

Acquisition Hour:

The Basics of Cybersecurity for Any Small Business

January 21 | Noon – 1:00 pm

Presented by:

Matt Frost, Wisconsin Procurement Institute





Assisting Wisconsin businesses compete in the government marketplace.

WPI is Wisconsin's APEX ACCELERATOR

The APEX Accelerators program, under management of the Department of Defense (DOD) Office of Small Business Programs (OSBP), plays a critical role in the Department's efforts to identify and engage with a wide range of businesses entering and participating in the defense supply-chain. The program provides the education and training that all businesses need to participate to become capable of participating in DOD and other government contracts.

WPI provides services and training to all of Wisconsin's 72 counties

- Individual counseling at our offices, client's facility or virtually
- Small group training – webinars and workshops including Acquisition Hours, Cyber Fridays, Evening FAR sessions, Federal Market Insights and Local Government Sales Opportunities
- Conferences the Governors Marketplace, The Contracting Academy (TCA), WEDCs Small Business Academy, Wisconsin Federal Contractor Forum [DC and in-state], Government Opportunities Business Conference GOBC) with WI military bases, End of Year Federal Contractor Update, Annual DOD Contract Management Update, and more.....

www.wispro.org

WPI OFFICE LOCATIONS

- **MILWAUKEE**

- *Technology Innovation Center*

- **MADISON**

- *FEED Kitchens*
- *Dane County Latino Chamber of Commerce*
- *Madison Area Technical College (MATC)*

