

# Vulnerabilities

The Food That Hacker Eat



Today's  
ALTA Insights  
Featured  
Sponsor



# About Me

# Career Path

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22 Years

IT Audit Group

CPA

CISA

CISSP



11 Years

State CISO



2 Years

CISO

# Family

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# Fun



## Outdoors

Fishing  
Biking  
Nordic Skiing



## Travel

Family Vacations  
Wine Trips



## Arts

Concerts  
Theatre  
MN Orchestra

# It's Brutal Out There



# Being Secure May Not Be Good Enough



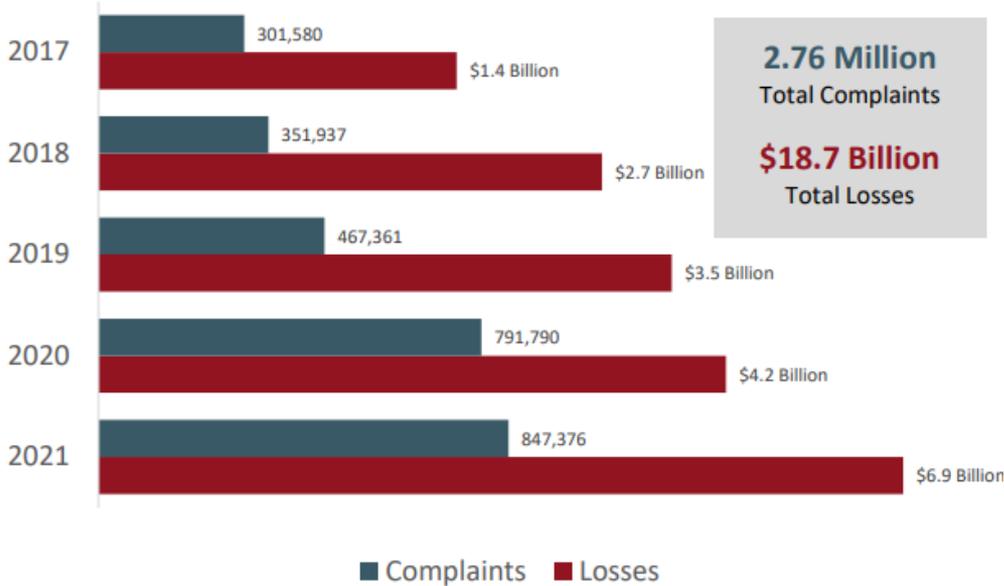
In March 2022, Deputy National Security Advisor Ann Neuberger issued a warning to United States corporations about nation-sponsored hacker groups

*“Russia recently disclosed that it will be attempting to compromise United States corporations, so there is no reason to believe that things will get easier. We need to prepare for even more sophisticated phishing attacks and business email compromise schemes. We also should expect the flood of critical vulnerabilities to continue, along with cascading effects from vendor security breaches. Collectively, these **changes in the threat landscape mean that we will need to be more than just secure, we also will need to be resilient.** Validating the efficacy of our data backups, business continuity and disaster recovery plans will be vital.”*

