

Intro to Cyber Insurance

ISSA Central Maryland Chapter Meeting

April 24, 2019

Presentation Outline

1. Why is cyber insurance a thing?
2. What makes Cyber insurance unique in the context of the broader the insurance industry
3. Common myths and misconceptions about cyber insurance
4. Shallow dive into the murky waters of cyber insurance coverage

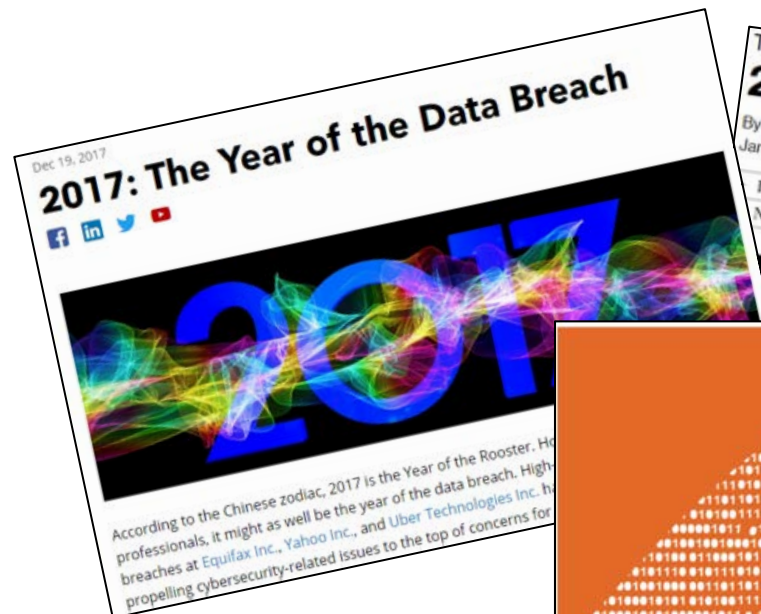
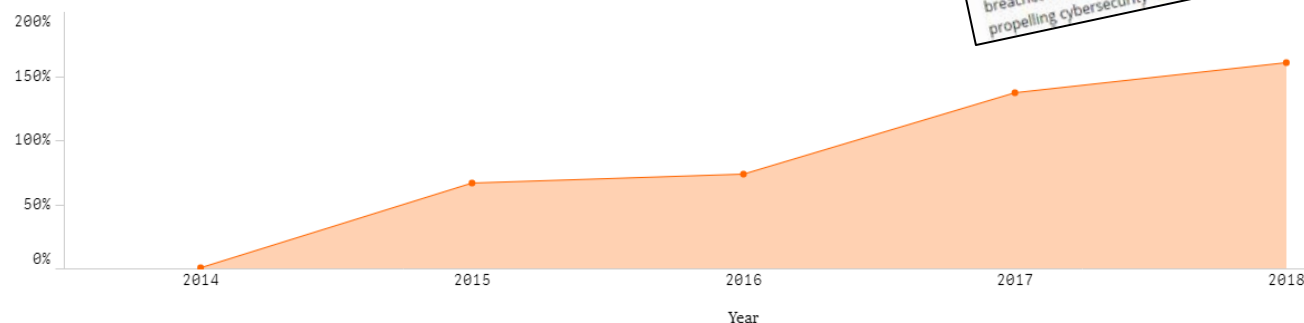
Why is Cyber Insurance a Thing?

Because next year will be worse....

While there is a lot of hype surrounding cyber risk, incidents are actually happening.

