

CYBERSECURITY AND HIPAA



Idaho Medical Association

Kim C. Stanger

Andrew Shaxted

(10-20)

HOLLAND & HART  LLP

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Andrew Shaxted

Senior Director, Technology

+1 773 658 0241 | andrew.shaxted@fticonsulting.com | Boise, ID

ABOUT ANDREW SHAXTED

Andrew Shaxted works with global healthcare, life sciences, and med device companies to audit, advise, and implement policies and procedures required under US and international data privacy law. In his work, Andrew drafts expert reports, advises execs and board members on an array of data privacy risk topics, supports data breach response events, and works with organizations to implement data privacy risk management programs.

Mr. Shaxted holds a B.A. from Purdue University and a J.D. from DePaul University. He speaks regularly at industry conferences on the topic of emerging data privacy trends and was recently featured on CNBC's Squawk Box to discuss the implications of the California Consumer Privacy Act (the CCPA). Andrew holds his CIPM, CIPP/E as well as CIPP/US certifications. Andrew is licensed to practice law in Illinois.

Representative Engagements:

- Designed and implemented a global data privacy compliance program for a multi-national, publicly-traded healthcare technology and services company.
- Designed and implemented a Global Data Privacy Program and enhanced data mapping process for a German-based Fortune 150 Pharma and Lifesciences company.
- Performed an end-to-end HIPAA Security Rule and HIPAA Privacy Rule assessments across a portfolio of med devices, analytics software products, and back-office Revenue Cycle Management services totaling ~600 assessments points.
- Drafted an expert report for a California-based substance abuse and behavioral health provider, identifying gaps under the HIPAA Security Rule in response to impending OCR enforcement actions.
- Drafted an expert report to be used in civil proceedings for a New Jersey based fertility clinic and pharmacy to substantiate HIPAA Security Rule compliance.

Areas of Expertise

- Data Privacy
- Enterprise Risk Management
- Strategic Communication
- Technology
- Product Development

Certifications

- CIPM
- CIPP/US
- CIPP/E
- Oracle Cloud Certification
- Admitted Attorney: Illinois

Professional Affiliations

- American Bar Association
- Illinois State Bar Association
- International Association of Privacy Professionals
- USC Gould School of Law Institute for Corporate Counsel

Education

- B.A. Purdue University
- J.D. DePaul University

Information Governance, Privacy & Security Practice Offerings



DATA PRIVACY ADVISORY

Data privacy assessments, program implementation, Data Subject Access Request (DSAR) solutions



E-DISCOVERY CONSULTING

Best-of-breed technology, workflow, data re-use, review of process efficiencies and training



INFORMATION GOVERNANCE CENTER OF EXCELLENCE (COE)

Data mapping, IG policy and frameworks, HIPAA compliance



DATA COLLECTION & FORENSIC INVESTIGATIONS

Global forensic collection and investigative services including EMEA and APAC



E-DISCOVERY MANAGED SERVICES

Project management, overflow staff and services, software management and maintenance



LEGAL HOLDS

System selection, implementation, hold migration, change management



BACKUP REMEDIATION

FTI can create a plan to systematically evaluate and reduce your preserved backup tapes.



SECONDMENTS & EXPERT STAFF AUGMENTATION

IG, privacy and discovery specialists for stop-gap, overflow work and long-term needs



OPTIMIZATION OF MICROSOFT OFFICE 365 APPLICATIONS

Data migration and preservation, collection workflows for Microsoft O365 email, One Drive, Teams, SharePoint, Yammer and more



DATA REMEDIATION & DEFENSIBLE DISPOSITION OF DATA DEBRIS

Backup tapes, legacy email and systems, business apps, file shares



RECORDS RETENTION TECHNOLOGY AND POLICIES

Defensibly refresh records management policies and implement new technologies

Cybersecurity Threats

8 in 10 doctors have experie... x

File Edit View Favorites Tools Help

MENU **AMA** Join Renew Enter Search Term Search... Member Benefits Sign In

SUSTAINABILITY

8 in 10 doctors have experienced a cyberattack in practice

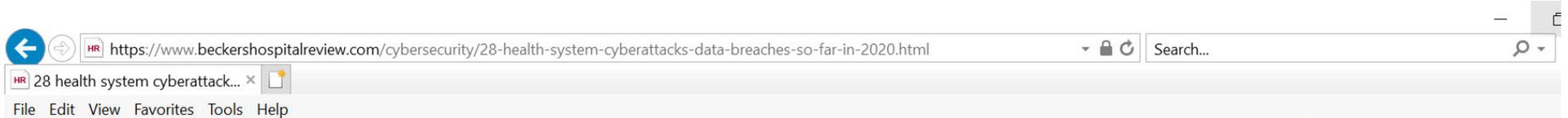
DEC 12, 2017

Staff News Writer

Physicians, overwhelmingly, are finding themselves the target of cyberattacks that disrupt their practices and put patient safety at risk.

A staggering 83 percent of physicians told AMA researchers that their practices have experienced a cyberattack of some type. The 1,300 physicians surveyed also said not enough cybersecurity support is coming from the government that will hold them accountable for a patient information breach. These and

Cybersecurity Threats



3. Parkview Medical Center in Pueblo, Colo., reported it experienced a cyberattack on April 21 that left its computer network down for at least a week.

4. Beaumont Health in Royal Oak, Mich., reported a hacking incident on April 17 that affected 112,211 patients through an email breach.

5. Houston Methodist Hospital reported 1,987 individuals were affected by the theft of a portable electronic device in April.

6. Advocate Aurora Health in Milwaukee reported on April 16 that 23,137 individuals were affected in a hacking incident related to their email and network server.

7. Hartford (Conn.) HealthCare reported a hacking incident on April 13 that exposed 2,651 patients' records.

8. Doctors Community Medical Center in Lanham, Md., reported on April 13 that 18,481 patients' records were exposed in an email hacking incident.

9. Corpus Christi (Texas) Rehabilitation Hospital reported in April that 507 individuals were affected by an email hacking incident.

10. UPMC Altoona (Pa.) Regional Health Services reported on April 10 an email hacking incident that affected 13,911 patients' records.

11. The University of Utah in Salt Lake City reported on April 3 an email hacking incident exposed 5,000 patient records.

12. Washington University School of Medicine in St. Louis reported on March 31 an email hacking incident

team collaboration

More robotics and virtual communication capabilities from within the hospital

Better population health analytics to detect and deploy resources in future

More advanced clinical data analytics

Other

Email*

Submit

Related Articles

1. [Becker's Women's Leadership E-Newsletter](#)

2. [Thousands of medical records from CHS hospitals exposed after](#)

Cybersecurity Threats

14. Lakewood Health System reported on March 16 an email hacking incident exposed records of 1,415 patients.

15. Torrance (Calif.) Memorial Medical Center reported on March 6 that an incident of unauthorized access to the network server exposed 3,448 patients' records.

16. Community Health Systems in Franklin, Tenn., reported a tornado that damaged the Stat Informatics Solutions building in Lebanon, Tenn., exposed around 2,500 medical records that were stored there.

17. Riverview Health in Noblesville, Ind., reported on Feb. 28 that 2,610 patients' records were exposed due to unauthorized access to paper records.

18. Harris Health System in Houston reported the loss of 2,298 paper records on Feb. 27.

19. Munson Healthcare in Traverse City, Mich., reported an email hacking incident on Feb. 26 that exposed 75,202 patients' records.

20. Rady Children's Hospital San Diego reported on Feb. 21 2,360 patients' records were exposed due to unauthorized access to its network server.

21. NCH Healthcare System in Naples, Fla., reported an email hacking incident on Feb. 17 that exposed 63,581 patients' records.

22. Monroe County Hospital & Clinics in Albia, Iowa, reported an email hacking incident on April 17 that affected 7,573 patients' records.

23. United Regional Health Care System in Wichita Falls, Texas, reported an email hacking incident on Feb. 14 that affected 1,893 patients' records.

4. Ascension Eastwood Clinic reports information breach after employee sends email without blinding addresses

5. Nearly 40% of cybersecurity execs unprepared to handle a breach, survey finds

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[How to gauge your hospital's financial health](#)

