



CEO LEADERSHIP FORUMS



## **Cyber Threats! Ransomware! Protect Your Digital Assets.**

**Welcome to our group discussion with CEO Leaders on the risks of being hacked and preventative measures in the Covid era.**

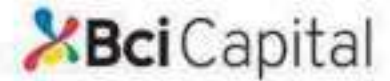
**Wednesday, September 1, 2021 – 7:30AM – 10:00AM**

[www.ceoleadershipforums.com](http://www.ceoleadershipforums.com)



# CEO LEADERSHIP FORUMS

Thank you to our group sponsors lead by CenterState Bank and City National Bank.





CEO LEADERSHIP FORUMS



## ***Mission***

CEO Leadership Forums is committed to facilitating a strategic partnership between Valencia College, their students, and local businesses in providing CEOs access to an excellent talent pool, CEO level education and Mastermind opportunities, while providing scholarships to students to advance their careers.



## Disclaimer

Please note it is our intention to provide information as accurately as possible. Given the speed and fluidity of current events, the speakers' comments represent best interpretations of new laws as we know them to be. Future government rulings and interpretations could change and potentially affect your own personal situation. Please continue to keep current with these changes through continual dialogue with your professional advisors.



CEO LEADERSHIP FORUMS



**Next Event:**

**Thursday, November 4, 2021**

*Time and Date TBD*



# Introducing our distinguished Panel of Experts



**James McQuiggan, CISSP**  
Valencia College  
KnowBe4  
Speaker/Moderator



**Roy Richardson**  
Aurora - Infotech



**Nicole McMurray**  
Apple One



**Doug Forman**  
Fringe Benefit Plans



**Casey Fernandez**  
HYLANT



**Ron Wilkinson**  
Nperspective CFO



# CEO LEADERSHIP FORUMS

**Cyber Threats! Ransomware!  
Learn How to Protect Your Digital Assets.**



## ***Your Key Note Speaker***



- Security Awareness Advocate for KnowBe4
- Adjunct Professor Valencia College Engineering, Computer Programming & Technology
- President – (ISC)2 Central Florida Chapter
- Member of the Trustee Board for the Center for Cyber Safety & Education

**James R. McQuiggan, CISSP**



**James R. McQuiggan, CISSP**  
Security Awareness Advocate

- Security Awareness Advocate, KnowBe4 Inc.
- Former Cyber Security Awareness Lead, Siemens Energy & Product Security Officer, Siemens Gamesa
- Professor, Valencia College
- President, (ISC)2 Central Florida Chapter
- Board of Trustees, Center for Cyber Safety & Education







What do you want to take away  
from this presentation today?



# Why Does Ransomware Continue to Be Successful and Can We Stop It?



If you discovered burglaries were occurring in your neighborhood, what would you do to protect your home?



If you discovered cybercriminals were stealing data from other organizations, what would you do to protect your organization?

