


*The site ahead contains malware*  
*Attackers currently on [malware.testing.google.test](https://malware.testing.google.test) might attempt to*  
*programs on your Mac that steal or delete your information (for example*  
*passwords, messages and credit cards).*

**IT Threats and Risks Associated with the Pandemic**  
 Division of Technology




---

---

---


---

---

---

---

---



## Objectives

- Review New threats on the horizon and the New normal of a Post COVID-19 world.
- Explore Persistent and Trending Threats for 2020
- Define Threat Mitigation Techniques
- Examine Reopening Tips and Strategies

---

---

---

---

---

---

---

---



## Socially Distant Tech Concerns



- How are you distancing?
- Variance checks
- Signature checks



- Surveillance concerns?
- Working socially distant

3

---

---

---

---

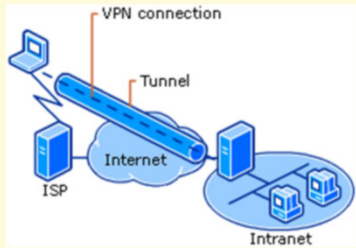
---

---

---

---

### Working From Home - VPN



- Virtual Private Networks
- Not all equal
- IPsec vs OpenVPN vs "IPsec2"
- Keep in mind if CJIS touching needs, FIPS140-2 Encryption
- Many options and vendors
- 543.20(h) Remote Access

4

---

---

---

---


---

---

---

---

### Working From Home - BYOD



- Regular Security updates
- How is remote configuration performed?
- Keep in mind if CJIS touching – needs remote wipe capability

5

---

---

---

---


---

---

---

---

### Working From Home - Conferencing



- How secure is it?
- What configuration is needed to create or join? (543.20(e) Logical Security)
- "Zoombombing"
- Where and what kind of data are stored?

6

---

---

---

---

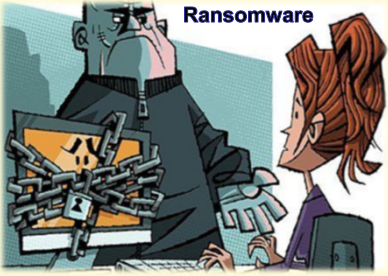
---

---

---

---

## Persistent Threats



### Ransomware

- Increase of over 77% 2018 vs 2019 Q1/Q2
- Decrease in variety of code
- WannaCry (MS17-10)
- More targeting of research and communication

Source: TrendMicro

---

---

---

---

---

---

---

---

## What is Ransomware?



- Malicious software is executed remotely
- Critical files are encrypted
- Payment is demanded to decrypt files
- Attackers can wait months to strike.

---

---

---

---


---

---

---

---

## Why is Ransomware so common?



- Phishing and other social engineering attacks
- Poor user controls
- Poor logical security
- Insufficient data backups
- User education

543.20(f)
543.20(e)
543.20(j)

---

---

---


---

---


---

---

---

 Persistent Threats (Continued)

**SOCIAL? ENGINEERING**



Many Types:

- Phishing
- Spear phishing
- Baiting
- Quid Pro Quo
- BEC (Business Email Compromise)
- Vishing (Voice phishing)

*"Any act that influences a person to take an action that may or may not be in their best interest." – Social Engineer Inc.*

*"Social engineering is the act of tricking someone into divulging information or taking action, usually through technology." - NortonLifeLock*

10

---

---

---


---

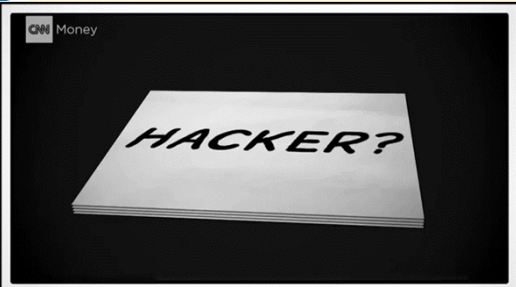
---

---

---

---

 Social Engineering Example 1



Credit: Youtube

11

---

---

---


---


---

---

---

---

 Social Engineering Targets/Tools



Many Types of Info. Targets

- Who handles IT
- What browser is used
- What OS is in use
- How do they open PDFs
- Who does food service, janitor, pest-control, trash service
- Rem: Social Media, Job Sites, Hacker sites.

12

---

---

---


---

---

---

---

---

 Social Engineering Example 2

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

Credit:  
Youtube  
13

---

---

---


---

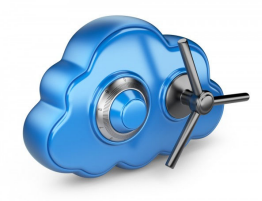
---

---

---

---

 Mitigating Risk



Data Backups

- 543.20(j)
- Recovery procedures
- Tested Procedures

Incident Management

- 543.20(i)
- BCP (Backup Continuity Plan)

14

---

---

---


---


---

---

---

---

 Backup Continuity Plans



- ITIL Continuity Management
- ISO 22301
- Identify critical areas
- Identify responsible parties
- Identify recovery procedures
- Annual Testing - 543.20(j)(3)

15

---

---

---

---

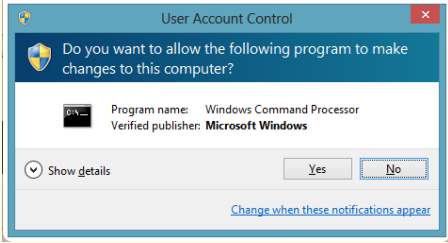
---

---

---

---

### Mitigate Risks (Continued)



Do you want to allow the following program to make changes to this computer?

Program name: Windows Command Processor  
Verified publisher: Microsoft Windows

☒ Show details

[Change when these notifications appear](#)

- Limit user access
- Segregate networks
- 543.20(f) User Controls

16

---

---

---

---


---

---

---

---

### Mitigating Risks (Continued)




**Change Management**

- Patch Management
- 543.20(g)

**User Education**

- Awareness training
- NIST SP 800-50



17

---

---

---

---

---

---

---

---

### Reopening Strategy/Tips

**Know TICS/SICS**

- What temporary controls need to be rolled back?
- Which ones need to be made permanent?

**Data backups**

- Is old data still retained?
- Test your backups

**Monitor activity**

- Have you been checking remote access logs?
- Who was accessing systems?
- Do all individuals still require access

**Changing staff / Contracting Needs**

- Separate rules for staff vs. contractors
- Vetted?

18

---

---

---

---

---

---

---

---



### Questions?

<b>Jeran Cox</b> IT Auditor jeran_cox@nigc.gov	<b>Michael Curry</b> IT Auditor michael_curry@nigc.gov
<b>Sean Mason</b> IT Auditor sean_mason@nigc.gov	<b>Tim Cotton</b> IT Audit Manager timothy_cotton@nigc.gov

---

---

---

---

---

---

---