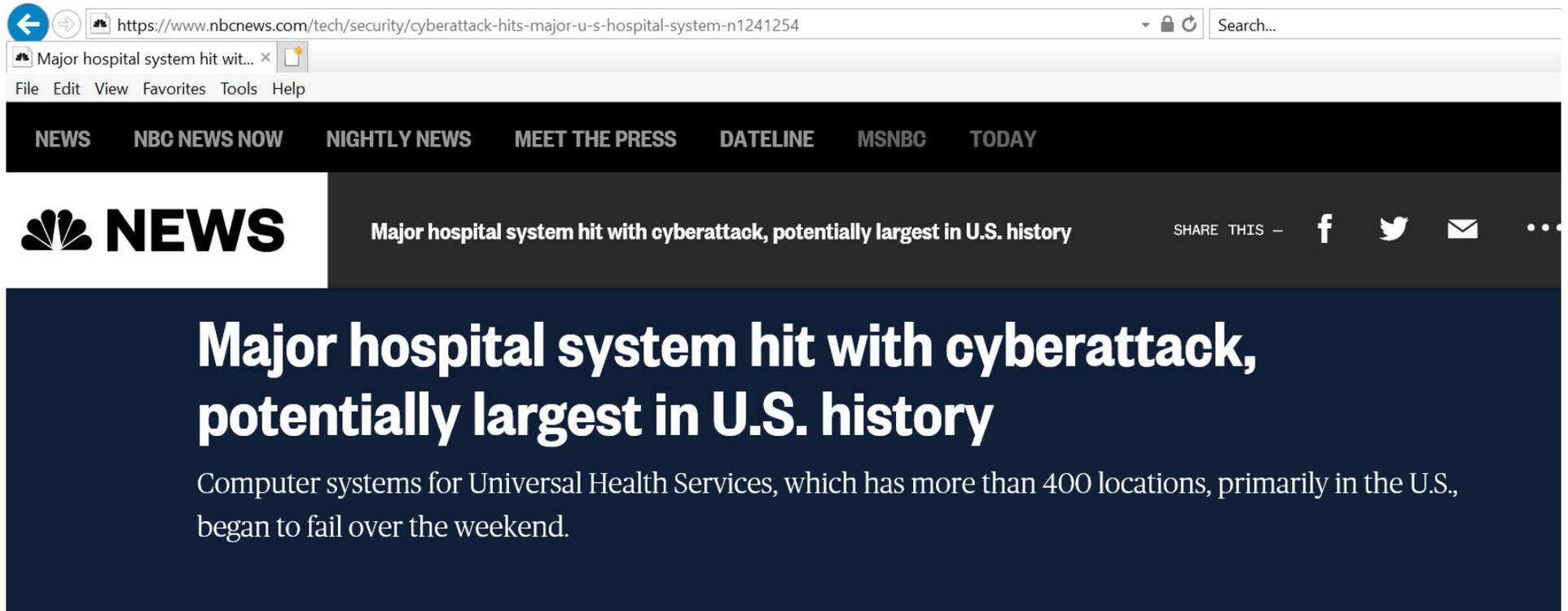
[How to ADMINister Chronic Wc Care to Help Improve Patient Outcomes](#)

[6 things health systems need in medication access technology](#)

[A commitment to collaboration : education — surgical robotics a Emory Healthcare](#)

[Using telehealth to manage chr diseases](#)

Cybersecurity Threats



The image is a screenshot of a web browser displaying an NBC News article. The browser's address bar shows the URL: <https://www.nbcnews.com/tech/security/cyberattack-hits-major-u-s-hospital-system-n1241254>. The page features a dark navigation bar with the NBC News logo and the text "NEWS NBC NEWS NOW NIGHTLY NEWS MEET THE PRESS DATELINE MSNBC TODAY". Below the navigation bar, the article title is "Major hospital system hit with cyberattack, potentially largest in U.S. history". The main headline reads "Major hospital system hit with cyberattack, potentially largest in U.S. history". A sub-headline states: "Computer systems for Universal Health Services, which has more than 400 locations, primarily in the U.S., began to fail over the weekend." The article is dated "Sept. 28, 2020, 11:07 AM MDT / Updated Sept. 28, 2020, 2:04 PM MDT" and is written by "Kevin Collier". On the right side, there are social media sharing icons for Facebook, Twitter, and Email. Below the main article, there is a "Sponsored Stories" section with a sub-headline "by Taboola" and a small image of a dog's head.

NEWS NBC NEWS NOW NIGHTLY NEWS MEET THE PRESS DATELINE MSNBC TODAY

NEWS Major hospital system hit with cyberattack, potentially largest in U.S. history

SHARE THIS –    

Major hospital system hit with cyberattack, potentially largest in U.S. history

Computer systems for Universal Health Services, which has more than 400 locations, primarily in the U.S., began to fail over the weekend.

Sept. 28, 2020, 11:07 AM MDT / Updated Sept. 28, 2020, 2:04 PM MDT

By Kevin Collier

A major hospital chain has been hit by what appears to be one of the largest medical cyberattacks in United States history.

Sponsored Stories by Taboola



Cybersecurity in Healthcare

- Ransomware encrypts your IT system so that you may not access it, including:
 - Patient records
 - Financial records
 - Employment records
- Hacker accesses data on your system
- Hacker manipulates or corrupts data on medical devices
- Employee error leads to access to hundreds of patient records



What are the consequences to your organization?

Cybersecurity in Healthcare

- Ransomware encrypts your IT system so that you may not access it, including:
 - Patient records
 - Financial records
 - Employment records
 - Hacker accesses data on your system
 - Hacker manipulates or corrupts data on medical devices
 - Employee error leads to access to thousands of patient records
- 
- Harm to patients
 - Inability to access data
 - Corruption of data
 - Forced to transfer patients
 - Disruption of operations
 - Lost revenue
 - Cost of response
 - Loss or damage to equipment
 - Bad public relations
 - Fines and penalties
 - Lawsuits
 - Others?

Cyberliability Laws

- **Health Insurance Portability and Accountability Act (“HIPAA”), 45 CFR part 164**
 - Privacy Rule.
 - Security Rule
 - Perform periodic risk assessment.
 - Implement administrative, technical and physical safeguards.
 - Policies and procedures
 - Technical solutions
 - Encryption
 - Execute business associate agreements.
 - Breach Notification Rule

Cyberliability Laws

- **Federal Trade Comm'n Act ("FTCA") § 5 (15 USC 45(a))**
 - Prohibits unfair or deceptive acts affecting commerce.
 - Deceit = misrepresentations re privacy policy
 - Unfair = inadequate security measures
 - FTC has authority to regulate a company's cybersecurity efforts.
FTC v. Wyndham Worldwide Corp., 799 F.3d 236 (3d Cir. 2015)
 - FTC has filed 50+ complaints against entities based on failure to safeguard personal info.

<https://www.phe.gov/Preparedness/planning/405d/Pages/hic-practices.aspx>

- Required by Cybersecurity Act of 2015
- Task force of 150 cybersecurity experts
- Issued 12/18
- Compliance not mandatory

The screenshot shows a web browser window displaying the PHE website. The URL in the address bar is <https://www.phe.gov/Preparedness/planning/405d/Pages/hic-practices.aspx>. The page header includes the U.S. Department of Health & Human Services logo and the Office of the Assistant Secretary for Preparedness and Response. The main navigation bar has tabs for Preparedness, Emergency, and About ASPR. The page title is "Public Health Emergency" with the tagline "Public Health and Medical Emergency Support for a Nation Prepared". The breadcrumb trail is "PHE Home > Preparedness > Planning > Aligning Health Care Industry Cybersecurity Approaches > Health Industry Cybersecurity Practices: Managing Threats and Protecting Patients". The main content area features the title "Health Industry Cybersecurity Practices: Managing Threats and Protecting Patients" and a search bar. A sidebar on the right contains a "Cybersecurity Act of 2015, Section 405(d)" menu with links to "Health Industry Cybersecurity Practices", "About the CSA 405(d) Task Group", "Cybersecurity Reports and Tools", and "Guidelines". A large blue arrow points from the sidebar to the main content area, labeled "Suggested Practices". The Windows taskbar is visible at the bottom of the browser window.

Cybersecurity Act of 2015, Section 405(d)

- ▶ Health Industry Cybersecurity Practices
- ▶ About the CSA 405(d) Task Group
- ▶ Cybersecurity Reports and Tools
- ▶ Guidelines

Suggested Practices

PHE Home > Preparedness > Planning > Aligning Health Care Industry Cybersecurity Approaches > Health Industry Cybersecurity Practices: Managing Threats and Protecting Patients

Health Industry Cybersecurity Practices: Managing Threats and Protecting Patients

Health Industry Cybersecurity Practices: Managing Threats and Protecting Patients (HICP), the primary publication of the Cybersecurity Act of 2015, Section 405(d) Task Group, aims to raise awareness, provide vetted cybersecurity practices, and move organizations towards consistency in mitigating the current most pertinent cybersecurity threats to the sector. It seeks to aid healthcare and public health organizations to develop meaningful cybersecurity objectives and outcomes. The publication includes a main document, two technical volumes, and resources and templates:

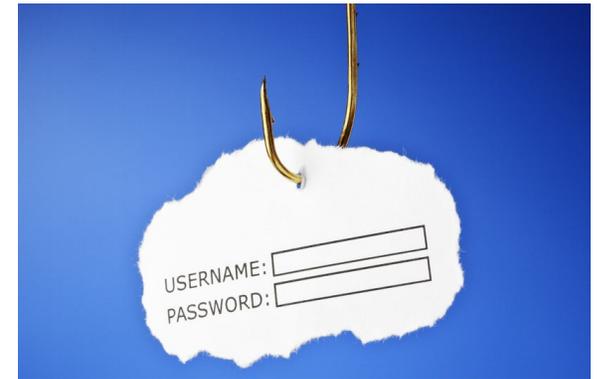
- ▶ **Health Industry Cybersecurity Practices: Managing Threats and Protecting Patients (HICP):** The HICP examines cybersecurity threats and vulnerabilities that affect the healthcare industry. It explores (5) current threats and presents (10) practices to mitigate those threats.
- ▶ **Technical Volume 1: Cybersecurity Practices for Small Health Care Organizations:** Technical Volume 1 discusses the ten Cybersecurity Practices along with Sub-Practices for small health care organizations.
- ▶ **Technical Volume 2: Cybersecurity Practices for Medium and Large Health Care Organizations:** Technical Volume 2 discusses the ten Cybersecurity Practices along with Sub-Practices for medium and large health care organizations.

