
2015
AEGIS Policyholders' Conference
AEGIS


Tales of a Real-Life Hacker
Jon Miller
Vice President of Strategy
Former ethical hacker of energy company operations
Cylance
2015 PHC
AEGIS

CYLANCE

Failures of Modern Day Information Security Programs | Tales from a real life ethical hacker ...

CYLANCE

Introduction
What is Cylance
What is the Problem
Operation Cleaver
Vulnerabilities
Augmenting

www.cylance.com

Introduction

Jon Miller

Vice President of Strategy

5 Years Internet Security Systems X-Force Penetration Testing Team

Accuvant Labs (7 years)

- Penetration Testing
- Reverse Engineering
- Weaponized Oday Sales

Cylance (1 Year)

- Internal Security
- Product Testing/Efficacy
- SPEAR Research Team

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Introduction

Stuart McClure
CEO/President and Founder

Leader of Cylance as CEO and Visionary.

Hacking Exposed
- Lead Author
- Creator
- Most Successful Security Book of All Time

Foundstone

WW-CTO McAfee

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Ryan Permeh
Co-Founder and Chief Scientist

THE brain behind the mathematical architecture and new approach to security.

Eeye Retina, Securells

Code Red

Chief Scientist - McAfee

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What is Cylance?

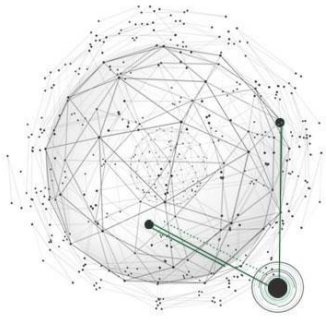
Detecting the Undetectable

First NG-Antivirus (MSFT, PCI, 3rd party testers)

Unlike Traditional A/V

- Signatures
- Cloud Hashing
- Dynamic Heuristics

Machine Learning Based Static Analysis



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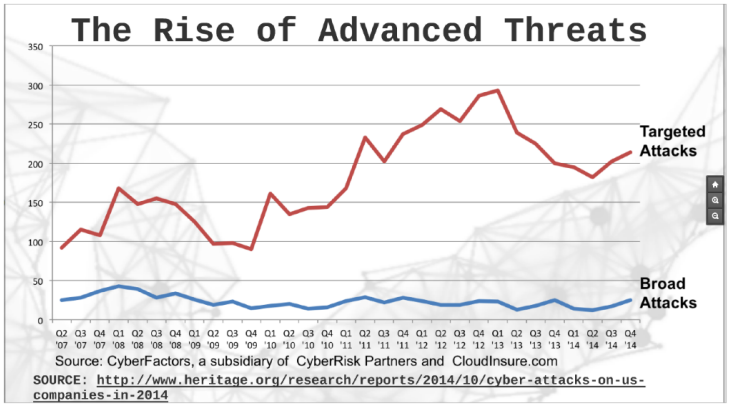
What is the Problem?

The Rise of Advanced Threats



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What is the Problem?

Adversaries

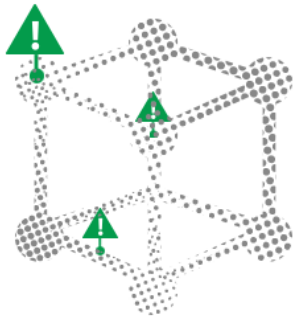
Traditional Adversaries

Nation State

- Intelligence
- Intellectual Property Theft
- Espionage

Organized Crime

- Financial Gain
- Identity Theft



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What is the Problem?

Adversaries

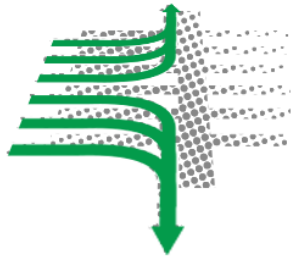
Next Generation Adversaries

Rogue Nation States

- Iran
- North Korea
- Syria

Individual and Terrorist Actors

- ISIS
- Anonymous
- Etc...