I figured out Forrest Gump's password



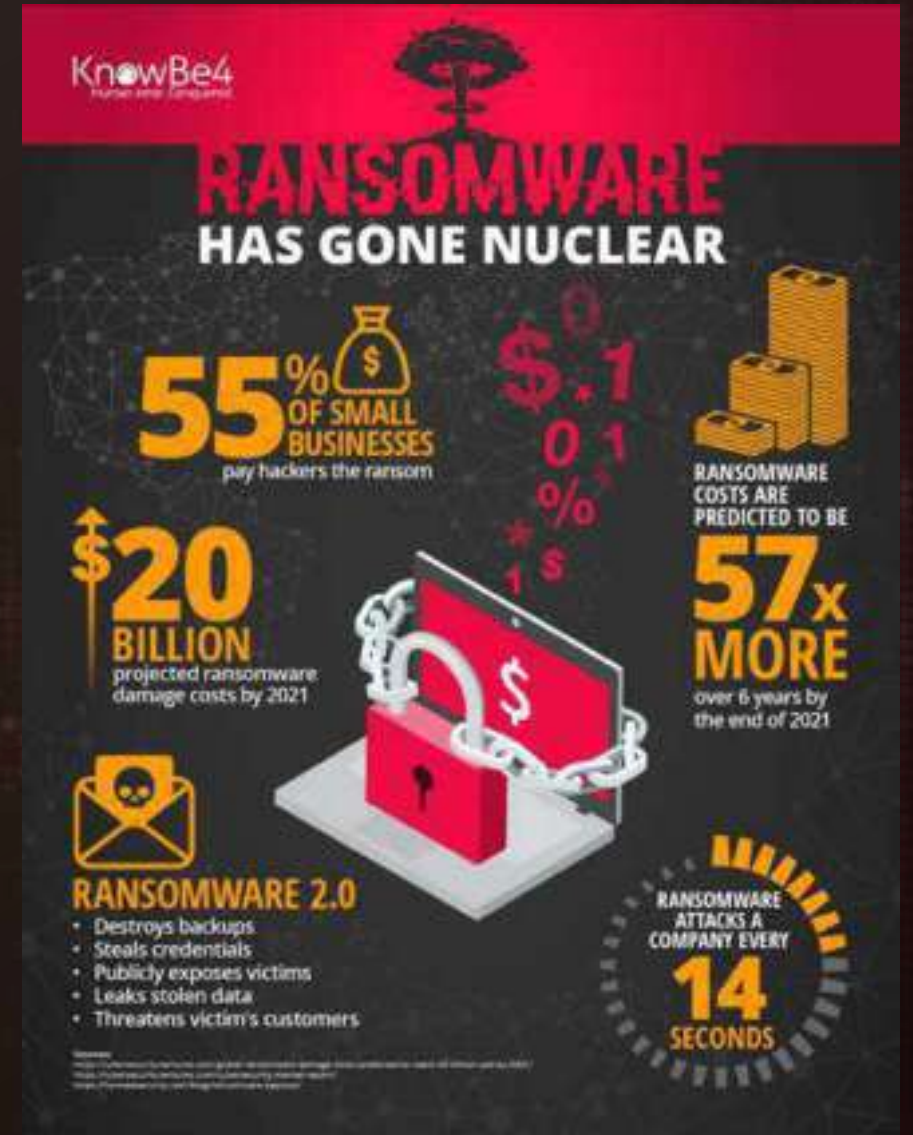
1Forrest1

# Ransomware

- What is it?
- Why does it happen?
- How does this impact the business?
- What to do if you're attacked
- Best Practices & Prevention