Chubb Percent Incident Growth Compared to 2014

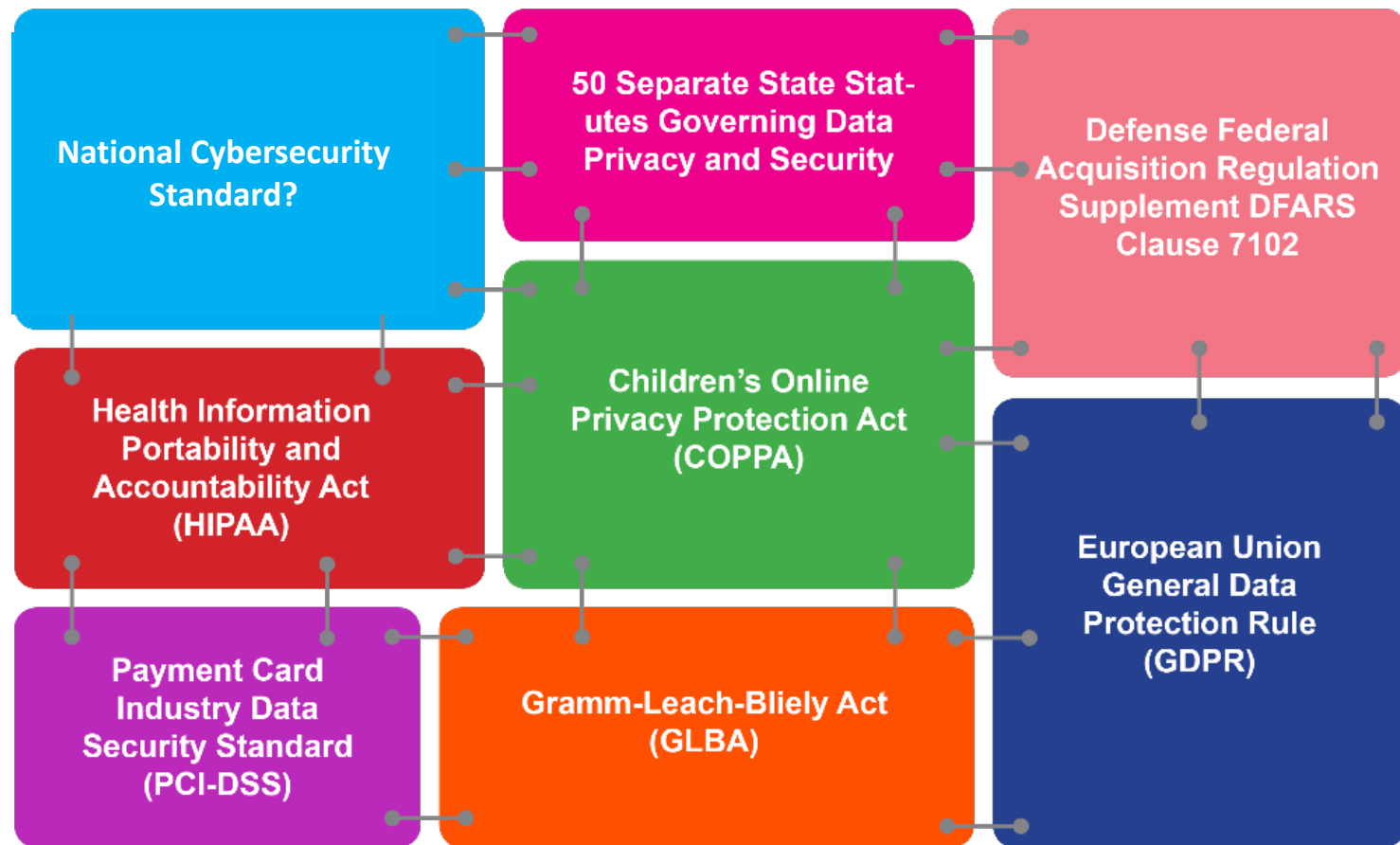
All Industries and All Revenue Sizes



Most Businesses Are Not Prepared



The legal, regulatory
and contractual
landscape is becoming
increasingly complex



And traditional insurance policies are not covering cyber-related claims

The New York Times

***Big Companies Thought
Insurance Covered a Cyberattack.
They May Be Wrong.***

“US snack food giant Mondelez is suing its insurance company for \$100m after its claim for cleaning up a massive NotPetya ransomware infection was rejected – for being "an act of war" and therefore not covered under its policy.”

– *The Register, January 2019*

It was confirmed that DLA Piper does not have a cyber-security specific policy and that this is central to the dispute, with the Hiscox spokesperson saying, "They are making a claim which we are disputing. They don't have the right cover. It's not a cyber policy and its nothing to do with war exclusion.”

– *SC Magazine, March 2019*

What Makes Cyber Insurance Unique?

It's Unlike Any Other “Unpredictable” Risk



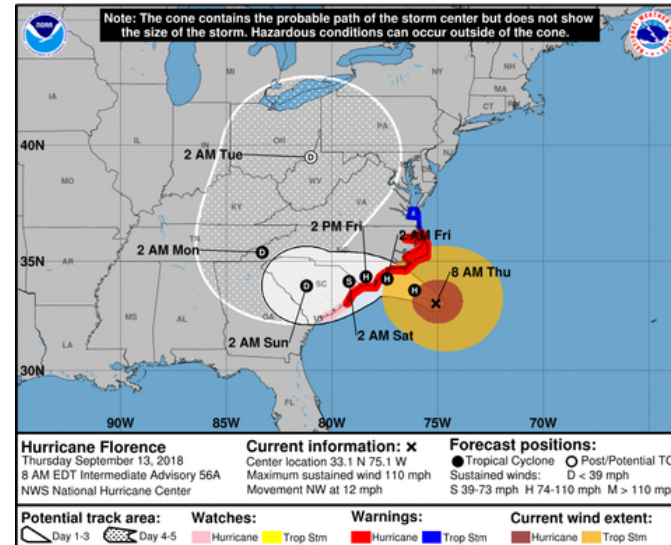
BIZ & IT—
Confirmed: hacking tool leak came from “omnipotent” NSA-tied group
Rare crypto implementation in ShadowBrokers dump connects it to Equation Group.
DAN GOODIN - 8/16/2016, 5:09 PM

```
# 7/31/13 --  
#  
# BG User script:  
# Script to set up user env for BG  
#  
# Changing:  
# 4/21/13 -- Cleaned up script, as well as fixed error with multiple scripts being started  
# 7/9/13 -- Changed the format of the log file created  
# 7/9/11 -- Changed to support both Blatting, BG and Bjar  
# 11/9/12 -- Changed to support for BUZZLIGHTYEAR  
# 3/11/13 -- Added BANANARIDE  
# 5/2/11 -- Changed BANANARIDE ASM location to BG1121  
# 6/11/11 -- Modified layout of disk on XPADP have been updated...  
# 8/18/11 -- Removed blocksize rules and added in support for BG1121 as we move to merge  
# Updated paths to match the new directory structures
```

The leak over the weekend of advanced hacking tools contains digital signatures that are almost identical to those in software used by the state-sponsored Equation Group, according to a just-published report from security firm Kaspersky Lab.

