The webcast will start at 1:00 p.m. Eastern

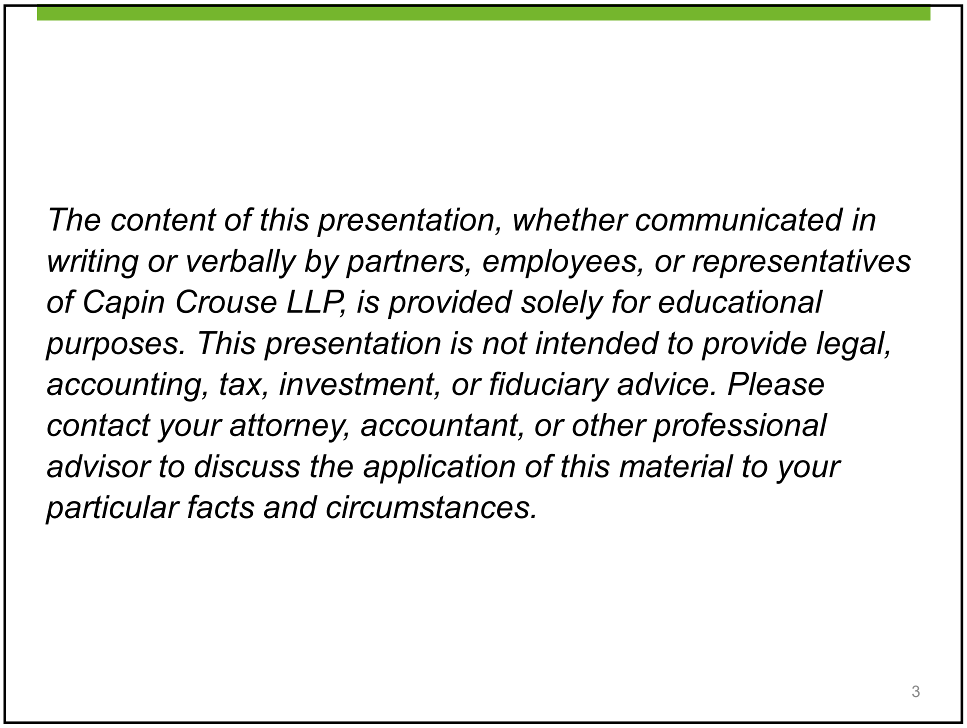
- Visit capincrouse.com/incident-management to access these resources from today's webcast:
  - Handout
  - Recording
- To receive CPE credit, you must respond to the polling questions.
- If you qualify for CPE credit, a certificate will be emailed to you within the next few weeks.

Incident Management:

An Effective Response Starts Now

Allison Ward, Partner
Katie Herbert, Senior Manager
7.17.24

CAPINTECH



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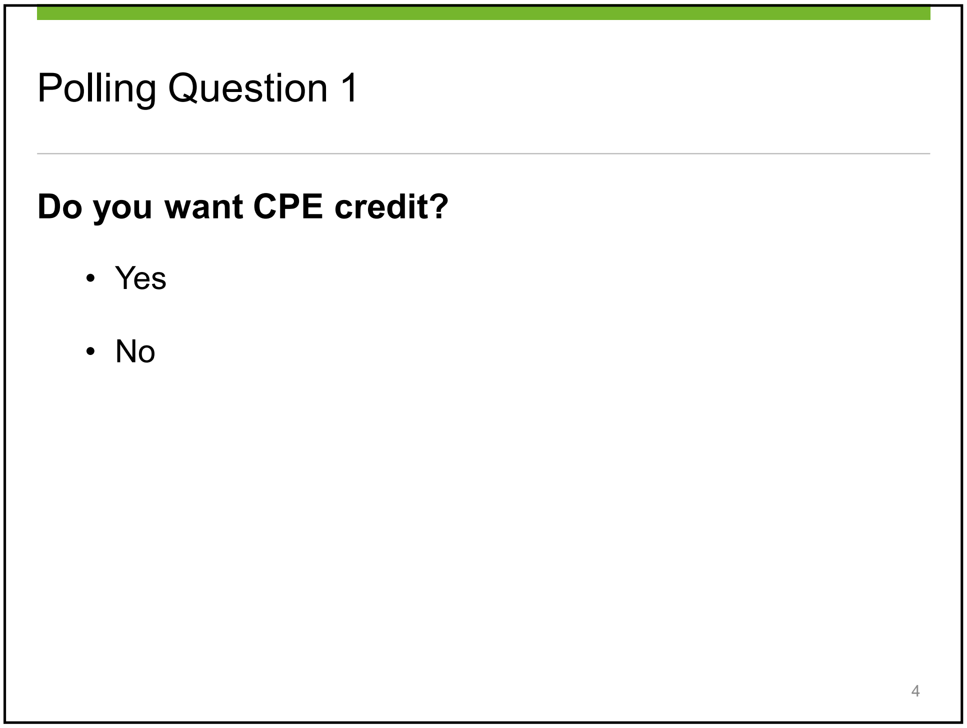

Polling Question 1

Do you want CPE credit?

- Yes
- No

What are you up against?

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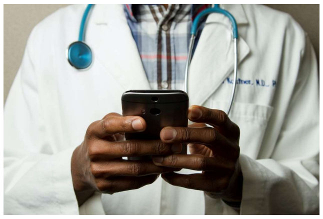
You have a lot to plan for.

Who is being targeted?



Polling Question 2

Has your organization experienced an incident?

- Yes, but we were able to stop it.
- Yes, and unfortunately it resulted in a breach.
- No! Knock on wood.
- Unknown at this time.

What types of attacks are we seeing?

