

Krishna Easton Cybersecurity State Coordinator Hawaii, American Samoa

# Cybersecurity and Infrastructure Security Agency (CISA)

As America's Cyber Defense Agency and the National Coordinator for Critical Infrastructure Security and Resilience, CISA leads the national effort to understand, manage, and reduce risk to the cyber and physical infrastructure that Americans rely on every hour of every day.



# Cybersecurity and Infrastructure Security Agency (CISA)



VISION

Secure and resilient infrastructure for the American people.

MISSION

Lead the national effort to understand, manage, and reduce risk to the nation's cyber and physical infrastructure.



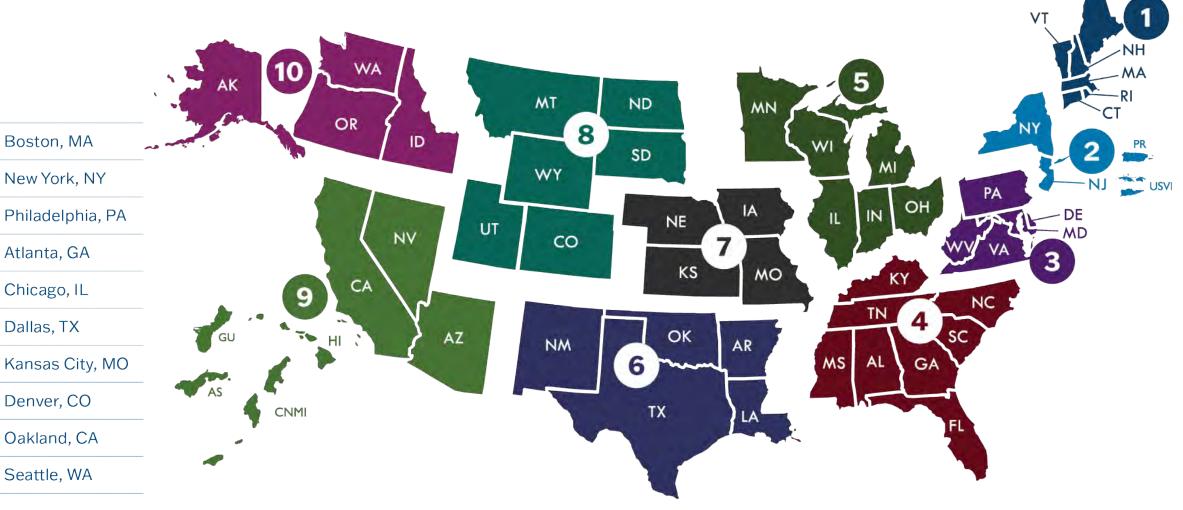
HTTPS://WWW.CISA.GOV

## 16 Critical Infrastructure Sectors & Corresponding Sector Risk Management Agencies





## **CISA Regions**





#### **HACKTIVISM**



Hacktivists use computer network exploitation to advance their political or social causes.

#### CRIME



Individuals and sophisticated criminal enterprises steal personal information and extort victims for financial gain.

#### INSIDER



Trusted insiders steal proprietary information for personal, financial, and ideological reasons.



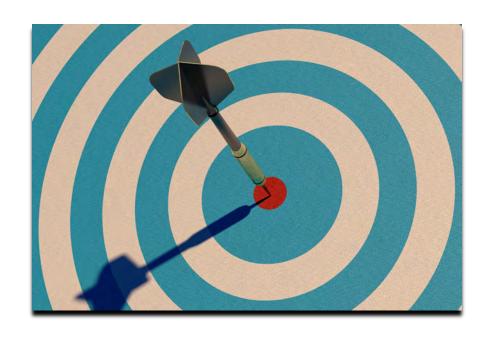
Nation-state actors conduct computer intrusions to steal sensitive state secrets and propriety information from private companies.

that operate our critical infrastructure, such as the electric grid.

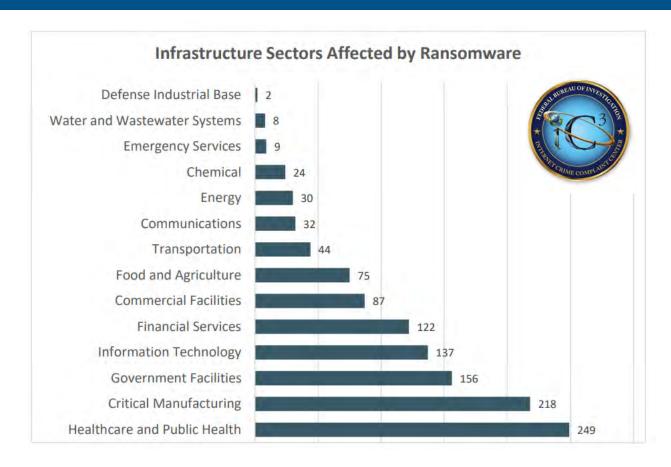
systems to gain an advantage in the event of conflict.

