection
- 14 Controlled Access Based on the Need to Know
- 15 Wireless Access Control
- 16 Account Monitoring and Control

Organizational

- 17 Implement a Security Awareness and Training Program
- 18 Application Software Security
- 19 Incident Response and Management
- 20 Penetration Tests and Red Team Exercises



Top 5 Small Business Issues



1. Password Protection





PASSWORDS are like SOCKS...

1. Change them regularly
2. Don't leave them on your desk
3. Don't loan them to anyone
4. Don't use the same pair for all occasions













2. Social Engineering

- Phishing
- SMSishing
- Vishing



Social Engineering – Hacking the Mind

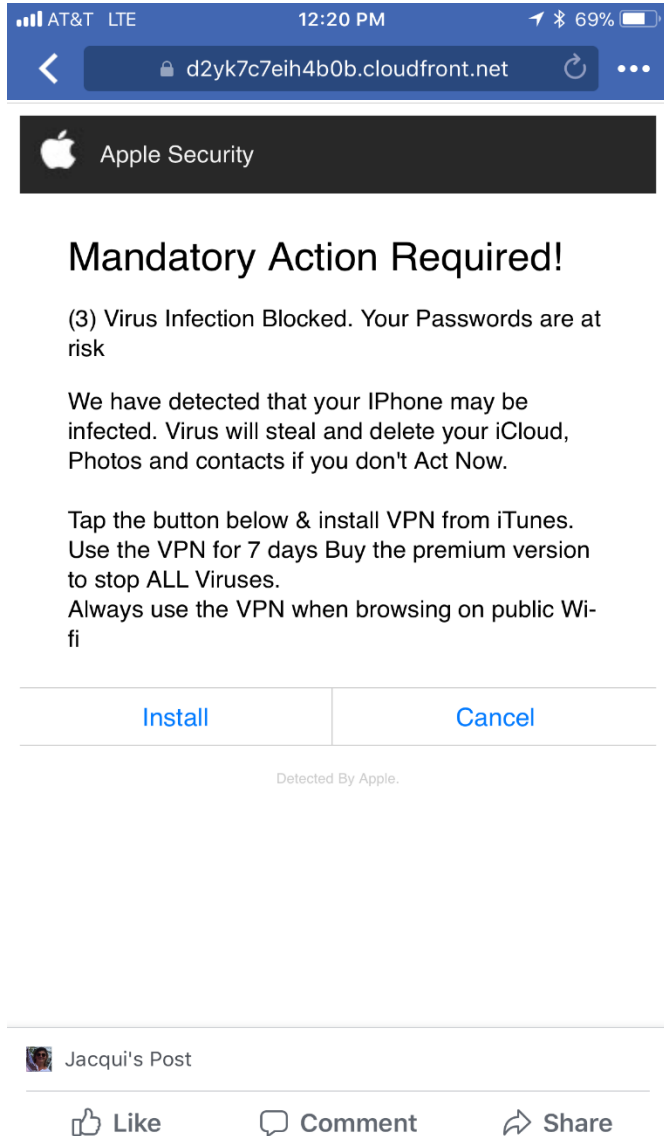
TOP 10 GENERAL EMAIL SUBJECTS

	Password Check Required Immediately	19%
	Your Order with Amazon.com/Your Amazon Order Receipt	16%
	Announcement: Change in Holiday Schedule	11%
	Happy Holidays! Have a drink on us.	10%
	Problem with the Bank Account	8%
	De-activation of [[email]] in Process	8%
	Wire Department	8%
	Revised Vacation & Sick Time Policy	7%
	Last reminder: please respond immediately	6%
	UPS Label Delivery 1ZBE312TNY00015011	6%

SOURCE: (Jan 2019)