*-- 2022 IT Security Risk Assessment Report*

# Another Year Like No Other

Complaints and Losses over the Last Five Years

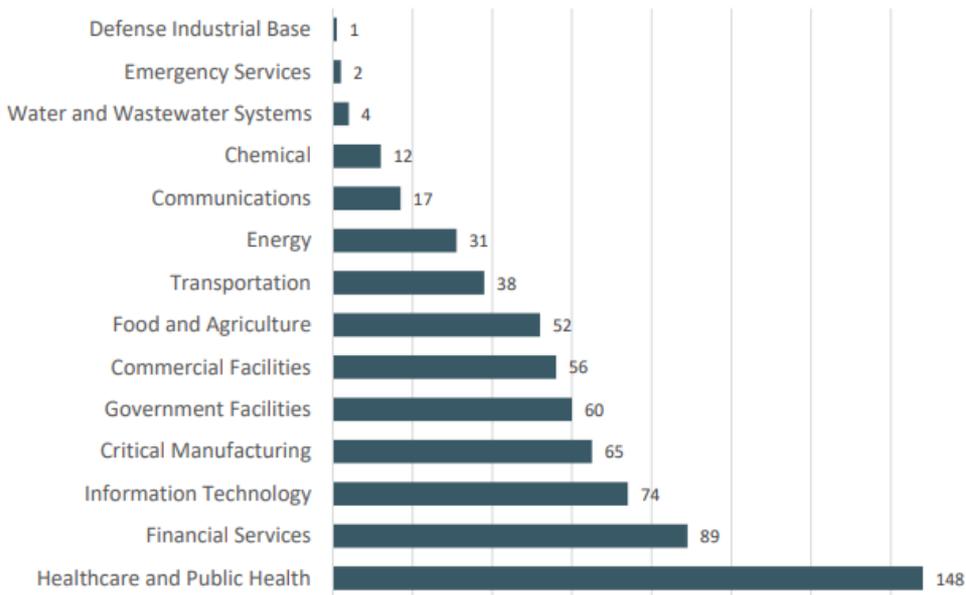


Source: FBI's 2021 INTERNET CRIME REPORT

Role	Driver
Attacker	Money to be made by cyber crime
<b>Attacker</b>	<b>Inflict economic punishment</b>
Attacker	Time to create new attack vectors
Attacker	Only need to be right once
Defender	Increasing IT complexity
Defender	More sophisticated attack vectors
Defender	Old technology that is hard to secure
Defender	Many silos of IT to manage and defend
Defender	Insatiable desire for more technology
Defender	Need to be right 100% of the time
<b>Defender</b>	<b>Rising regulatory bar</b>

# Ransomware

### Infrastructure Sectors Victimized by Ransomware



Source: FBI's 2021 INTERNET CRIME REPORT

### Top Ransomware Variants Victimizing Critical Infrastructure 2021 Incidents



*Russian threat actors are responsible for the top three ransomware variants*



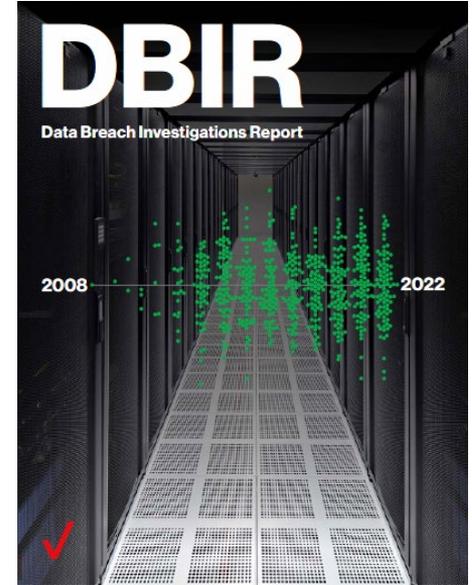
Vulnerabilities: The Food That Hackers Eat

# Goal

**Find and fix  
vulnerabilities  
before they  
get found and  
exploited**

# Time is of the Essence

<b>90%</b>	Hacks perpetrated by external actors (North America)
<b>3</b>	Actions to compromise (Phish, Downloader, Ransomware)
<b>&gt;50%</b>	Breaches discovered through actor disclosure



**More Threats  
More Targeted  
More Sophisticated**

# Vulnerability Management Building Blocks



## People

IT Security  
(Finders)  
IT Operations  
(Fixers)