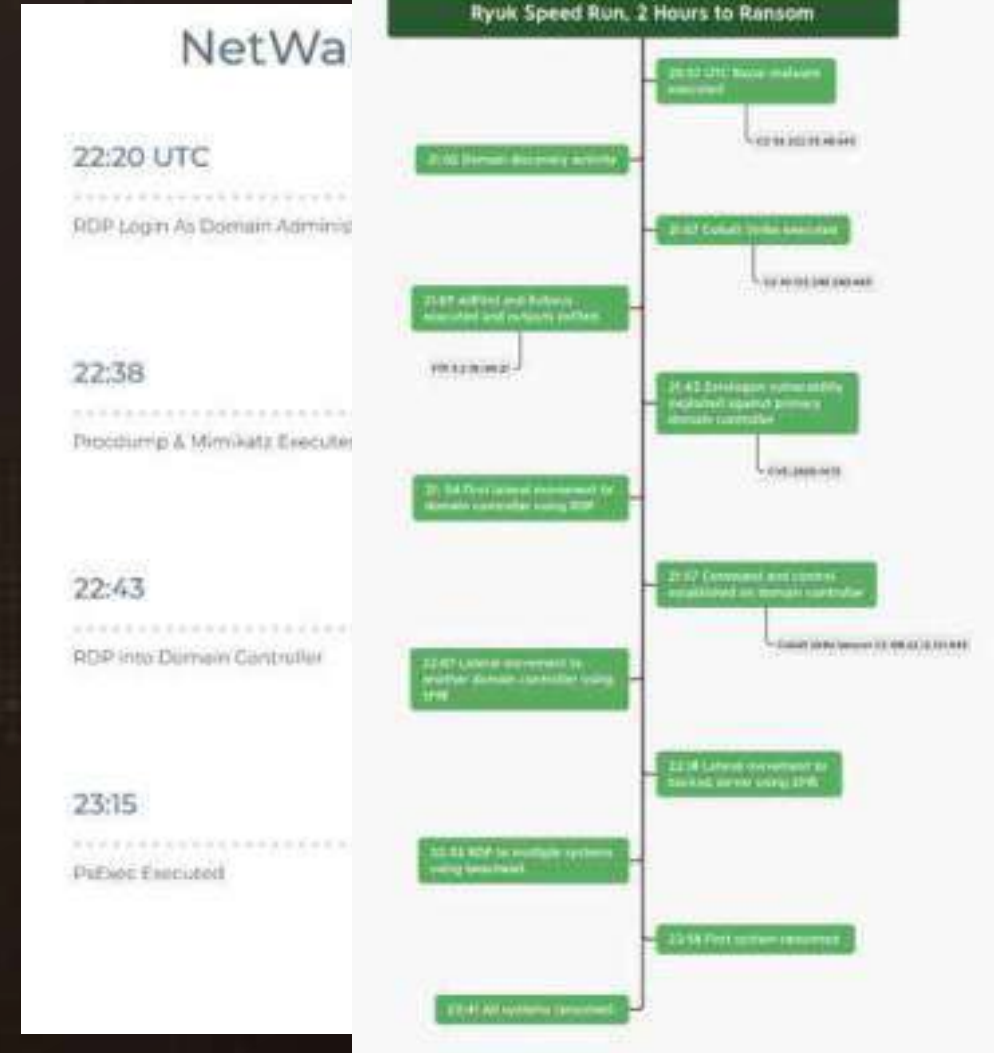
# The New Normal in Ransomware

- Conti, CLOP, Darkside, REvil & DoppelPaymer, & others
- Double encryption / Double extortion
  - Exfiltrate data & extort if organizations do not pay the ransom
  - If orgs don't pay, they target the victims from the data collected
- Triple Extortion
  - Target the patients, and customers



# Timelines – Harma / Netwalker / Ryuk

- Harma / Dharma (Crysis) - ~17 minutes
  - 0:00 RDP login from 212.102.45.98
  - 0:01 Opens Task Manager (usually to see who else is logged in)
  - 0:03 Drops/runs [Network Scanner \(SoftPerfect\)](#)
  - 0:08 RDPs into a Domain Controller (DC)
  - 0:10 DC – Opens Task Manager
  - 0:10 DC – Drops/runs [Network Scanner](#)
  - 0:13 DC – Drops Harma ransomware on the desktop and then runs it
  - 0:17 entry point – Drops Harma ransomware on the desktop and then runs it
- Netwalker Ransomware – 1 hour
- Ryuk – anywhere between 2 & 29 hours



Source: thedfirreport.com



# Ransomware as a Service (RaaS)

- Designed for people who are not technical to set up attacks
- Costs range from free to 50/50 split to 30/70 for the attacker
- RaasBerry – tiered levels
- All payments use Bitcoin

