How Kim Dotcom saved Christmas

Wil Koch, Mike Marcin, Sophia Yakoubov
Lizard Squad (in the role of the grinch)

- Took down Xbox and PSN
- To advertise “stresser” service
  - allows customers to knock out web service of their choice
**DDoS Background**

**Q:** How can Lizard Squad take any web service offline?  
**A:** DDoS (Distributed Denial of Service) attack

- Attacker controls multiple hosts
- Uses them to create traffic for the web service (identified by IP or hostname), overwhelming it
- Hard to defend against:
  - Cannot block by IP – too many sources!
  - Cannot distinguish malicious traffic from honest users
DDoS Background - Types of DDoS Attack

- **Computation**al: uses up...
  - memory
  - disk space
  - processor time

- **Volume**: uses up bandwidth

- **Specifics of LizardStresser**:  
  - Various DDoS techniques (UDP, TCP, JUNK, HOLD)
  - Uses Botnet for DDoS
DDoS... By a botnet!
Lizard Stresser Botnet

Lizard squad

Command & Control

Home routers

Bot

Bot

Bot

Bot

Web Service Victim
How Lizard Stresser Botnet Propagates

Diagram showing the spread of the botnet with various login credentials.
DDoS attack on Christmas
"Ensuring Authority for Courts to Shut Down Botnets"

Changes to 18 U.S.C. § 1345 to include Computer Fraud and Abuse Act (18 U.S.C. § 1030) allow for injunctive relief when criminal actions affect 100 or more computers.

<table>
<thead>
<tr>
<th>Current laws:</th>
<th>Proposed law:</th>
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<tr>
<td>• Banking fraud</td>
<td>• Denying access to or operation of the</td>
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<td>• Wire fraud</td>
<td>computers</td>
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<td>• Communication interception</td>
<td>• Installing unwanted software</td>
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<td>• Using computers without authorization</td>
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<td>• Obtaining information without authorization</td>
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Create liability protection and allow for reimbursement of costs for companies.
Lessons Learned

- Avoid single point(s) of failure
  - centralized C&C
- Don’t hardcode values into bots
- Crime doesn’t pay!

- Avoid weak passwords
- Change defaults!
- Invest in DDoS mitigation (if you can afford it!)
References

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- Lizard Stresser Runs On Hacked Home Routers
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- How Kim Dotcom (Almost) Saved Christmas From the Lizard Squad by Forbes
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- Translation of Linux backdoor discovered by Dr. Web
References continued

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