## Tools

Vulnerability  
Scanners



## Process

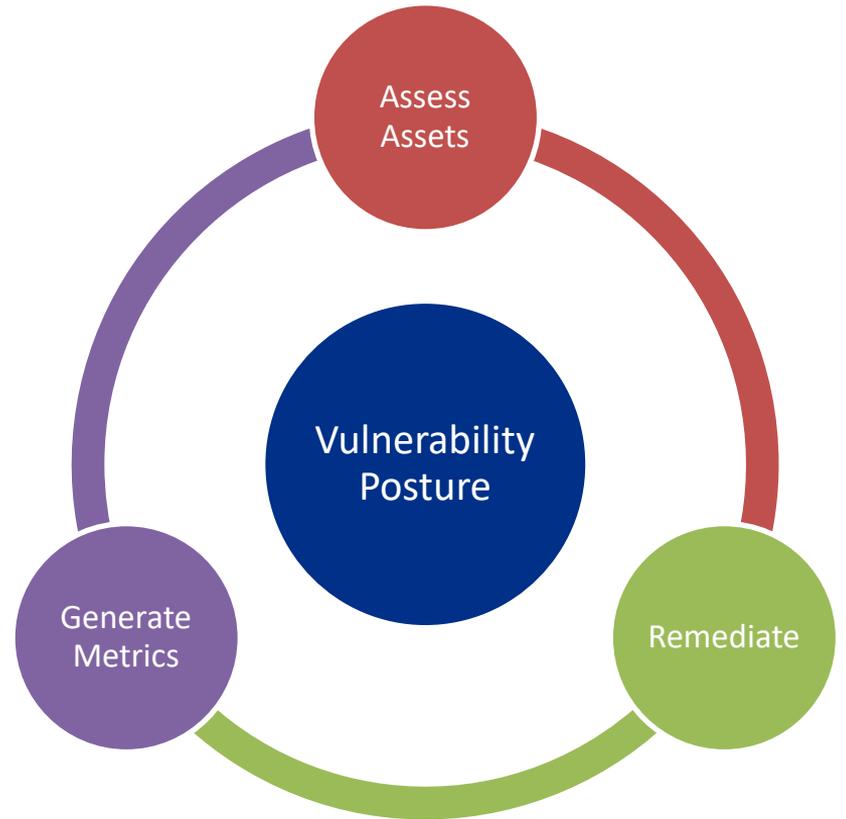
Scan Frequency  
Remediation  
Timeliness

# A Continuous Process

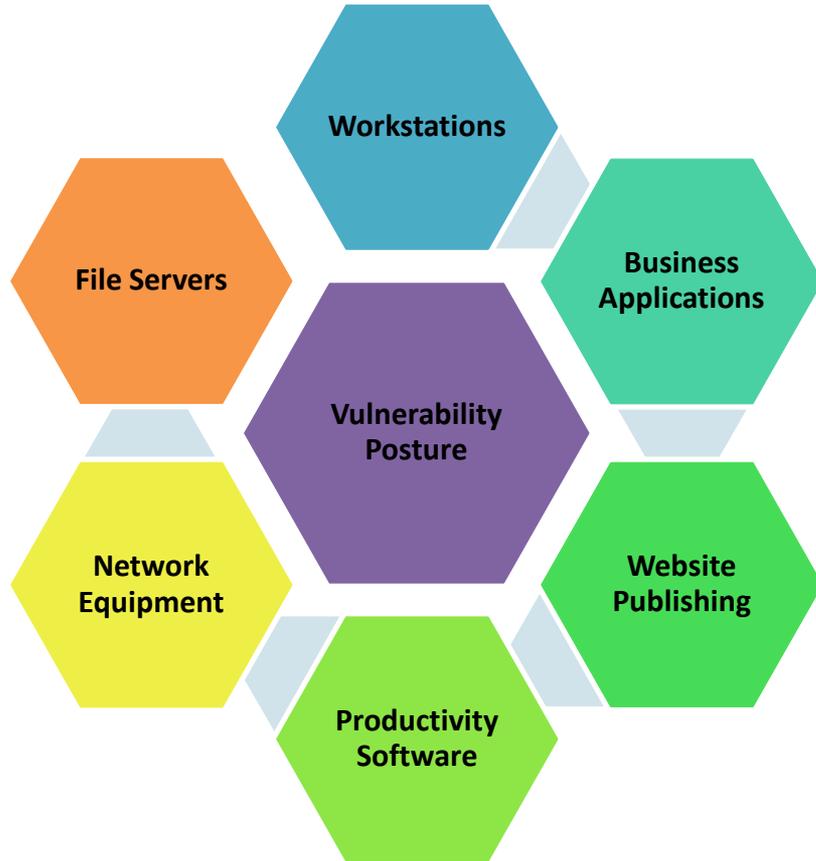
There will always be a massive inventory of vulnerabilities