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Operation Cleaver

Prevention is Everything

18-24 Month Long Iranian Offensive

- Solely Targeted at Global Critical Infrastructure companies
- Zh0up!n Exploit Team
- Phish based malware delivery, or MS08-067 external breach
- Public tools (psexec, mimikatz, cain + abel, etc)
- SQL injection, ASP Backdoors, cred harvesting
- Evolved into using their own Zeus variant (tiny_zbot)

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Operation Cleaver

16 Countries Targeted

Canada
- Energy & Utilities
- Oil & Gas
- Hospitals

China
- Aerospace

England
- Education

France
- Oil & Gas

Germany
- Telecommunications

India
- Education

Israel
- Aerospace
- Education

Kuwait
- Oil & Gas
- Telecommunications

Mexico
- Oil & Gas

Pakistan
- Airports
- Hospitals
- Technology
- Airlines

Qatar
- Oil & Gas
- Government
- Airlines

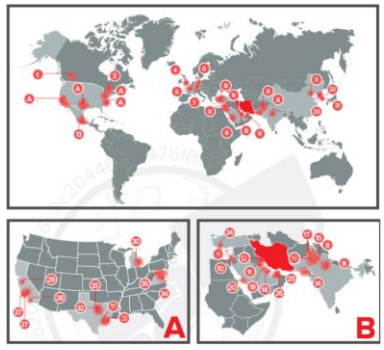
Saudi Arabia
- Oil & Gas
- Airports

South Korea
- Airports
- Airlines
- Education
- Technology
- Heavy Manufacturing

Turkey
- Oil & Gas

United Arab Emirates
- Government
- Airlines

United States
- Airlines
- Education
- Chemicals
- Transportation
- Energy & Utilities
- Military/Government
- Defense Industrial Base



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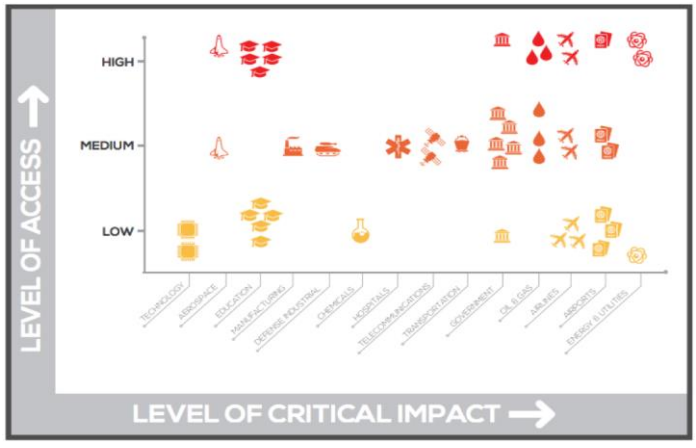
Critical Industries Targeted



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Operation Cleaver

Advanced Persistent Threat Campaign

Iranian Protection Takeaways

- No evidence of incursion into control systems
- Primarily Windows based vulnerabilities
- MS08-067 (2008 vuln, exploited up to 2014)
- SQL Injection
- Phishing (email and custom applications)
- Weak endpoint controls (av bypassed)
- Out of 53 companies disclosed, only ONE was aware of the breach and had remediated it.
- Skills advancing RAPIDLY

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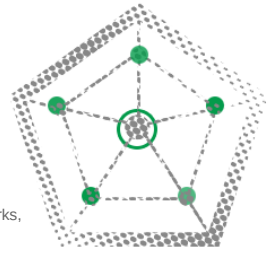
Energy Industry Vulnerabilities

- Outdated Systems, Protocols, and monitoring
- Security thru obscurity doesn't last forever
- The mixture of non-consumer based tech and consumer tech opens up vulnerabilities on networks discoverable by anyone with an internet connection, and IDA Pro.
- Frequent exceptions snowball over years to create large gaps in network based controls (PTP home connections into ICS networks, one-off access control exceptions)



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Augmenting Existing Defenses

Close the gap between the capabilities of your attackers and your infosec risk.

Then get in front of it...

- New Technologies
- New Architectures
- Larger Investments
- 3rd Party Assessments
- Intelligence Sharing

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Questions


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