The screenshot displays a pricing page for a RaaS service. It features three subscription tiers, each with a list of features and a required Bitcoin amount. The tiers are:

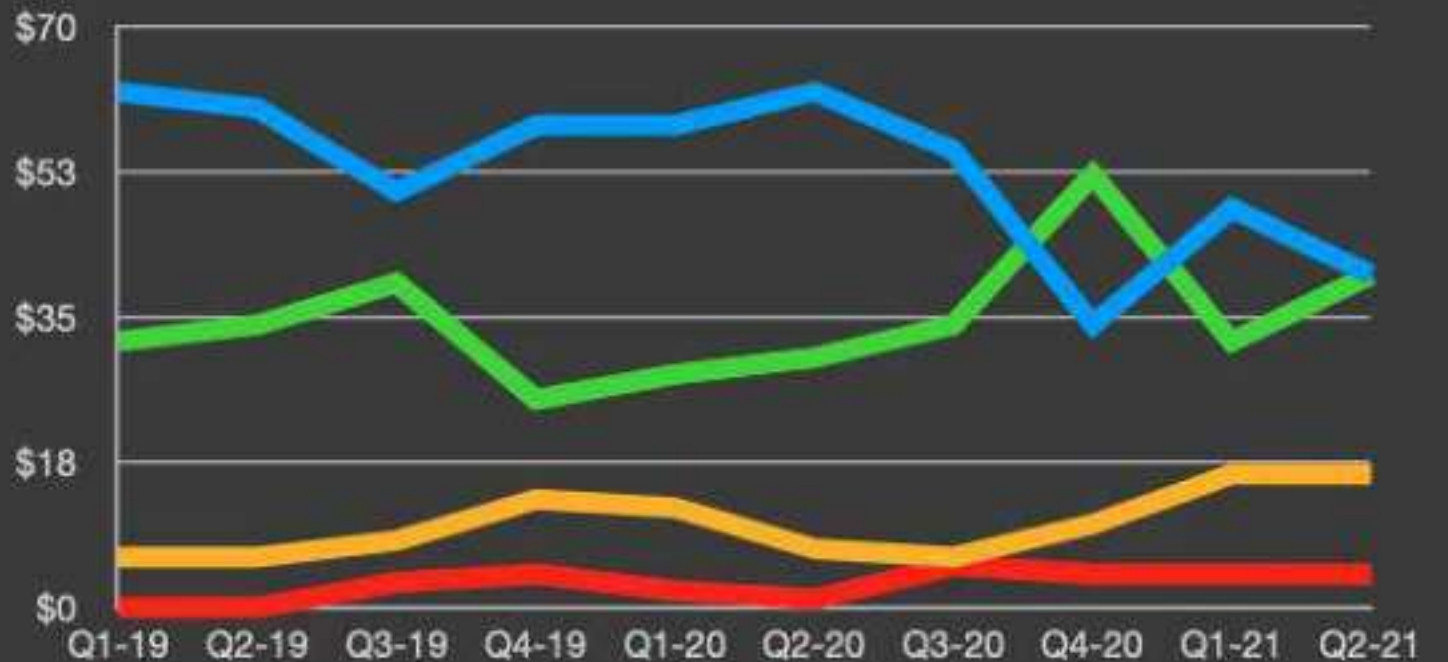
- Silver - Six Month C&C Subscription** (Price: \$200 USD):
  - 250kb Unique EXE - Combo Encrypter/Decrypter
  - Compatible with Windows XP to Windows 10
  - You receive 100% of the ransom paid by the victims
  - Supports Delayed Start, Mulex, and Task Manager Disabler
  - Ransomware still works if you don't continue your C&C subscription
  - Free support with active C&C subscriptionNeed 0.05443172 BTC
- Gold - One Year C&C Subscription** (Price: \$400 USD):
  - 250kb Unique EXE - Combo Encrypter/Decrypter
  - Compatible with Windows XP to Windows 10
  - You receive 100% of the ransom paid by the victims
  - Supports Delayed Start, Mulex, and Task Manager Disabler
  - Ransomware still works if you don't continue your C&C subscription
  - Free support with active C&C subscriptionNeed 0.09709076 BTC
- Platinum - Three Year C&C Subscription** (Price: \$600 USD):
  - 250kb Unique EXE - Combo Encrypter/Decrypter
  - Compatible with Windows XP to Windows 10
  - You receive 100% of the ransom paid by the victims