- **CAMP DOUGLAS**

- *Juneau County Economic Development Corporation (JCEDC)*

- **EAU CLAIRE**

- *Western Dairyland*

- **FOND DU LAC**

- *Envision Greater Fond du Lac*

- **GREEN BAY**

- *NWTC Startup Hub*

- **LACROSSE**

- *Veterans in Professions*

- **MANITOWOC**

- *Progress Lakeshore*

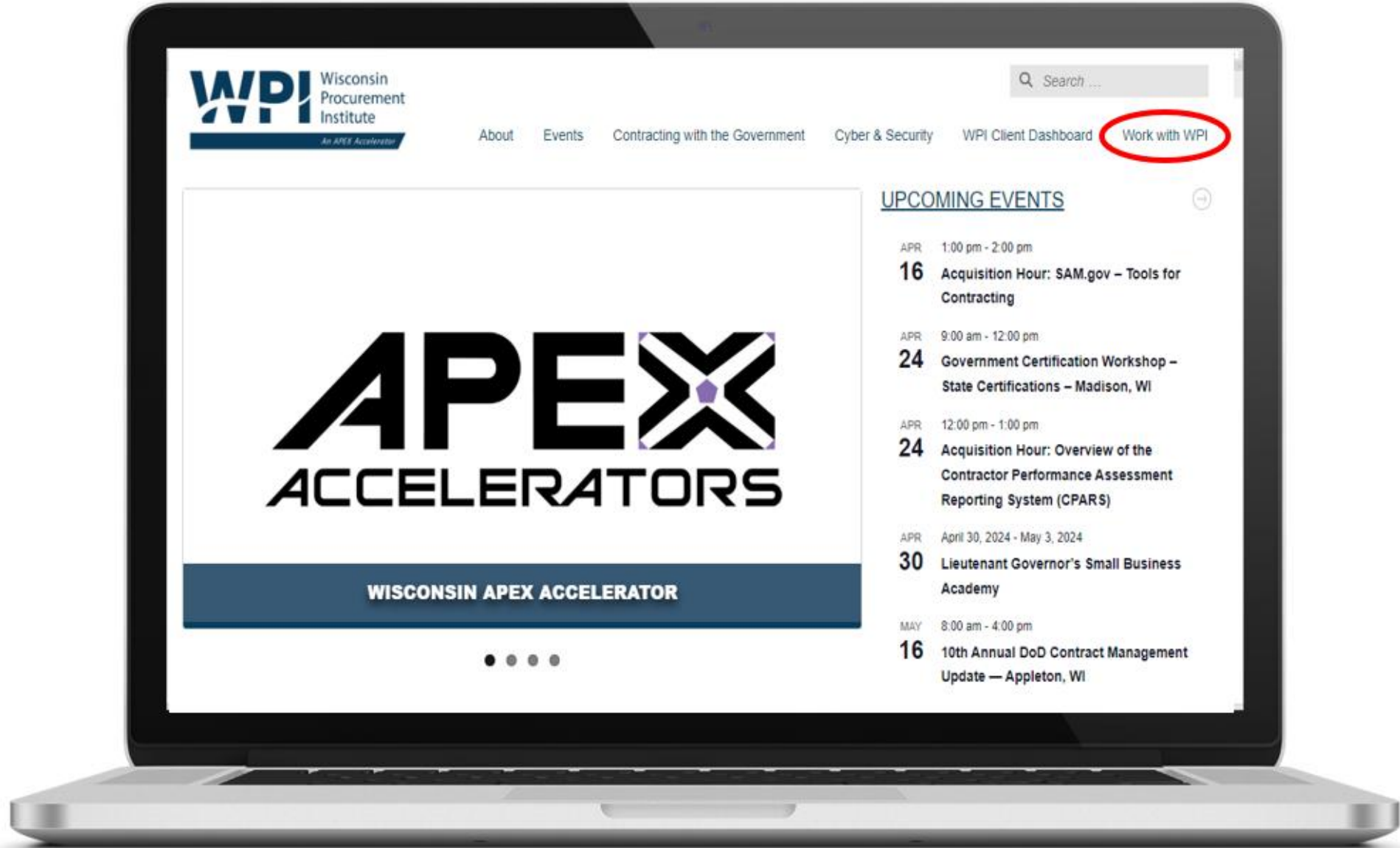
- **OSHKOSH**

- *Greater Oshkosh Economic Development Corporation*

- **SUPERIOR**

- *Small Business Dev Center; UW Superior*

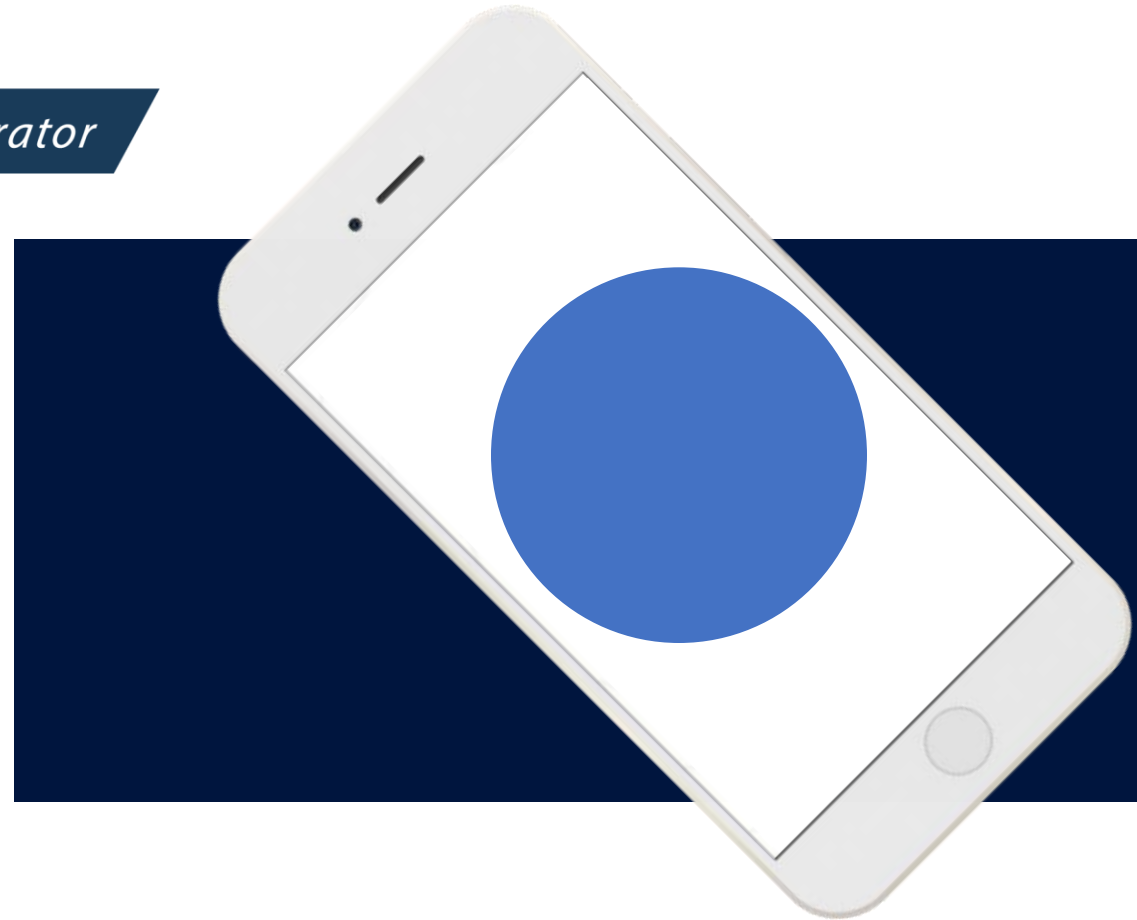






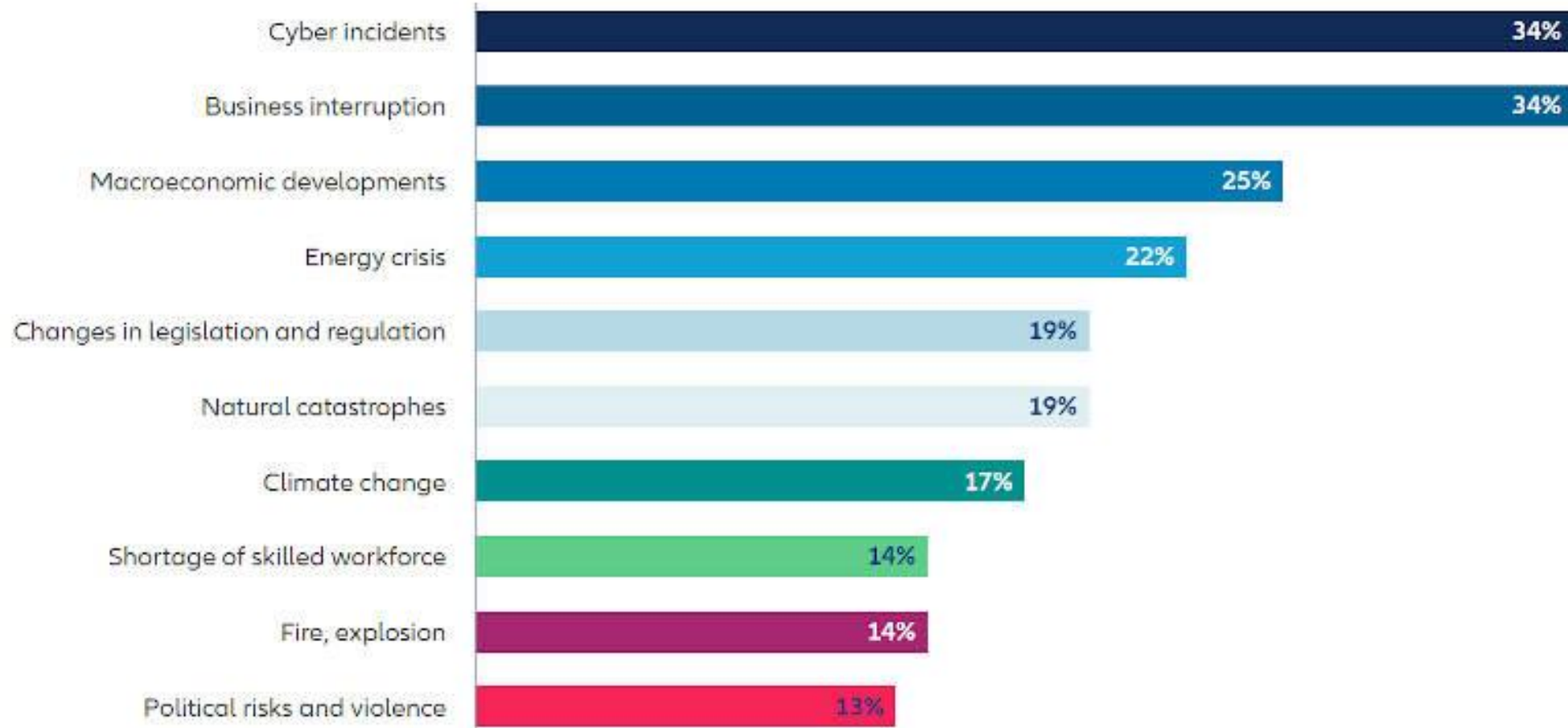
A Culture of Security

An APEX Accelerator



CYBER FRIDAY SESSIONS – January 21st, 2026

Why prepare?



Source: Allianz Risk Barometer 2023

The numbers represent the percentage of all participants who responded (2,712). The numbers do not add up to 100% because more than one risk could be selected.

Why prepare?



IN 2021

50% more attacks on corporate networks compared to 2020. *Checkpoint.com*



37% of malicious email attachments are **.zip** or **.jar** extensions. *Kaspersky*

19.5% of malicious email attachments are **.exe**.



IN 2020
<60% of data breaches were financially motivated.

Government Technology

95%

of cyber security breaches are caused by human error. *IBM*



Too small to see?

SMALL BUSINESSES ARE VULNERABLE TOO

72%

OF CYBER ATTACKS
AFFECT COMPANIES
WITH **LESS THAN**

100
EMPLOYEES

SMALL \neq SAFE



OF SMALL BUSINESSES
THINK THEY ARE TOO
SMALL TO BE HACKED

THE COST IS HEAVY



\$188,242

THE AVERAGE AMOUNT IT TAKES A SMALL
BUSINESS TO RECOVER FROM A CYBER ATTACK

Owning Your Security

1



THREAT ENVIRONMENT

2



CASE STUDIES

3



PRACTICES



Types of Bad Actors



5 “Bad guy” personas and motivations



Nation-state backed

Motivated by patriotism or military duty; access to more tools, specially trained; attack high-value targets



Hactivist

Driven by ideology; script kiddies; easily influenced by sense of belonging



Cyber criminal

Motivated by \$; masterminds, programmers, fixers, evasion specialists; profit is the objective



Ego-driven attacker

Motivated by fame or recognition; gamify hacking, troll, and taunt their targets; can be highly sophisticated

