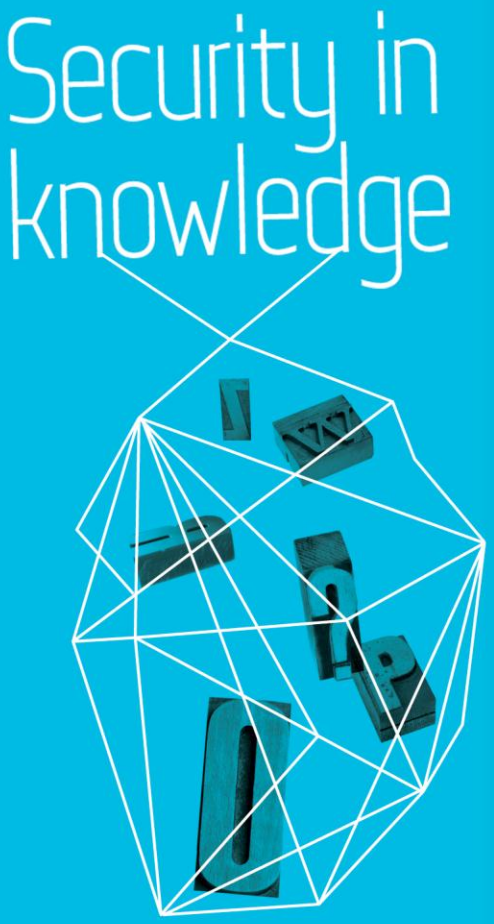
THE CYBER THREAT LANDSCAPE: NEW THEMES IN PREVENTION, DETECTION, RESPONSE



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Session ID: END-T18
Session Classification: Intermediate

AGENDA

- Cyber Threat Landscape
  - Nation States
  - Organized criminal groups
  - Hacktivists
  - Lessons learned
- New Themes
  - Response
  - Detect
  - Protect
- Take-aways

THREAT LANDSCAPE – NATION STATES

… the constant electronic theft of intellectual property that has silently occurred over the past several years has already **caused significant harm to our**

What we have witnessed over the past five to six years has been nothing short of a **hist**

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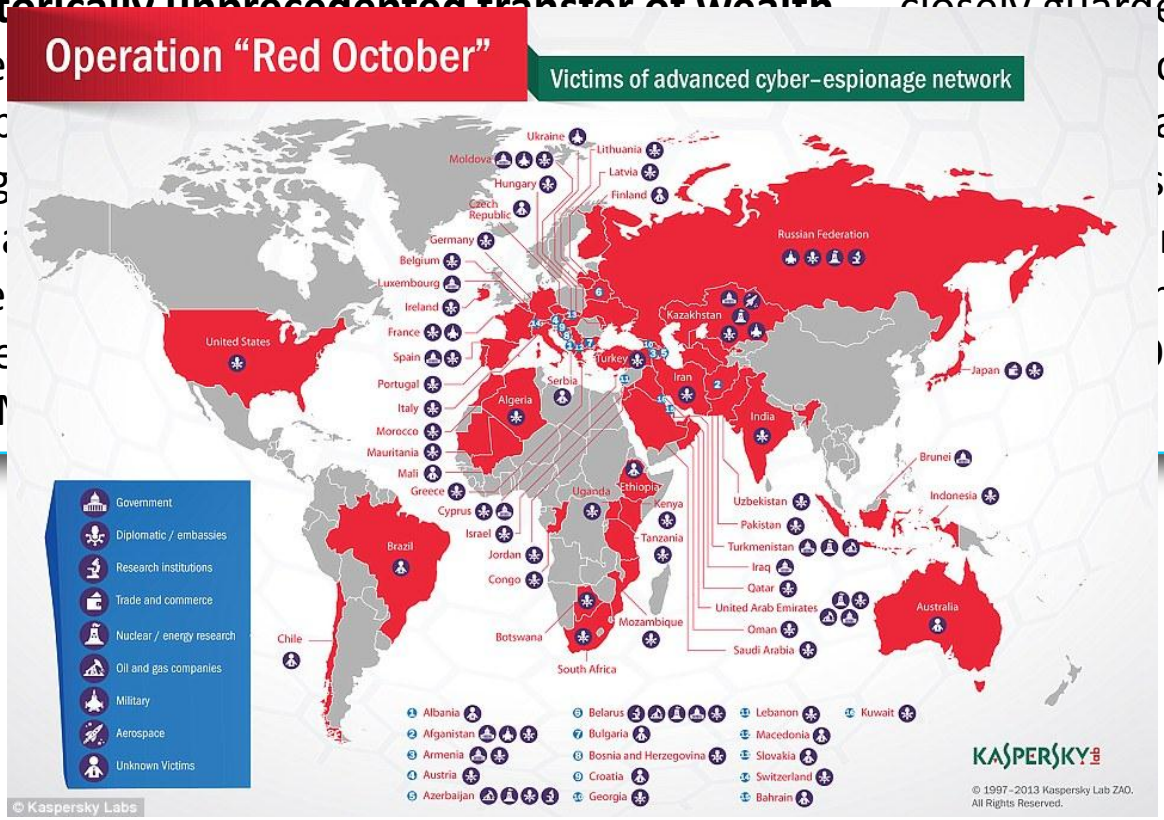

