The Need for Robust HIPAA Security Risk Analysis Processes

Matt Jackson
Director, Protiviti

Kevin Dunnahoo
Senior Manager, Protiviti
INTRODUCTION & INDUSTRY BUZZ
IN THE NEWS

The seedy underworld of medical data trafficking

By Chris Brown | July 09, 2015 | 08:23 AM

A 'value pack' of 10 stolen Medicare numbers

Computer Virus Possibly Exposes PHI in Healthcare Data Breach

By Jacqueline Belleveau on April 06, 2016

Premera breach: more health record companies impacted

HIPAA and Compliance  EHR Security  HIE Security  Mobile Security  Data Breaches

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THE THREAT IS REAL

89% of healthcare organizations surveyed have suffered at least one data breach in the last 2 years

- 45% of CEs have experienced more than five data breaches over the past 2 years
- 61% of BAs experienced data breaches
- Data breaches could be costing the U.S. healthcare industry an average of $6.2 billion annually
- The average economic impact of data breaches per organization is $2.2 million

Source: Sixth Annual Study on Patient Privacy & Security of Healthcare Data. Ponemon Institute, May 2016
THE THREAT IS REAL

Criminal attacks are now the number-one cause of data breaches (cyber-attacks, malicious insiders, and/or paper medical file theft).

Attacks are targeting medical files and billing / insurance records.

CEs say 48% of medical identity theft’s root cause was an unintentional employee action (phishing, social engineering, etc.).

Medical information is sold on the black market typically at a premium, reports range widely on the actual cost, but they go for well above the cost of stolen credit card info.

Source: Sixth Annual Study on Patient Privacy & Security of Healthcare Data. Ponemon Institute, May 2016
ENFORCEMENT IS HERE - AUDITS

Phase II will mostly consist of “desk audits,” but some will be selected for more comprehensive onsite audits during 2017.

All entities are eligible for selection for the onsite audits EVEN those who have already gone through a desk audit.

A report of the summarized findings will be created and made available sometime after the conclusion of the audits in 2017.

Desk Audit Scope

- Covered Entities and Business Associates
- Privacy – Notice of Privacy Practices (does not apply to BAs)
- Breach Notification – Timing and Content of Breach Notifications or Breach Risk Assessments
- Security – Risk Analysis and Risk Management

Audit Protocols – Updated and available now

ENFORCEMENT IS HERE - INVESTIGATIONS

| HIPAA compliance reviews and complaint investigations are even more thorough than the Phase II audits |
| Complaint Investigation – complaint driven |
| Compliance Review – breach driven |

### HIPAA Penalties vs. Settlements
- OCR most often “settles” and creates “corrective action plans”
- These amounts are vastly reduced compared to what they could enforce through actual civil monetary penalties under the HITECH Act

### Trending Issues
- Lack of BAA
- BAA not updated after HITECH
- Incomplete or inaccurate Risk Analysis
- Lack of transmission security
- Patching of software
- Audit logs
- Insider threat
- Improper disposal
- Insufficient backup and contingency planning
AREA OF SCRUTINY

⚠️ Deficient Risk Analysis!
EVALUATION VS. RISK ANALYSIS

Evaluation §164.308(a)(8)

- Gap assessment comparing compliance practices against the individual standards/requirements
- Guidance may be found at: http://www.hhs.gov/ocr/privacy/hipaa/administrative/securityrule/securityruleguidance.html

Risk Analysis §164.308(a)(1)(ii)(A) and Risk Management §164.308(a)(1)(ii)(B)

- Identify and assess risks to all of your ePHI
- Take action to reduce risks and vulnerabilities to a reasonable and appropriate level
- Guidance may be found at: http://www.hhs.gov/ocr/privacy/hipaa/administrative/securityrule/rafinalguidance.html
PERFORMING AN EVALUATION

OCR HIPAA Audit Protocol has been updated

Foundational starting point

Significantly enhanced, but still does not guarantee compliance

Source: HHS.gov
## 2.3 Security Gap Evaluation - Observations and Recommendations Matrix