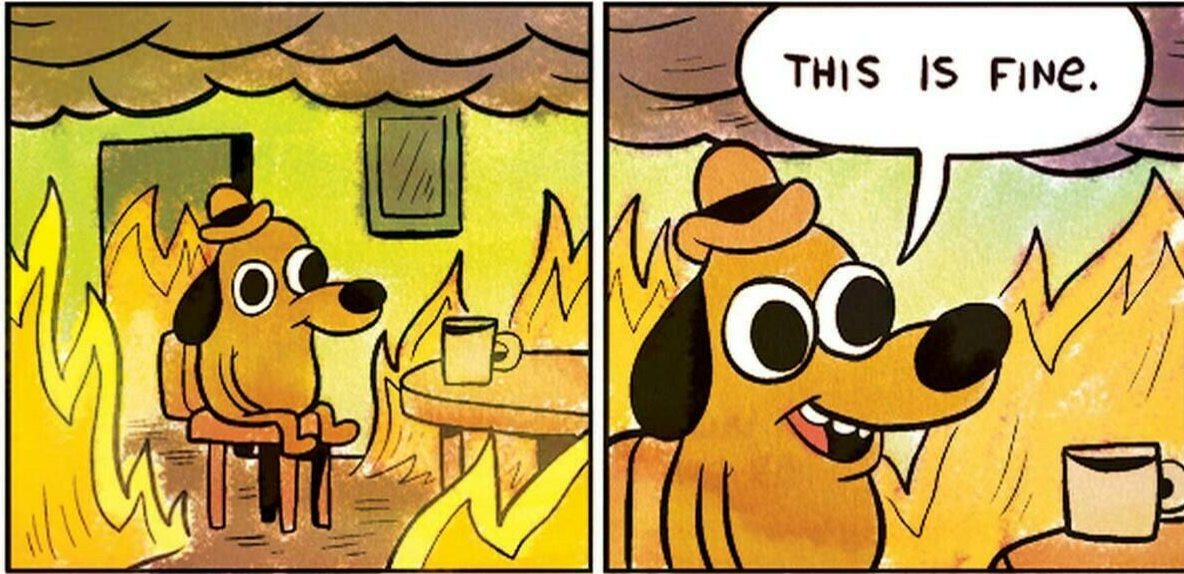


Hobby hacker and the professional

Motivated by love of hacking; can be sophisticated or a beginner; less anonymity

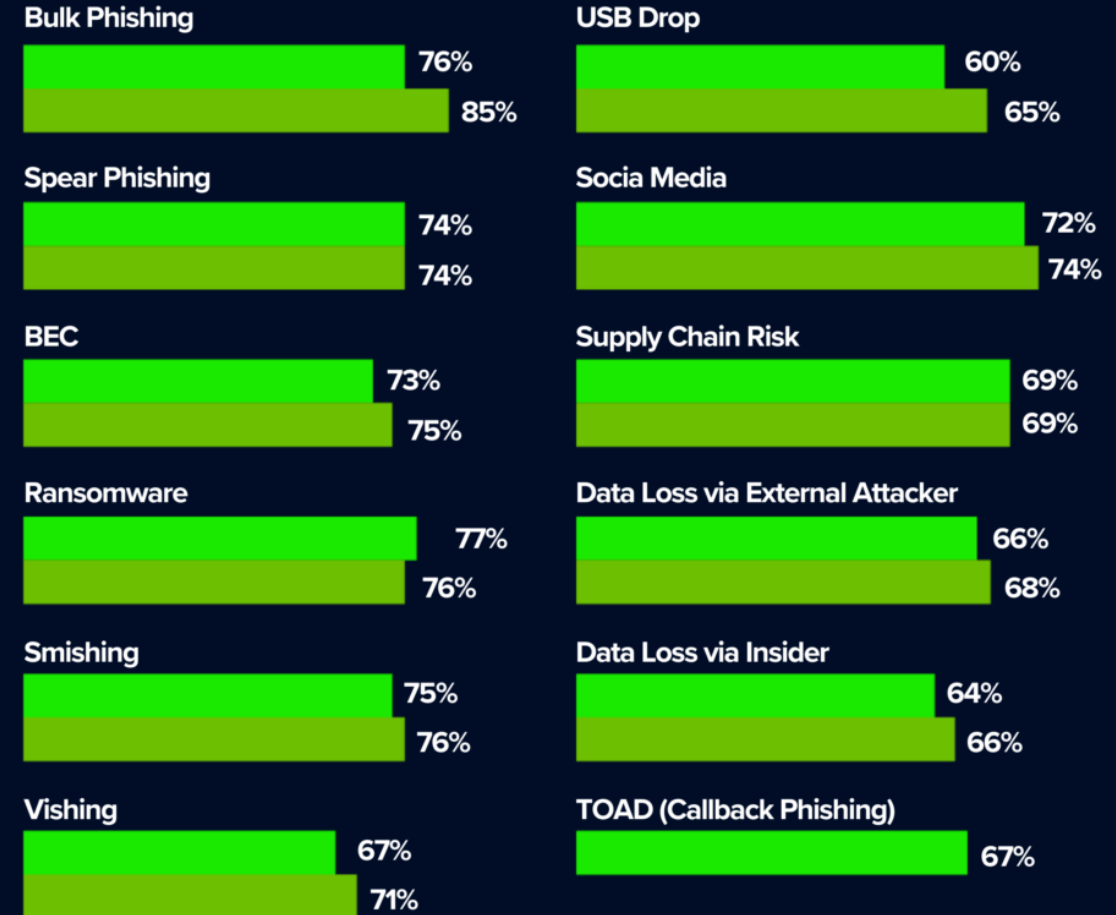
Figure 2: Attacker personas and motivations

Wow. That escalated quickly! (From Checkpoint)



bright defense

Frequency of Attacks



2023 2022

1



THREAT
ENVIRONMENT

2



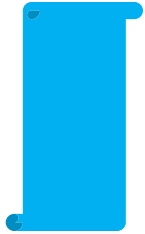
CASE STUDIES

3



PRACTICES

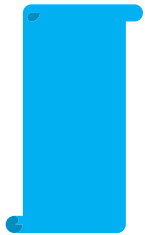




REFRIGERATED CONSUMABLES

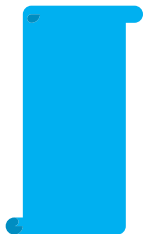
Annual Revenue: 30 Million

Date of Attack: December 2017



FAILURE TO REPORT

Employee recognized they had encountered a suspicious event but failed to report it.



EVENT LASTED NEARLY 16 DAYS

Initial Infection (1 Week Prior to Report)

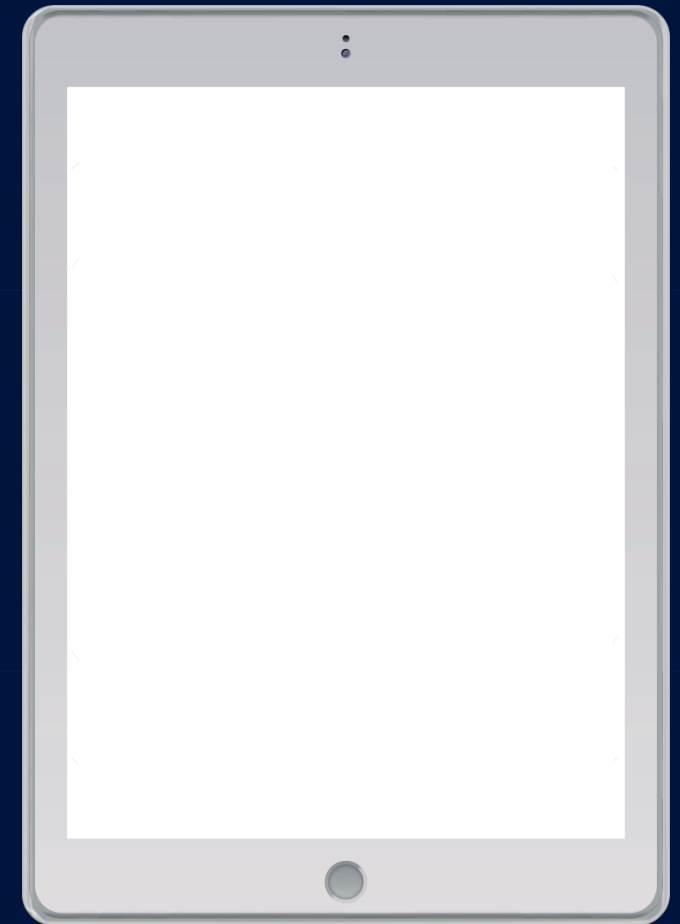
Malware Propagation (5 Days Prior to Report)

Ransomware Activation Friday 7:00pm CST

Notification Monday, 6:45AM CST

Full Functionality Restored 9 Days Later

1 RANSOMWARE



Computer > Sage Data (P:) > Search Sage Data (P:)