After signing up, login to your account, create new virus and download it. With this virus you just created, you are ready to start infecting people. Now, you the important part, you 70% of the bitcoin paid by victim will be credited to your account, as example, if you have specified \$300 as a ransom, you will get \$210 we will get \$90.

# Phishing & Remote Access

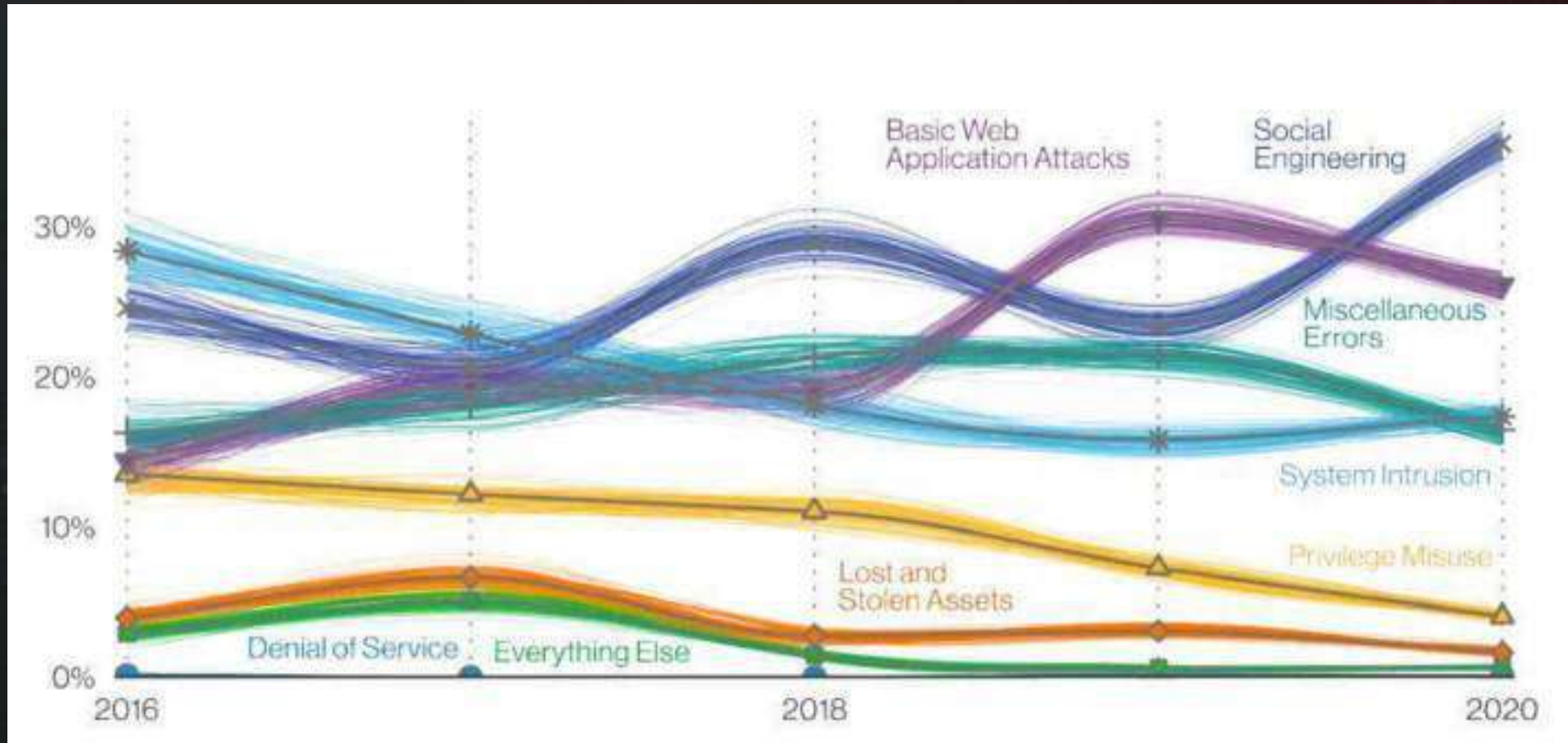
## Common Attack Vectors<sup>2</sup>

— RDP Compromise — Email Phishing — Software Vulnerability  
— Other



<sup>2</sup>Courtesy [Coveware](#)

# Humans Have Always Been the Weakest Link in Security



The human layer represents a **high value and probability target** because the **time and cost** required by attackers is low

# Insider Threat

From sajid@bpovision.com ☆  
Subject Partnership Affiliate Offer  
To undisclosed-recipients; ☆  
8/12/21, 12:03 PM

if you can install & launch our Demonware Ransomware in any computer/company main windows server physically or remotely

40 percent for you, a milli dollars for you in BTC

if you are interested, mail: [cryptonation92@outlook.com](mailto:cryptonation92@outlook.com)

Telegram : madalin8888

*Initial email sent by the threat actor.*



# Global Ransomware Damage Costs\*

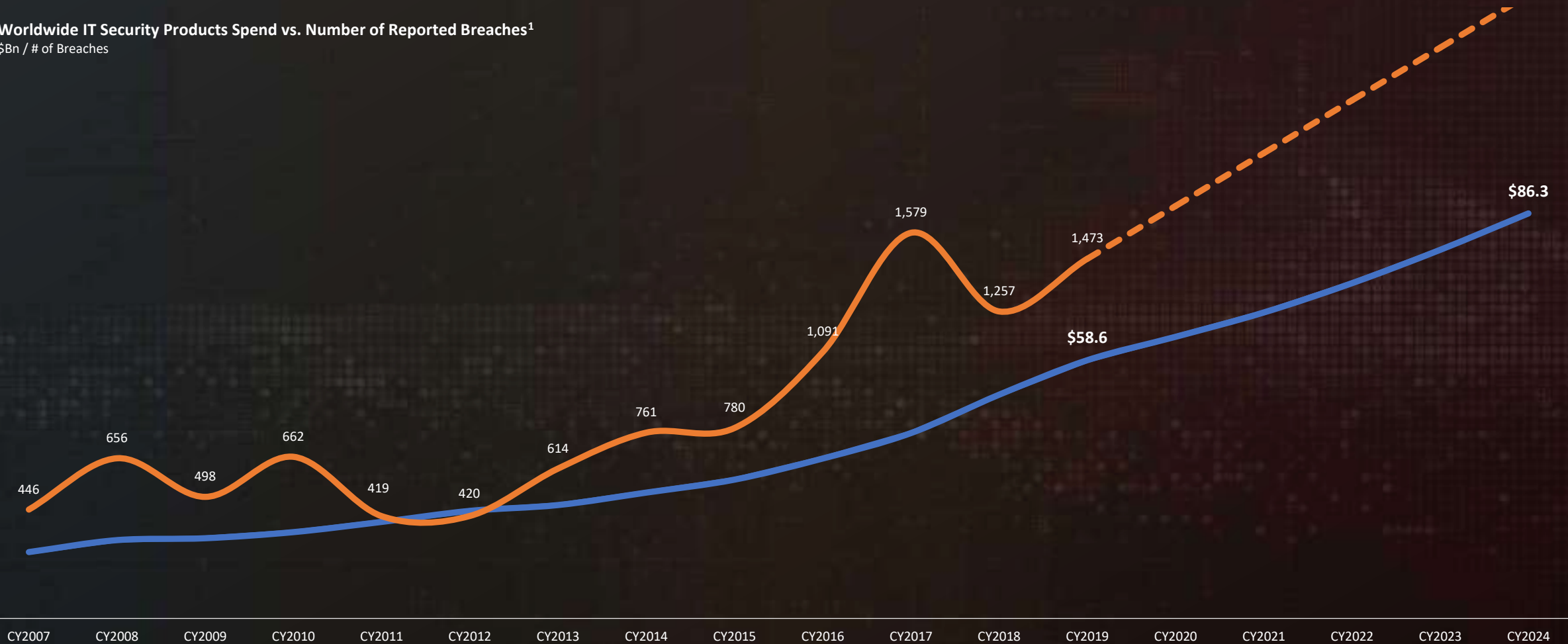
- 2015: \$325 Million
- 2017: \$5 Billion
- 2021: \$20 Billion
- 2024: \$42 Billion
- 2026: \$71.5 Billion
- 2028: \$157 Billion
- 2031: \$265 Billion