<table>
<thead>
<tr>
<th>Standards / Requirement</th>
<th>Specification / Detail</th>
<th>Current Control Activities</th>
<th>Gaps / Improvement Opportunity</th>
<th>Management's Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Administrative Safeguards</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Security Management Process</strong></td>
<td>Risk Analysis (Required) §164.308(a)(i)(A) Conduct an accurate and thorough assessment of the potential risks and vulnerabilities to the confidentiality, integrity, and availability of electronic protected health information held by the covered entity.</td>
<td>An annual risk analysis is required per the Information Security Risk Management policy that details the process. The policy requires that the IS Security Administrator produces a report annually detailing the risks to Client ABC’s information resources and any remediation priorities. See Policy: • Information Security Risk Management</td>
<td>Gap: Although a policy exists, requiring an annual risk analysis, a sufficient and documented risk analysis does not appear to be performed every year. Client ABC should ensure that a formal risk analysis is completed and documented on an annual basis in accordance with OCR’s July 2010 “Guidance on Risk Analysis Requirements under the HIPAA Security Rule.” Minimally, this annual risk analysis should meet the nine key elements as defined by the OCR guidance which includes: • Scope of the Analysis • Data Collection • Identify and Document Potential Threats and Vulnerabilities • Assess Current Security Measures • Determine the Likelihood of Threat Occurrence • Determine the Potential Impact of Threat Occurrence • Determine the Level of Risk</td>
<td>TBD</td>
</tr>
</tbody>
</table>

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While high-level guidance has been issued, there are no baseline standards from the federal government in support of “risk analysis” efforts.

OCR issued “Guidance on Risk Analysis Requirements under the HIPAA Security Rule” on July 14, 2010
- Definitions
- Elements of a Risk Analysis
- 9 pages

NIST SP 800-30 – Guide for Conducting Risk Assessments
- 41 pages
ELEMENTS OF A RISK ANALYSIS

1. **Scope of Analysis:** An organization’s risk analysis should include the potential risks and vulnerabilities to the confidentiality, availability, and integrity of all ePHI that an organization creates, receives, maintains, or transmits. (45 C.F.R. § 164.306(a))
   - All ePHI, regardless of the particular electronic medium in which it is created, received, maintained or transmitted or the source or location of its ePHI.
     - Hard Drives/USB Drives/Floppy Disks
     - CD/DVD
     - Cell Phones/PDAs
     - Backup Media/Transmission Media
     - Etc.

2. **Data Collection:** Identify and document where the ePHI is stored, received, maintained or transmitted. (45 C.F.R. §§ 164.308(a)(1)(ii)(A) and 164.316(b)(1))
   - Questionnaires, Interviews, Automated Scanning Tools

*Source: OCR’s “Guidance on Risk Analysis Requirements under the HIPAA Security Rule”*
AREA OF SCRUTINY

Scope of your Risk Analysis is a big area for OCR

Audit protocol

- Does the entity…conduct an accurate and thorough assessment of the potential risks…to the confidentiality, integrity, and availability of all the ePHI it creates, receives, maintains, or transmits?
- Obtain and review the written risk analysis documentation for:
  - A defined scope that identifies all of its systems that create, transmit, maintain, or transmit ePHI
- The word “all” appears four different times in this one protocol

Resolution Agreements

- Failure to conduct risk analysis and implement risk management plans (MAPFRE 1/18/17 $2.2m)
- Failure to conduct a thorough risk analysis of all of its ePHI (Lahey Hospital 11/24/15 $850k)
- Neither entity had conducted an accurate and thorough risk analysis (New York Presbyterian and Columbia University 5/7/14 $4.8m)
## SCOPE – EXAMPLES

<table>
<thead>
<tr>
<th>Applications</th>
<th>Asset Types</th>
</tr>
</thead>
</table>
| EHR                     | • Desktops/Laptops  
|                         | • Server  
|                         | • SAN/Disk Array  
|                         | • Backup Tapes  
|                         | • USBs  
|                         | • Medical Devices  
|                         | • Printers  
|                         | • Mobile Devices  |
| Email                   | • Vendor Cloud  
|                         | • Desktops/Laptops  
|                         | • Mobile Devices (smartphones/tablets/etc.)  |
| Network Shares          | • Server  
|                         | • Backup Tapes  |
| Electronic Voicemail    | • Server  
|                         | • Backup Tapes  
|                         | • Desktops/Laptops  |
## ELEMENTS OF A RISK ANALYSIS