Top Cyber Threats in Healthcare

1. E-mail phishing attacks
2. Ransomware attacks
3. Loss or theft of equipment or data
4. Insider, accidental or intentional data loss
5. Attacks against connected medical devices that may affect patient safety



1. E-mail Phishing Attacks



- **Cybercriminal attempts to trick you into:**
 - Giving access to system by entering passwords, or
 - Downloading malicious software.
- **Cybercriminal may:**
 - Obtain your e-mail from publicly available sources.
 - Identify contacts through publicly available sources or social media.
 - Send you e-mail that appears to be from a known contact.
- **E-mail usually contains an active link that:**
 - Solicits sensitive information, or
 - Downloads malicious software.
- **Some attacks are very convincing...**

Important : We noticed unusual activity in your PayPal account

What's going on ?

We're concerned that someone is using your PayPal account without your knowledge. Recent activity on your account seems to have occurred from a suspicious location or under circumstances that may be different than usual.

What to do ?

Log in to your PayPal account as soon as possible. We may ask you to confirm information you provided when you created your account to make sure you're the account holder. We'll then ask you to Confirm your password and security questions. You should also do the following for your own protection:

Confirm Your Account Now

[Log in to confirm your account](#)

E-mail Phishing Attacks

“Anthem failed to implement appropriate measures for detecting hackers who had gained access to their system to harvest passwords and steal people’s private information.... We know that large health care entities are attractive targets for hackers, which is why they are expected to have strong password policies and to monitor and respond to security incidents in a timely fashion or risk enforcement by OCR.”

115M to x | +

/15/anthem-pays-ocr-16-million-record-hipaa-settlement-following-largest-health-data-breach-history.html

FOR IMMEDIATE RELEASE

October 15, 2018

Contact: HHS Press Office

202-690-6343

media@hhs.gov

Anthem Pays OCR \$16 Million in Record HIPAA Settlement Following Largest U.S. Health Data Breach in History

Anthem, Inc. has agreed to pay \$16 million to the U.S. Department of Health and Human Services, Office for Civil Rights (OCR) and take substantial corrective action to settle potential violations of the Health Insurance Portability and Accountability Act (HIPAA) Privacy and Security Rules after a series of cyberattacks led to the largest U.S. health data breach in history and exposed the electronic protected health information of almost 79 million people.

The \$16 million settlement eclipses the previous high of \$5.55 million paid to OCR in 2016.

Anthem is an independent licensee of the Blue Cross and Blue Shield Association operating throughout the United States and is one of the nation’s largest health benefits companies, providing medical care coverage to one in eight Americans through its affiliated health plans. This breach affected electronic protected health information (ePHI) that Anthem, Inc. maintained for its affiliated health plans and any other covered entity health plans.

On March 13, 2015, Anthem filed a breach report with the HHS Office for Civil Rights detailing that, on January 29, 2015, they discovered cyber-attackers had gained access to their IT system via an undetected continuous and targeted cyberattack for the apparent purpose of extracting data, otherwise known as an advanced persistent threat attack. After filing their breach report, Anthem discovered

This might be a phishing message and is potentially unsafe. Links and other functionality have been disabled. Click here to enable functionality (not recommended).

From: PayPal [service@paypal-australia.com.au]
To: [redacted]
Cc:
Subject: Your account has been limited

1. Fake sender domain.
(not service@paypal-australia.com.au)



How to restore your PayPal account

Dear PayPal member,
To restore your PayPal account, you'll need to log in your account.

2. Suspicious Subject and content.

3. Bad grammar

It's easy:

1. Click the link below to open a secure browser window.
2. Confirm <http://69.162.70.169/ppau/> the account, and then follow the instructions.
Click to follow link

[Log in your account now](#)

4. Hovering over link reveals suspicious URL.

PayPal Email ID PP32260008777636

May also appear to be internal e-mails

Ben Woelk

From: Edu Help Desk <info@pa.com>
Sent: Tuesday, September 08, 2015 3:16 AM
To: info@pa.com
Subject: [Suspected Spam] Edu Email Upgrade Against Spam.

Attn: Email User,

Due to the high risk of spam emails going on in the internet, we have decide to upgrade all educational email set by our admin panel, and access to your mailbox via our mail portal will be unavailable expect you upgrade your email account against fraudulent spam.

To upgrade and re-validate your mailbox, do click on the link to upgrade: [Upgradepage](#)

Thanks,
Educational Ad

<http://www.designrepublic.cz/wp-content/advanced/cache/upgrade/account/webmail.php>
Click to follow link

Spelling

Generic addressee

Link goes to external site

E-mail Phishing Attack

From: Costco Shipping Agent <manager@cbcbuilding.com>
Subject: Scheduled Home Delivery Problem
Date: January 6, 2014 10:54:37 PM MST
To:
Reply-To: Costco Shipping Agent <manager@cbcbuilding.com>

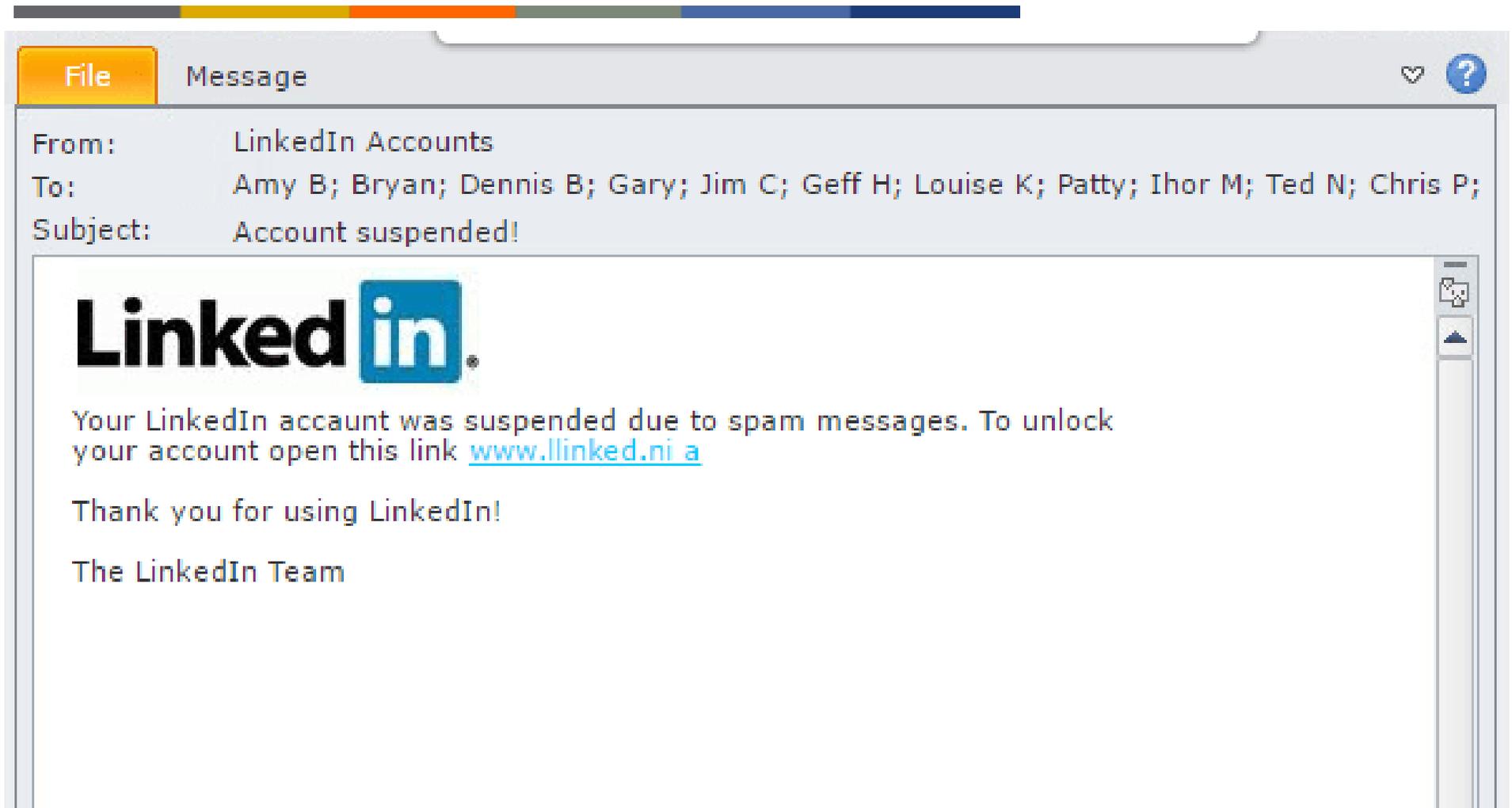
[Hide](#)



Unfortunately the delivery of your order [COS-0077945599](#) was cancelled since the specified address of the recipient was not correct. You are recommended to complete [this form](#) and send it back with your reply to us.

Please do this within the period of one week - if we dont get your timely reply you will be paid your money back less 21% since your order was booked for Christmas.

E-mail Phishing Attacks





Refund Notification

Due to a system error you were double charged for your last order, A refund process was initiated but could not be completed due to errors in your billing information

REF CODE:2550CGE

You are required to provide us a valid billing address

[Click Here to Update Your Address](#)

After your information has been validated you should get your refund within 3 business days

We hope to see you again soon.