NATION-STATE ATTACKS

http://www.bankinfosecurity.com/hacktivists-suspend-ddos-attacks-a-5458?rf=2013-01-29-eb&elq=16d60e649ac743c3bd8642efdef64b87&elqCampaignId=5685.

THREAT LANDSCAPE – ORGANIZED CRIMINALS

THE CARDING

infosec ISLAND

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Dirt Jumper DDoS Botnet Variants Continue to Proliferate

Friday, April 13, 2012

Contributed By: Headlines

Researchers at Arbor Networks have identified so many varieties of the RussKill distributed denial of service (DDoS) botnet that they have dubbed the variants collectively as the "Dirt Jumper family".

"Attacks from the Dirt Jumper family of bots continue to target victims all around the world in a robust manner and we will take a look at who is being attacked, although we cannot always determine the motive," writes Arbor Networks' Curt Wilson.

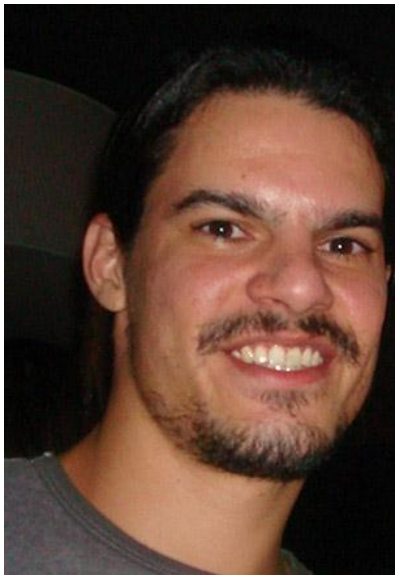
In denial of service attacks, generally a large amount of information is sent to a web server at such high frequency that it overwhelms the processing capacity or causes the system to shut down and reset altogether.

The proliferation of the Dirt Jumper botnets have spawned an underground economy based on DDoS attacks for hire, according to the research.

"While we have collected about 300 malware samples of the Dirt Jumper family, it is likely that other variants are available, as the binaries and back-end PHP for Dirt Jumper has leaked several times. This makes it easy for someone to make slight modifications to the PHP or Delphi binary code and attempt to re-sell the bot, use the bot for their own purposes, or start making money with their own commercial DDoS service," Wilson said.