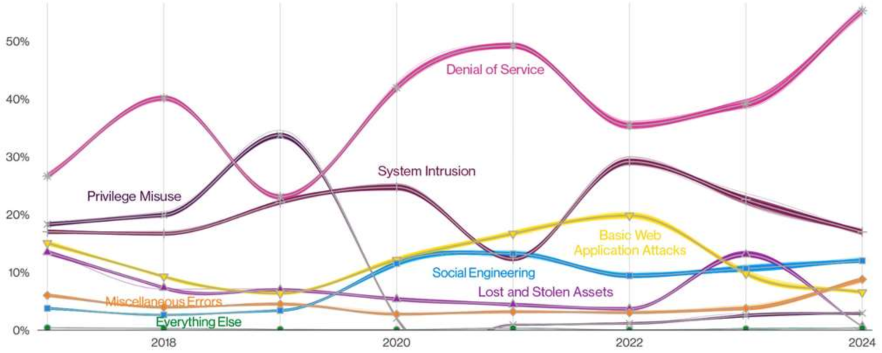


Figure 26. Patterns over time in incidents

Source: Verizon Data Breach Investigations Report, 2024

What types of attacks are we seeing?

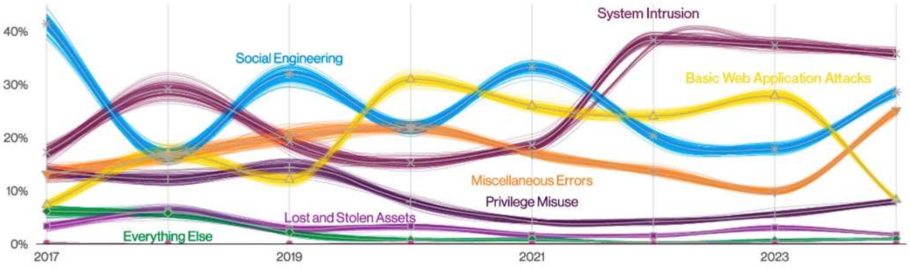


Figure 27. Patterns over time in breaches

Source: Verizon Data Breach Investigations Report, 2024

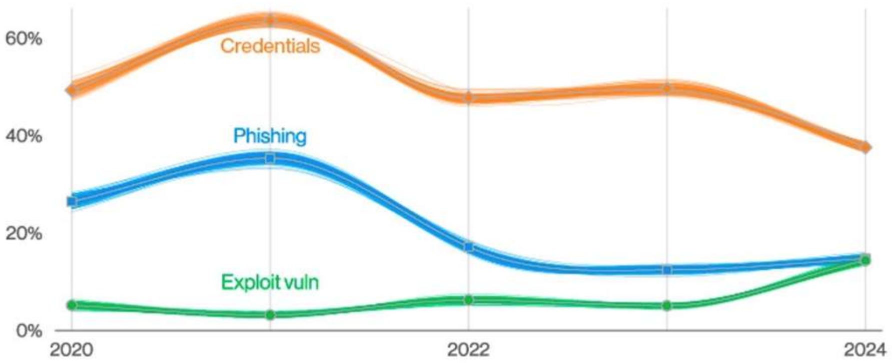


Figure 6. Select ways-in enumerations in non-Error, non-Misuse breaches over time