[Amazon.com](https://www.amazon.com)

Email ID: 

E-mail Phishing Attacks

- Do you know the sender?
- Did you expect the e-mail?
- Is the subject generic, urgent, or suspicious?
- Are there spelling, grammar, or other indicators that the tone or style is off?
- Does the e-mail require you to take some action, e.g.,
 - Disclose confidential info
 - Click on link
 - Open attachment
- Did you hover over link to see the URL destination?



Do NOT

- ***Open attachment***
- ***Click on link***
- ***Input info***

E-mail Phishing Attacks

Practices to consider:

- Be suspicious of e-mails from unknown senders, re sensitive info, or call to action that stresses urgency or importance.
- Be suspicious of e-mails that appear to be from known senders that ask you to do something out of context or unexpected.
- Train staff to recognize suspicious e-mails and where to forward them.
- Never open attachments from unknown senders.
- Hover over links to identify URL.
- Tag external e-mails to make them recognizable to staff.
- Implement security measures to identify and limit phishing attacks.

2. Ransomware Attacks



Wana Decrypt0r 2.0

Ooops, your files have been encrypted!

English

What Happened to My Computer?

Your important files are encrypted. Many of your documents, photos, videos, databases and other files are no longer accessible because they have been encrypted. Maybe you are busy looking for a way to recover your files, but do not waste your time. Nobody can recover your files without our decryption service.

Can I Recover My Files?

Sure. We guarantee that you can recover all your files safely and easily. But you have not so enough time. You can decrypt some of your files for free. Try now by clicking <Decrypt>. But if you want to decrypt all your files, you need to pay. You only have 3 days to submit the payment. After that the price will be doubled. Also, if you don't pay in 7 days, you won't be able to recover your files forever. We will have free events for users who are so poor that they couldn't pay in 6 months.

How Do I Pay?

Payment is accepted in Bitcoin only. For more information, click <About bitcoin>. Please check the current price of Bitcoin and buy some bitcoins. For more information, click <How to buy bitcoins>. And send the correct amount to the address specified in this window. After your payment, click <Check Payment>. Best time to check: 9:00am - 11:00am GMT from Monday to Friday.

Payment will be raised on
5/16/2017 00:47:55
Time Left
02:23:57:37

Your files will be lost on
5/20/2017 00:47:55
Time Left
06:23:57:37

[About bitcoin](#)
[How to buy bitcoins?](#)
Contact Us

Send \$300 worth of bitcoin to this address:
12t9YDPgwueZ9NyMgw519p7AA8isjr6SMw Copy

Check Payment **Decrypt**

Ransomware Attacks

- **Cybercriminal infects system with malware through phishing or other attacks.**
- **Malware:**
 - **Encrypts data, thereby denying access until ransom is paid;**
 - **Destroys data; or**
 - **Exfiltrates data.**
- **No guarantee that paying ransom will allow you to recover data.**

<https://www.justice.gov/criminal-ccips/file/872771/download>



1. Best practices for protecting your network
 - Educate personnel
 - Preventative measures
 - Business continuity
2. Suggestions for responding to ransomware
3. Law enforcement assistance

How to Protect Your Networks from
RANSOMWARE

This document is a U.S. Government interagency technical guidance document aimed to inform Chief Information Officers and Chief Information Security Officers at critical infrastructure entities, including small, medium, and large organizations. This document provides an aggregate of already existing Federal

Ransomware Attacks

Practices to consider

- Train staff to recognize phishing and other security concerns.
- Warn staff of external e-mails.
- Establish a strong firewall.
- Deploy anti-malware detection and remediation tools.
- Patch software per authorized procedures.
- Use strong username and passwords with multi-facet authentication.
- Limit users who can log in from remote desktops.
- Limit rate of allowed authentication attempts.
- Separate critical and vulnerable systems.
- Determine which computers may access and store critical data.
- Maintain and protect data backups and recovery processes.
- Implement incident response procedures.

<https://www.hhs.gov/sites/default/files/RansomwareFactSheet.pdf>

According to OCR, ransomware attack is a presumptive HIPAA breach requiring:

- Investigation
- Notice to
 - Individuals
 - HHS
 - Media, if > 500 persons
- Fallout from govt investigation and adverse PR

FACT SHEET: Ransomware and HIPAA

A recent U.S. Government interagency report indicates that, on average, there have been 4,000 daily ransomware attacks since early 2016 (a 300% increase over the 1,000 daily ransomware attacks reported in 2015).¹ Ransomware exploits human and technical weaknesses to gain access to an organization's technical infrastructure in order to deny the organization access to its own data by encrypting that data. However, there are measures known to be effective to prevent the introduction of ransomware and to recover from a ransomware attack. This document describes ransomware attack prevention and recovery from a healthcare sector perspective, including the role the Health Insurance Portability and Accountability Act (HIPAA) has in assisting HIPAA covered entities and business associates to prevent and recover from ransomware attacks, and how HIPAA breach notification processes should be managed in response to a ransomware attack.

1. What is ransomware?

Ransomware is a type of malware (malicious software) distinct from other malware; its defining characteristic is that it attempts to deny access to a user's data, usually by encrypting the data with a key known only to the hacker who deployed the malware, until a ransom is paid. After the user's data is encrypted, the ransomware directs the user to pay the ransom to the hacker (usually in a cryptocurrency, such as Bitcoin) in order to receive a decryption key. However, hackers may deploy ransomware that also destroys or exfiltrates² data, or ransomware in conjunction with other malware that does so.

2. Can HIPAA compliance help covered entities and business associates prevent infections of malware, including ransomware?

Yes. The HIPAA Security Rule requires implementation of security measures that can help prevent the introduction of malware, including ransomware. Some of these required security measures include:

- implementing a security management process, which includes conducting a risk analysis to

3. Loss or Theft of Equipment or Data



MISSING

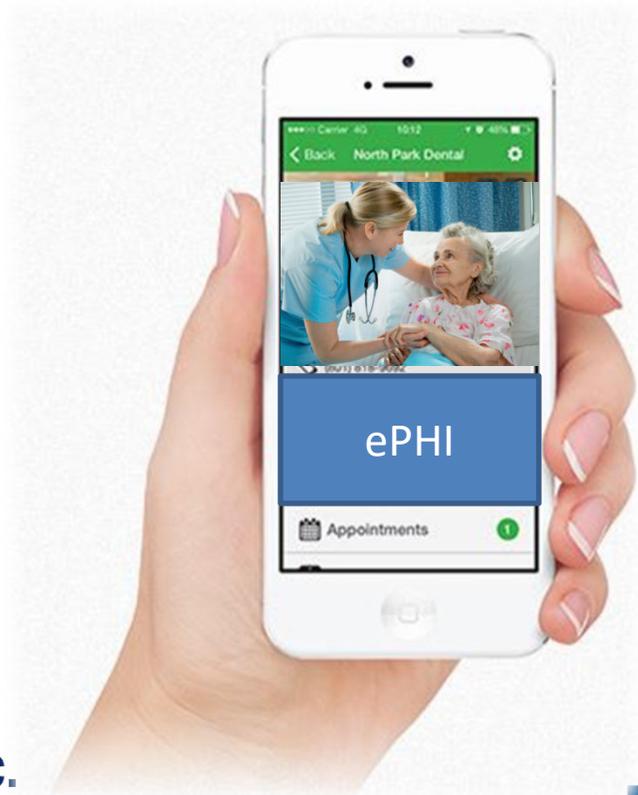


HAVE YOU SEEN ME?



Loss or Theft of Equipment or Data

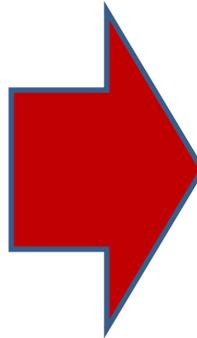
- Beware unsecured or unencrypted equipment, e.g.,
 - Equipment (e.g., desktop, copier, fax, medical device, etc.)
 - Laptops, tablets, smart phones
 - USBs/thumb drives
- May contain e-PHI, e.g.,
 - Medical records
 - E-mails or texts
 - Photos or images
 - Videos
 - Voice messages
 - Other?
- May allow access to system, e.g.,
 - Passwords, connections, emails, etc.



Loss or Theft of Equipment or Data

“[I]n cases where a lost laptop [,USB, phone, or other device containing e-PHI] is recovered, the fact that a forensic analysis of the computer shows that its information was not accessed is a relevant consideration for the risk assessment, and entities in such situations may be able to demonstrate a low probability that the information has been compromised.... [I]f a computer is lost or stolen, we do not consider it reasonable to delay breach notification based on the hope that the computer will be recovered.”

(HHS commentary to the HIPAA omnibus rule, 78 FR 5646)



The corollary:

Loss of unencrypted device containing e-PHI is presumptively a reportable HIPAA breach.



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**FOR IMMEDIATE RELEASE**

April 24, 2017

Contact: HHS Press Office

202-690-6343

media@hhs.gov

\$2.5 million settlement shows that not understanding HIPAA requirements creates risk

The U.S. Department of Health and Human Services, Office for Civil Rights (OCR), has announced a Health Insurance Portability and Accountability Act of 1996 (HIPAA) settlement based on the impermissible disclosure of unsecured electronic protected health information (ePHI). CardioNet has agreed to settle potential noncompliance with the HIPAA Privacy and Security Rules by paying \$2.5 million and implementing a corrective action plan. This settlement is the first involving a wireless health services provider, as CardioNet provides remote mobile monitoring of and rapid response to patients at risk for cardiac arrhythmias.