Organize New folder

76 items Offline status: Online Offline availability: Not available

Name	Date modified	Type
LGNSSESSN.DAT.id-2A7A5E36.[darkfuture@cock.li].java	12/21/2017 12:12 AM	JAVA File
LicensedUserTable.lck	9/29/2011 4:38 PM	LCK File
MessageList.xml.id-2A7A5E36.[darkfuture@cock.li].java	12/21/2017 12:12 AM	JAVA File
OBSRET.DAT.id-2A7A5E36.[darkfuture@cock.li].java	12/21/2017 12:13 AM	JAVA File
OLFI.DAT.id-2A7A5E36.[darkfuture@cock.li].java	12/21/2017 12:13 AM	JAVA File
Options.dat.id-2A7A5E36.[darkfuture@cock.li].java	12/21/2017 12:13 AM	JAVA File
OUPAW23.xml.id-2A7A5E36.[darkfuture@cock.li].java	12/21/2017 12:13 AM	JAVA File
PchSpell.HLP.id-2A7A5E36.[darkfuture@cock.li].java	12/21/2017 12:12 AM	JAVA File
PEACHDAT.LOC.id-2A7A5E36.[darkfuture@cock.li].java	12/21/2017 12:12 AM	JAVA File
PEPMessages.XML.id-2A7A5E36.[darkfuture@cock.li].java	12/21/2017 12:13 AM	JAVA File
plan.dat.id-2A7A5E36.[darkfuture@cock.li].java	12/21/2017 12:13 AM	JAVA File
Proc.ddf	2/24/2017 2:51 AM	DDF File
PT.lck	9/29/2011 4:20 PM	LCK File
PTSUM.lck	9/29/2011 4:20 PM	LCK File
Readme.chm.id-2A7A5E36.[darkfuture@cock.li].java	12/21/2017 12:13 AM	JAVA File
RegInfo.ini.id-2A7A5E36.[darkfuture@cock.li].java	12/21/2017 12:13 AM	JAVA File
RPTDATA.DAT.id-2A7A5E36.[darkfuture@cock.li].java	12/21/2017 12:13 AM	JAVA File
Sage.Ssdp.Security.Client.Sdk.log	6/2/2015 11:21 AM	Text Document
SERIAL.DAT.BAK.id-2A7A5E36.[darkfuture@cock.li].java	12/21/2017 12:13 AM	JAVA File
SERIAL.DAT.id-2A7A5E36.[darkfuture@cock.li].java	12/21/2017 12:13 AM	JAVA File
SerialNumber.lck	9/29/2011 4:20 PM	LCK File
SERVLINK.DAT.id-2A7A5E36.[darkfuture@cock.li].java	12/21/2017 12:13 AM	JAVA File
SoftwareInstallations.xml.id-2A7A5E36.[darkfuture@cock.li].java	12/21/2017 12:13 AM	JAVA File
SPState.xml	12/21/2017 7:14 AM	XML Document
SpState.xml.id-2A7A5E36.[darkfuture@cock.li].java	12/21/2017 12:13 AM	JAVA File
SPStatus.DAT	12/13/2017 10:00 AM	DAT File
STATUS.DAT.id-2A7A5E36.[darkfuture@cock.li].java	12/21/2017 12:13 AM	JAVA File
SUA00018.LCK	3/11/2016 2:13 PM	LCK File
SurveyInvites.xml.id-2A7A5E36.[darkfuture@cock.li].java	12/21/2017 12:13 AM	JAVA File
TAXINFO.DAT.id-2A7A5E36.[darkfuture@cock.li].java	12/21/2017 12:13 AM	JAVA File
taxinfo.tax.id-2A7A5E36.[darkfuture@cock.li].java	12/21/2017 12:12 AM	JAVA File
Taxrghst.lst.id-2A7A5E36.[darkfuture@cock.li].java	12/21/2017 12:12 AM	JAVA File
TAXTABLE.DAT.id-2A7A5E36.[darkfuture@cock.li].java	12/21/2017 12:13 AM	JAVA File
taxtable.tax.id-2A7A5E36.[darkfuture@cock.li].java	12/21/2017 12:12 AM	JAVA File
UsagInvites.xml.id-2A7A5E36.[darkfuture@cock.li].java	12/21/2017 12:13 AM	JAVA File
VerInfo.ini.id-2A7A5E36.[darkfuture@cock.li].java	12/21/2017 12:13 AM	JAVA File

Employee Responses

59

Paid Ransom

Fear Loss of Reputation
Fear Loss of Pride
Believe They Are Personally
Targetted

73

Are Millenials

Younger employees are in a less-secure position professionally, tend to feel they are competing for recognition and reputation, have a deep distrust of management support.

1,400

Average Payout

Typically are re-ransomed within 6 weeks.

20

Data Not Recovered

And in nearly every case this employee was often not the only employee affected.



GENERAL CONTRACTORS

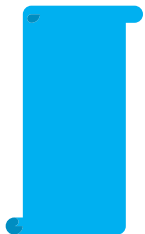
Annual Revenue: 10 Million

Date of Attack: March 2018



FAILURE TO RECOGNIZE

Employee did not recognize they had been phished – bank did not recognize anomaly



EVENT LASTED ONLY 3 HOURS

Employee Phished

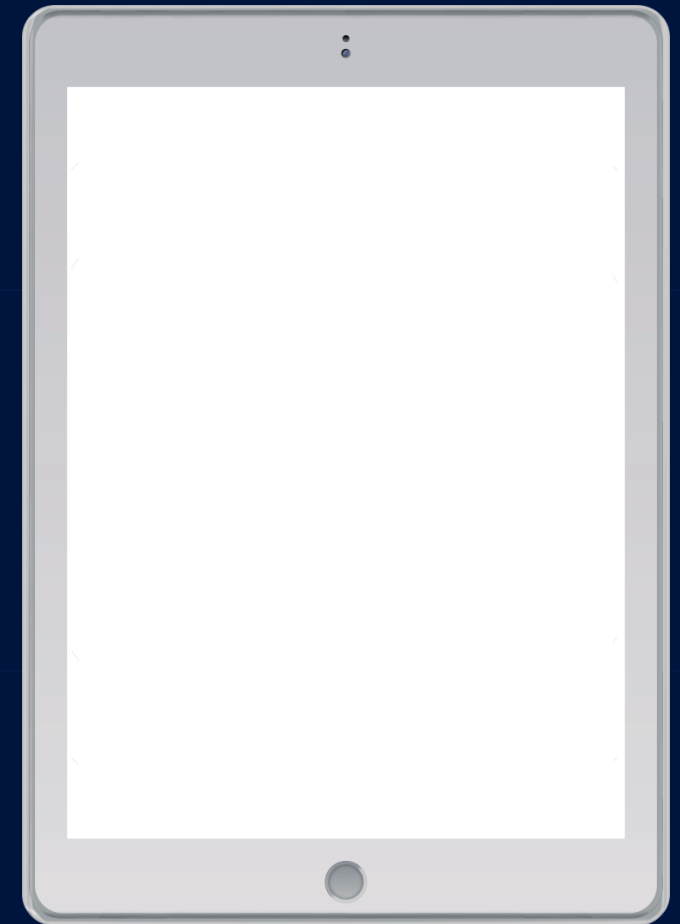
Wire Transfer Request to Bank for \$40,000