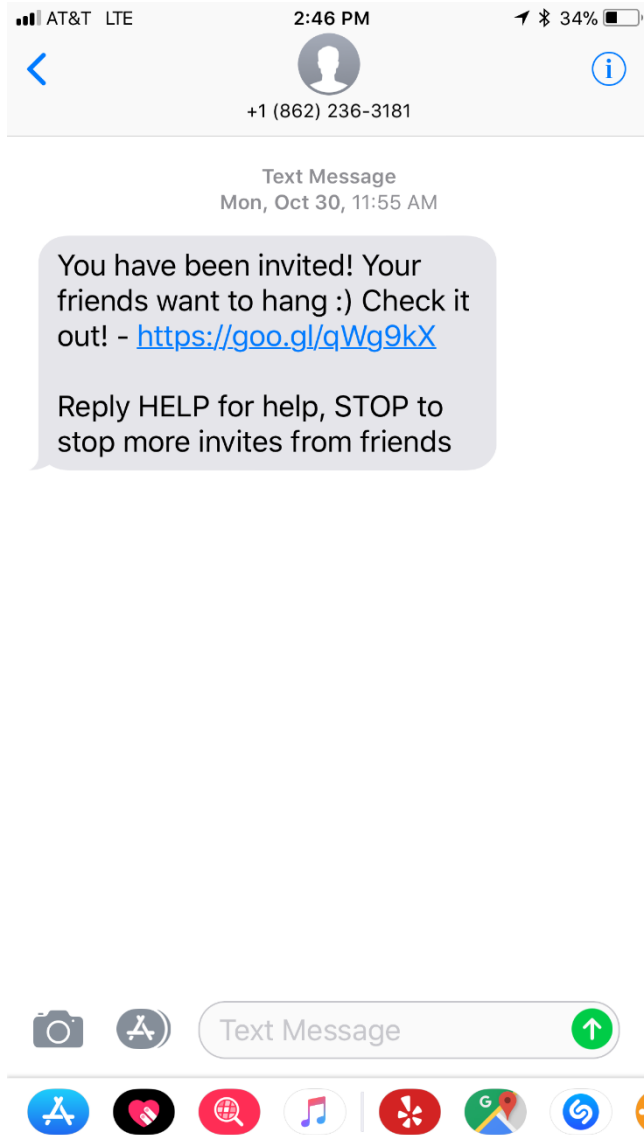
KnowBe4
Human error. Conquered.





Social Engineering

- **Fake Virtual Private Network**
 - **Man in the middle**
 - **Young people at school**



Cyber Attacks

- Smishing (SMSishing)

Cyber Attacks

MS-ISAC Inbox - TEEX Yesterday at 12:53 PM

John Romero last bill MS-ISAC

To: John Romero

MS-ISAC

Your last bill is below. Please note terms as stated on your last bill.