In January 2012, CardioNet reported to the HHS Office for Civil Rights (OCR) that a workforce member's laptop was stolen from a parked vehicle outside of the employee's home. The laptop contained the ePHI of 1,391 individuals. OCR's investigation into the impermissible disclosure revealed that CardioNet had an insufficient risk analysis and risk management processes in place at the time of the theft. Additionally, CardioNet's policies and procedures implementing the standards of the HIPAA Security Rule were in draft form and had not been implemented. Further, the Pennsylvania –based organization was unable to produce any final policies or procedures regarding the implementation of safeguards for ePHI, including those for mobile devices.

"Mobile devices in the health care sector remain particularly vulnerable to theft and loss," said Roger Severino, OCR Director. "Failure to implement mobile device security by Covered Entities and Business Associates puts individuals' sensitive health information at risk. This disregard for security can result in a serious breach, which affects each individual whose information is left unprotected."

Unencrypted laptop containing ePHI of 1,391 individuals stolen from employee's car.

- **Insufficient risk analysis**
- **Insufficient safeguards**
- **No policies re mobile devices**

Loss or Theft of Equipment or Data

HHS Examples

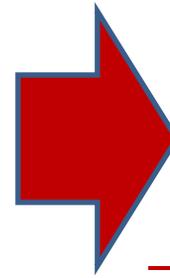
“A covered entity disposed of several hard drives containing electronic protected health information in an unsecured dumpster, in violation of [HIPAA]. HHS’s investigation reveals that the covered entity had failed to implement any policies and procedures to reasonably and appropriately safeguard protected health information during the disposal process.”

“A covered entity’s employee lost an unencrypted laptop that contained unsecured protected health information. HHS’s investigation reveals the covered entity feared its reputation would be harmed if information about the incident became public and, therefore, decided not to provide notification as required by § 164.400 et seq.”

(HHS commentary to breach notification rule, 75 FR 40879)

Consequences

- Willful neglect.
- Mandatory penalties of:
 - If correct w/in 30 days:
 - \$11,182 to \$57,051 per violation
 - Max \$114,102 per type per year.
 - At least \$57,051 per violation if don’t correct w/in 30 days
 - \$57,051 per violation
 - Max \$1,711,533 per type per year



Loss or Theft of Equipment or Data

- **Practices to consider:**
 - Train personnel.
 - Encrypt sensitive data.
 - Use secure server.
 - Implement proven backup and restoration processes.
 - Acquire and use data loss prevention tools.
 - Implement safeguard policy for mobile devices.
 - Maintain accurate asset inventory.
 - Implement process to remove sensitive info from all devices before retired.

Beware Mobile Devices

The screenshot shows a web browser window with the URL <https://www.healthit.gov/resource/your-mobile-device-and-health-information-privacy-and-security>. The page header includes the HealthIT.gov logo, the text "Official Website of The Office of the National Coordinator for Health Information Technology (ONC)", and navigation links for "CONTACT" and "EMAIL UPDATES". A search bar is located on the right side of the header.

The main content area features a sidebar on the left with a "Home" section and a "Topics" menu. The "Topics" menu includes links for "How Do I?", "For Providers", "For Developers & Vendors", "For Individuals", "Blog", "News", "Events", "Fact Sheets", "Infographics", "Multimedia", "New Funding Announcements", and "News Releases".

The main content area has a section titled "Your Mobile Device and Health Information Privacy and Security" with a blue underline. Below the title is a paragraph: "Physicians, health care providers and other health care professionals are using smartphones, laptops and tablets in their work. The U.S. Department of Health and Human Services has gathered these [tips and information](#) to help you protect and secure [health information](#) patients entrust to you when using [mobile devices](#)."

Below this paragraph is a "Disclaimer" section: "The material in these guides and tools was developed from the experiences of Regional Extension Center staff in the performance of technical support and EHR implementation assistance to primary care providers. The information contained in this guide is not intended to serve as legal advice nor should it substitute for legal counsel. The guide is not exhaustive, and readers are encouraged to seek additional detailed technical guidance to supplement the information contained herein."

Next is a "Resource Link" section: "Reference in this web site to any specific resources, tools, products, process, service, manufacturer, or company does not constitute its endorsement or recommendation by the U.S. Government or the U.S. Department of Health and Human Services."

Below that is an "Audience" section: "Your Mobile Device and Health Information Privacy and Security" (link) and "Providers & Professionals".

The Windows taskbar at the bottom shows the time as 1:41 PM on 3/9/2019 and a notification icon with the number 2.

Mobile Devices: Tips to Protect and Secure Health Information



Use a password or other user authentication.



Install and enable encryption.



Install and activate wiping and/or remote disabling.



Disable and do not install file-sharing applications.



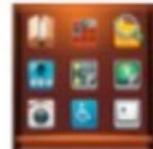
Install and enable a firewall.



Install and enable security software.



Keep security software up to date.



Research mobile applications (apps) before downloading.



Maintain physical control of your mobile device.



Use adequate security to send or receive health information over public Wi-Fi networks.



Delete all stored health information before discarding or reusing the mobile device.

Loss or Theft of Equipment or Data

Questions to consider:

- Does my equipment contain confidential or sensitive information?
- Is the device secured through, e.g., strong password protection?
- Is the information encrypted?
- May I or do I need to take the equipment with me?
- Is there a secure virtual private network (VPN) that I can use?

4. Insider Accidental or Intentional Data Loss



Insider Accidental or Intentional Data Loss

Common vulnerabilities

- Files e-mailed to wrong address
- Inadequate monitoring, tracking and auditing
 - Access to e-mail and file storage
 - E-mailing and uploading data outside organization
- Inadequate physical access control
- Inadequate training

Practices to consider

- Train personnel
- Workforce access limits and audits
- Implement privileged access management tools
- Implement and use data loss prevention tools.
- Backup

5. Attacks Against Connected Medical Devices



Malware Alters CT Scans and Creates and Removes Tumors

Home

Healthcare Cybersecurity

Malware Alters CT Scans and Creates and Removes Tumors

Search

Search

Posted By HIPAA Journal on Apr 5, 2019



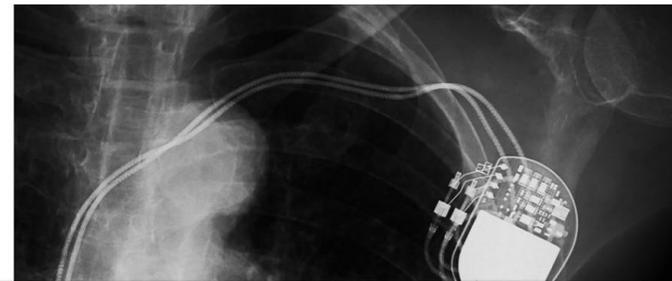
WIRED

A New Pacemaker Hack Puts Malware Directly on the Device

LILY HAY NEWMAN SECURITY 08.09.18 12:30 PM

A NEW PACEMAKER HACK PUTS MALWARE DIRECTLY ON THE DEVICE

SHARE



Is the safe brand We VISIT IN

- Heart monitors
- Pacemakers
- Insulin pumps
- Imaging scans
- Others?

Attacks Against Connected Medical Devices

Common vulnerabilities

- Patches not implemented
- Outdated equipment
- Most devices cannot be monitored by intrusion detection system
- Cybersecurity profile info may be unavailable
- Wide variance in devices

Practices to consider

- Communicate with device mfr
- Follow mfr instructions
- Patch devices after patch has been validated and tested
- Assess security on networked devices
- Assess devices risks
- Contract carefully
- Access controls for outsiders

<https://www.phe.gov/Preparedness/planning/405d/Documents/HICP-Main-508.pdf>

Recommended Practices

1. E-mail protection system
2. Endpoint protection system
3. Access management
4. Data protection and loss prevention
5. Network management
6. Vulnerability management
7. Incident response
8. Medical device security
9. Cybersecurity policies

- Sample Forms
- Resources

ov/Preparedness/planning/405d/Documents/HICP-Main-508.pdf

Health Industry Cybersecurity Practices: Managing Threats and Protecting Patients





1301 New York Avenue, N.W., 6th Floor, Washington, D.C. 20530 - CYBERSECURITY.CCIPS@USDOJ.GOV - (202)514-1026

Best Practices for Victim Response and Reporting of Cyber Incidents

Version 1.0 (April 2015)

Any Internet-connected organization can fall prey to a disruptive network intrusion or costly cyber attack. A quick, effective response to cyber incidents can prove critical to minimizing the resulting harm and expediting recovery. The best time to plan such a response is now, *before* an incident occurs.

This “best practices” document was drafted by the Cybersecurity Unit to assist organizations in preparing a cyber incident response plan and, more generally, in preparing to respond to a cyber incident. It reflects lessons learned by federal prosecutors while handling cyber investigations and prosecutions, including information about how cyber criminals’ tactics and tradecraft can thwart recovery. It also incorporates input from private sector companies that have managed cyber incidents. It was drafted with smaller, less well-resourced organizations in mind; however, even larger organizations with more experience in handling cyber incidents may

Health Insurance Portability and Accountability Act (“HIPAA”)

- 45 CFR 164
 - .500: Privacy Rule
 - .300: Security Rule
 - .400: Breach
Notification Rule
- HITECH Act
 - Modified HIPAA
 - Implemented by HIPAA Omnibus Rule



HIPAA Security Rule

- Risk assessment
- Implement safeguards.
 - Administrative
 - Technical, including encryption
 - Physical
- Execute business associate agreements.

