Testing Your Incident Response Process

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Thursday, June 25, 2009
Refresher of Incident Handling Process

- Understand background
- Define communication
- Assess scope
- Decide on evidence handling
- Investigate and Isolate
- Mitigate/repair
- Reporting
- Lessons learned loop
Incident Response Test Process

- Think “D & D”
- Incident director plays “Murphy”, entropy, “dungeon master”
- Independent observer
  - silent
  - performs gap analysis
Testing Scenario 1

- Stolen laptop and case
  - VPN token
  - What was lost? How do you know?
  - Was it encrypted? R U Sure?
- Notification mechanisms
- Asset tracking
- Credential management and social engineering
- Blackmail add-on

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Testing Scenario 2

• The web site “isn’t right”!
  • SQL injection in content manager
  • Serving up malware and has been for 8 hours
  • Now what?

• Manage, mitigate, notify infected users?

• What data is exposed? What is the risk? Where do the devices sit?

• Do you have prevention, detection and response for web attacks?

• Customer support work load issues?
Testing Scenario 3

- Worms, Bots and Rootkits, Oh My!
  - Worm on internal network, 0-day Windows, spreading fast and leaving systems infected (possible rootkit) - new admin user & outbound connecting command shells
  - No patches or AV signatures available yet...
  - Regain control, limit spread, terminate command shells, trace the infection to source, manage exposures
  - “Patchless” mitigation strategies
  - Malicious crypto/blackmail add-on
  - How is rootkit different and how do you handle it?
Lessons Learned Loop

- Most important part
- Gap analysis
- Board-level or steering committee reporting
Continuing Improvement

- Add training/resources as needed
- Implement changes
- Train
- Table top again!
Key Take Aways

- Understand your process
- Perform worst-cases
- Prepare for failure/struggle
- Implement improvements
- Practice, practice, practice
Thanks, Q&A

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- Table top testing has high value!!!
- Observers are key!!!
- Use random entropy when possible!
- Practice prevents panic!!!!