## Risk Profile - Rich Target for Cyber Criminals

- ➤ Highly sensitive personal information
- Legacy mainframe systems and outdated technology stacks
- > Tyranny of Distance
- Supply Chain and 3rd party Vendor Dependencies
- Advanced and emerging technology
  - Electronic health records system
  - > Telehealth
  - Interoperability with clinical databases and EHRs
- Staff Training
- > End Point Complexity
  - Large and diverse group of employees using/managing device
  - Centralized or decentralized equipment



## Top Vulnerability Points Hospital Cyber Attacks



- Ransomware Attacks: Malware encrypting sensitive data until a ransom amount is paid
- Phishing: Infecting seemingly innocuous emails with malicious links.
- Data Breaches: Unauthorized access to sensitive information.
- DDoS Attacks: Distributed denial-of-service attacks.

2023 Annual Report FBI Internet Crime Complaint Center (IC3)



## **Healthcare Cyberattacks**



By Peter Boylan Dec. 14, 2021

Queen's Health Systems also affected after ransomware attack strikes Kronos software provider



Hawaii Health Center Discloses Data Breach After Ransomware Attack

Community Clinic of Maui says a LockBit ransomware attack from earlier this year has resulted in a data breach impacting over 120,000 people.

By Edward Kovacs September 30, 2024

The Community Clinic of Maul in Hawaii, a nonprofit healthcare organization doing

TRENDING:

TRENDING:

Ransomware Attack on the University of Vermont Health Network – Cyber

## Timeline of the 2024 Change Healthcare Cyberattack

#### FEB. 21

- · Optum reports connectivity issues.
- Change Healthcare experiences network threat and disconnects systems.



#### FEB. 26

- Ransomware group BlackCat claims responsibility for the attack.
- UnitedHealth reports that 90% of 70,000+ pharmacies modify claims processing.



#### MARCH 4

 AHA calls Change's funding program inadequate. Some providers start losing more than \$100M a day.



#### MARCH 5

 HHS accelerates payments to affected hospitals and CMS urges payers to relax or remove prior authorizations.



#### MARCH 6

 UnitedHealth faces five federal lawsuits over the attack.



#### MARCH 12

- · Payers reluctant to relax prior authorizations.
- AHIP President and CEO says removing prior authorizations could cause harm and fraud.



#### MARCH 13

 An investigation is launched into UnitedHealth and Change by the federal government.



#### MARCH 18

 Insurers meet with federal officials to discuss how to support providers still financially struggling after the cyberattack



- ➤ 190 million affected
- > 25 days for medical claims
- ➤ 9 months-full clearinghouse services

\*TechTarget - 2024 Top Healthcare Cyberattacks

Krishna Easton March 23, 2025

## Threat Actors Can Be Sophisticated...





## But They Don't Always Need To Be

Home Information Security



#### ANALYSIS

## Zero-days aren't the problem -- patches are

Everyone fears the zero-day exploit. But old, unpatched vulnerabilities still provide the means for malicious hackers to carry out the vast majority of hacks















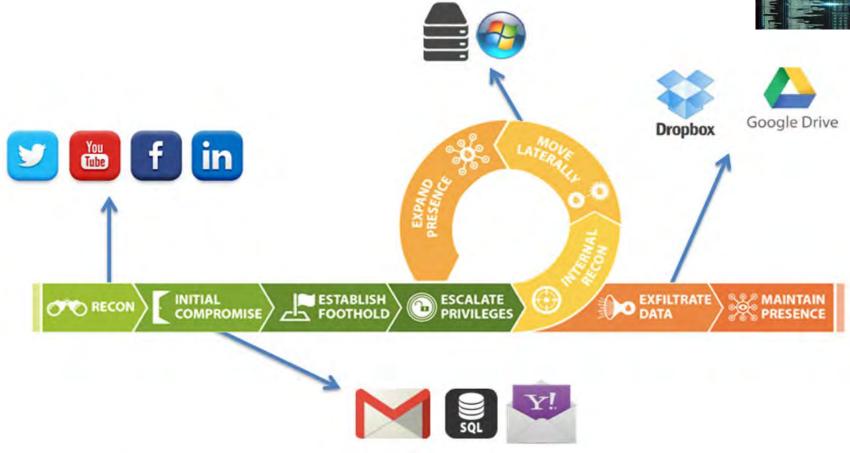
https://www.csoonline.com/article/3075830/dataprotection/zero-days-arent-the-problem-patches-are.html

Most hackers follow the path created by a very few smart ones -- and zero days make up a very small percentage of attacks. It turns out that patching vulnerable software, if implemented consistently, would stop most hackers cold and significantly reduce risk.