Payroll Company Issues Check in Excess of \$16,000

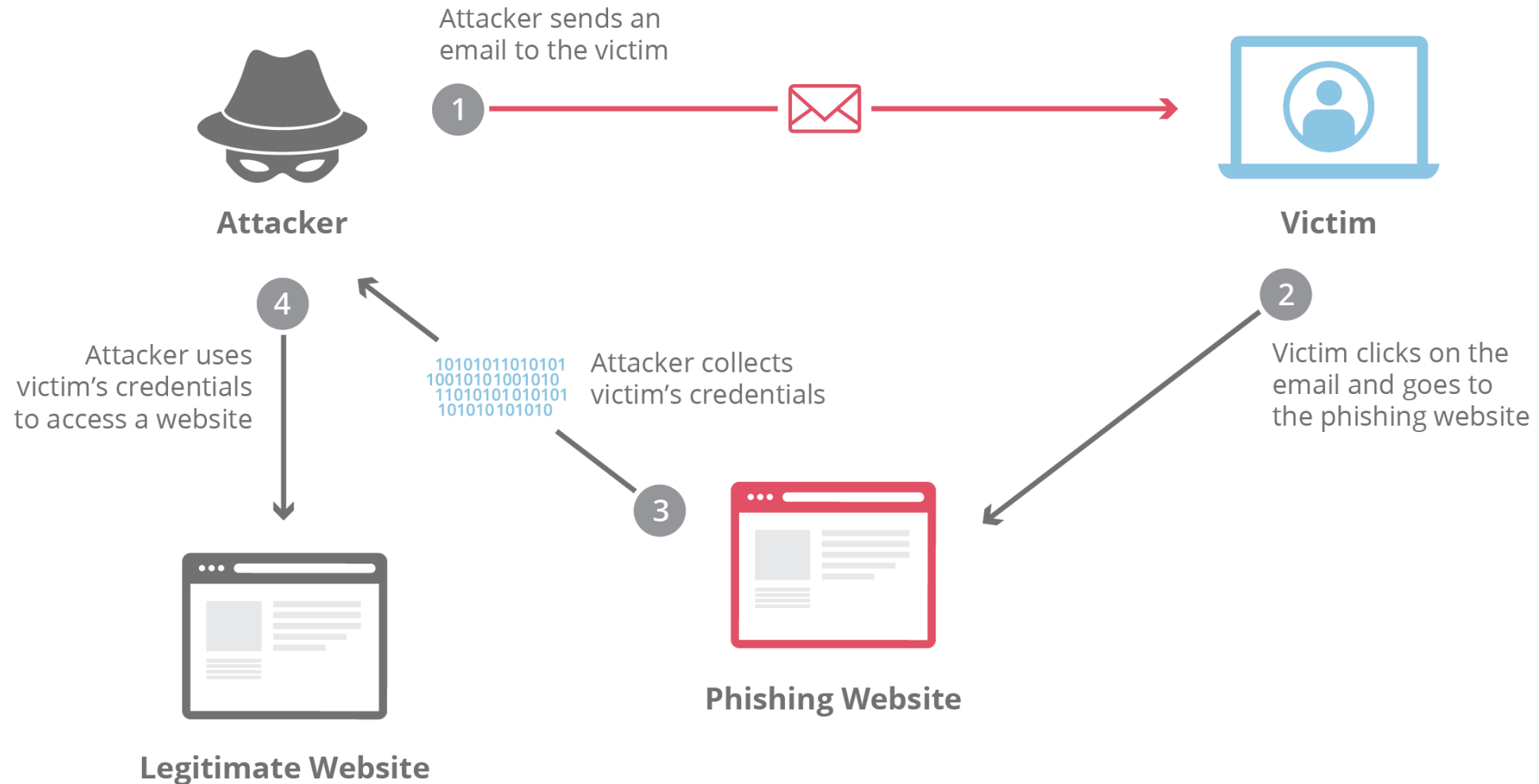
Suspicious Email Reported 11:00 AM CST

Bank Calls Company to Verify Wire Transfer of \$96,000

1 Spear Phish



Anatomy of a Phish



Increasingly Sophisticated



Dear User,,

Your Microsoft Outlook Account Requires an Urgent Validation to ensure it would not be deactivated within 24 hours.

Proceed to Microsoft Outlook Validation page by clicking on the icon below to get started

[Get Started](#)

Thank you for using Microsoft Outlook.

To stop separating items that are identified as clutter, go to Options. To stop receiving notifications about Clutter, go to Options and turn them off. This system notification isn't an email message and you can't reply to it.

But common threads exist...

6 ways to spot a phishing email



1

Spelling mistakes

This is the most common sign that the email isn't legit. Some are harder to spot, make sure you check in close detail.

2

The email was unexpected

An immediate red flag - if you get an email about something that hasn't happened.

3

A suspicious sense of urgency

Phishing emails try to trick you into acting immediately in case something bad has happened.

4

Uses generic salutations

Legit companies often directly refer to you by your name, rather than 'Dear customer' etc.

5

Includes an unusual attachment

Almost all emails with attachments should be treated as suspicious, especially if they have file extensions such as .zip, .rar, .scr etc.

6

Requesting personal information

Never give out personal information via email. Reputable companies will never ask for this, so it is likely to be a phishing email.



CUSTOM ROBOTICS MANUFACTURER

Annual Revenue: 100 Million

Date of Attack: January 2014



MASSIVE FTP INFO EXTRACTION

Bandwidth so entirely consumed that email and other functional traffic was more or less halted.



EVENT LASTED NEARLY 10 MONTHS

Initial Infection (20 Weeks Prior to Report)