Account Number: D3801696

Invoice Number	Amount
8153	1,924.90

Click to connect eInvoice billing

eInvoice Connect

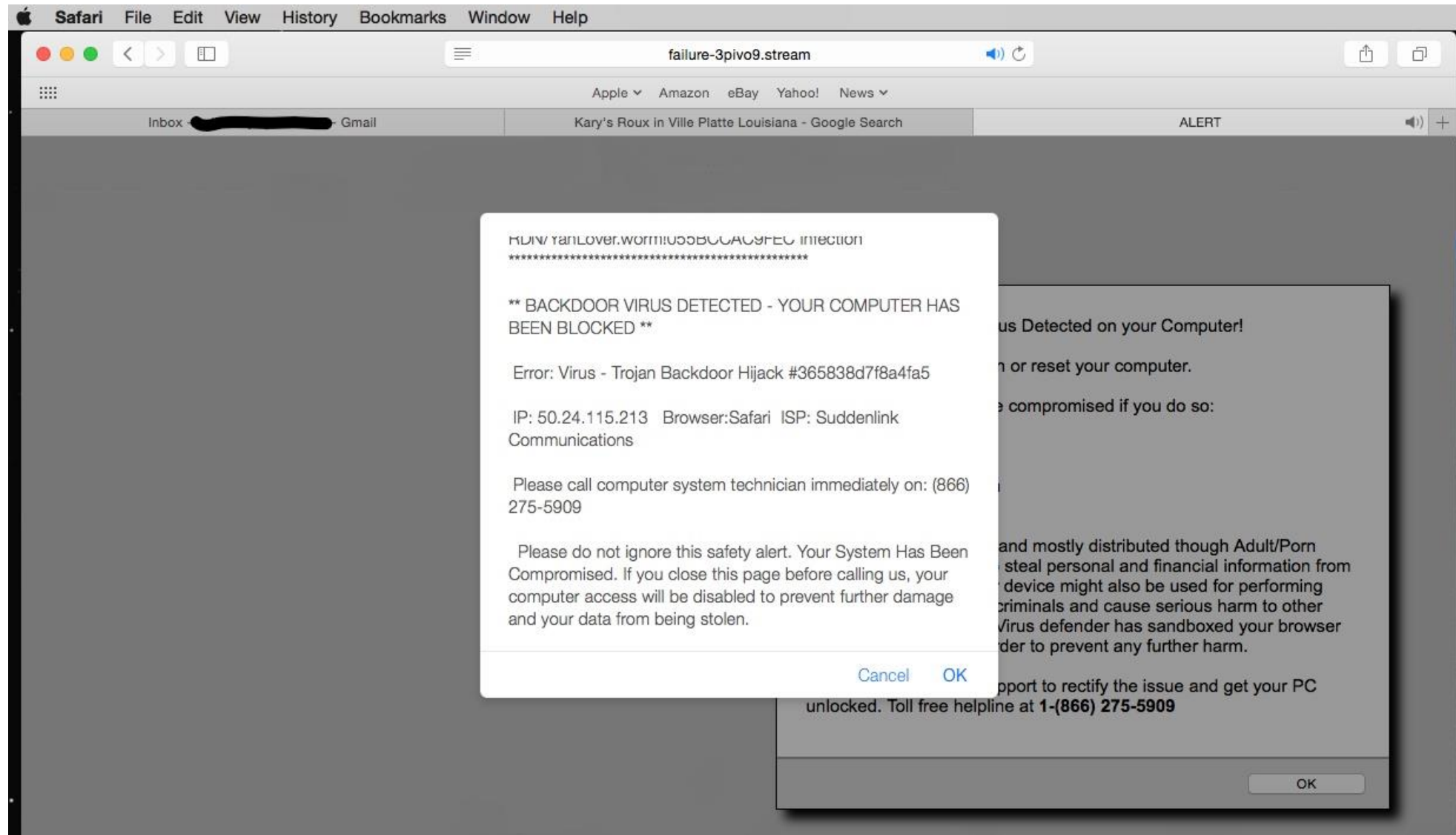
If the above button doesn't work,
please click or copy the below link to
your browser

<https://sec.accs.resourses.net/> 

Thank you for using MS-ISAC eInvoice Connect

<http://awcq60100.com/sec.accounts.resourses.net/>





Vishing

- **Voice solicitation in order to get information**
 - **Never give out personal information over a call**
 - **Use a VPN – it spoofs your IP**

Two videos to help explain....





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





Hacking the company

- **Spoof the number for inside the company**
- **Call tech support**
- **Have a presentation from sales - need website**
- **Send tech to hacked website**
- **Own the company...but why are they owned?**