“While we cannot surmise the attacker’s identity or motivation nor where or how this pilfered trove came to be, we can state that several hundred tools from the leak **share a strong connection** with our previous findings from the Equation group,” Kaspersky researchers wrote in a [blog post published Tuesday afternoon](#).

FURTHER READING
Group claims to back NSA-tied hackers, posts exploits as proof

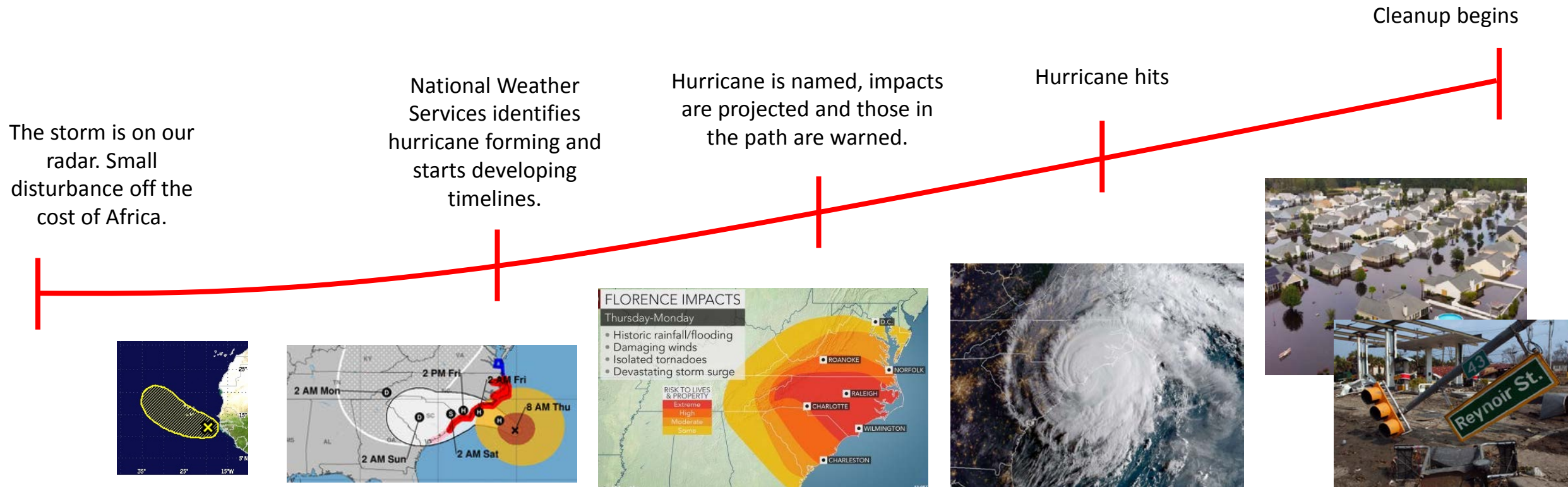


- The insurance industry is used to dealing with uncertainty. A good example of this is hurricanes. A single event can cause significant damage and impact rates across the entire insurance marketplace.
- However, Cyber risk is currently unlike any other risk the industry is dealing with or has had to deal with in the past.

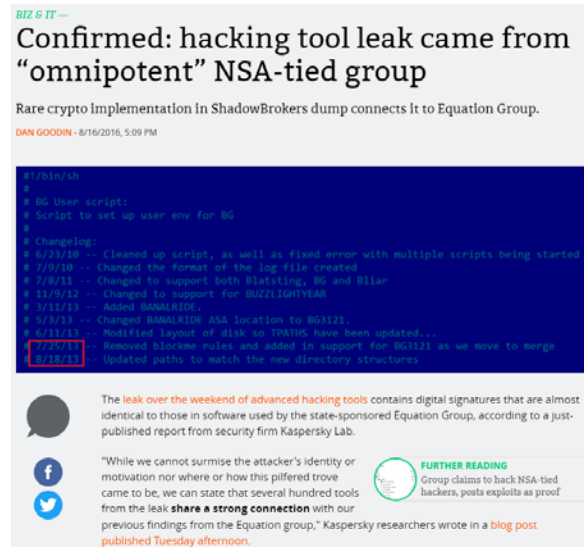
It's Unlike Any Other “Unpredictable” Risk



Storms are unpredictable, but we are used to dealing with them and their impact is relatively confined to a single geographic region.



