



CyberHawaii

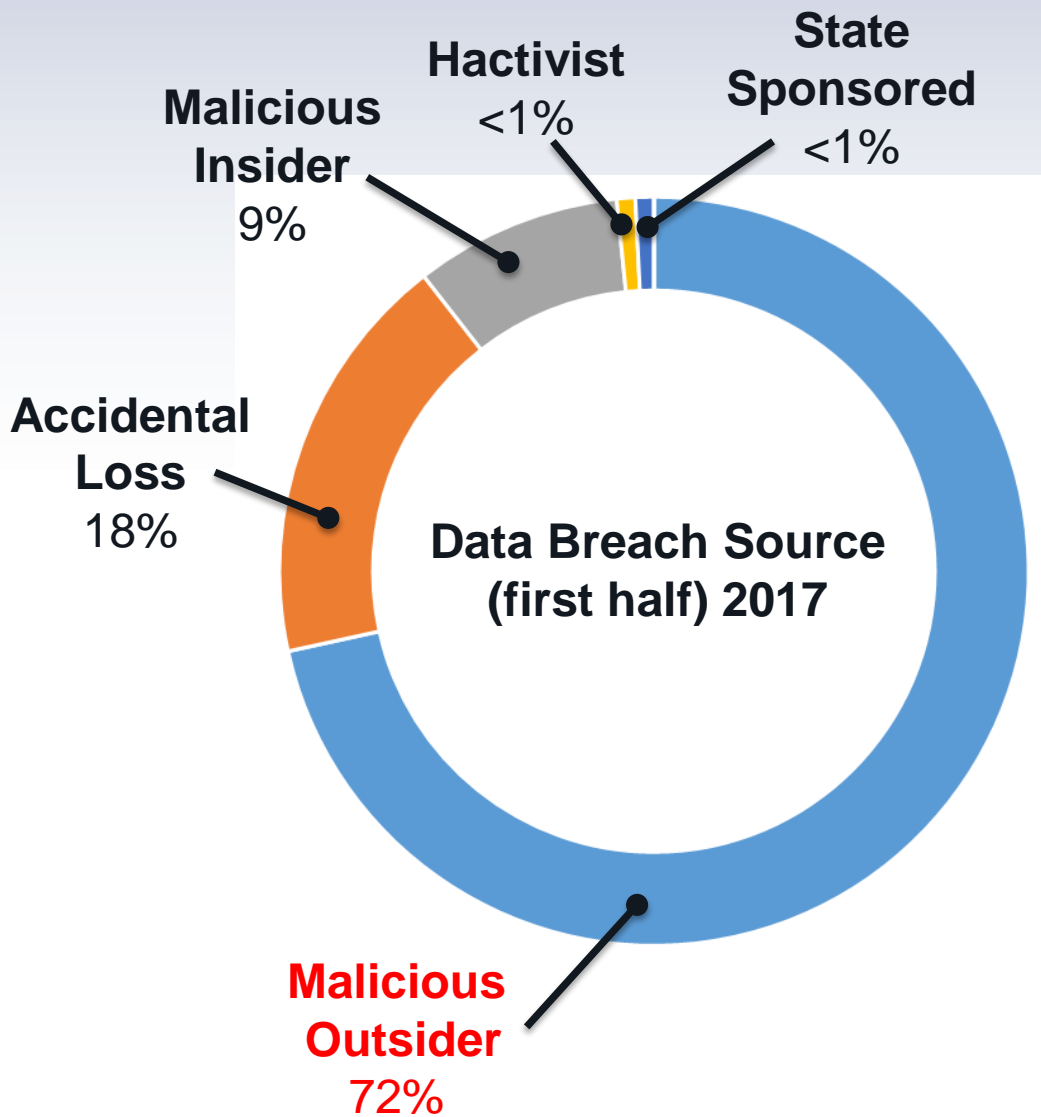
Cybersecurity is the Future of Computing