3. Secure your Wi-Fi



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

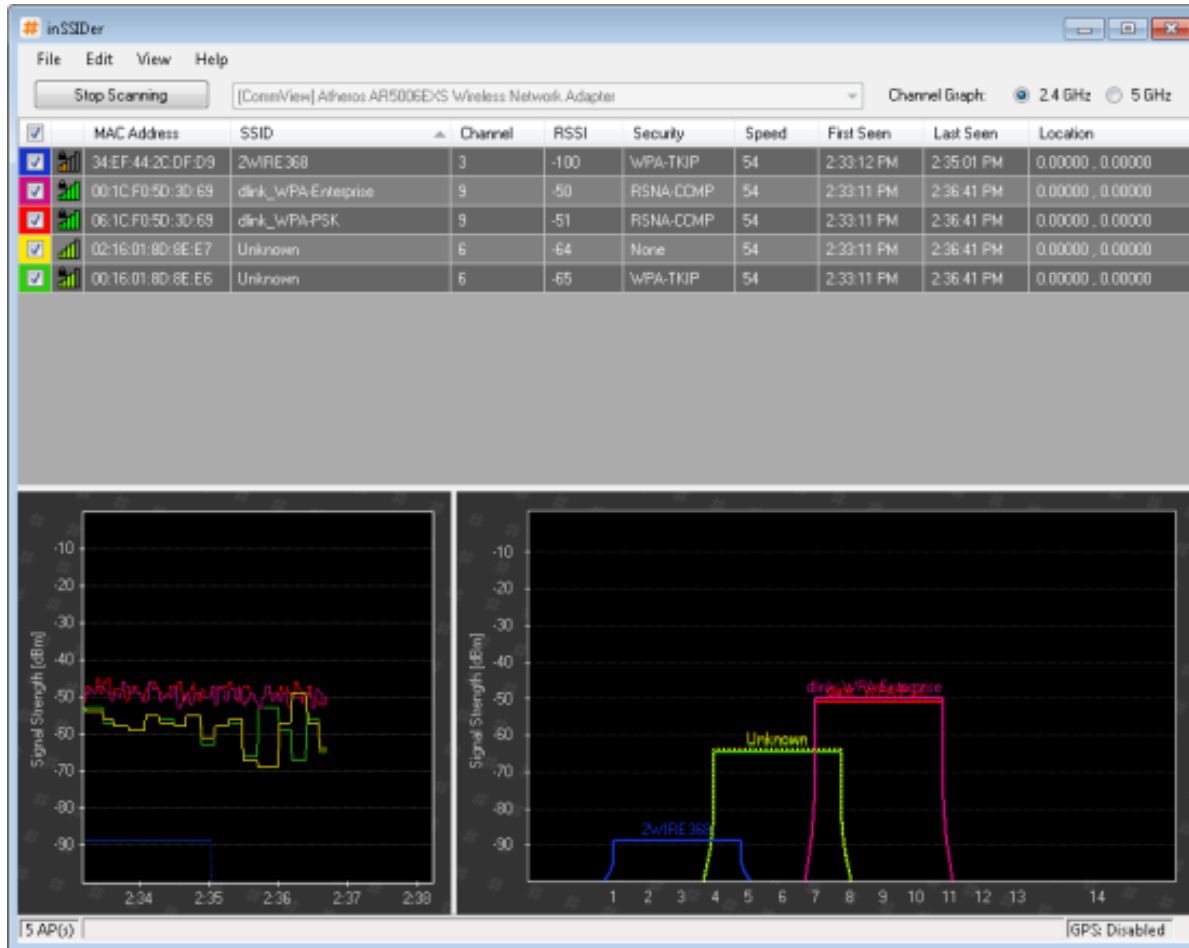
- **Change your admin username and password upon setup (and every so often)**
- **Activate encryption**
- **Disable guest networks**
- **Check your router for firmware updates once a month**
- **Turn down the transmit power control**