It's Unlike Any Other "Unpredictable" Risk



February 2017 security update release



January 2019

May 2017 & June 2017

Feb/March 2017

January 2017

August 2016

Right now we cant forecast, track or manage cyber events in the same way. For example, the pieces of the WannaCry and NotPetya attacks only came together after the attack happened. This makes it very difficult for the insurance industry to insure against this risk up front, and respond afterwards.

Common Myths and Misconceptions

Are there discounts for proper controls?



Death, Taxes, and Cyberattacks

Governments and companies need to adapt to a world where hacks and security breaches are a certainty, not a risk.

By FRED KAPLAN

APRIL 16, 2019 • 5:44 PM



Photo illustration by Slate. Photos by Thinkstock and Thomas-Soellner/iStock/Getty Images Plus.

“Just as medical and life insurance policies offer discounts for people who don’t smoke or keep healthy regimens, cyber insurance policies could do the same for corporations that maintain “good hygiene” or follow “best practices” in computer security.”

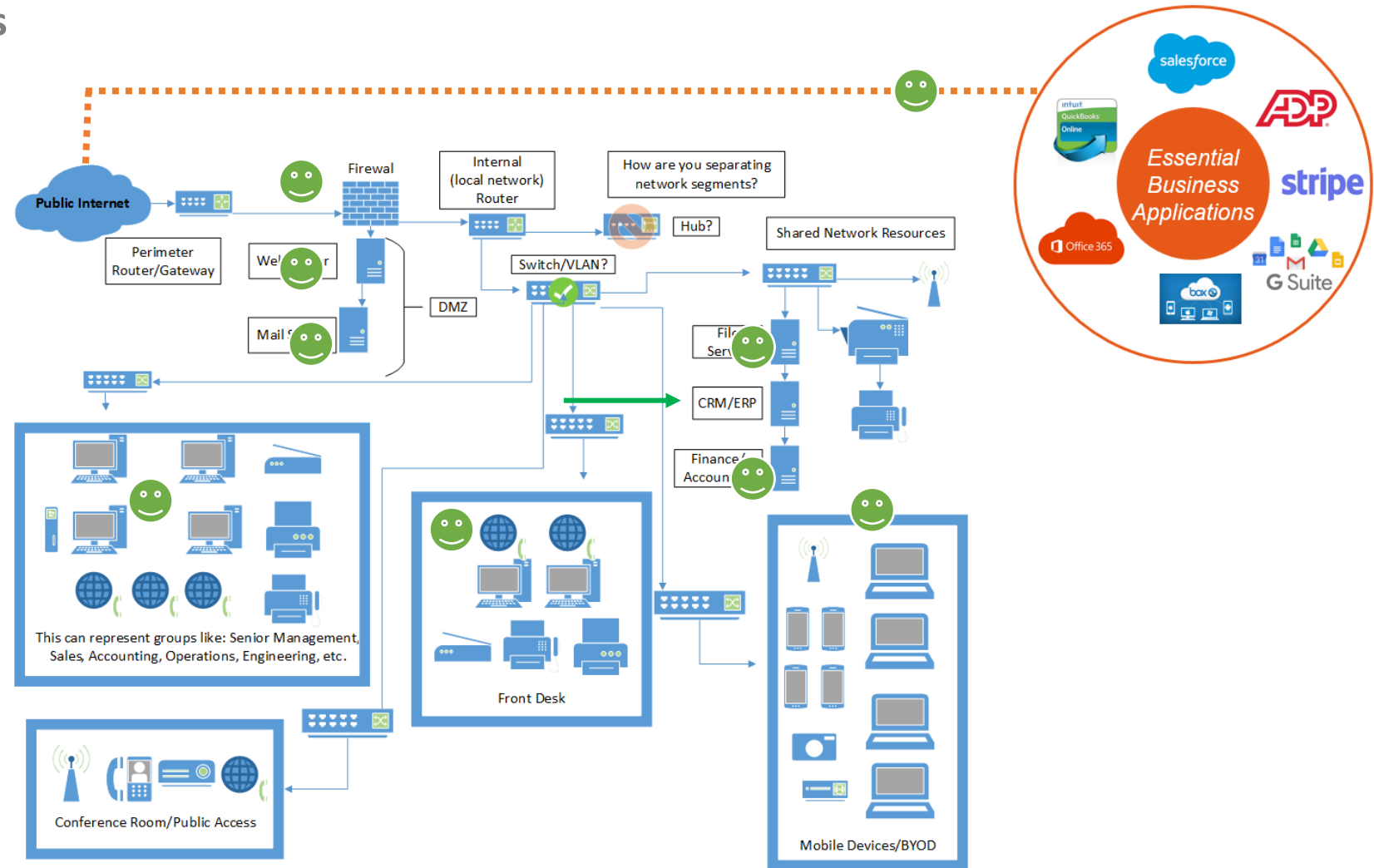
- *Slate, April 2019*

What we ask and what businesses tell us:



The challenge is that best practices are evolving and responses to applications are subjective