*Ransomware is expected to attack a business, consumer, or device every 2 seconds by 2031, up from every 11 seconds in 2021.*

# Organization's Investments in Cybersecurity... Breaches Rising

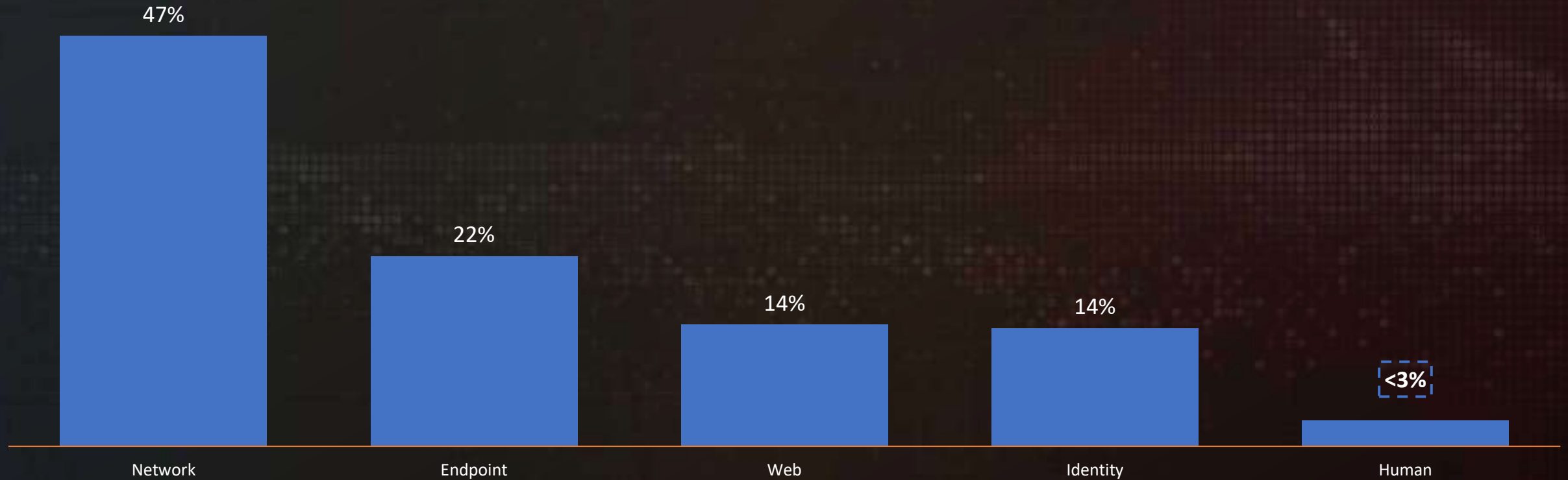
Worldwide IT Security Products Spend vs. Number of Reported Breaches<sup>1</sup>  
\$Bn / # of Breaches



Source: IDC, Identity Theft Resource Center

# Significant Underinvestment in Security Awareness

Worldwide IT Security Products Spend<sup>1</sup>  
\$Bn



Source: IDC

1. Breakdown of worldwide IT security products spend as of 2019.

# Ransomware Is a Data Breach

- Criminal hackers infiltrate the network
- Install Trojans / other malware
- Delete backups
- Steal data before encryption
- Hold the data for ransom
- Leak Data, Intellectual Property
- Public Shaming / Threatening Victim's Customers





# RANSOMWARE ATTACK!



# Evaluate Your Responses

Restore from a recent backup

Decrypt your files using a third party decrypter

Do nothing (lose your data)

Negotiate / Pay the ransom



Decrypt it  
yourself



# Deal or No Deal



Negotiate or  
Pay the  
Ransom



# Rid Your Computer of All Ransomware and Malware

- Wipe the machine and reload
- Possible remaining malware artifacts undetectable to EDR
- Consider the risks of unknown remnants for future attack
- Organizations have been known to be hit twice!



# Cybersecurity Insurance

- Too much risk, too much payout
- Cyber Claim Adjusters > Underwriters
- Average payout increased 10x since 2019
- Ransomware detection > 200 days
- Ransomware policy require secondary rider
- MFA is required
- 30 days to remediate vulnerabilities discovered during initial scan



# Should Your Company Pay the Ransom if Attacked?

- 15% of SMBs – this is top threat
- 65% lose revenue
- 53% reputation damaged
- 32% lost a C-Suite talent
- 35% paid ransom (\$350k>\$1.4mill)
- 57% suffered < \$50k in remediation

Question: Does the organization have the funding to cover this?