(45 CFR 164.301 et seq.; *see* WSA 35-2-615)



Protect ePHI:

- Confidentiality
- Integrity
- Availability

Risk Assessment

Requirement

- Must conduct and document an accurate and thorough assessment of the potential risks and vulnerabilities to the confidentiality, integrity, and availability of ePHI.

(45 CFR 164.308(a)(1))

- Ongoing process.

Elements

- Scope includes all ePHI in any format, including hard drives, portable media, mobile devices, servers, transmission, storage, networks, etc.
- Track flow of ePHI
- Identify threats and vulnerabilities
- Assess current security measures
- Assess likelihood of threat
- Determine level of risk
- Confirm and implement plan

<https://www.hhs.gov/hipaa/for-professionals/security/guidance/guidance-risk-analysis/index.html>

The screenshot shows a web browser window with the URL <https://www.hhs.gov/hipaa/for-professionals/security/guidance/guidance-risk-analysis/index.html>. The page features a navigation sidebar on the left with categories: HIPAA for Professionals, Regulatory Initiatives, Privacy (+), Security (-), Breach Notification (+), Compliance & Enforcement (+), Special Topics (+), Patient Safety (+), and Covered Entities & Business (+). The main content area is titled "Guidance on Risk Analysis" and includes text about the NIST HIPAA Security Toolkit Application, the HIPAA Security Risk Assessment (SRA) Tool, and OCR guidance on the HIPAA Security Rule. It also provides links for additional information and a PDF download.

Text Resize **A A A** Print Share

Guidance on Risk Analysis

The [NIST HIPAA Security Toolkit Application](#), developed by the National Institute of Standards and Technology (NIST), is intended to help organizations better understand the requirements of the HIPAA Security Rule, implement those requirements, and assess those implementations in their operational environment. Target users include, but are not limited to, HIPAA covered entities, business associates, and other organizations such as those providing HIPAA Security Rule implementation, assessment, and compliance services.

The Office of the National Coordinator for Health Information Technology (ONC) and the HHS Office for Civil Rights (OCR) have jointly launched a [HIPAA Security Risk Assessment \(SRA\) Tool](#). The tool's features make it useful in assisting small and medium-sized health care practices and business associates in complying with the Health Insurance Portability and Accountability Act (HIPAA) Security Rule.

The Office for Civil Rights (OCR) is responsible for issuing periodic guidance on the provisions in the HIPAA Security Rule. (45 C.F.R. §§ 164.302 – 318.) This series of guidance documents will assist organizations in identifying and implementing the most effective and appropriate administrative, physical, and technical safeguards to protect the confidentiality, integrity, and availability of electronic protected health information. The materials will be updated annually, as appropriate.

For additional information, please review our other [Security Rule Guidance Material and our Frequently Asked Questions](#) about the Security Rule.

[Download a copy of the guidance in PDF. - PDF](#)

top

<https://www.healthit.gov/topic/privacy-security-and-hipaa/security-risk-assessment-tool>

Security Risk Assessment Tool | H x +

healthit.gov/topic/privacy-security-and-hipaa/security-risk-assessment-tool

NEW: Health IT Feedback Portal

Official Website of The Office of the National Coordinator for Health Information Technology (ONC)

HealthIT.gov

TOPICS | HOW DO I? | BLOG | NEWS | ABOUT ONC

Search

HealthIT.gov > Topics > Privacy, Security, and HIPAA > Security Risk Assessment Tool

Privacy, Security, and HIPAA -

Educational Videos

- Security Risk Assessment Tool** -
- Security Risk Assessment Videos
- Top 10 Myths of Security Risk Analysis

HIPAA Basics +

Privacy & Security Resources & Tools +

Security Risk Assessment Tool

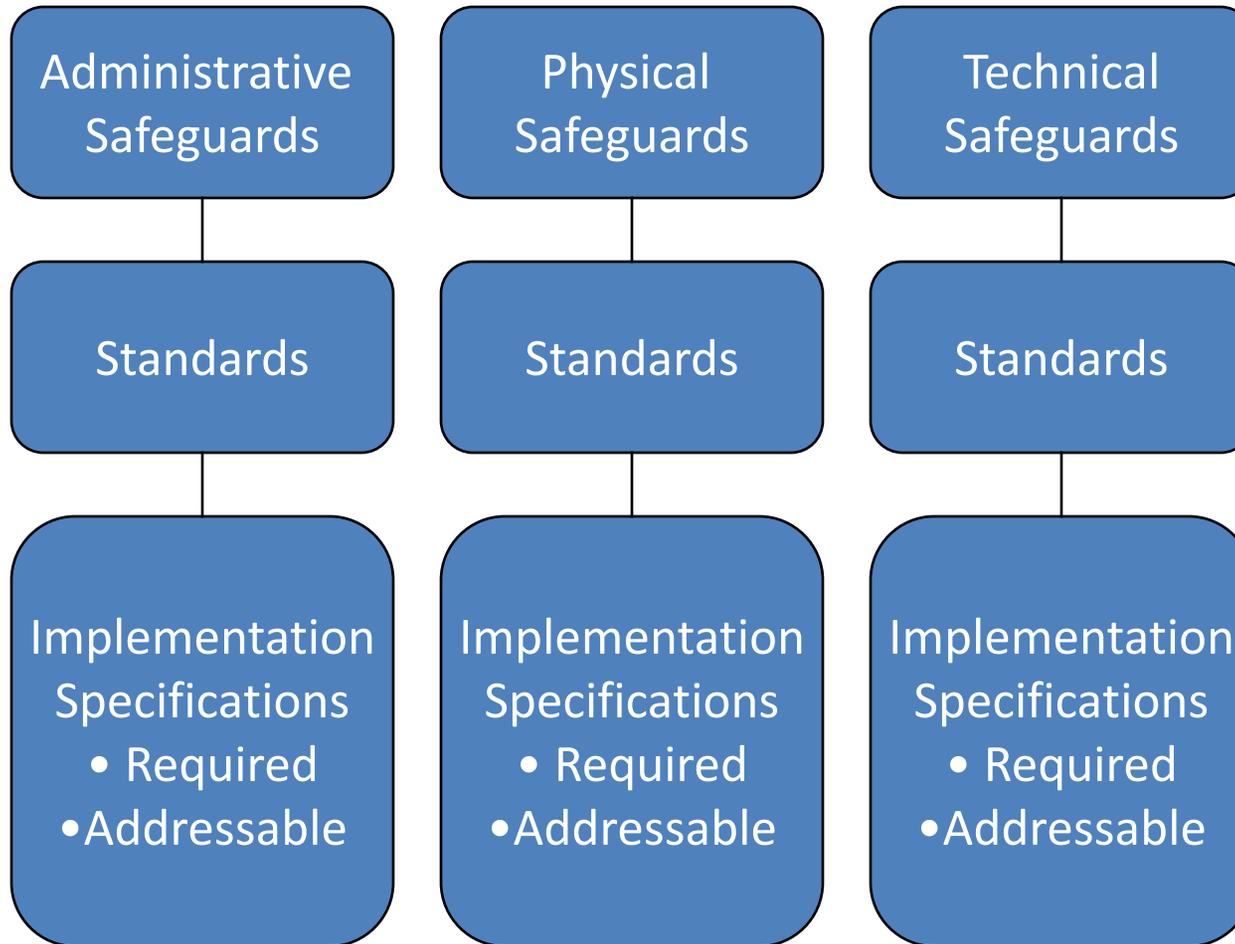
The Health Insurance Portability and Accountability Act (HIPAA) Security Rule requires covered entities and its business associates conduct a risk assessment of their health information (PHI) to ensure it is protected by appropriate technical safeguards. A risk assessment helps your organization ensure it is compliant with HIPAA technical safeguards. A risk assessment also helps reveal areas where PHI could be at risk. To learn more about the assessment process and the benefits your organization, visit the Office for Civil Rights' official guidance.

What is the Security Risk Assessment Tool (SRA Tool)?

The Office of the National Coordinator for Health Information Technology (ONC), in collaboration with the HHS Office for Civil Rights (OCR), developed a downloadable Security Risk Assessment (SRA) Tool to help guide you through the process. The tool is designed to help healthcare providers conduct a security risk assessment as required by the HIPAA Security Rule and the Centers for Medicare and Medicaid Service (CMS) Electronic Health Record (EHR) Incentive Program.

Updated Tool 2020

Safeguards



Security Rule: Administrative Safeguards

- Assign security officer.
- Implement policies, procedures and safeguards to minimize risks.
- Sanction workforce members who violate policies.
- Process for authorizing or terminating access to e-PHI.
- Train workforce members on security requirements.
- Process for responding to security incidents.
- Review or audit information system activity.
- Establish backup plans, disaster recovery plans, etc.
- Periodically evaluate security measures.