Source: Verizon Data Breach Investigations Report, 2024

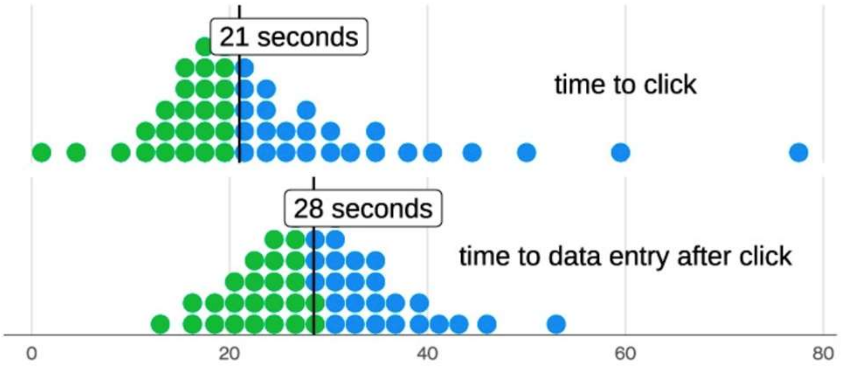


Figure 39. Time between email clicked and data entered

Source: Verizon Data Breach Investigations Report, 2024

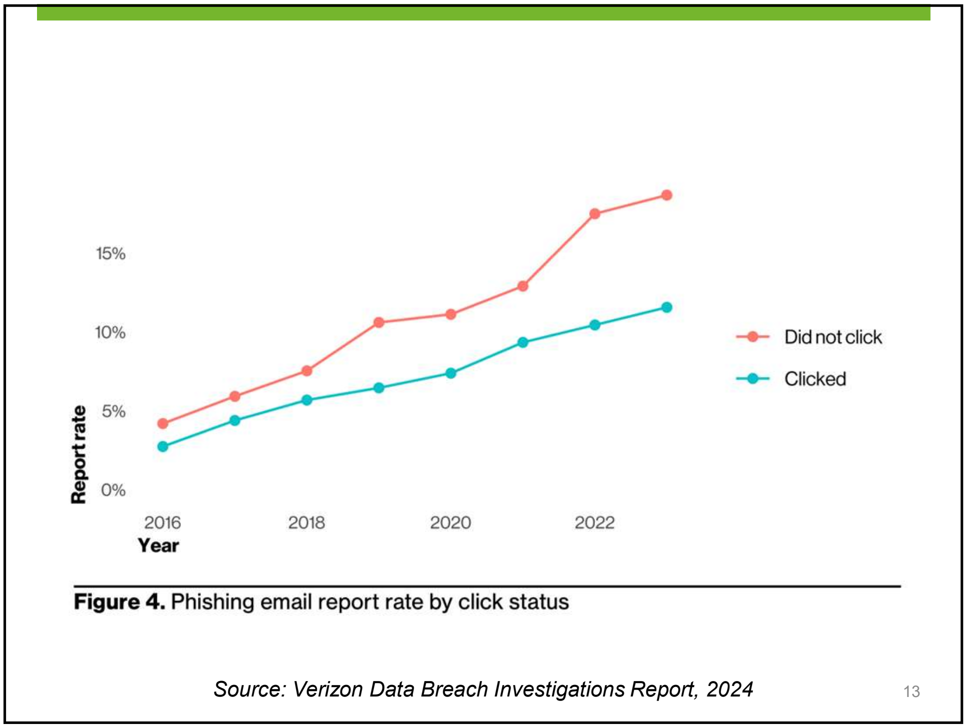


Figure 4. Phishing email report rate by click status

Source: Verizon Data Breach Investigations Report, 2024

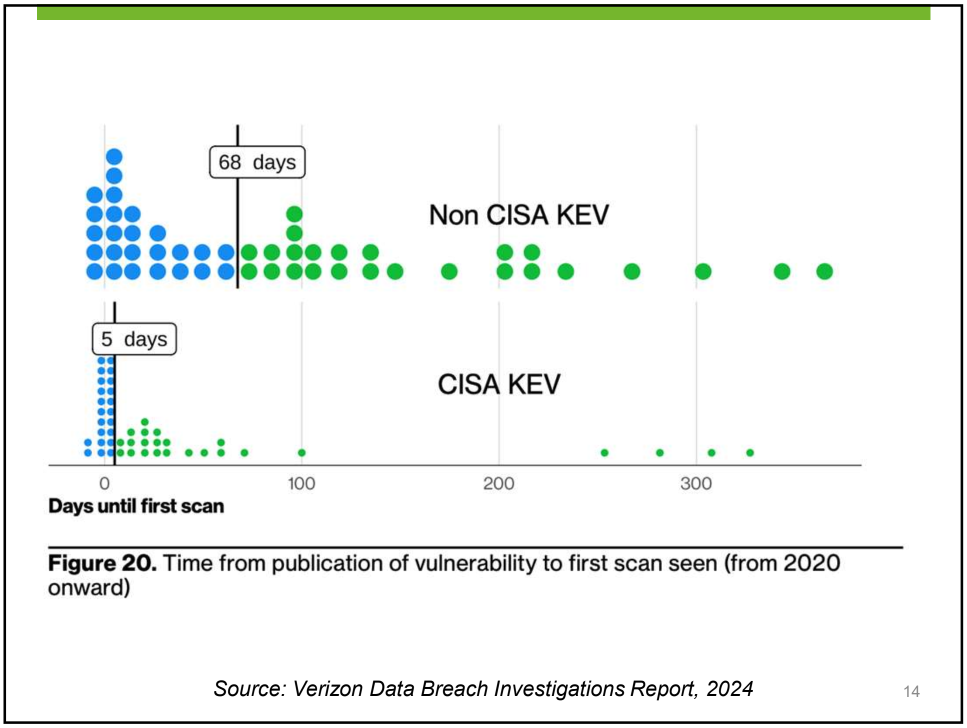


Figure 20. Time from publication of vulnerability to first scan seen (from 2020 onward)

Source: Verizon Data Breach Investigations Report, 2024

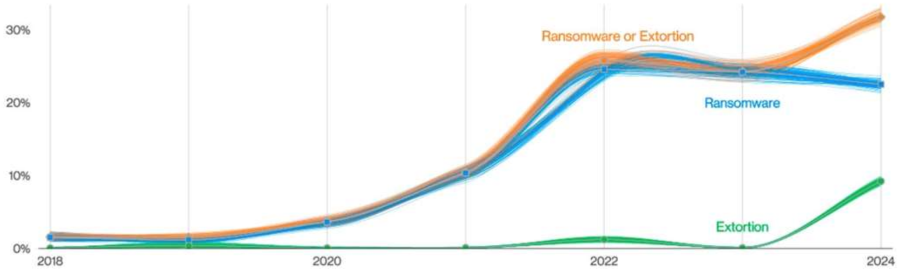


Figure 2. Ransomware and Extortion breaches over time

Source: Verizon Data Breach Investigations Report, 2024

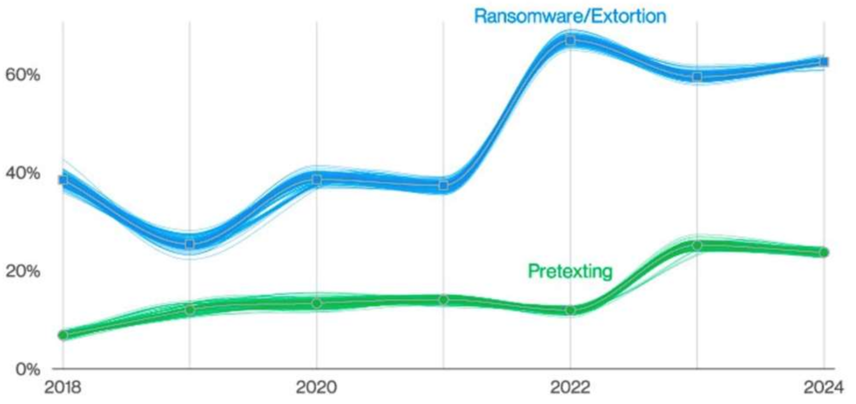


Figure 5. Select action varieties in Financial motive over time

Source: Verizon Data Breach Investigations Report, 2024

Supply Chain Disruptions

- How are you impacted?
- How are your service providers impacted?
- How are your service provider’s service providers impacted?
- And on and on…

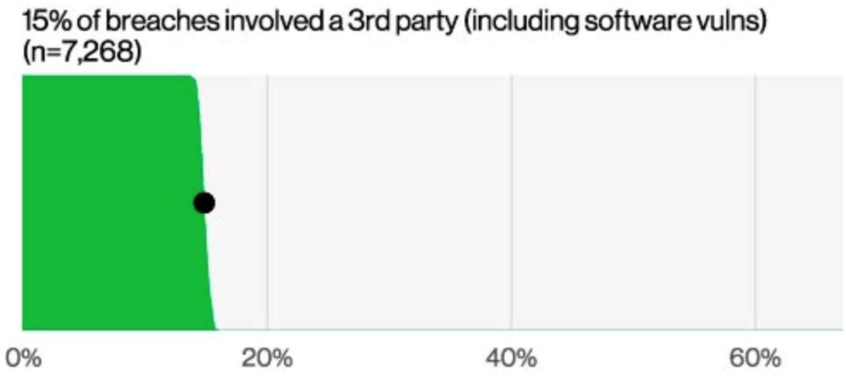

15% of breaches involved a 3rd party (including software vulns) (n=7,268)