## **Cyber Attack Cycle**







## Cyber Prescription for the HPH Sector

➤ Access CISA's Cyber Performance Goals and the Department of Health and Human Services' sector-specific cyber performance goals

https://www.cisa.gov/cybersecurity-performance-goals-cpgs

https://hhscyber.hhs.gov/performance-goals.html)







## Range of Cybersecurity Assessments

- Cyber Performance Goals (CPG)
- Ransomware Readiness Assessment (RRA)
- External Dependencies Management (EDM)
- Cyber Infrastructure Survey (CIS)
- Cyber Resilience Review (CRR)
- Tabletop Exercises (TTX)
- Cyber Hygiene Services
  - Vulnerability & Web Application Scanning
- Validated Architecture Design Review (VADR)
- Remote Penetration Test (RPT)
- Risk and Vulnerability Assessment (RVA)





## Ransomware Readiness Assessment

- √ Backup and Recovery Process
- ✓ Develop Incident Management & Response Plan
  - √ Confirm you Have up-to-date Points of Contact on File
- ✓ Update Software and Operating Systems with the Latest Patches & Versions
- ✓ Apply the Principle of Least Privilege to all Systems and Services
- ✓ Secure End Users Against Phishing and Social Engineering
- **✓ Email Security Measures** 
  - √ Scan incoming and outgoing emails
  - **✓ Implement spoofing prevention measures**
- ✓ Consider Leveraging Endpoint and Network Security Devices





### Additional Available Resources

CISA's cybersecurity advisories

Cybersecurity Alerts & Advisories | CISA

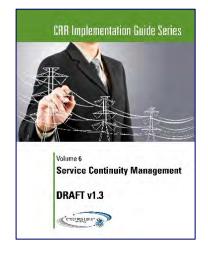
2023 Top Routinely Exploited Vulnerabilities

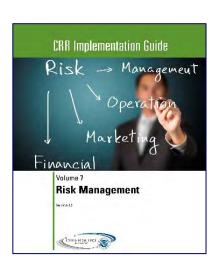
> Secure Our World resources to promote basic cybersecurity best practices

Secure Our World | CISA

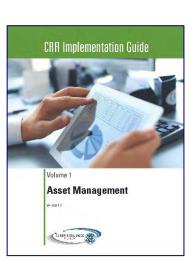
> Information and Communications Technology (ICT) supply chain risk management resources

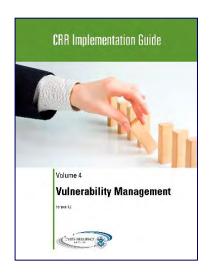
ICT Supply Chain Risk Management Task Force | CISA













## Cyber or Physical Tabletop Exercises

Develop and conduct cybersecurity-based scenarios that incorporate various cyber threat vectors including Ransomware, insider threats and phishing exercise

- Customized and Facilitated Exercises
- ➤ Tabletop Exercise Packages (CTEPs)
  - ➤ Off-the-shelf, do it yourself
- ➤ Small-scale Discussion-based
- ➤ Large-scale Operations-based Exercises





## International Outreach

- > CISA is an official partner of the Pacific Cyber Security Operational Network (PaCSON)
  - > Operational cybersecurity network consisting of regional working-level cyber security and technical experts from eligible governments across the Pacific.
  - ➤ Not a Computer Emergency Response Team (CERT) or Computer Security Incident Response Team (CSIRT) and does not provide an Incident Response (IR) capability.
  - > Maintains an operational cyber security points of contact and empowers members to share cyber security threat information; provides opportunities for technical experts to share tools, techniques and ideas; and is an enabler of cooperation and collaboration, particularly where a cyber security incident affects the region.
- > CISA partners with other nations such as Japan, Australia, and New Zealand on capacity building programs.

IA-IndoPac@mail.cisa.dhs.gov





## InfraGard Hawaii Members Alliance



InfraGard is a partnership between the FBI and members of the private sector for the protection of U.S. Critical Infrastructure.



#### AN ALLIANCE FOR NATIONAL INFRASTRUCTURE PROTECTION

https://Infragard.org



### **CISA Central**

**CISA Central** works to reduce the risk of systemic cybersecurity and communications challenges in our role as the Nation's flagship cyber defense, incident response, and operational integration center.

- Most centralized way for partners and stakeholders to engage with CISA
- Request CISA assistance and get information on current activity and threat landscape
- Central coordinates cyber activities with homeland security, law enforcement, intelligence, and defense communities
- Manages CISA 24/7 operations center





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## Region 9 Pacific Islands CSA Team

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**CISA Central 24/7: 888-282-0870** 

Report incidents: Report@cisa.gov

Additional information: <u>Central@cisa.dhs.gov</u>



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