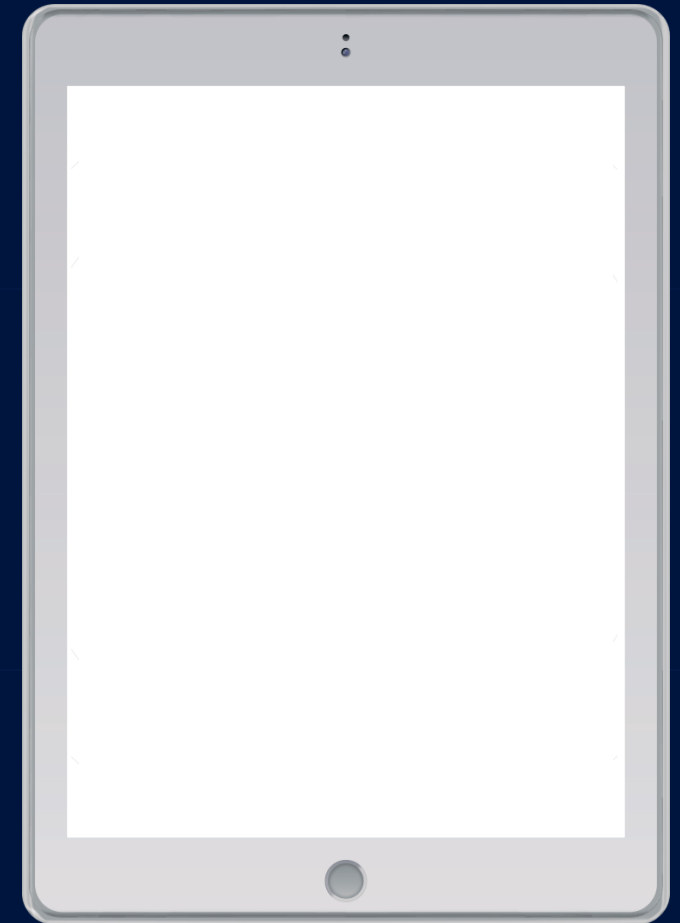
Scouting and Recon

CISO Notified While Playing Golf on the weekend

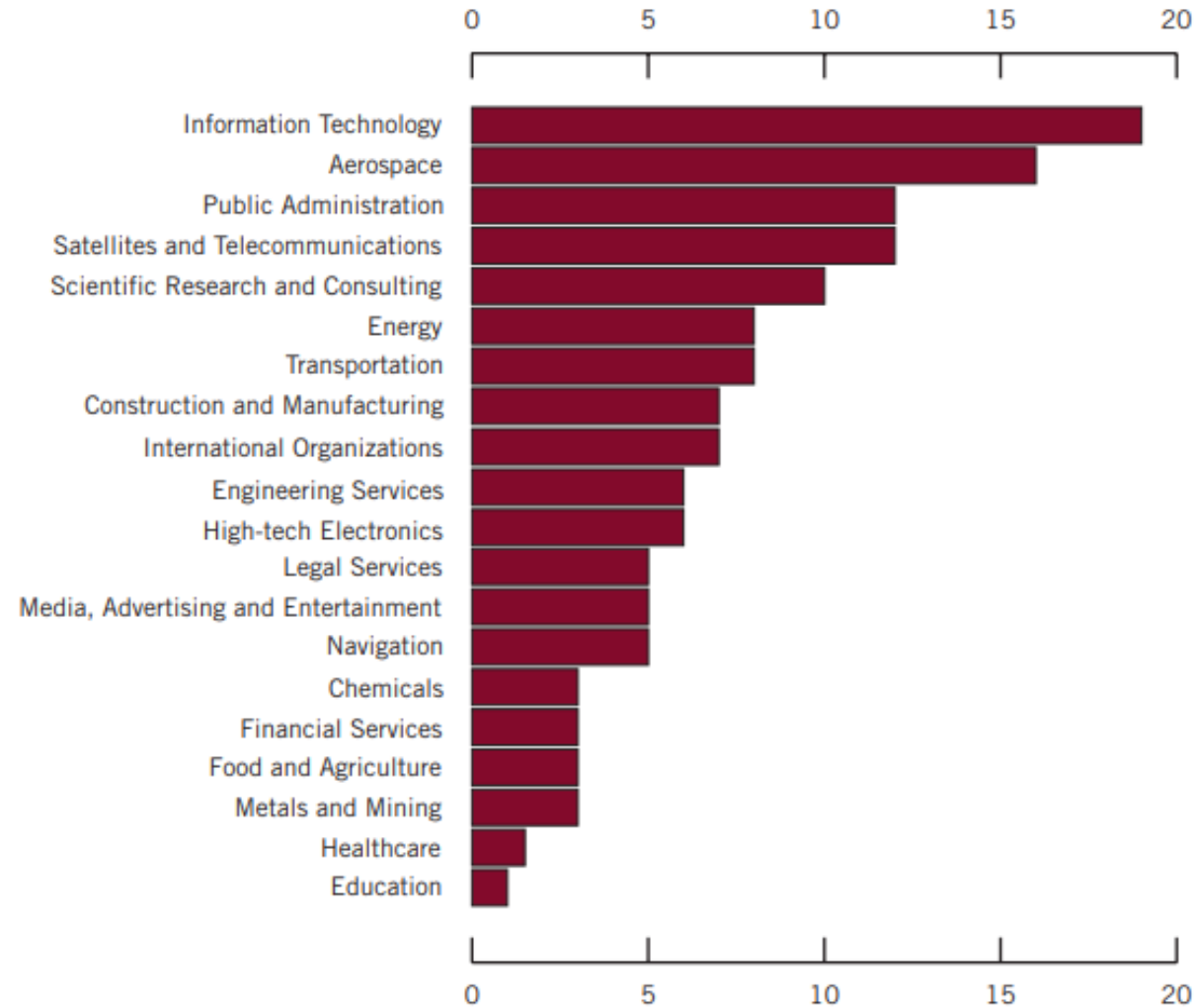
Size of Breach Discovered

Disclosure to Buyers and General Public

1 Comprehensive Breach



A World at War

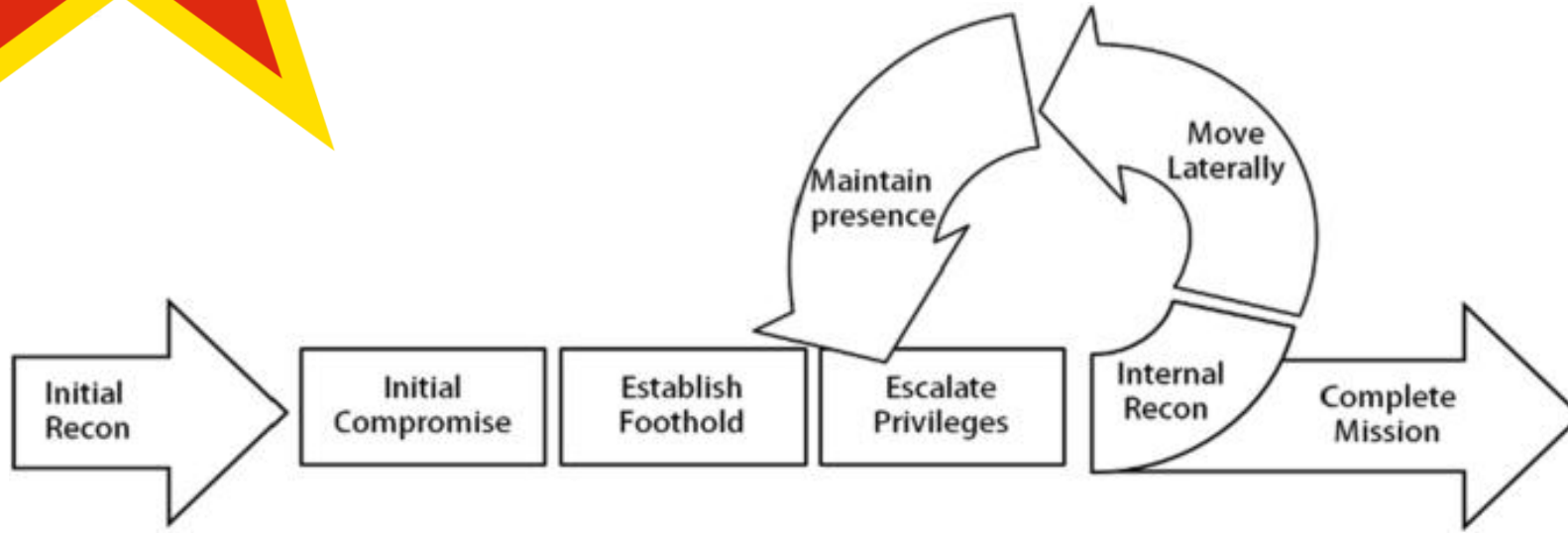


Industries Compromised by APT1

On Multiple Fronts

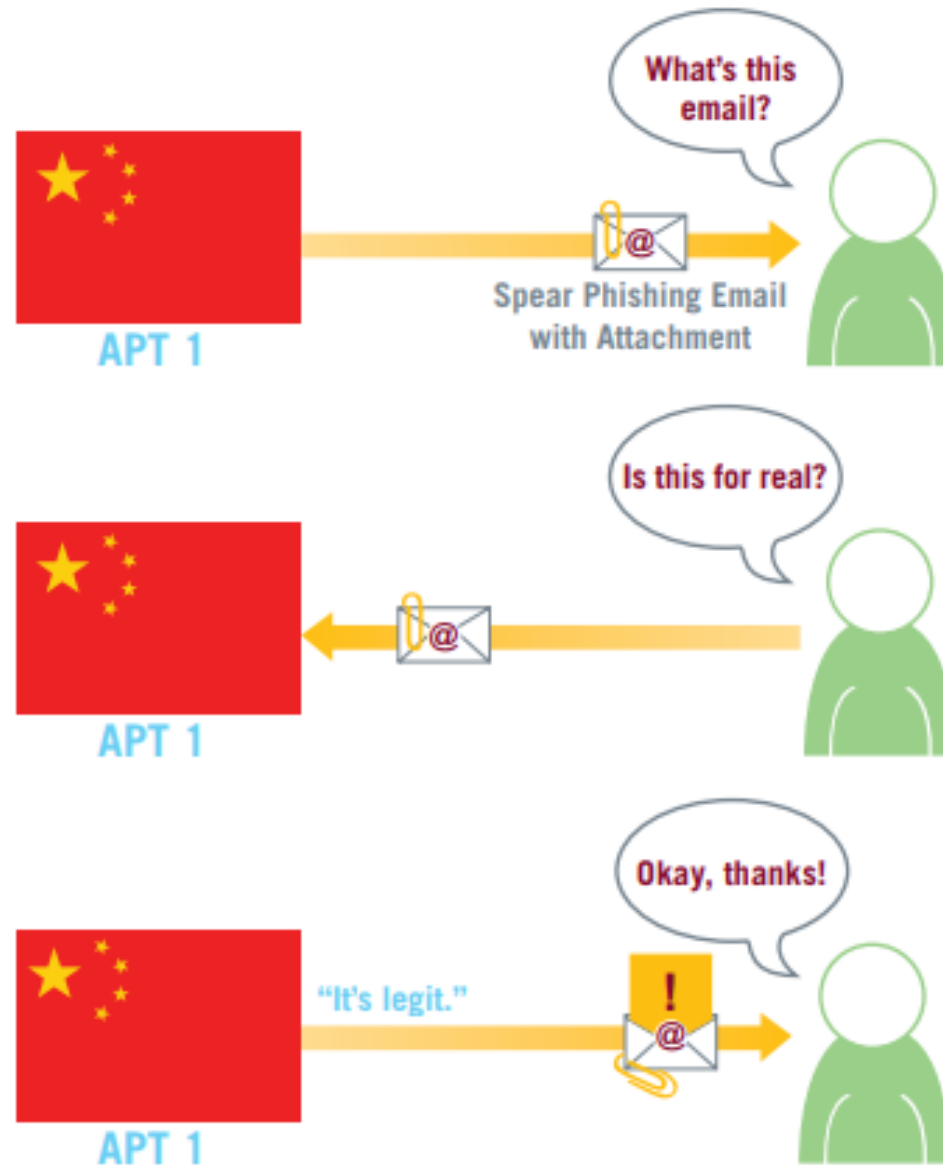


PLA Unit 61398



Pudong, Shanghai

Big Things Start Small



1

THREAT ENVIRONMENT

2

CASE STUDIES

3

PRACTICES



THINGS TO DO

How to create a cybersecurity culture

As cyber risks evolve, so must a company's approach to security. Here are five tips for building an effective cybersecurity culture.