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

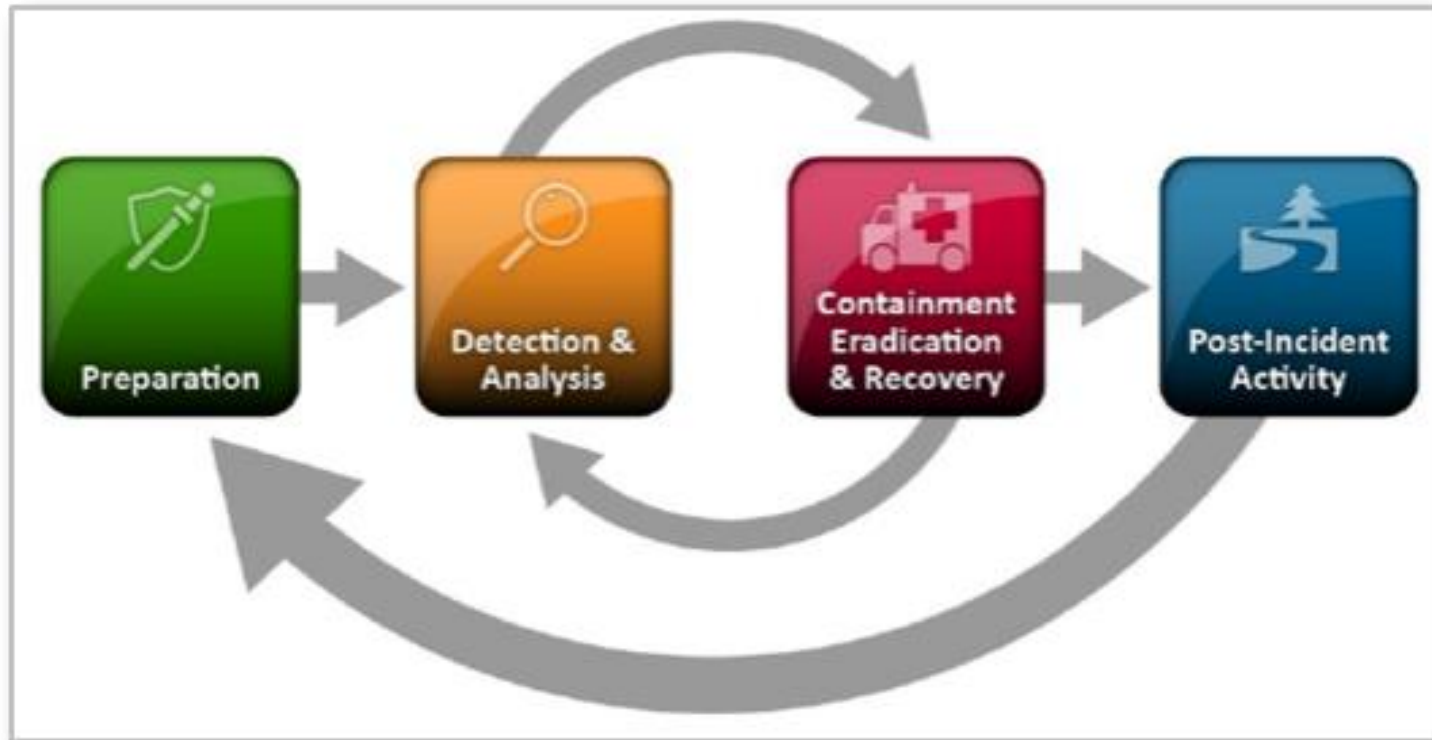




Dangers of Public Wi-Fi



4. Have a Response Plan (Incident Plan)

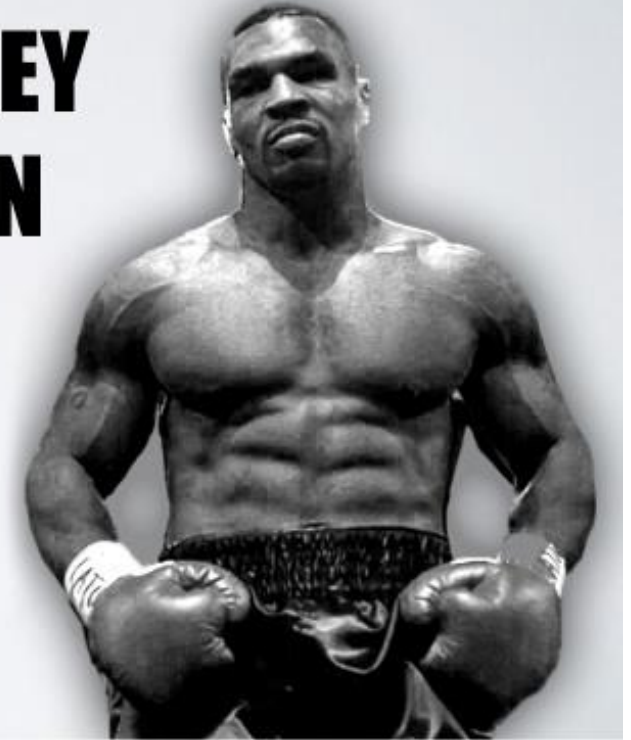


NIST SP 800-61, Computer Security Incident Handling Guide

- Ransomware
- Social Media
- Network Breach

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

- MIKE TYSON



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.**

ANATOMY OF AN ATTACK



Taking down a company

- **Company earnings about to be released**
- **Learns about CEO (via spouse on Facebook / social media)**
- **Contacts Sales via web (gets email back with company signature)**
- **Creates a new URL just like company (instead of dell.com = del1.com)**
- **Creates email to all C-Level directors – “A letter from your CEO”**

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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