Dr. Robert J. Runser,
Technical Director, NSA-Hawaii

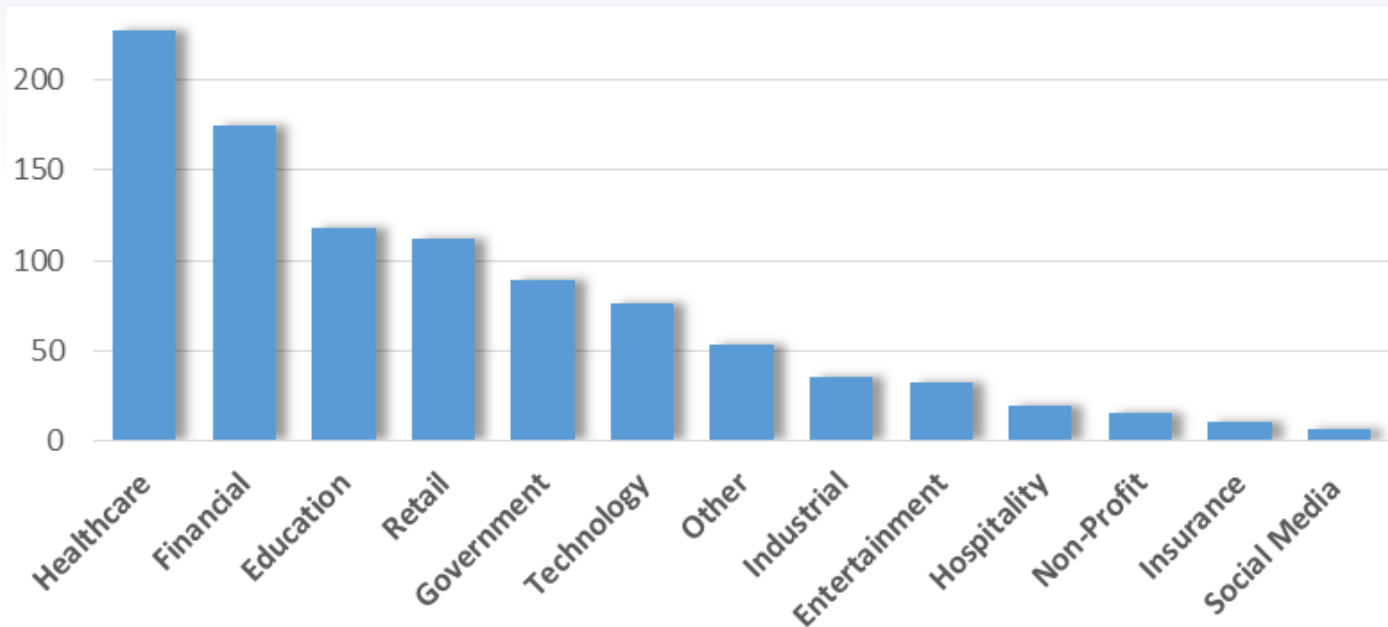


Data Breaches (first half) 2017

Source: <http://breachlevelindex.com>



Reported Incidents By Industry (first half) 2017





NETWORK DEFENSE



WASHINGTON D.C

NETWORK PACKET INSPECTION

29 MILLION USERS



AFGHANISTAN

REAL-TIME DEFENSIVE SYSTEM



TIER 3
TIER 2
TIER 1

3005 TERABYTES of traffic
3005% USER EMAILS
EACH DAY REJECTED DAILY

300 TERABYTES of traffic
EACH DAY

SCANNED WITHIN 24 HOURS
after VULNERABILITY is DISCLOSED



CYBER THREATS THE NEW NORMAL



**CONTINUOUS TECHNIQUES TO
OVERCOME DEFENSIVE MEASURES**
'LEGITIMATE' CREDENTIALS OR SERVICES RATHER
THAN RELYING ON TRADITIONAL MALWARE



**FREQUENCY OF
AGGRESSIVE & ESCALATORY
DISRUPTIVE CYBER BEHAVIOR**
IN THE LAST YEAR ALONE, MULTIPLE DATA
DESTRUCTION & RANSOMWARE CAMPAIGNS



**AGGRESSIVE & DISRUPTIVE
CYBER OPERATIONS**
RAPID WEAPONIZATION OF DISCLOSED EXPLOITS

Five Security Best Practices

NCTOC Security Operations Center Principles

<https://www.nsa.gov/resources/cybersecurity-professionals/assets/files/top-5-soc-principles.pdf>



- 1) Establish a Defendable Perimeter
- 2) Ensure Visibility Across the Network
- 3) Harden to Best Practices
- 4) Use Threat Intelligence & Machine Learning
- 5) Create a Culture of Curiosity



Guides and Tools for Cybersecurity

[Windows-Event-Log-Messages](#)

Retrieves the definitions of Windows Event Log messages embedded in Windows binaries and provides them in discoverable formats. #nsacyber

[Windows-Secure-Host-Baseline](#)

Configuration guidance for implementing the Windows 10 and Windows Server 2016 DoD Secure Host Baseline settings. #nsacyber

[Spectre-and-Meltdown-Guidance](#)

Guidance for the Spectre and Meltdown vulnerabilities. #nsacybe

[Event-Forwarding-Guidance](#)

Configuration guidance for implementing collection of security relevant Windows Event Log events by using Windows Event Forwarding. #nsacybe

[unfetter](#)

Identifies defensive gaps in security posture by leveraging Mitre's ATT&CK framework. #nsacyber

WHAT CAN WE DO?



MISSING
OPPORTUNITIES
TO **COLLABORATE**



INNOVATIVE
APPROACHES
TO **SECURITY**



OVERCOME ALERT
FATIGUE TO **PRIORITIZE**
RESPONSE **ACTIONS**