- 1 Start in the C-suite and make security relatable
- 2 Make your program human-centric
- 3 Make security awareness training fun and rewarding
- 4 Invest in the right security tools—and develop security talent
- 5 Have a CISO succession plan in place

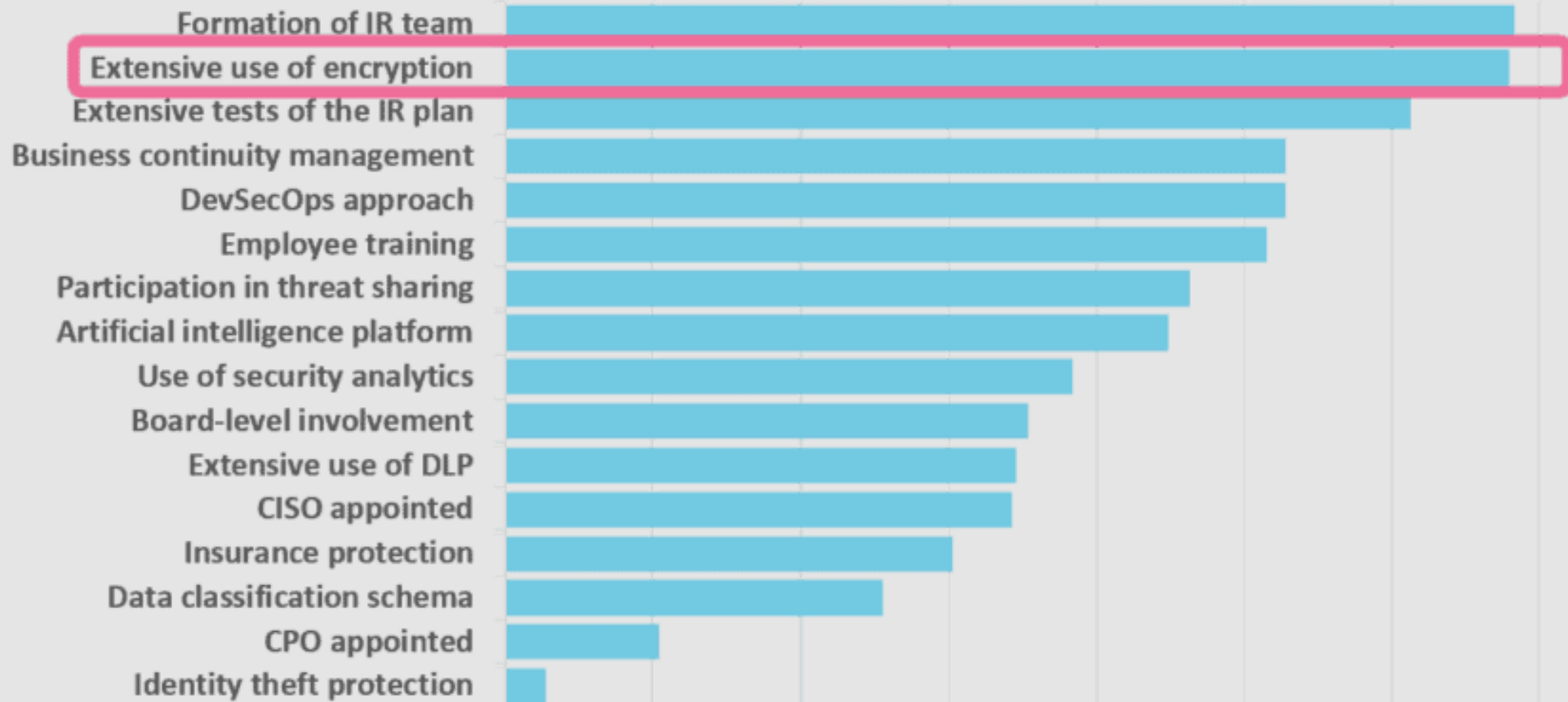


ILLUSTRATION: SHUMBARA/ISTOCK/VECTEE STOCK
LOGO: TEOTRANET. ALL RIGHTS RESERVED

- ✓ TRAIN – If you see something, say something!
- ✓ Take IT Concerns Seriously
- ✓ Create a Supportive Environment
- ✓ Do Not Tolerate Complacency
- ✓ Prepare for the Inevitable

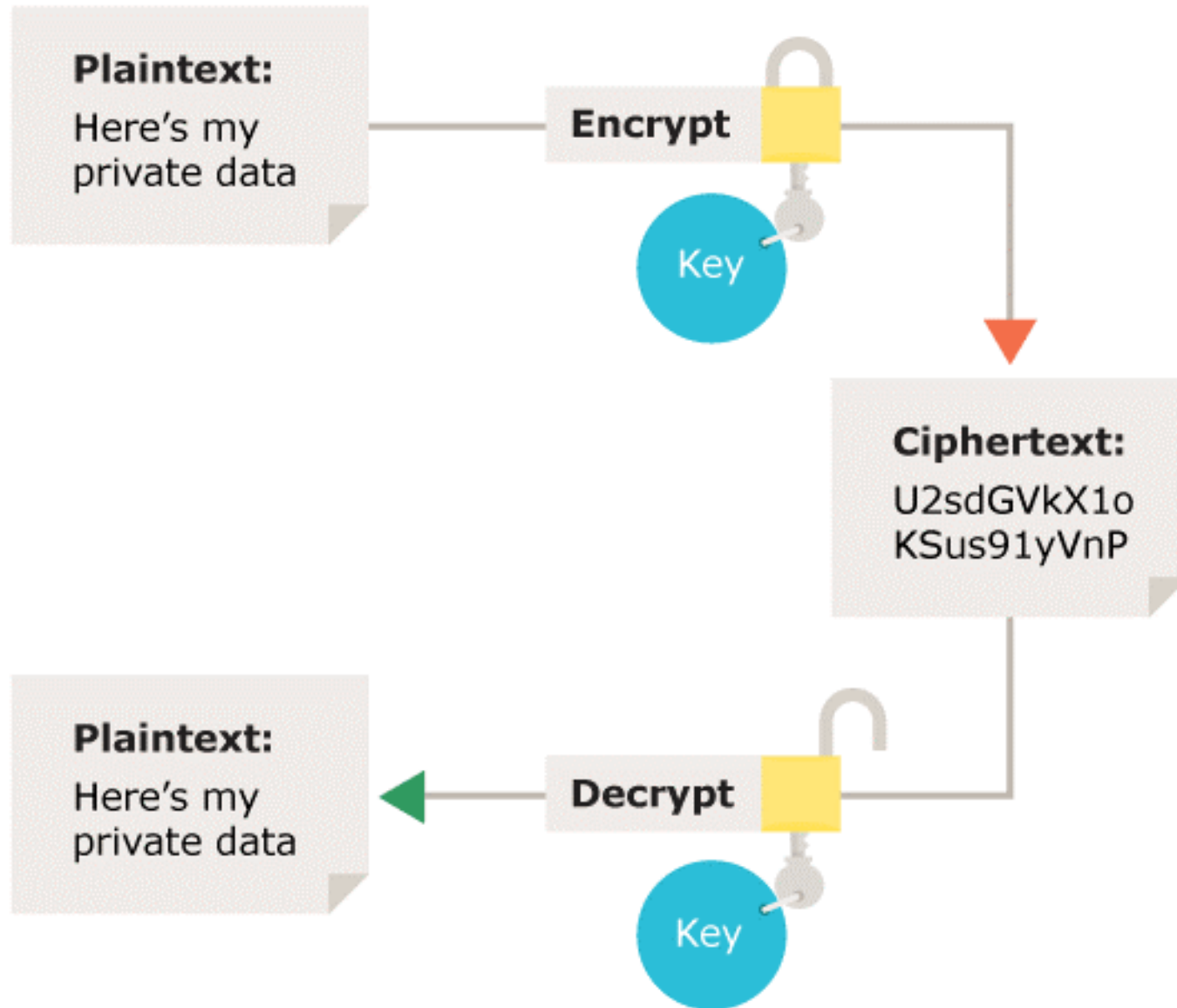
Why encrypt?