Should your company pay the ransom, if attacked?



No: paying the ransom does not guarantee a decryption key and further encourages attackers (41%)

No: we have back-ups and are prepared for an attack (33%)

It's complicated: depends on the impact on business continuity and nature of data (16%)

Yes: it's better then dealing with business disruption, lost data and remediation (6%)

Yes: paying will ultimately cost less in the long run (2%)

No: cybersecurity insurance will cover any related costs (2%)



# Best Practices and Tips to Protect Against Ransomware



Train your users



Backups



Segment the network



Principle of least privilege



Remove Internet Facing RDP



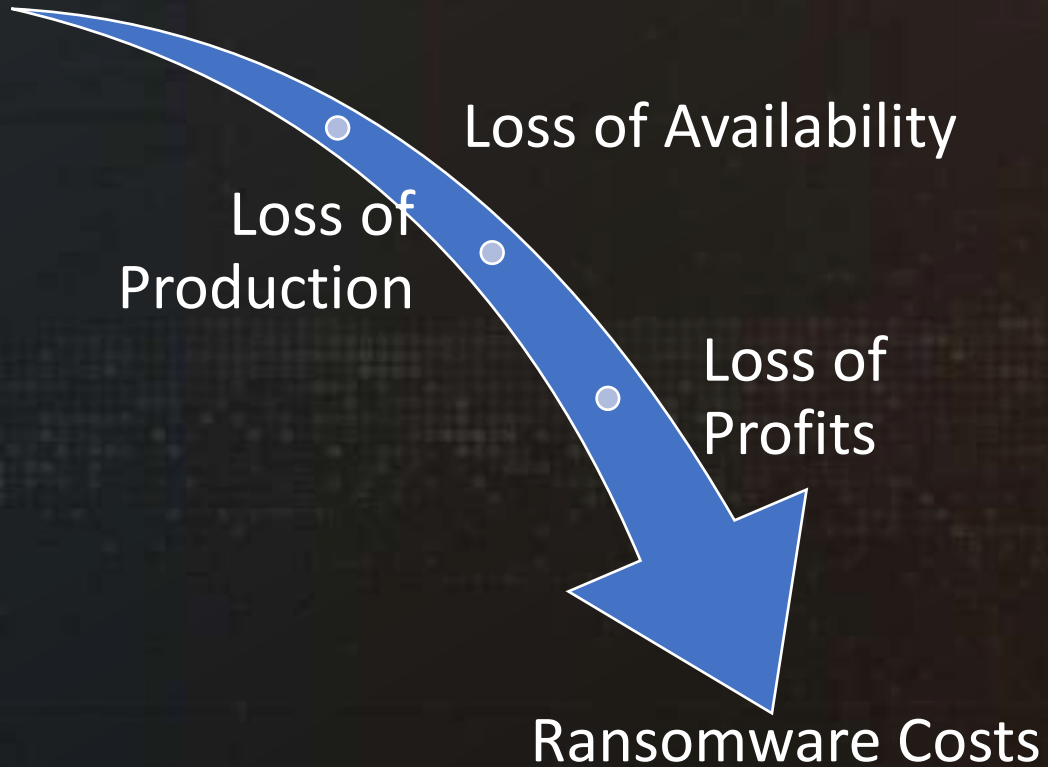
Keep up with Patches

# What it's like for your IT Team



# Security isn't cheap... neither is ransomware

Sustainability



# Self Reflection

1. How well can we defend against a ransomware attack?
2. What is the plan to detect / contain a ransomware attack?
3. Who are you going to call post attack?
4. How often are tabletop exercises and audit reviews of the CSIRT occurring?
5. Do you have line items in the budget for ransomware / data breaches?