"Dirt Jumper continues to evolve (version 5 appears to be the newest) and a variety of other associated bots packages have emerged over time to include Simple, September, Khan, Pandora, the Di BoTNet and at least one private version of Dirt Jumper 5 that I am aware of," Wilson continued.

http://www.infosecisland.com/blogview/20997-Dirt-Jumper-DDoS-Botnet-Variants-Continue-to-Proliferate.html



http://www.bankinfosecurity.com/visa-issues-atm-cash-out-warning-a-5438?rf=2013-01-22-eb&elq=2bf2a633e97640b5937654d8af58ee66&elqCampaignId=5619

PROFILES OF CYBERCRIMINALS

http://www.nytimes.com/2010/11/14/magazine/14Hacker-t.html?pagewanted=all&_r=0

THREAT LANDSCAPE – HACKTIVISTS


News for anonym
Kansas City Star
Anonymous brea
www.infoworld.com/...
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of a suspected member of notorious hacking group Anonymous.
The agents spent an hour and 40
minutes at Jordan's house; other agen
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LESSONS LEARNED

- Era of targeted intrusions
- Same methods (or modus operandi) occur time and time again
- Blending of methods, tactics, and techniques among groups
- Containment / eradication may take months not days
- Number of systems compromised may well reach into the hundreds
- Somewhere along the way, PII will probably come into play

RESPONSE

NEW THEMES: RESPONSE

- Enterprise impact investigations
- Crisis management
- Active Defense

ENTERPRISE IMPACT INVESTIGATIONS

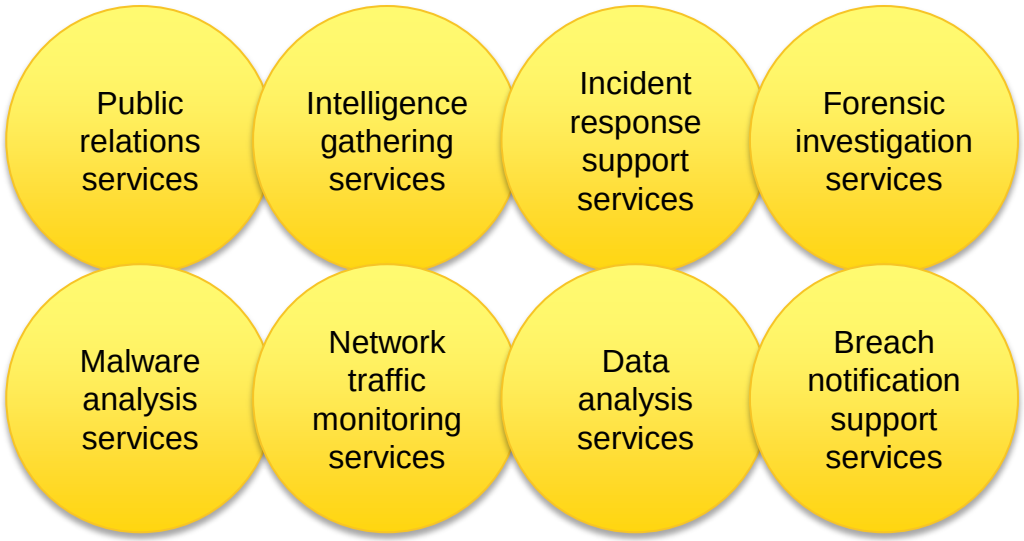
- Three common breach response scenarios
- Inherent limitations
  - Lack of privilege
  - Incomplete understanding of scope of breach

ENTERPRISE IMPACT INVESTIGATIONS

- Hallmarks of an enterprise impact investigation
- Are enterprise impact investigations necessary? And, when?

