Criminal Clouds, Rogue Routers and Darknet DDoS Deals

Infoblox
CONTROL YOUR NETWORK

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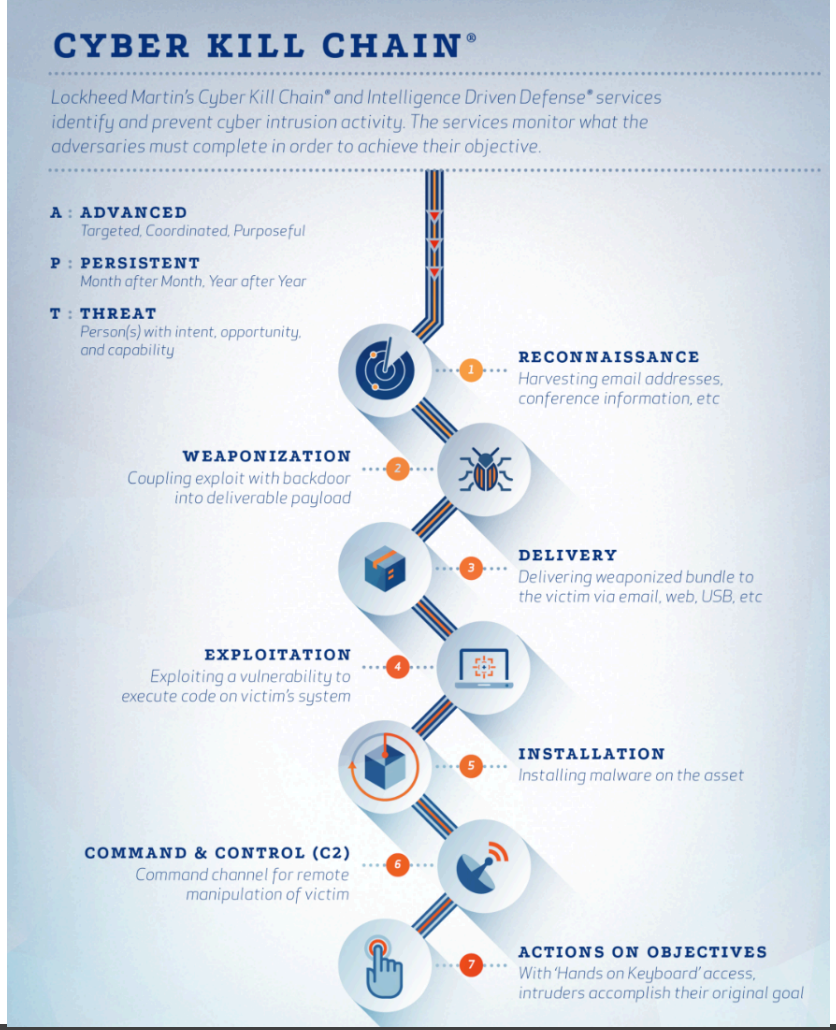
Agenda

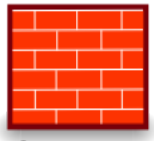
- Security Team Challenges
- Criminal Cloud
- Actionable Network Intelligence Ecosystem
- How to mitigate IoT based DNS DDoS attacks
- Summary and Conclusions



Many point solutions "high maintenance", Silos, scarce security staff

Vulnerability Management

Endpoint Protection (AV and/or Sandbox)



NG Firewall

Intrusion Protection (IPS)

Security Incident and Event Management System (SIEM)

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Customer Security Challenges

Security They Want

Security They Often Get

Customer Security Challenges

Inability to Prioritize Events | Lack of Visibility | Lack of Vendor Integration

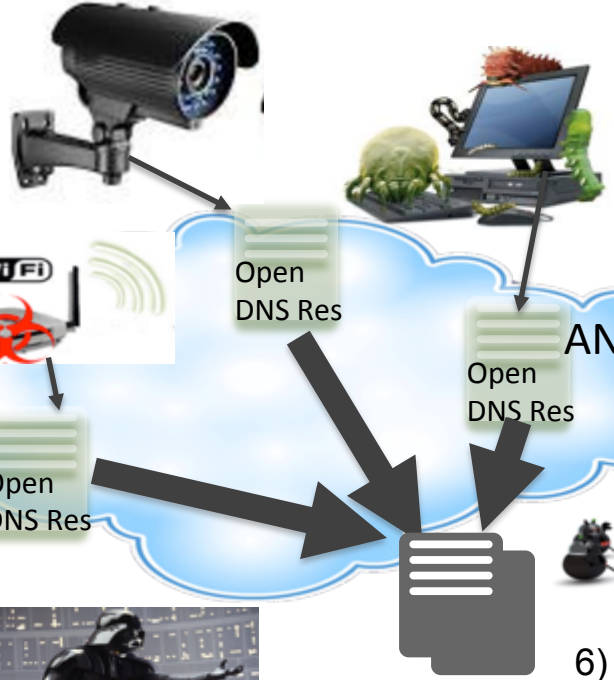
Manual Processes | Inability to Respond

Well Organized Criminals

1) CentralAdministration.com sets up and maintains Cybergang Cloud, domain obfuscation

3) wrapper.com malware obfuscation

4) distributors.com spread packaged malware via spam, drive-bys: **end user interaction**



5) CnC.com: maintains infections on machines: **end user interaction**

2) MaliciousCoder.com creates, new malware leveraging common vulnerabilities

6) Botnet.com coordination of infected computers, obfuscate communication: **end user interaction**

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How to make (Network, Threat) Intelligence Actionable:

- Realtime
- Intelligence that focusses on what is to do rather than overwhelm Security Operations with countless alerts:
  - What
  - Where
  - Who
  - Why
- Reduces Operational Effort
- Reduces Risk

DNS and Threat Intelligence: Existing Security become more effective

DNS Security
Unique Threat Data to improve malware and data exfiltration visibility & prevention

DNS DHCP IP Adress Management
Critical data for correlation, prioritization or events and reduced incident response times

Ecosystem & Data Exchange
Scalable infrastructure and API's to enable data to flow between separate security systems

Enforcement & Mitigation
Pervasive DDI coupled with Threat Intelligence enables mitigation, enforcement across infrastructure

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Mirai based DNS attacks: What Can We Do?

Use a mixed set of authoritative name servers

- On-premises name servers
- Hosted name servers
- If your DNS hosting provider or one of its customers is attacked, recursive name servers on the Internet will notice that they’re not responding and will favor your on-premises name servers

Disrupt Cyber Kill Chain, improve Control, Visibility

- Supplement current security systems with new technologies that are relevant throughout chain and provide visibility:
  - DNS to understand what is REALLY going on
  - Threat Intelligence to find malicious identifiers
    - Entropy
    - Machine Learning

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Summary and Recommendations

- Bridge SOC / NOC gap: leverage Infoblox DDI for Security teams (if not done already)
- Leverage Security Ecosystem to improve efficiency
  - Ask each Security Vendor about their ecosystem
  - Ask about integrating new systems
- Domain Names centric Threat Intelligence across entire cyber killchain
- Get PCAP or POC Network Activity Analysis
- View a Dossier Demo

Thank You!

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