Figure 3. Select key enumerations in breaches

Source: Verizon Data Breach Investigations Report, 2024

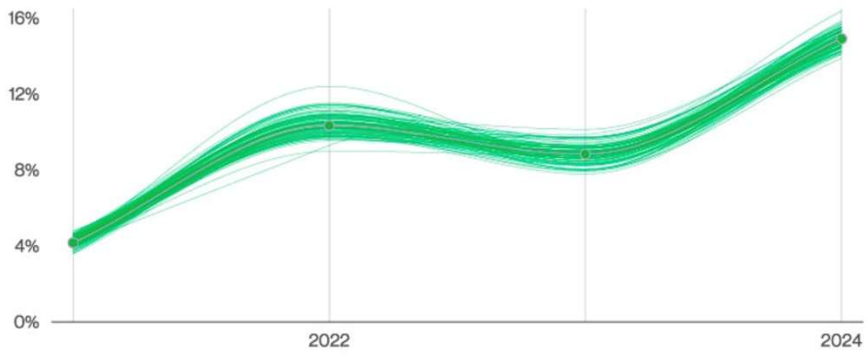


Figure 9. Supply chain interconnection in breaches over time

Source: Verizon Data Breach Investigations Report, 2024

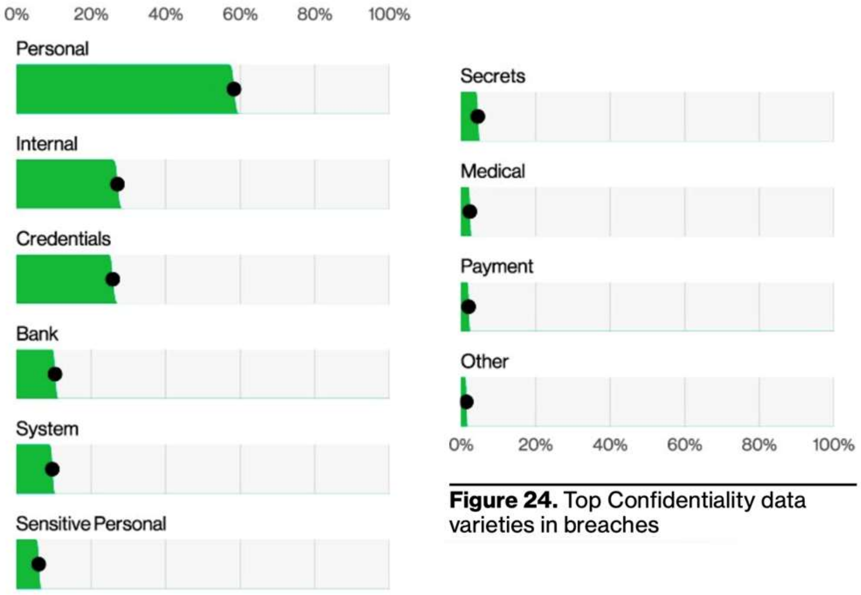
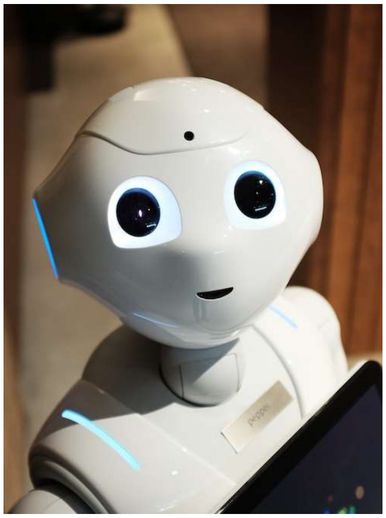


Figure 24. Top Confidentiality data varieties in breaches

Source: Verizon Data Breach Investigations Report, 2024

What are the challenges?

Growing Challenges



- Balancing regulatory requirements and usability
- Expanding technologies
- System integrations
- Mergers and acquisitions
- Vendor supply chain
- More to plan for

To address challenges, your plan must be…

- Fluid and adaptable
- Straightforward and useable
- Comprehensive enough to:
  - Support continuity of operations
  - Minimize impact
  - Enable timely recovery

Where do you start?

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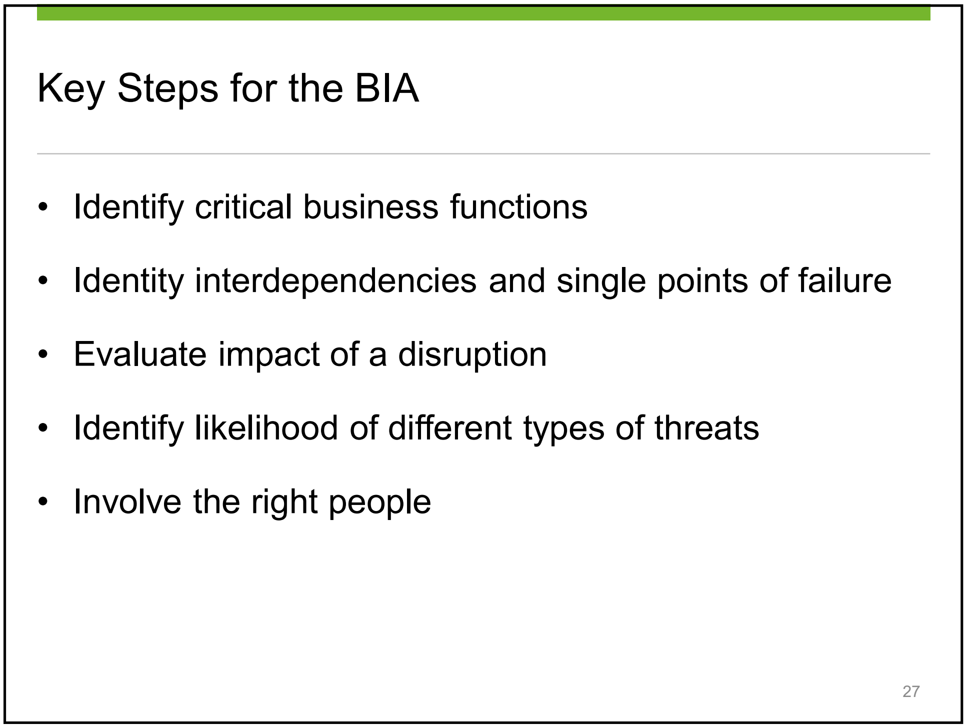
Polling Question 3

Do you have an incident response plan?