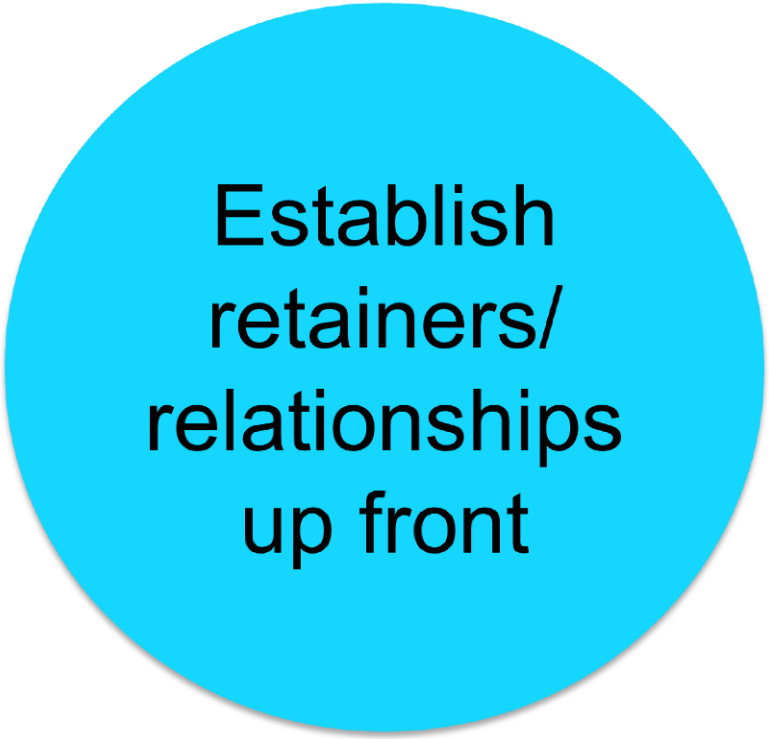
CRISIS MANAGEMENT

- What types of services may be relevant in a cyber response / data breach incident?



- Not all of the services can be handled internally or even with one vendor

CRISIS MANAGEMENT



ACTIVE DEFENSE

http://www.zdnet.com/sg/singapores-cybersecurity-amendments-opens-questions-on-compliance-7000007565/

http://www.alstonprivacy.com/?entry=4793

http://articles.latimes.com/2012/dec/04/business/la-fi-cyber-defense-20121204

DETECT

NEW THEMES - DETECT

- Preventative forensics
- “Big Data” forensics (detect/respond)

PREVENTATIVE FORENSICS

- Periodic scanning for breach indicators
  - Key systems
  - Assortment of endpoints
  - Updated list of indicators
- Component of cyber risk assessment

BIG DATA FORENSICS

Training big data's eye on cybersecurity threats

Summary: *The data explosion is upon us. Big data analytics is supposed to help us sift through it all. Can it also help keep enterprise hackers at bay? We talk to the founders of Seculert.*