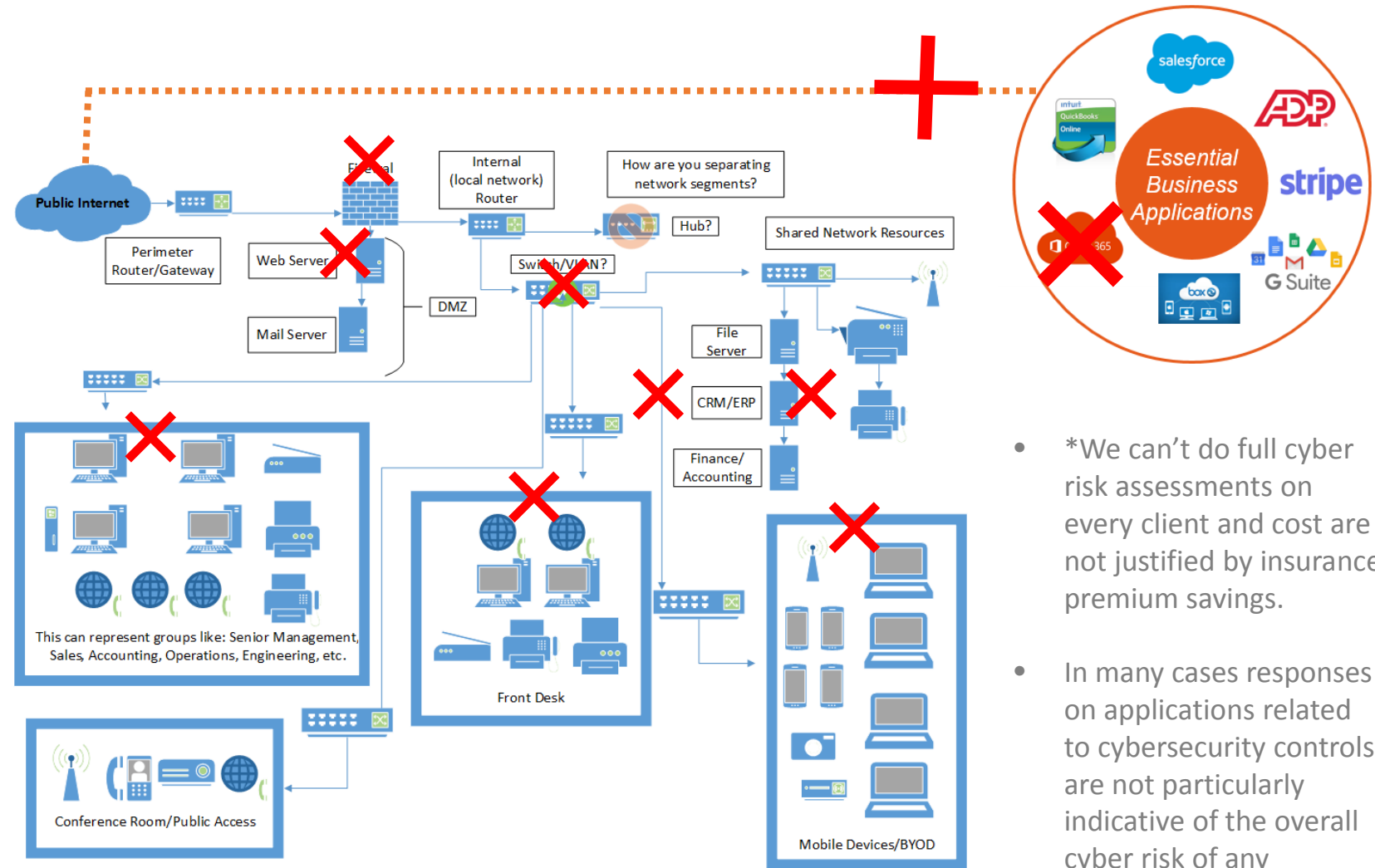
- We don't host our own website
- We just moved to office 365
- We are using a cloud service for file sharing
- We are using 2FA on cloud services
- We moved to an online finance application
- We don't handle any sensitive data and everything is backed up
- All we have left is our Enterprise Resource Management System that is too expensive to outsource. Our IT person says it is secure.
- We use a firewall and antivirus, use strong passwords and conduct regular Phishing training



But, the details matter...*

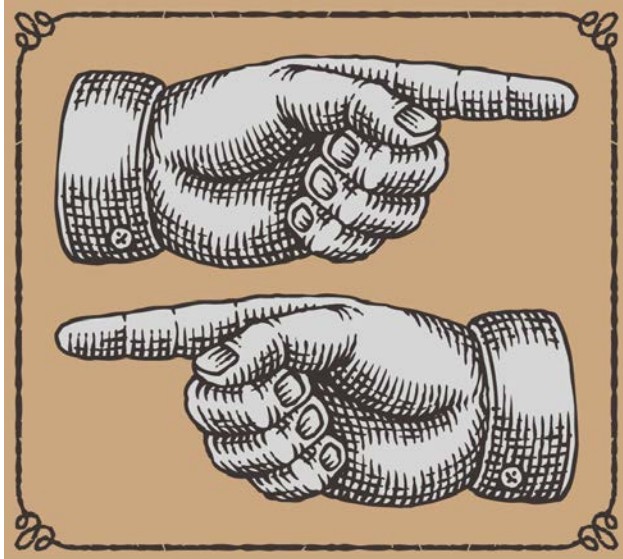
This company is trying to think about security, but here is what we missed:

- 2FA on Office 365 was planned but not completed
- Did not purchase or enable logging for cloud services
- Never did a data mapping project and it turns out the company has both sensitive employee information, customer account information and corporate confidential data
- Backups are being done but not tested
- ERP system is critical to delivery of services and no disaster recovery plan is in place
- No network segmentation and Encrypted Packet inspection is not enabled



- *We can't do full cyber risk assessments on every client and cost are not justified by insurance premium savings.
- In many cases responses on applications related to cybersecurity controls are not particularly indicative of the overall cyber risk of any business.

Cloud Services Eliminate Cyber Exposure



- **General Considerations:**

- If client is the cause of a breach (i.e. lost/stolen password) a service would most likely not be liable and they probably make this clear in their contracts.
- The data owner is responsible for breach response. A business can sue for damages but this does not help with immediate response.

- **Contractual Limitations:**

- Contracts typically limit liability for consequential damages (business interruption, reputation damage, loss of revenue, etc.)
- Most contracts with vendors place a cap on damages, often tied to the value of the contract

A photograph of a shallow, narrow stream flowing through a forest. The water is dark and reflects the surrounding trees and foliage. The banks are covered in dry, yellowish-brown grass and moss. A fallen log lies on the right bank. The background is a dense forest of evergreen trees.

A Shallow Dive Into The Murky Waters of Cyber Insurance

What does a typical policy cover?



Cyber Insurance Coverage Overview		Aggregate Limit: \$2,000,000 Deductible: \$10,000
		Coverage Checklist
1) Cyber Incident and Data Breach Liability		<input type="checkbox"/>
2) Regulatory Proceedings, Fines & Penalties		<input type="checkbox"/>
3) Content & Media Liability Coverage		<input type="checkbox"/>
4) PCI Fines, Penalties and Assessments		<input type="checkbox"/>
5) Privacy Breach Response Expenses		<input type="checkbox"/>
6) Network Restoration & Incident Containment Expenses		<input type="checkbox"/>
7) Crisis Event Expenses (Non-privacy related responses expenses)		<input type="checkbox"/>
8) Consequential Reputational Damage		<input type="checkbox"/>
9) Data Recovery Expenses		<input type="checkbox"/>
10) Business Interruption & Extra Expense		<input type="checkbox"/>
11) Contingent Business Interruption (IT Service Providers)		<input type="checkbox"/>
12) Cybercrime		<input type="checkbox"/>
a) Electronic Theft/Computer Fraud		<input type="checkbox"/>
b) Ransomware, Computer & System Extortion		<input type="checkbox"/>
c) Deceptive Funds Transfer		<input type="checkbox"/>
d) Social Engineering		<input type="checkbox"/>
e) Telecommunication Theft		<input type="checkbox"/>
Total Premium:		\$Value