(45 CFR 164.308)

Security Rule: Physical Safeguards

- **Limit access to physical facilities and devices containing e-PHI.**
- **Document repairs and modifications to facilities.**
- **Secure workstations.**
- **Implement policies concerning proper use of workstations.**
- **Implement policies concerning the flow of e-PHI into and out of the facility.**
- **Implement policies for disposal of e-PHI.**
- **Create a backup copy of e-PHI.**

(45 CFR 164.310)

Security Rule: Technical Safeguards

- Assign unique names or numbers to track users.
- Implement automatic logoff process.
- Use encryption and decryption, where appropriate.
- Implement systems to audit use of e-PHI.
- Implement safeguards to protect e-PHI from alteration or destruction.
- Implement methods to ensure e-PHI has not been altered or destroyed.
- Implement verification process.
- Protect data during transmission.

(45 CFR 164.312)

<https://www.hhs.gov/hipaa/for-professionals/security/guidance/index.html>

The screenshot shows the HHS.gov website interface. At the top, there is a navigation bar with the HHS.gov logo, the text "Health Information Privacy", and "U.S. Department of Health & Human Services". Below this is a search bar with the placeholder text "I'm looking for..." and a magnifying glass icon. To the right of the search bar is a link for "HHS A-Z Index".

Below the search bar are four main navigation buttons: "HIPAA for Individuals", "Filing a Complaint", "HIPAA for Professionals", and "Newsroom".

The main content area has a breadcrumb trail: "HHS Home > HIPAA > For Professionals > Security > Security Rule Guidance Material".

On the left side, there is a sidebar menu with the following items:

- HIPAA for Professionals
- Privacy (+)
- Security (-)
 - Summary of the Security Rule
 - Guidance
 - Combined Text of All Rules
- Breach Notification (+)
- Compliance & Enforcement (+)
- Special Topics (+)
- Patient Safety (+)

On the right side, there are utility links: "Text Resize A A A", "Print", and "Share" with social media icons for Facebook and Twitter.

Security Rule Guidance Material

In this section, you will find educational materials to help you learn more about the HIPAA Security Rule and other sources of standards for safeguarding electronic protected health information (e-PHI).

[Security Risks to Electronic Health Information from Peer-to-Peer File Sharing Applications](#)-The Federal Trade Commission (FTC) has developed a guide to Peer-to-Peer (P2P) security issues for businesses that collect and store sensitive information.

[Safeguarding Electronic Protected Health Information on Digital Copiers](#)-The Federal Trade Commission (FTC) has tips on how to safeguard sensitive data stored on the hard drives of digital copiers.

Security Rule Educational Paper Series

The HIPAA Security Information Series is a group of educational papers which are designed to give HIPAA covered entities insight into the Security Rule and assistance with implementation of the security standards.

[Security 101 for Covered Entities](#)

<https://www.healthit.gov/topic/privacy-security-and-hipaa/health-it-privacy-and-security-resources-providers>

The screenshot shows a web browser window displaying the HealthIT.gov website. The page title is "Health IT Privacy and Security Resources for Providers". The navigation bar includes "TOPICS", "HOW DO I?", "BLOG", "NEWS", and "ABOUT ONC". The main content area features a sidebar with categories like "Privacy, Security, and HIPAA", "Educational Videos", "Security Risk Assessment Tool", "HIPAA Basics", "Privacy & Security Resources & Tools", "Resources and Tools for Consumers", "Resources and Tools for Providers", "Security Risk Assessment Tool", "Privacy & Security Training Games", and "Model Privacy Notice (MPN)". The main content area is titled "Health IT Privacy and Security Resources for Providers" and contains a paragraph describing the resources and a section titled "Tools and Templates" with a list of links to various documents and tools.

Health IT.gov
Official Website of The Office of the National Coordinator for Health Information Technology (ONC)

CONTACT | EMAIL UPDATES

Connect with us: in | | | |

TOPICS | HOW DO I? | BLOG | NEWS | ABOUT ONC

Search

Home > Topics > Privacy, Security, and HIPAA > Privacy & Security Resources & Tools > Resources and Tools for Providers

Health IT Privacy and Security Resources for Providers

The Office of the National Coordinator for Health Information Technology (ONC), U.S. Department of Health and Human Services (HHS) Office for Civil Rights (OCR), and other HHS agencies have developed a number of resources for you. These tools, guidance documents, and educational materials are intended to help you better integrate HIPAA and other federal health information privacy and security into your practice.

Tools and Templates

- [Sync for Science \(S4S\) API Privacy and Security \[PDF - 939 KB\]](#). Led an independent privacy and security technical and administrative testing, analysis, and assessment of a voluntary subset of S4S pilot organizations' implementations of the S4S API.
- [Guide to Privacy and Security of Electronic Health Information \[PDF - 1.3 MB\]](#). ONC tool to help small health care practices in particular succeed in their privacy and security responsibilities. The Guide includes a sample seven-step approach for implementing a security management process.
- [Security Risk Assessment \(SRA\) Tool](#). HHS downloadable tool to help providers from small practices navigate the security risk analysis process.
- [Security Risk Analysis Guidance](#). OCR's expectations for how providers can meet the risk analysis requirements of the HIPAA Security Rule.
- [HIPAA Security Toolkit Application](#). National Institute of Standards and Technology (NIST) toolkit to help organizations better understand the requirements of the HIPAA Security Rule, implement those requirements, and assess those implementations in their operational environment.

1:33 PM
3/9/2019

Encryption

- Encryption is an addressable standard per 45 CFR 164.312:
 - (e)(1) *Standard: Transmission security*. Implement technical security measures to guard against unauthorized access to [ePHI] that is being transmitted over an electronic communications network.
 - (2)(ii) *Encryption (Addressable)*. Implement a mechanism to encrypt electronic protected health information whenever deemed appropriate.
- ePHI that is properly encrypted is “secured”.
 - Not subject to breach reporting.
- OCR presumes that loss of unencrypted laptop, USB, mobile device is reportable “breach.”

Encryption

Theft of unencrypted laptop from employee's home.

This judgment “underscores the risks entities take if they fail to implement effective safeguards, such as data encryption, when required to protect sensitive patient information.”
--OCR Director Roger Severino

5/18/judge-rules-in-favor-of-ocr-and-requires-texas-cancer-center-to-pay-4.3-million-in-penalties-for-hipaa-... ☆

FOR IMMEDIATE RELEASE
June 18, 2018

Contact: HHS Press Office
202-690-6343
media@hhs.gov

Judge rules in favor of OCR and requires a Texas cancer center to pay \$4.3 million in penalties for HIPAA violations

A U.S. Department of Health and Human Services Administrative Law Judge (ALJ) has ruled that The University of Texas MD Anderson Cancer Center (MD Anderson) violated the Health Insurance Portability and Accountability Act of 1996 (HIPAA) Privacy and Security Rules and granted summary judgment to the Office for Civil Rights (OCR) on all issues, requiring MD Anderson to pay \$4,348,000 in civil money penalties to OCR. This is the second summary judgment victory in OCR's history of HIPAA enforcement and the \$4.3 million is the fourth largest amount ever awarded to OCR by an ALJ or secured in a settlement for HIPAA violations.

MD Anderson is both a degree-granting academic institution and a comprehensive cancer treatment and research center located at the Texas Medical Center in Houston. OCR investigated MD Anderson following three separate data breach reports in 2012 and 2013 involving the theft of an unencrypted laptop from the residence of an MD Anderson employee and the loss of two unencrypted universal serial bus (USB) thumb drives containing the unencrypted electronic protected health information (ePHI) of over 33,500 individuals. OCR's investigation found that MD Anderson had written encryption policies going as far back as 2006 and that MD Anderson's own risk analyses had found that the lack of device-level encryption posed a high risk to the security of ePHI. Despite the encryption policies and high risk findings, MD Anderson did not begin to adopt an enterprise-wide solution to implement encryption of ePHI until 2011, and even then it failed to encrypt its inventory of electronic devices containing ePHI between March 24, 2011 and January 25, 2013. The ALJ agreed with OCR's

Encryption

Is the use of encryption mandatory in the Security Rule?

Answer: No. The final Security Rule made the use of encryption an addressable implementation specification. See 45 CFR § 164.312(a)(2)(iv) and (e)(2)(ii).

The encryption implementation specification is addressable, and must therefore be implemented if, after a risk assessment, the entity has determined that the specification is a reasonable and appropriate safeguard in its risk management of the confidentiality, integrity and availability of e-PHI.

If the entity decides that the addressable implementation specification is not reasonable and appropriate, it must document that determination and implement an equivalent alternative measure, presuming that the alternative is reasonable and appropriate. If the standard can otherwise be met, the covered entity may choose to not implement the implementation specification or any equivalent alternative measure and document the rationale for this decision.

(OCR FAQ at <https://www.hhs.gov/hipaa/for-professionals/faq/2001/is-the-use-of-encryption-mandatory-in-the-security-rule/index.html>).