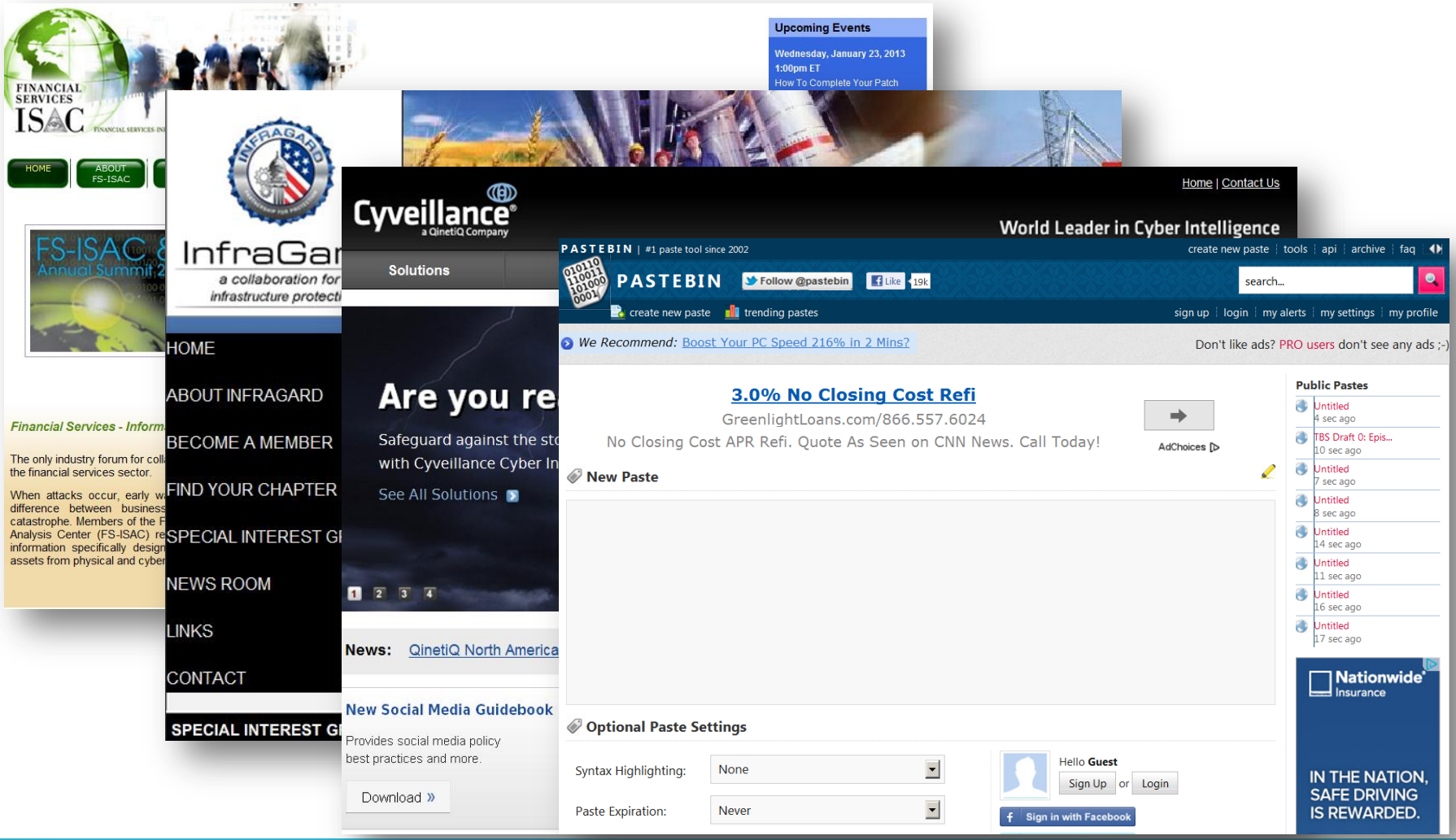
http://www.zdnet.com/training-big-datas-eye-on-cybersecurity-threats-7000008357/

PROTECT

NEW THEMES: PROTECT

- Use of threat intelligence
- Threat modeling / assessment

THREAT INTELLIGENCE



THREAT INTELLIGENCE

- Use threat data points gathered in real-time from the criminal underground to analyze and understand
  - The specific threat actors targeting your network
  - The assets within your organization they are targeting
  - The methods by which they are entering your networks/systems
- Aggregate/analyze this content in order to:
  - Drive formation of a security strategy
  - Determine security spending
  - Implementation of, or changes to, security controls and capabilities
- Risk-based approach to security, not compliance-based

THREAT MODELING / ASSESSMENT

- Threat models/assessment
  - Understanding current defenses in place to protect against most likely threat vectors
  - Should be part of cyber risk assessment

FINAL THOUGHTS / LESSONS LEARNED

5 TIPS TO TAKE HOME

- Invest in information sharing
  - Real-time mechanisms are the key to threat intelligence
- Don’t get caught in trap of narrowly-tailored investigations
  - The sooner you uncover the scope, the better
- Use Big Data concepts to manage investigations
  - The technology is there, use it
- Explore creative solutions in active defense space
  - But this is especially an area to include counsel
- Hail to the Board
  - Board involvement necessary in protect, detect, and respond

QUESTIONS?

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For additional information, please see:
www.alstonprivacy.com
www.alstoncyber.com
www.alstonsecurity.com