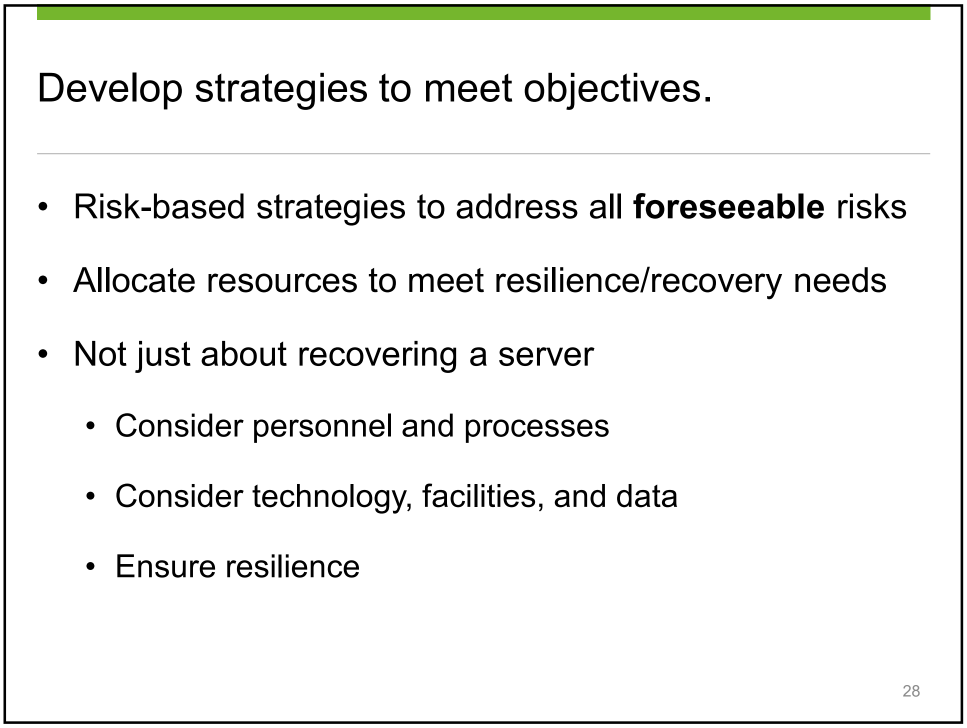
- No, why do you think I’m here?
- Yes, but it’s not formalized.
- Yes, signed, sealed, and delivered!
- Other (chat it)

Conduct a business impact assessment (BIA).



Key Steps for the BIA

- Identify critical business functions
- Identity interdependencies and single points of failure
- Evaluate impact of a disruption
- Identify likelihood of different types of threats
- Involve the right people



Develop strategies to meet objectives.

- Risk-based strategies to address all **foreseeable** risks
- Allocate resources to meet resilience/recovery needs
- Not just about recovering a server
  - Consider personnel and processes
  - Consider technology, facilities, and data
  - Ensure resilience

An effective response starts now.

Planning: Who is your team?

- Define team member roles and responsibilities
- Include wide range of backgrounds and expertise from different areas within the organization
- Who is on your team?

Planning: What are your goals?

- How do you balance confidentiality, integrity, and availability?
  - Drives containment
  - Legal and liability considerations
- Are you focused on security of data or operations?
  - What can be disconnected?
  - What needs to remain online?

Planning: Would you pay the ransom?

Planning: Scope and Escalation

- What constitutes an incident?
- What warrants escalation of the plan?
- Who makes the call to enact the plan?
- Do front-line staff know how to identify an issue?

Planning: Identification

- Do you have visibility?
  - Network perimeter
  - Internal traffic
  - Within applications
  - Within endpoints
- Where are the gaps?
- What can't you see?

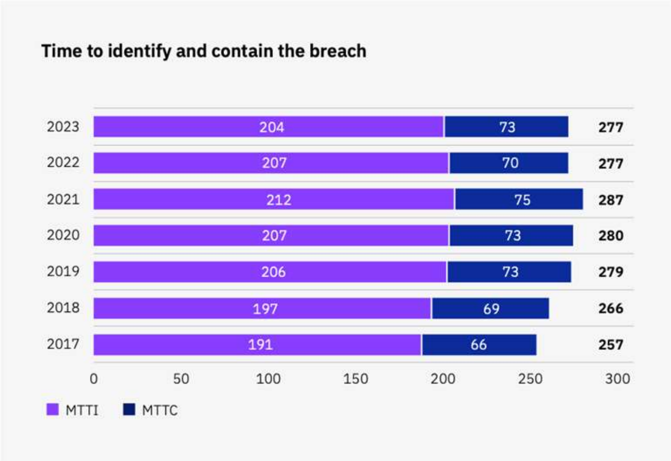
Is AI the future of incident response?

With all the practice, the response must be good!