Factors that mitigate the cost and impact of a data leak



Source: IBM-Ponemon Institute. Cost of data breach report 2019

Symmetric vs Asymmetric

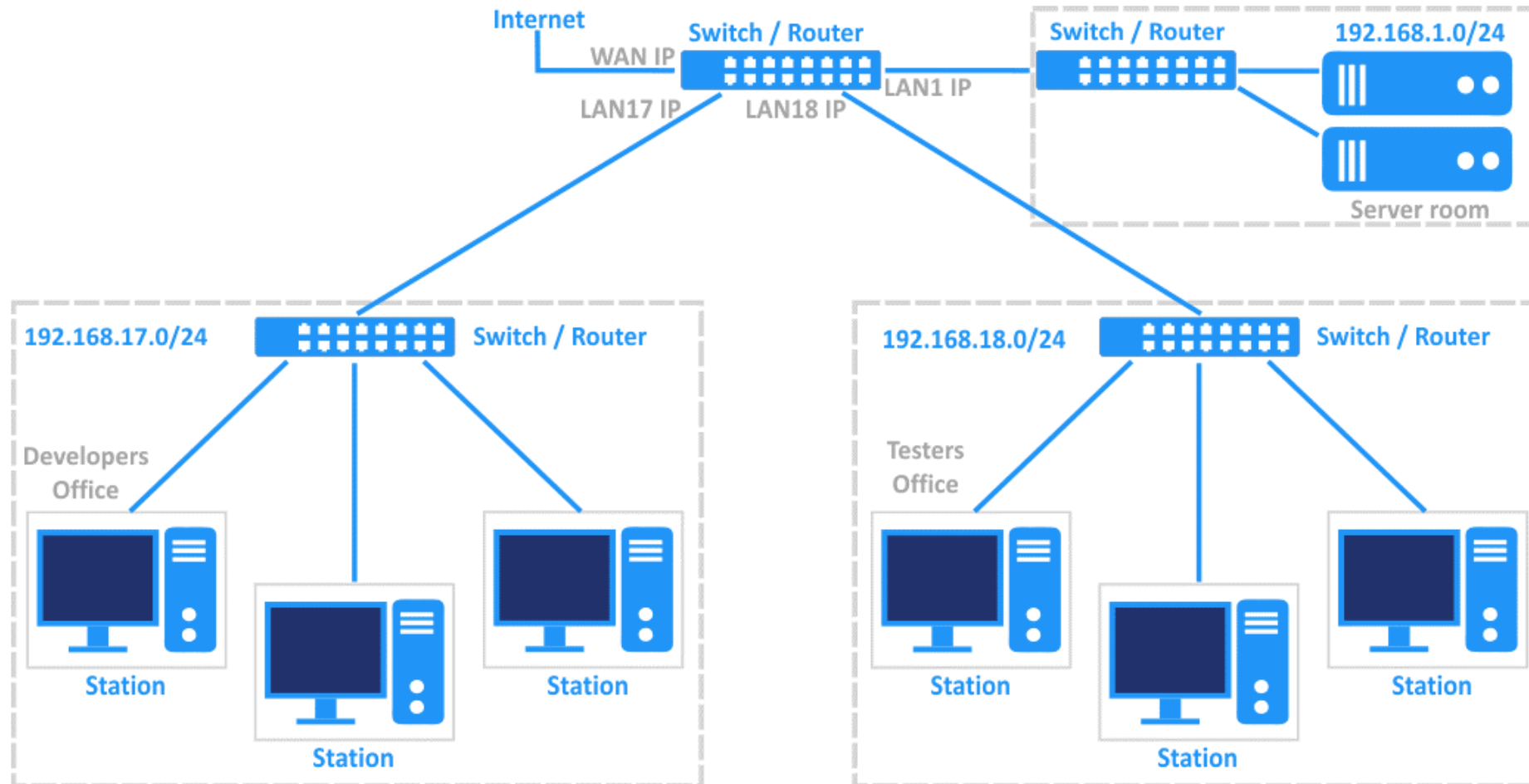


At Rest

In Transit

The Visual

Tree Topology



4 Pillars of Next-Generation Endpoint Security

01

AI-Powered
Threat
Intelligence

02

Automated
Malware
Quarantine

03

Comprehensive
Data Loss
Prevention

04

Proactive
Vulnerability
Management



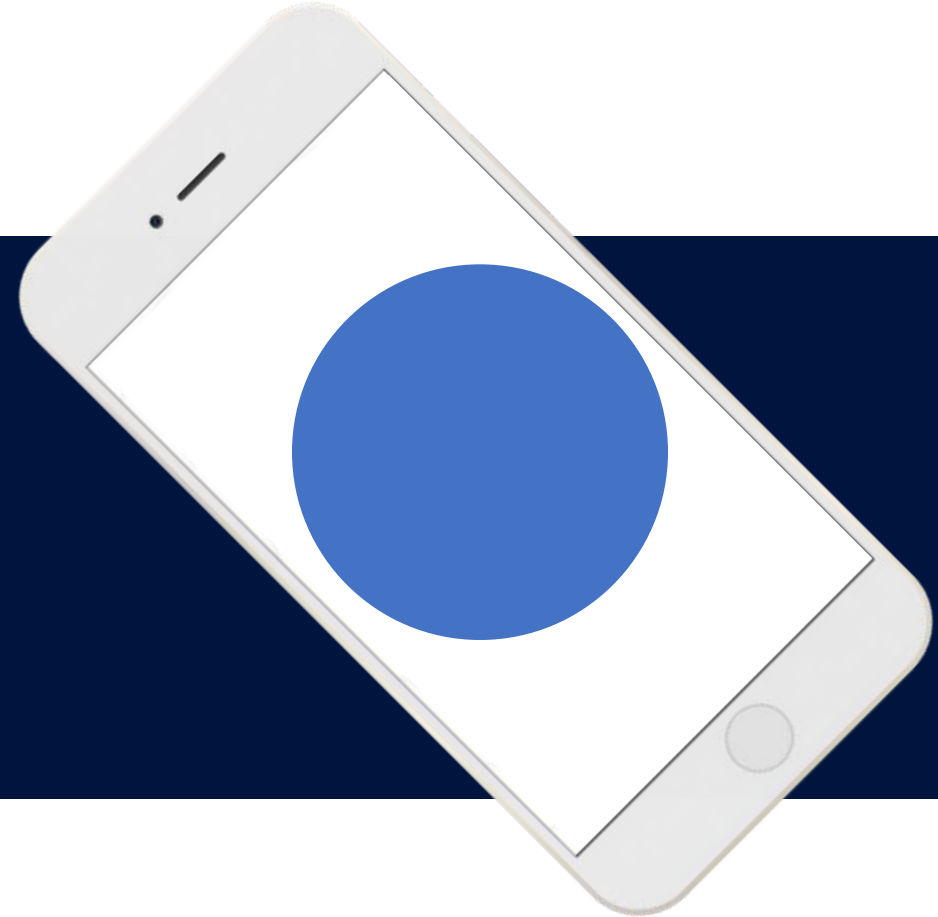


Wisconsin
Procurement
Institute

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An APEX Accelerator



Acquisition Hour

The Acquisition Hour webinar series covers a range of topics from market entry, sales growth, small business certifications, compliance, and more. Attendees receive 1 CPE credit for attending.

- **January 21**– The Basics of Cybersecurity for Any Small Business
- **February 11** – Is the GSA Schedule Right for Your Business?
- **February 18** – Overview of the Contractor Performance Assessment Reporting System (CPARS)

...More information and registrations at wispro.org/events



Cyber Thursday

Cyber Friday is a series of one-hour webinars focusing on critical topics for DOD contractors and subcontractors in cyber security, data security, and CMMC. Attendees receive 1 CPE credit for attending.

- **January 22** – CMMC: Correctly Scoping Your Environment
- **February 26** – CMMC: Control Set Series: 3.1 Access Control
- **March 26** – CMMC: Control Set Series: 3.2 Awareness and Training
- **April 30** – CMMC: Control Set Series: 3.3 Audit and Accountability
- **May 28** – CMMC: Control Set Series: 3.4 Configuration Management

...More information and registrations at wispro.org/events

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1 CPE credit**

**To receive a certificate of completion, contact
apexaccelerator@wispro.org**

PRESENTED BY

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