Communicating by E-mail or Text

- **General rule: must be secure, i.e., encrypted.**
- **To patients:** may communicate via unsecure e-mail or text if warned patient and they choose to receive unsecure.
(45 CFR 164.522(b); 78 FR 5634)
- **To providers, staff or other third parties:** must use secure platform.
(45 CFR 164.312; CMS letter dated 12/28/17)
- **Orders:** Medicare Conditions of Participation and Conditions for Coverage generally prohibit texting orders.
(CMS letter dated 12/28/17)

Additional Resources



<https://www.phe.gov/Preparedness/planning/405d/Documents/HICP-Main-508.pdf>

Recommended Practices

1. E-mail protection system
2. Endpoint protection system
3. Access management
4. Data protection and loss prevention
5. Network management
6. Vulnerability management
7. Incident response
8. Medical device security
9. Cybersecurity policies

- Sample Forms
- Resources

ov/Preparedness/planning/405d/Documents/HICP-Main-508.pdf

Health Industry Cybersecurity Practices: Managing Threats and Protecting Patients



Healthcare & Public Health
Sector Coordinating Councils
PUBLIC PRIVATE PARTNERSHIP

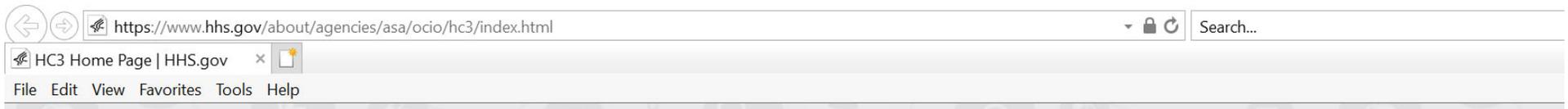
Appendix F: Resources

Below is a list of free resources with supplemental information for the threats and concepts addressed in this document. This list is not intended to be comprehensive or complete.

U.S Department of Health and Human Services (HHS) Resources

- **Security Risk Assessment Tool**
 - **Link:** <https://www.healthit.gov/topic/privacy-security-and-hipaa/security-risk-assessment>
 - **Description:** Security Risk Assessment Tool is designed to help healthcare providers conduct a security risk assessment as required by the HIPAA Security Rule and the Centers for Medicare and Medicaid Service (CMS) Electronic Health Record (EHR) Incentive Program
 - # of pages: N/A
- **Risk Management Handbook (RMH) Chapter 08: Incident Response**
 - **Link:** <https://www.cms.gov/Research-Statistics-Data-and-Systems/CMS-Information-Technology/InformationSecurity/Downloads/RMH-Chapter-08-Incident-Response.pdf>
 - **Description:** "The intent of this document is to describe standard operating procedures that facilitate the implementation of security controls associated with the Incident Response (IR) family of controls taken from the National Institute of Standards and Technology (NIST) Special Publication 800-53 Revision 4 Security and Privacy Controls for Federal Information Systems and Organizations and tailored to the CMS environment in the CMS ARS."
 - # of pages: 116
- **Incident Report Template**
 - **Link:** <https://www.cms.gov/Research-Statistics-Data-and-Systems/CMS-Information-Technology/InformationSecurity/Info-Security-Library-Items/RMH-Chapter-08-Incident-Response-Appendix-K-Incident-Report-Template.html?DLPage=4&DLEntries=10&DLSort=0&DLSortDir=ascending>
 - **Description:** Template for reporting a computer security incident
 - # of pages: 7
- **Cybersecurity | FDA General Page**
 - **Link:** <https://www.fda.gov/medicaldevices/digitalhealth/ucm373213.htm>
 - **Description:** FDA's Cybersecurity page
 - # of pages: 2-3
- **Medical Device Safety Action Plan: Protecting Patients, Promoting Public Health**
 - **Link:** <https://www.fda.gov/aboutfda/centersoffices/officeofmedicalproductsandtobacco/cdrh/cdrhreports/ucm604500.htm>
 - **Description:** FDA's Medical Device Safety Action Plan
 - # of pages: 18
- **HHS Office for Civil Rights Cybersecurity Page**
 - **Link:** <https://www.hhs.gov/hipaa/for-professionals/security/guidance/cybersecurity/index.html>
 - **Description:** This web page includes most of OCR's general cybersecurity resources (cybersecurity incident checklist, ransomware guidance, cybersecurity newsletters, HIPAA

<https://www.hhs.gov/about/agencies/asa/ocio/hc3/index.html>



[Home](#) > [About](#) > [Agencies](#) > [ASA](#) > [OCIO](#) > HC3 Home Page

- Assistant Secretary for Administration (ASA)
- About ASA
- EEO Compliance & Operations +
- Office of Business Management & Transformation (OBMT) +
- Office of Human Resources (OHR) +
- Office of the Chief Information Officer (OCIO) -
- About OCIO

Text Resize **A A A** | Print | Share

HC3 Home Page

A Prescription for Health Sector Cybersecurity

Health Sector Cybersecurity Coordination Center (HC3) was created by the Department of Health and Human Services to aid in the protection of vital, healthcare-related controlled information and ensure that cybersecurity information sharing is coordinated across the Health and Public Health Sector (HPH).



HC3 Products

- Threat Briefs
- Sector Alerts

<https://www.hhs.gov/hipaa/for-professionals/index.html>

HHS.gov U.S. Department of Health & Human Services

Health Information Privacy

I'm looking for...  [HHS A-Z Index](#)

 HIPAA for Individuals  Filing a Complaint  HIPAA for Professionals  Newsroom

[HHS](#) > [HIPAA Home](#) > HIPAA for Professionals

HIPAA for Professionals

Text Resize [A](#) [A](#) [A](#) Print  Share   

HIPAA for Professionals

To improve the efficiency and effectiveness of the health care system, the [Health Insurance Portability and Accountability Act of 1996 \(HIPAA\)](#), Public Law 104-191, included Administrative Simplification provisions that required HHS to adopt national standards for electronic health care transactions and code sets, unique health identifiers, and security. At the same time, Congress recognized that advances in electronic technology could erode the privacy of health information. Consequently, Congress incorporated into HIPAA provisions that mandated the adoption of Federal privacy protections for individually identifiable health information.

- HHS published a final [Privacy Rule](#) in December 2000, which was later modified in August 2002.

6:33 AM 6/28/2018

<https://www.healthit.gov/sites/default/files/pdf/privacy/privacy-and-security-guide.pdf>

Guide to Privacy and Security of I x +

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1. Importance of Privacy and Security Matters
2. HIPAA Rules
3. Patient's Rights
4. EHR, HIPAA Security, and Cybersecurity
5. Meaningful Use Rules
6. 7-Step Approach for Security Management
7. Breach Notification Rules

The Office of the National Coordinator for
Health Information Technology



Guide to Privacy and Security of Electronic Health Information

Version 2.0
April 2015

The information contained in this Guide is not intended to serve as legal advice nor should it substitute for legal counsel. The Guide is not exhaustive, and readers are encouraged to seek additional detailed technical guidance to supplement the information contained herein.

Putting the I in HealthIT
HealthIT.gov

<https://www.justice.gov/criminal-ccips/file/872771/download>



1. Best practices for protecting your network
 - Educate personnel
 - Preventative measures
 - Business continuity
2. Suggestions for responding to ransomware
3. Law enforcement assistance

How to Protect Your Networks from
RANSOMWARE

This document is a U.S. Government interagency technical guidance document aimed to inform Chief Information Officers and Chief Information Security Officers at critical infrastructure entities, including small, medium, and large organizations. This document provides an aggregate of already existing Federal



1301 New York Avenue, N.W., 6th Floor, Washington, D.C. 20530 - CYBERSECURITY.CCIPS@USDOJ.GOV - (202)514-1026

Best Practices for Victim Response and Reporting of Cyber Incidents

Version 1.0 (April 2015)

Any Internet-connected organization can fall prey to a disruptive network intrusion or costly cyber attack. A quick, effective response to cyber incidents can prove critical to minimizing the resulting harm and expediting recovery. The best time to plan such a response is now, *before* an incident occurs.

This “best practices” document was drafted by the Cybersecurity Unit to assist organizations in preparing a cyber incident response plan and, more generally, in preparing to respond to a cyber incident. It reflects lessons learned by federal prosecutors while handling cyber investigations and prosecutions, including information about how cyber criminals’ tactics and tradecraft can thwart recovery. It also incorporates input from private sector companies that have managed cyber incidents. It was drafted with smaller, less well-resourced organizations in mind; however, even larger organizations with more experience in handling cyber incidents may

<https://www.hollandhart.com/healthcare#overview>

The screenshot shows the top navigation bar with the text "EXCELLENCE IN LEGAL SERVICES" and the Holland & Hart logo, which includes a "70 YEARS EST. 1947" anniversary mark. The main content area is divided into several sections: "OVERVIEW" (with a right-pointing arrow), "PRACTICES/INDUSTRIES", "NEWS & INSIGHTS", "CONTACTS", and "HEALTH LAW BLOG". Under "CONTACTS", there are two profile cards for Kim Stanger (Partner, Boise) and Blaine Benard (Partner, Salt Lake City). The "HEALTH LAW BLOG" section includes a RSS icon and the text "Access to previous webinar recordings, publications, and more." The right side of the page features a main heading "The Healthcare Industry is po this sector now making up cl stand ready to help as chang" and a sub-heading "Clients We Serve" with a bulleted list of client types.



Past Webinars
Publications

The Windows taskbar at the bottom of the screen displays several application icons including File Explorer, Edge, Chrome, Outlook, Word, and PowerPoint. The system tray on the right shows the time as 7:34 AM on 2/8/2017, along with icons for network, volume, and power.



Kim C. Stanger

Office: (208) 383-3913

Cell: (208) 409-7907

kcstanger@hollandhart.com

Andrew Shaxted

Cell: (773) 658-0241

Andrew.Shaxted@fticonsulting.com