CYBER CLAIM TABLETOP EXERCISE

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AGENDA

- Purpose and scope of a cyber Incident Response Plan (IRP)
- Importance of a tabletop
- Why responding well matters
- Identification of an event and triggering the incident response team – whose responsibility is it anyway?
- Good practices, lessons learned from others
- Security incident simulation exercise

Imagine someone trying to break into your house.

Now imagine it
60,000 times a day.

http://www.ibm.com/smarterplanet/ie/en/business_resilience_management/overview/index.html?re=spf

IMPORTANCE OF A CYBER INCIDENT RESPONSE PLAN

- What is a cyber IRP?
  - An organized approach to addressing and managing the aftermath of a cyber incident or cyber attack of computer systems that could result in data breach, security breach, or system interruption
  - Goal is to manage a situation in a way that limits damage and reduces recovery time and costs
- Importance of incident response
  - Enables an organization to be prepared for the unknown as well as the known
  - Reliable method for identifying a cyber incident immediately
- An IRP should include procedures to detecting, responding to and limiting the effects of a cyber incident

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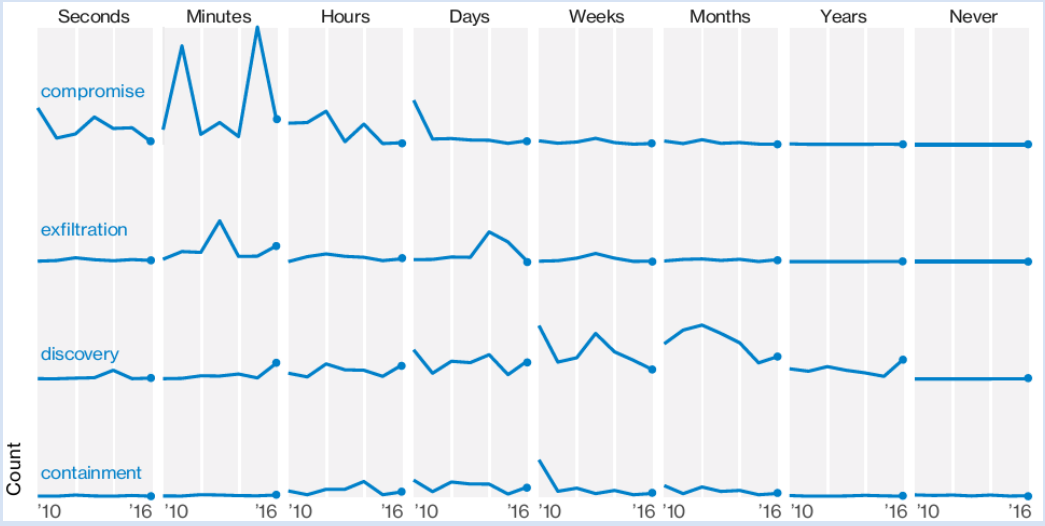
SCOPE OF A CYBER IRP

- Identification of the threat or security incident
  - What just happened?
    - Triggering the incident response team
  - Making sure the right people / partners are a part of the team
    - Containment
  - Have you stopped the "bleeding"?
- Remediation
  - Have you taken steps to prevent this type of event from occurring in the future?
- Notification – and beyond
- Identification: time to **impact** vs. time to **discover**

TIMESPAN OF BREACH EVENTS OVER TIME



Source: Verizon's 2017 Data Breach Investigations Report, 10th edition

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THE MISSING LINK: FROM POLICY TO IMPLEMENTATION

- You've drafted an IRP – now what?
  - Have the policy reviewed by all departments and key incident response team members
  - Let people know they are on the incident response team
    - How do you activate the team?
    - How quickly are team members required to respond?
    - What happens if someone is unavailable?
    - Who is the spokesperson for the team?
    - What if the spokesperson is unavailable?
- A plan never survives first engagement with the enemy

LIFE CYCLE OF AN INCIDENT

Identification → Containment → Remediation → Notification

- Triggering the incident response team
  - Identifying that an event has occurred and determining who needs to be involved
- Stop the bleeding – but don't damage the wound!
- Taking steps to prevent a similar event from occurring in the future
- Who do you tell?
- How?
- When?

WHY RESPONDING WELL MATTERS

- Miscommunication can be catastrophic
- A delay in investigation and response can be catastrophic
- As can responding too quickly

STUMBLING BLOCKS – WHAT ARE THEY?