The art of VM involves

- Understanding the inventory
- Prioritizing remediation
- Closely monitoring enterprise-wide risk metrics



# Tip #1: Actively Manage Your IT Footprint



No software is immune from exploitable vulnerabilities

- Patch frequently
- Consider using auto update features in software, especially web browsers

## Tip #2: Scan, If You Can

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Free and Open-Source  
Assessment Tools

Low Cost

Commercial  
Vulnerability Scanners

Expensive

**Coverage:** Everything  
**Scan Type:** Credentialed  
**Timeliness:** As frequently as possible

# Poll Question

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**How frequently do you scan your technology environment for exploitable vulnerabilities?**

- A. Daily
- B. Weekly
- C. Quarterly
- D. Never – it only happens to the other guy

# Tip #3: Keep Abreast of Threats

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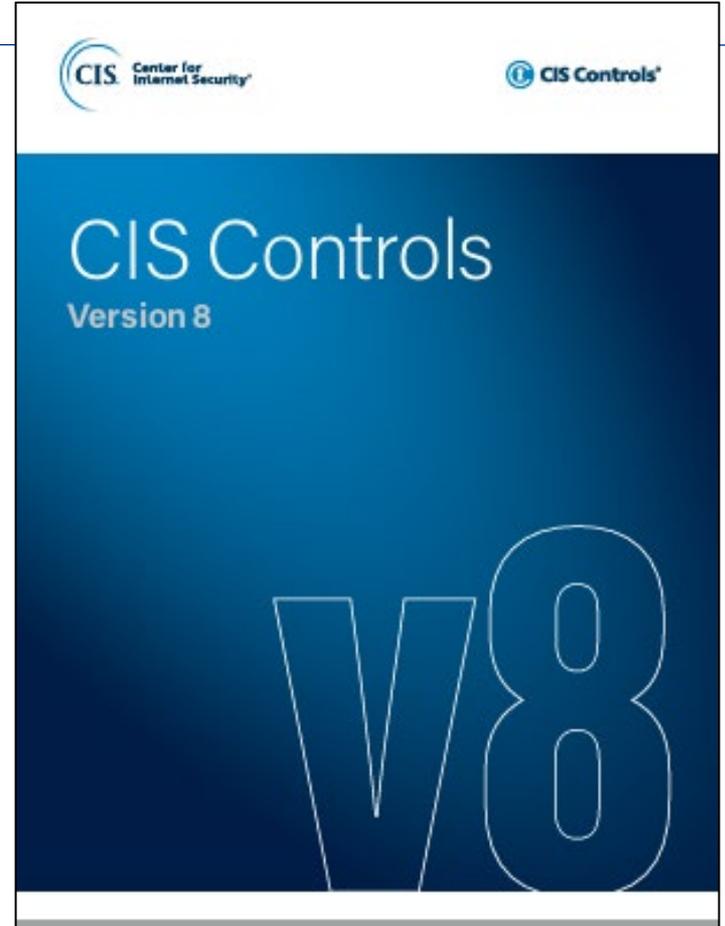
-  The Hacker News - Cybersecurity News and Analysis
-  FS-ISAC
-  The VERIS Framework
-  CSO | Security news, features and analysis about prevention, p...
-  Infosecurity Magazine - Information Security & IT Security Ne...
-  Dark Reading | Security | Protect The Business
-  Threatpost | The first stop for security news
-  BleepingComputer.com - Technology news and support
-  IT Security News and Cybersecurity News - IT Security Guru
-  Cybersecurity News | Information Security News
-  Krebs on Security – In-depth security news and investigation
-  Homepage - The Record by Recorded Future
-  Law360

## Tip #4: Practice Defense in Depth

Assess your controls against industry best practices

Tasty morsels for hackers

- Unmitigated vulnerabilities
- Simple passwords without MFA
- Ability to install software on workstations



## Tip #5: Know When to Fold Em

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Cyber has become a high-risk big kid's game

Leverage IT vendors who are up to the task

- Email and messaging services
- Endpoint detection and response
- Security monitoring
- Continuous vulnerability scanning