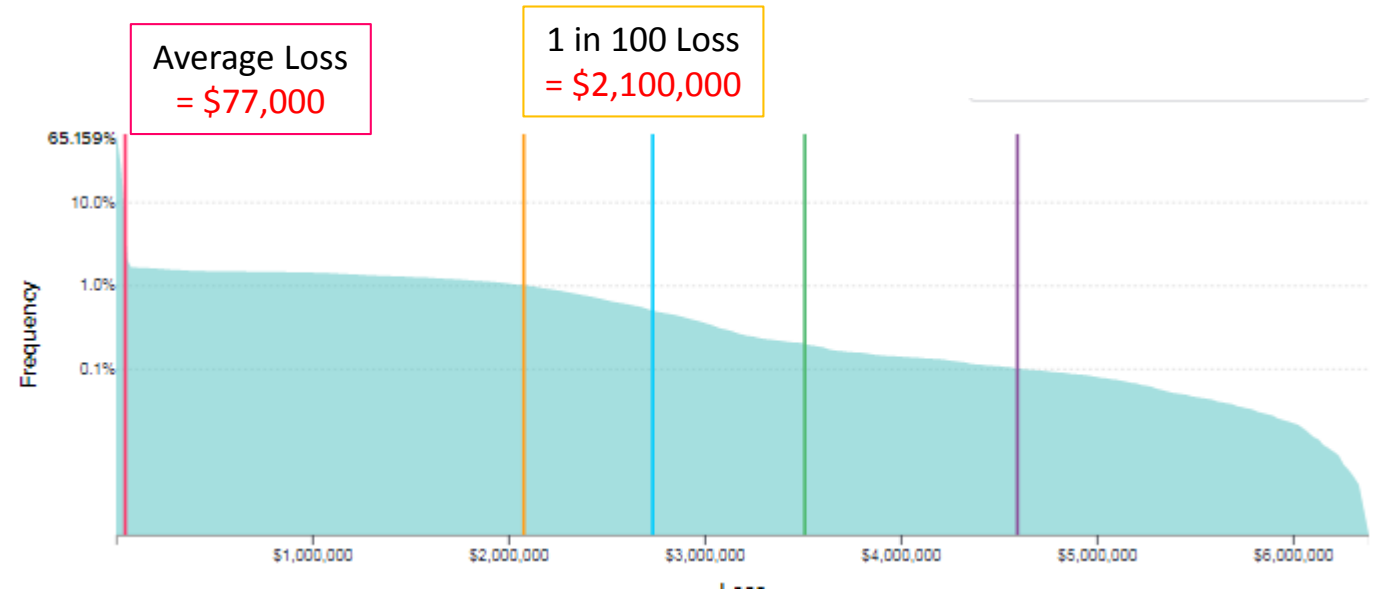


Let's Run Through a Loss Scenario

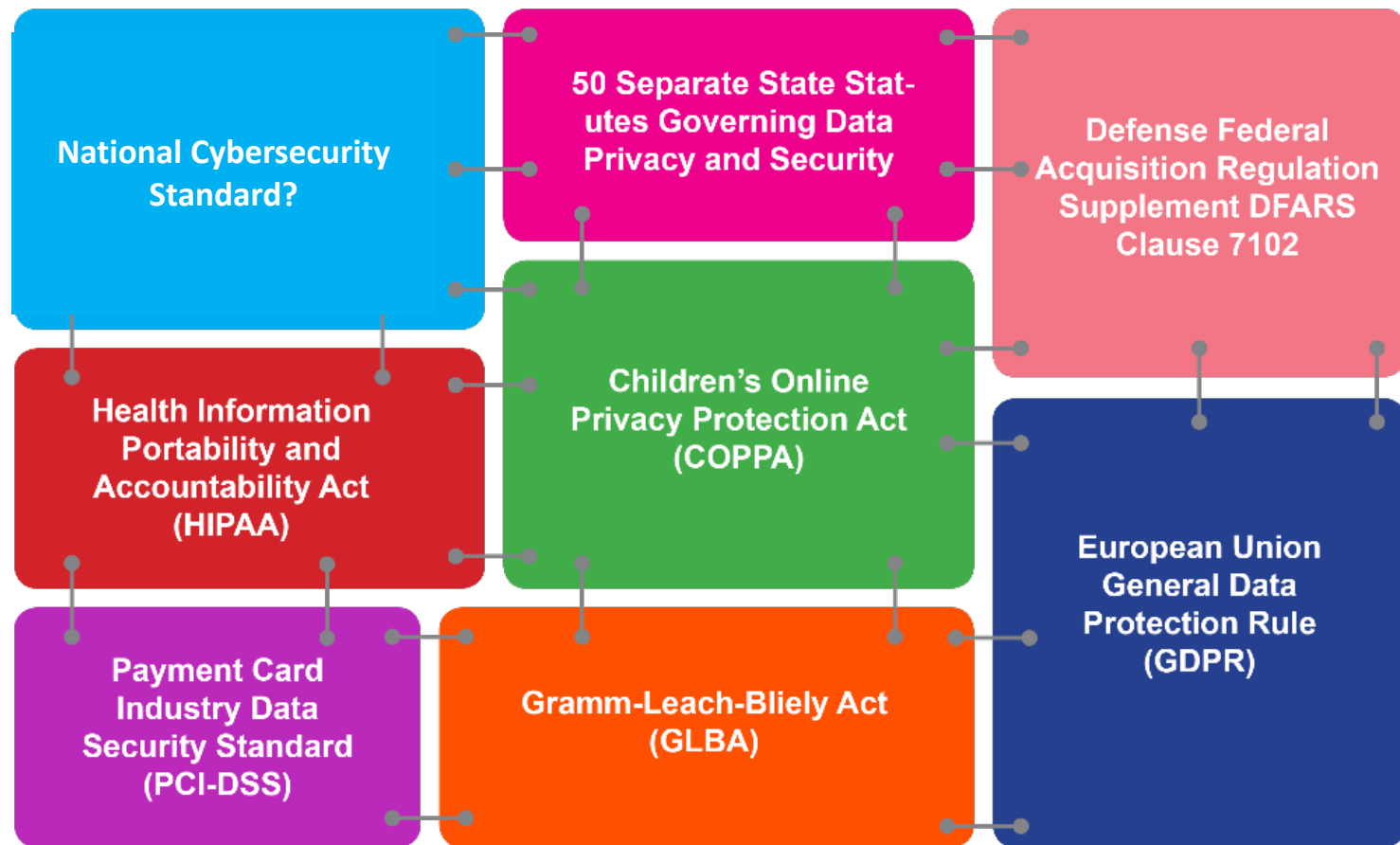


Company Profile:

- Type: Mobility Dealer
- Revenue: \$7,000,000
- Sensitive Records: ~60K
- 3rd Party Hosted website
- Office 365 User
- One Self Hosted Service
- Internal Office Infrastructure