- The buck stops here – who has ultimate authority to make the decisions?
- External communications – difficulty involved
- Identifying key stakeholders
- Identifying the “extras” that will expedite the response process

PURPOSE OF A TABLETOP EXERCISE

- Objective-based exercise
  - Tabletop simulations provide a great vehicle for organizational awareness and training for inevitable security incidents
  - Allows a team to come together in a low-stress environment to assess their procedures and plans
  - Test the incident response plan to determine strengths and weaknesses of plan
- Scenario
  - Relevant to company threats and environment (asked to not fight the narrative)
  - Plausible based upon based on industry known incidents
  - Inclusive of all participants
  - Solvable by the team assembled
  - Scenario injections introduced to evolve the situation and support to achieve exercise objectives

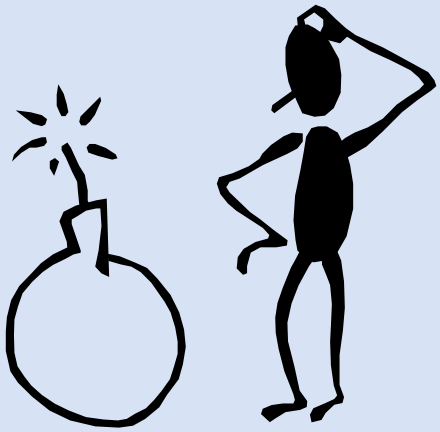
TYPE OF EXERCISE

- Tabletop exercises
  - Facilitated, discussion-based exercises of a given scenario
- Functional exercises
  - Validation of readiness through performance of duties in simulated environments
- Tool evaluation
  - Validation of operability of system components with quantifiable metrics
- Control validation
  - Technical or procedural control validation using active introduction of simulated attacks

DATA BREACH EXERCISE RULES OF THE ROAD

- There are no wrong answers
- More participation equals more fun
- Don't be afraid to "what if" the participants
- Ask questions throughout
- Liberal application of fairy dust!

CYBER ATTACK



SIMULATION EXERCISE

- Things are going smoothly, until…
  - At 8:30 am on Friday, IT receives a complaint from an employee that he could not access key business-critical applications and documents

CURRENT STATE OF ENVIRONMENT

- Background on systems
  - The business-critical applications are hosted by an outside service provider
  - Your point of contact is a relationship manager
- Your access to the system is limited to entering data, assigning / terminating accounts, resetting passwords, running reports
  - Security, integrity and availability of data and applications
  - Contract simply says provider is required to have adequate back-ups

WHAT DO YOU DO?

- Contact the relationship manager
  - You reach their voicemail
  - You call the help desk number, which forwards you to a call center that promises to forward your inquiry to an emergency number
  - Four hours pass before someone returns your call

PROVIDER RESPONSE

- You reach the relationship manger, who tells you
  - Their entire system has been hit by a ransomware attack
  - They are working to restore the system
  - They will be in touch shortly
- Now what?

RANSOMWARE

- When ransomware affects vendors' systems
  - Service level agreements usually do not anticipate this type of event
  - Depending on size of vendor, the system will most likely be down for several days
  - Contracts do not contain sufficient cyber security audit requirements

WHAT IF IT IS YOUR SYSTEM?

- Responding well matters
  - To pay or not pay, that is the question
    - You have to have adequate backups, can restore from backups, to limit downtime
    - **What if backups are infected as well?**
- What if you don't have backups
  - Attacker accessed your system, turned off the backups
  - Backups configured wrong
  - Backups infected as well

RANSOMWARE RECOVERY

Options

Pay for decryption key

Restore from backup

RANSOMWARE RECOVERY

- **Pay for decryption key**
  - Create forensic copy of affected devices
  - Test encryption key on data, then execute
  - Review device to make sure no secondary infection is present
  - Restore clean devices
- Conduct legal analysis
- Determine if incident is reportable to clients, regulators, or individuals

RANSOMWARE RECOVERY

- **Restore from backup**
  - Run scans on backups to make sure they are not infected as well
  - Upload signature to anti-virus provider, run it across network
  - Confirm no secondary infection
- Conduct legal analysis
- Determine if incident is reportable to clients, regulators, or individuals

RANSOMWARE EVENT

- What does this mean?
  - Test your systems, test your backups
  - Make sure your vendors test their systems and backups
  - Review contracts carefully to protect your interests

RANSOMWARE EVENT

- In summary
  - Preparation is key to responding to an event successfully
  - Practice – the worst time to test your incident response plan is in the middle of your first incident

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