# Tip #6: Prepare for Rough Seas

Ransomware is now a major risk

Your survival will be predicated by having robust plans

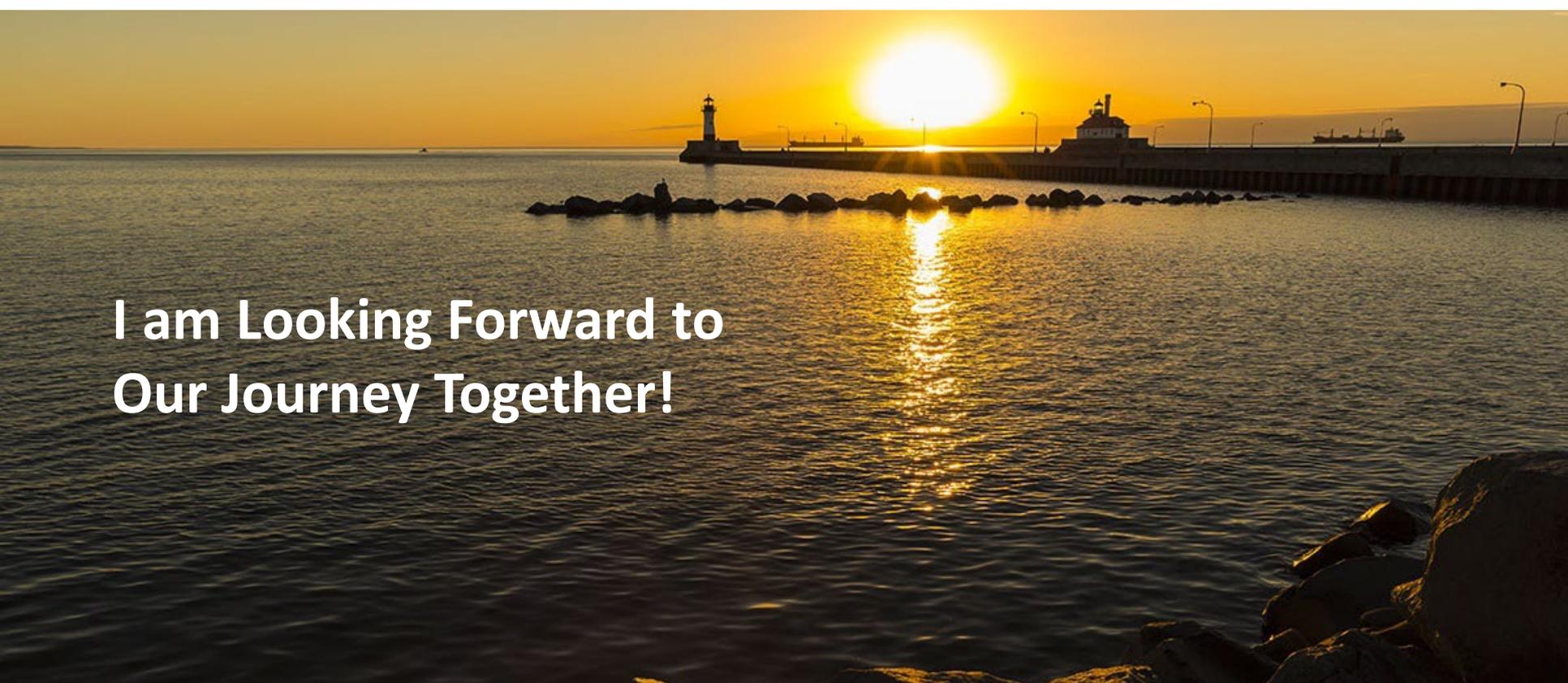
- “Air-gapped” copy of all data needed to restore operations
- Disaster recovery procedures that are regularly exercised



*“In today’s high-risk environment, it is no longer good enough to just be secure. Organizations also need to be resilient.”*

# Thank You

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A scenic sunset over a body of water. The sun is low on the horizon, creating a bright orange and yellow glow. The sun's reflection is visible on the water's surface. In the distance, a lighthouse is visible on a pier. The water is calm, and the sky is clear.

I am Looking Forward to  
Our Journey Together!