- More complex, “low-and-slow” attacks
- Goal of compromising as much of network as possible to get the largest possible payout
- 56% didn’t detect a breach for **3 – 12 months**

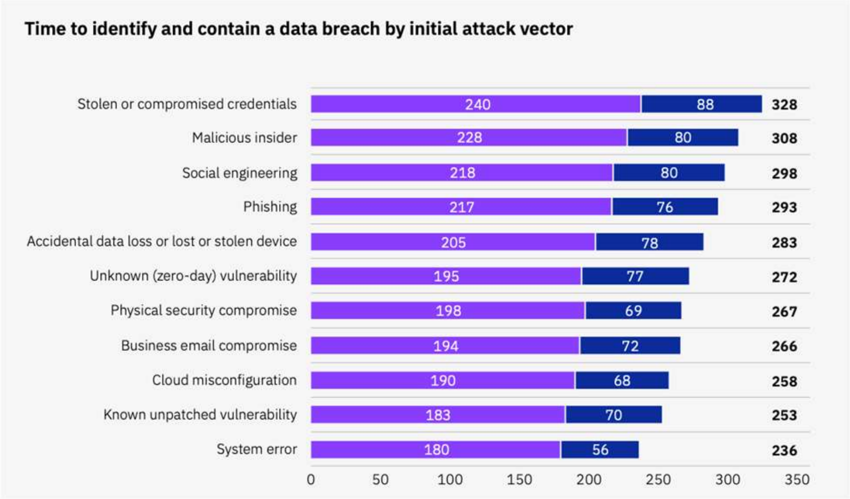
Source: Cybereason Ransomware: The True Cost to Business Report, 2024

With all the practice, the response must be good!



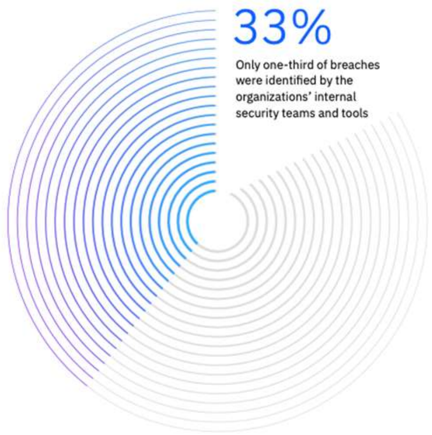
Source: IBM Cost of a Data Breach Report, 2023

With all the practice, the response must be good!



Source: IBM Cost of a Data Breach Report, 2023

With all the practice, the response must be good!



33%

Only one-third of breaches were identified by the organizations' internal security teams and tools

Source: IBM Cost of a Data Breach Report, 2023

With all the practice, the response must be good!

How was the breach identified?

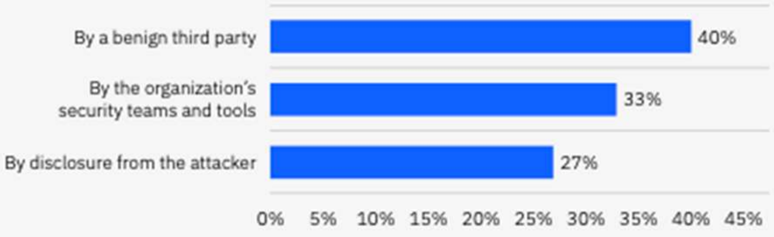


Figure 12. Only one response permitted

Source: IBM Cost of a Data Breach Report, 2023

With all the practice, the response must be good!

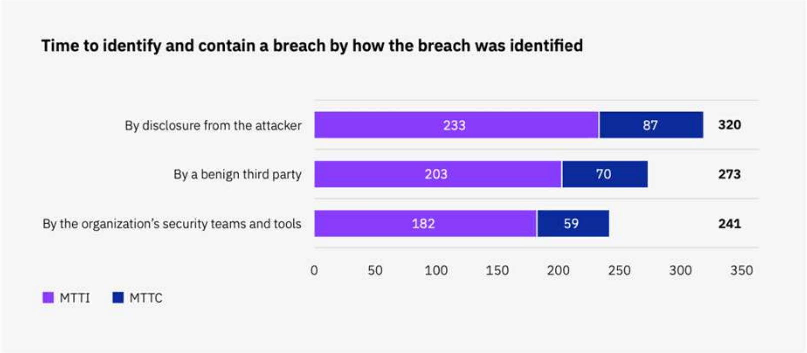


Figure 14. Measured in days

Source: IBM Cost of a Data Breach Report, 2023

41

Planning: Notification

- Who do you need to notify internally upon enacting the plan?
- How do you notify?
  - Unique considerations with cyber incidents.
  - Do you have alternate contact mechanisms?

42

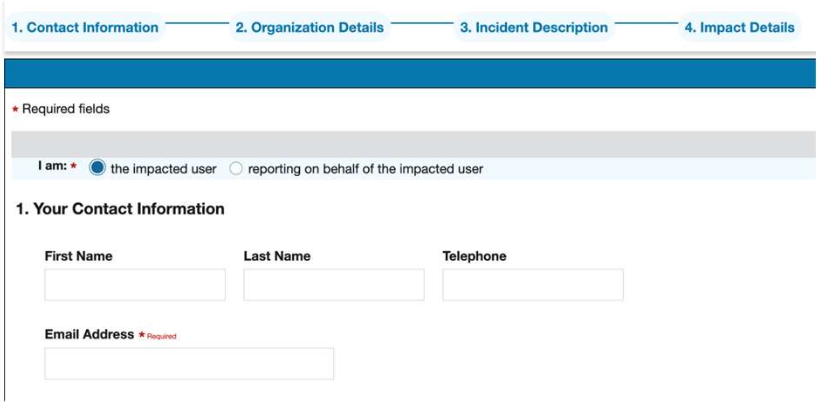
Planning: Notification

- Who are you going to notify to aid in mitigations?
  - Insurance
  - Law enforcement
  - Ransomware specialists
  - Forensics
  - Legal

Planning: Notification

- What external parties do you need to notify? When?
  - Regulators
  - Information-sharing organizations
  - Key vendor relationships