# More Questions

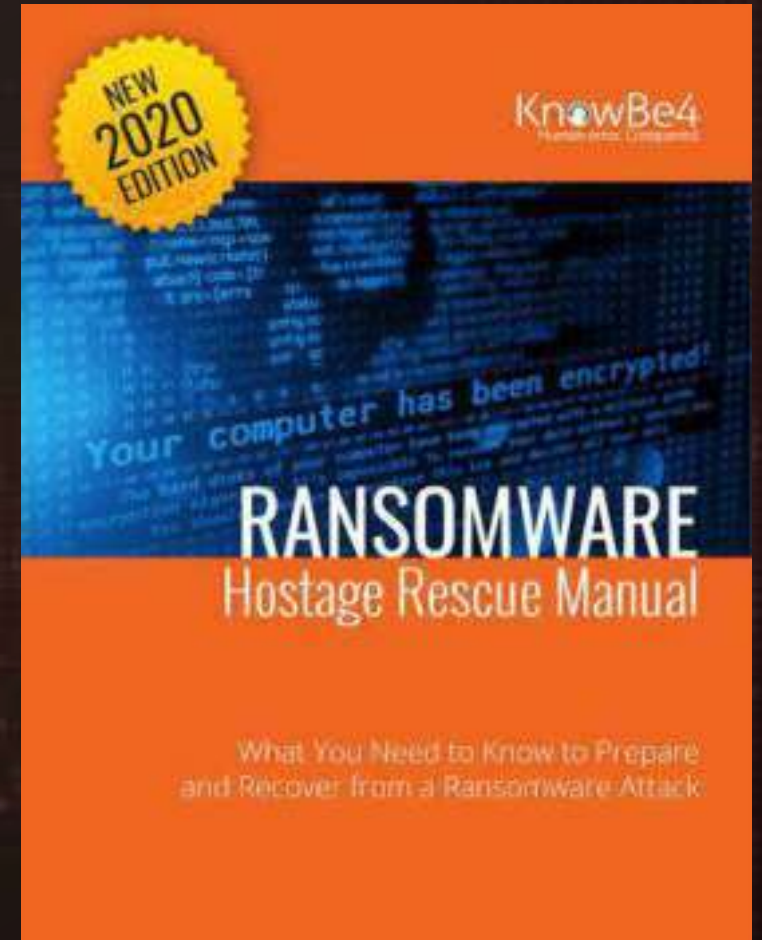
- Data backups – tested & integrity
- What is the risk level for a sensitive data leak?
- Do you have cryptocurrency available?
- Has the organization decided whether to pay or not?





# The Ransomware Hostage Rescue Manual

Get your FREE copy of the Ransomware Hostage Rescue Manual from the KnowBe4 site.



<https://www.knowbe4.com/ransomware>

# Thank You For Your Attention

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## Questions?



**KnowBe4**  
Human error. Conquered.



For more information visit  
[blog.knowbe4.com](http://blog.knowbe4.com)

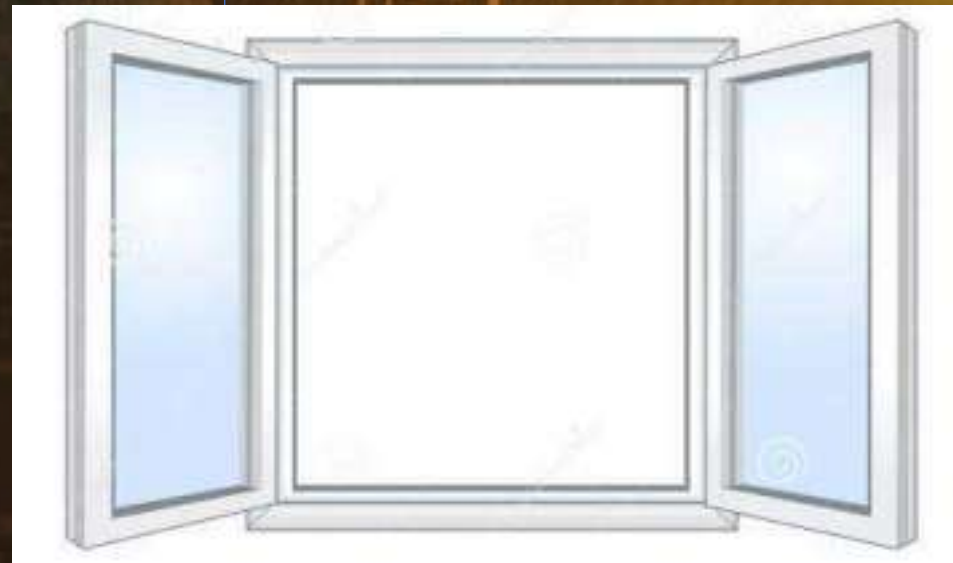
**Know more about KnowBe4.**

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# Introducing our distinguished Panel of Experts



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Should we pay  
the ransom?



Do I need to disclose the ransomware attack?



Can I be fired  
after a  
ransomware  
attack?



Does  
ransomware  
trigger any data  
breach laws?



Can I sue an  
insurance  
company for not  
paying the  
ransomware  
claim?





# Questions & Answers Panel of Experts



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# Does It Matter Where Work Happens? What Employers Need To Know.

*Thank You*

- A follow-up email will be sent to you after the event including the Powerpoint of the Program.
- Upon departure from the event, please take a minute to answer our Experience Survey so we may better fulfill your expectations next time.
- Reach out to the subject matter experts on the call for any question not addressed.

**Next Event:**

**Thursday, November 4, 2021**



## CEO LEADERSHIP FORUMS



# Does It Matter Where Work Happens? What Employers Need To Know.

## Contact Information

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