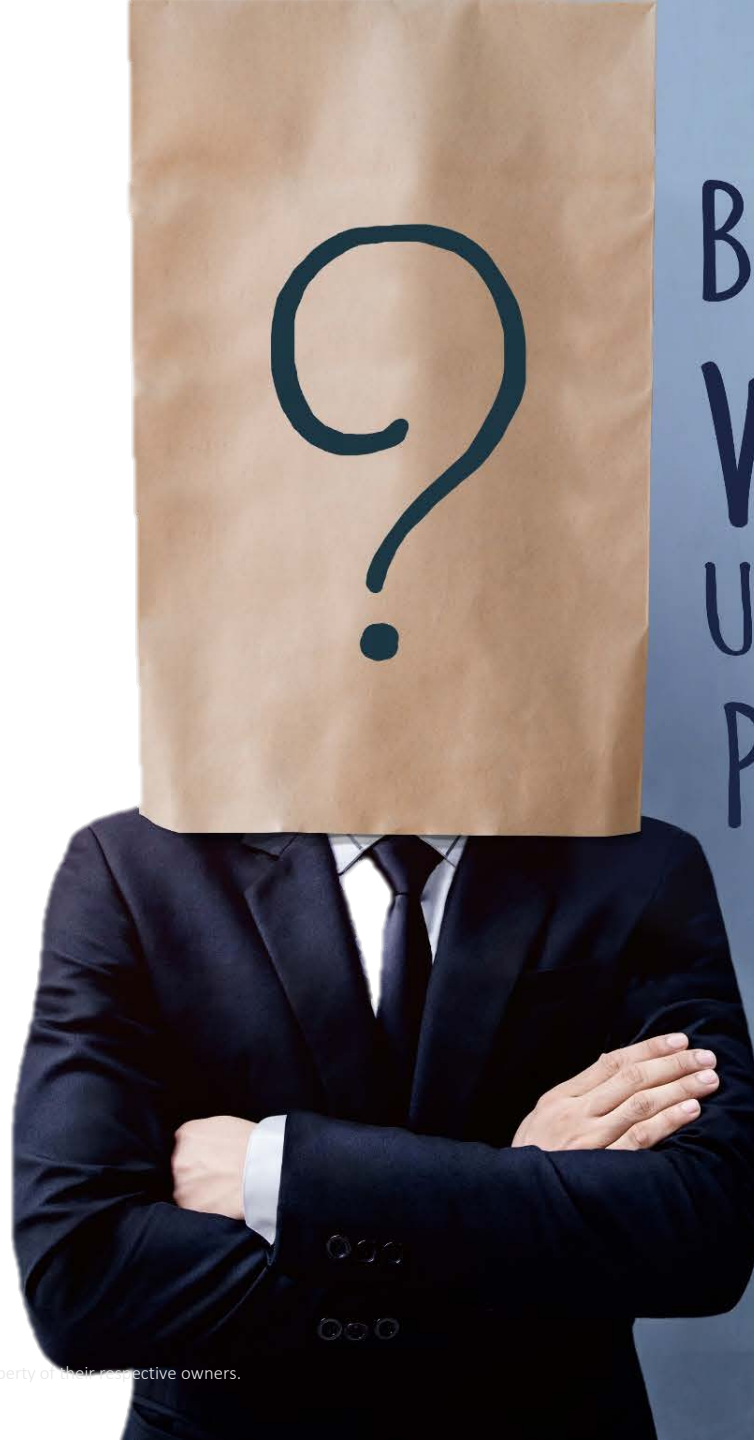
Legal Guidance
“Breach Coach”:
\$12,320 for an
average loss event



A background image showing two people, a man and a woman, working at a desk with multiple computer monitors. The man is on the right, looking at a monitor and pointing at the screen with his finger. The woman is on the left, looking at a monitor and holding a pen. The image is overlaid with a dark blue semi-transparent filter. The text "Cyber Forensic Investigation Costs: \$13,860 for an average loss event" is centered over the image. The background image shows a man and a woman working at a desk with multiple computer monitors. The man is on the right, looking at a monitor and pointing at the screen with his finger. The woman is on the left, looking at a monitor and holding a pen. The image is overlaid with a dark blue semi-transparent filter. The text "Cyber Forensic Investigation Costs: \$13,860 for an average loss event" is centered over the image.

Cyber Forensic Investigation Costs:
\$13,860 for an average loss event

**Notification,
Credit Monitoring
and & PR Costs:
\$19,250**



BAD EXPERIENCE
WORST AWFUL
UNSATISFACTORY
POOR QUALITY
NEVER AGAIN
I HATE IT UPSET
DISAPPOINTED

A woman with dark hair, wearing a light blue short-sleeved shirt and a pearl necklace, is sitting at a desk. She is holding a black rotary telephone receiver to her ear with her left hand and a pen in her right hand, appearing to be shouting or expressing frustration. The desk is cluttered with large stacks of papers and a typewriter. In the background, there is a framed picture on the wall and a window with sheer curtains.

Business Interruption & Data Restoration Costs:
\$31,570 for an average loss event



**When all else fails you need a
reliable backstop**

Thank You!

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