Cybersecurity & Infrastructure Security Agency



1. Contact Information — 2. Organization Details — 3. Incident Description — 4. Impact Details

* Required fields

I am: * ● the impacted user ○ reporting on behalf of the impacted user

1. Your Contact Information

First Name

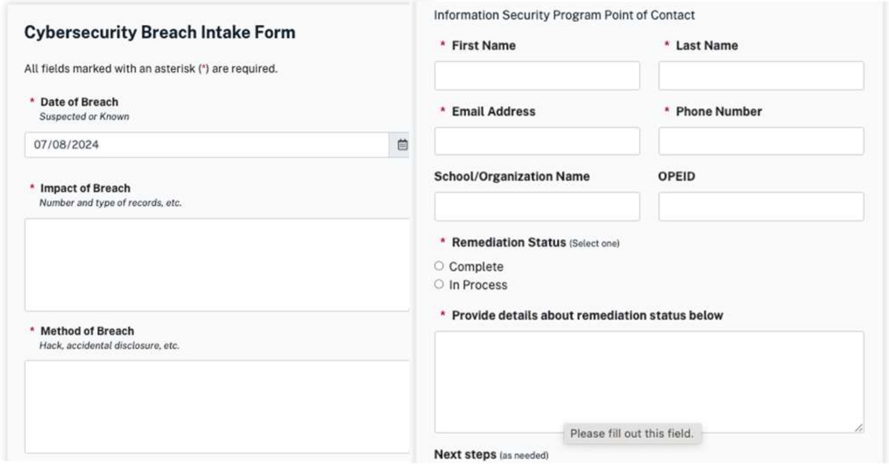
Last Name

Telephone

Email Address * Required

Source: Cybersecurity & Infrastructure Security Agency (CISA) Incident Reporting System

Federal Student Aid Breach Intake Form



Cybersecurity Breach Intake Form

All fields marked with an asterisk (*) are required.

* Date of Breach
Suspected or Known

07/08/2024

* Impact of Breach
Number and type of records, etc.

* Method of Breach
Hack, accidental disclosure, etc.

Information Security Program Point of Contact

* First Name

* Last Name

* Email Address

* Phone Number

School/Organization Name

OPEID

* Remediation Status (Select one)

○ Complete

○ In Process

* Provide details about remediation status below

Please fill out this field.

Next steps (as needed)

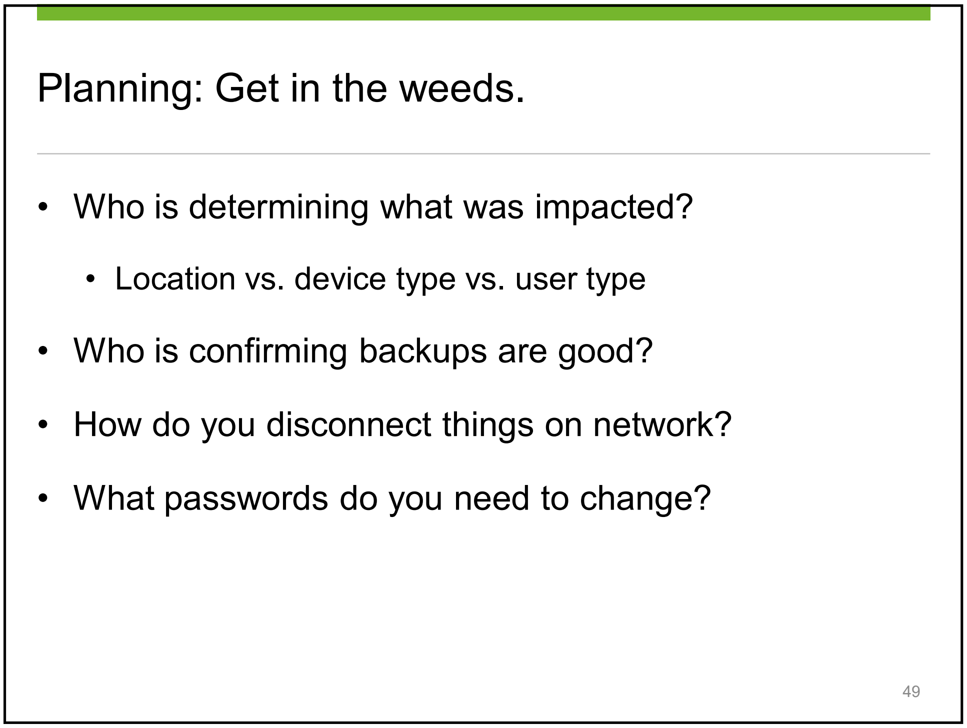
Source: Federal Student Aid website, Cybersecurity page

Planning: Containment

- What "categories" do you plan for?
  - External attacks
  - Vendor-initiated events
  - Customer-initiated events
  - Employee-initiated issues (e.g., phishing)
- Any separate processes for specific events?

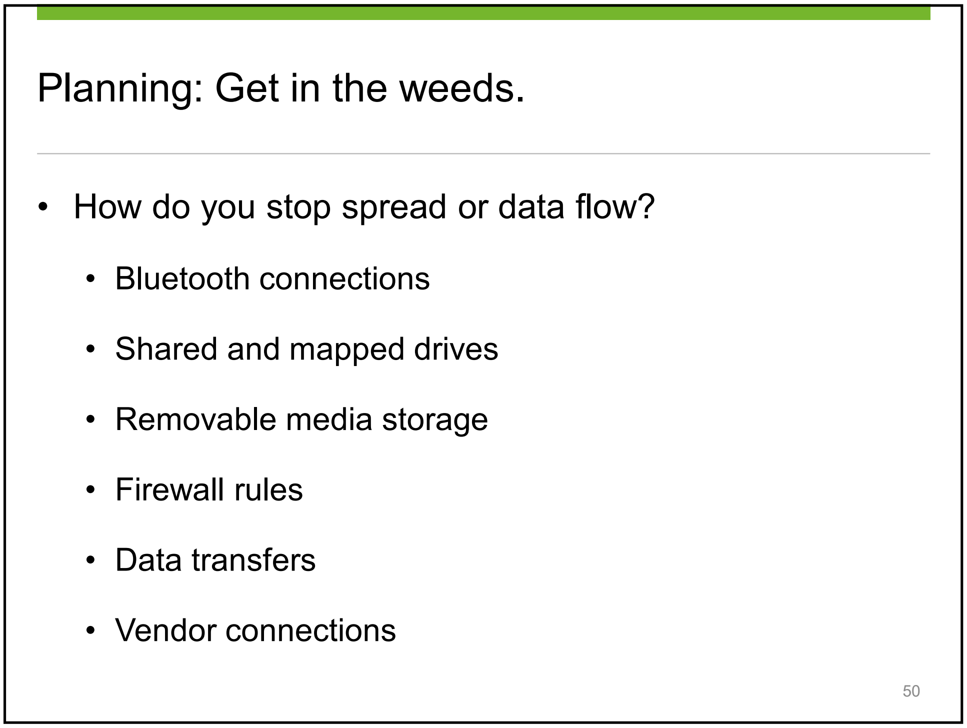
Planning: Containment

- How do you contain?
  - Isolation of compromised systems
  - Additional monitoring of intruder activities
  - Searching for additional compromised systems



Planning: Get in the weeds.

- Who is determining what was impacted?
  - Location vs. device type vs. user type
- Who is confirming backups are good?
- How do you disconnect things on network?
- What passwords do you need to change?



Planning: Get in the weeds.

- How do you stop spread or data flow?
  - Bluetooth connections
  - Shared and mapped drives
  - Removable media storage
  - Firewall rules
  - Data transfers
  - Vendor connections

Planning: Do you kill the Internet completely?

51

Planning: Containment

- Identify critical processes for unique events
  - Comprised emails and creation of auto-forwarding rules
  - Ransomware vs. wiperware

52

Planning: Maintaining Evidence

- What activity logs do you have?
  - Sufficient storage time
  - Off-loaded from associated device
  - Backed up and retained
- Remember: many issues aren’t identified right away
- Other concerns: custody, integrity, preservation, etc.

53

Planning: Restoration

- Ties heavily to Disaster Recovery Plan but more than having backups to restore from
- Ensure backups cannot be impacted by ransomware
  - Make immutable
  - Create physical offline copies
  - Utilize logical air gapping
- How do you ensure backups are “clean”?

54

Planning: Post-Incident Notification

- Who are you going to notify? And when and how?
  - Constituents
  - Donors
  - Vendors
  - Organizations in the industry
  - Public or media
- Do you have contact details readily available?

What are you going to say?

Planning: Understanding Legal Requirements

57

Planning: Lessons Learned

- What worked in your plan?
- What didn’t work?
- Where did you struggle?
- What wasn’t documented?

58

Cyber insurance: where does it fit in?

Check with your vendors.

- What are they doing to protect your hosted data?
- If your vendor has a ransomware incident, you could potentially lose your data.
  - It may be their fault, but it's still *your* problem.
  - What does that mean for you?

Practice makes ~~perfect~~ better.

- Conduct exercises
- Incorporate key stakeholders
- Evaluate effectiveness of your training program
- Identify gaps in plans before disaster or incident happens

Takeaways from Tabletop Discussions

- Where are the maybes?
- Where do you not have visibility?
- Where do you need training?
- Where do you need authorization?
- What do you need to document?
- Is this attack plausible in your environment?
- What is the ONE thing you need to do?

Report to Management regularly.

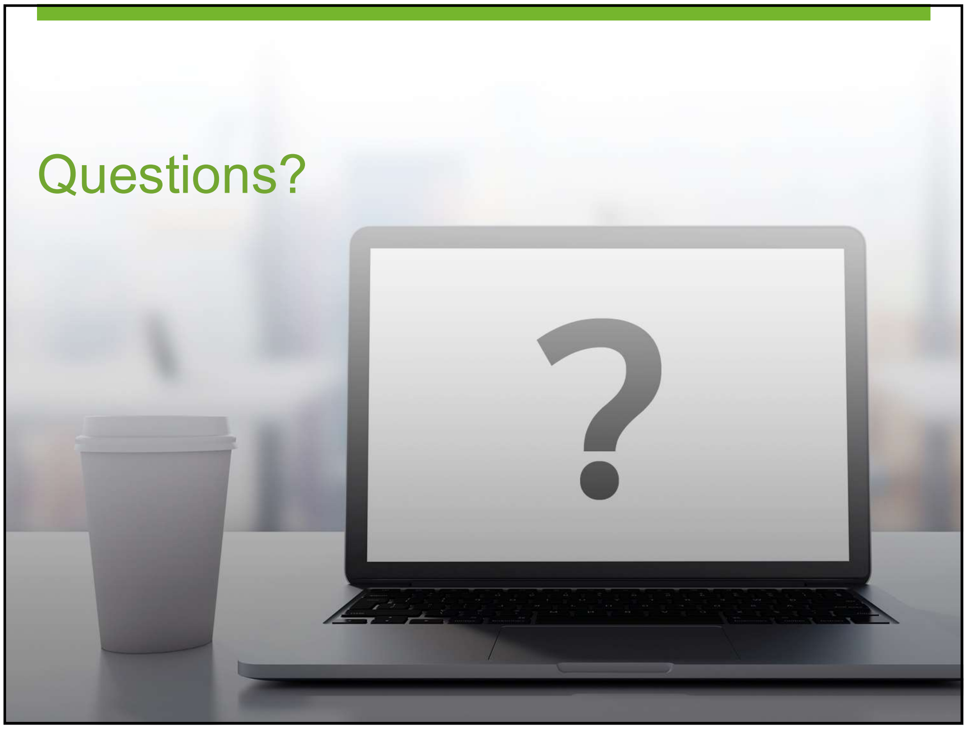
- Results of your BIA and risk assessment
  - *Advocate for your needs*
- Major changes to plans
- Results of training
- Results of testing

Polling Question 4

Do you feel more prepared?

- No! I’m making a motion to get rid of the Internet.
- A little, but it’s overwhelming.
- Yes, I feel like we can do this!

Questions?



Thanks!

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