Identify and Document Potential Threats and Vulnerabilities: identify and **document** reasonably anticipated threats and vulnerabilities to ePHI. (45 C.F.R. §§ 164.306(a)(2), 164.308(a)(1)(ii)(A), and 164.316(b)(1)(ii))

- **Threat** – “the potential for a person or thing to exercise (accidentally trigger or intentionally exploit) a specific vulnerability.”
  - Natural – Floods, Earthquakes, Tornadoes, etc.
  - Human – Inadvertent data entry, malicious software upload, unauthorized access to confidential data
  - Environmental – Long term power failure, pollution, chemicals, liquid leaks

- **Vulnerability** – “[a] flaw or weakness in system security procedures, design, implementation, or internal controls that could be exercised (accidentally triggered or intentionally exploited) and result in a security breach or a violation of the system’s security policy.”

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**Source:** OCR’s “Guidance on Risk Analysis Requirements under the HIPAA Security Rule”
## THREAT & VULNERABILITY – EXAMPLES

<table>
<thead>
<tr>
<th>Assets</th>
<th>Threat</th>
<th>Vulnerability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desktops, Laptops, Servers, etc.</td>
<td>Malware – theft of sensitive data</td>
<td>Lack of sufficient anti-malware (installed/updated)</td>
</tr>
<tr>
<td>Desktops, Laptops, Servers, SAN, etc.</td>
<td>Hacker – theft of sensitive data</td>
<td>Unpatched vulnerabilities in network systems</td>
</tr>
<tr>
<td>Desktops, Laptops, Smartphones, USBs, etc.</td>
<td>Burglar/Thief – theft of equipment</td>
<td>Media is not handled and guarded properly</td>
</tr>
<tr>
<td>Desktops, Laptops, Smartphones, USBs, etc.</td>
<td>Careless IT personnel – improper destruction/disposal or reuse of media</td>
<td>Media is not properly disposed of</td>
</tr>
<tr>
<td>Desktops, Laptops, Servers, SAN, etc.</td>
<td>System Cracker – social engineering</td>
<td>Employees are overly trusting and uneducated/unaware of social engineering tactics</td>
</tr>
</tbody>
</table>
ELEMENTS OF A RISK ANALYSIS

Assess Current Security Measures: assess and document the security measures an entity uses to safeguard ePHI (45 C.F.R. §§ 164.306(b)(1), 164.308(a)(1)(ii)(A), and 164.316(b)(1))

- Documentation – Policy, Procedure, Process, etc.
- Practice – Physical or logical controls in place

Source: OCR’s "Guidance on Risk Analysis Requirements under the HIPAA Security Rule"
## SECURITY MEASURES – EXAMPLE

<table>
<thead>
<tr>
<th>Assets</th>
<th>Threat</th>
<th>Vulnerability</th>
<th>Security Measures (Controls)</th>
</tr>
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<tr>
<td>Desktops, Laptops, Smartphones, USBs, etc.</td>
<td>Burglar/Thief – theft of equipment</td>
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<td>1) Employees are educated to protect the physical security of the device on an annual basis</td>
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</table>
| Desktops, Laptops, Servers, SAN, etc.       | System Cracker – social engineering         | Employees are overly trusting and uneducated/unaware of social engineering tactics | 1) Employees are educated on social engineering threats annually  
|                                             |                                             |                                                   | 2) Social engineering tests are performed twice per year to assess employee awareness |
Determine the Likelihood of Threat Occurrence: document all threat and vulnerability combinations with associated likelihood estimates that may impact the confidentiality, availability and integrity of ePHI of an organization. (45 C.F.R. §§ 164.306(b)(2)(iv), 164.308(a)(1)(ii)(A), and 164.316(b)(1)(ii))

- Threat-source motivation and capability
- Nature of the vulnerability

<table>
<thead>
<tr>
<th>Likelihood Level</th>
<th>Likelihood Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>The threat-source is highly motivated and sufficiently capable, and controls to prevent the vulnerability from being exercised are ineffective.</td>
</tr>
<tr>
<td>Medium</td>
<td>The threat-source is motivated and capable, but controls are in place that may impede successful exercise of the vulnerability.</td>
</tr>
<tr>
<td>Low</td>
<td>The threat-source lacks motivation or capability, or controls are in place to prevent, or at least significantly impede, the vulnerability from being exercised.</td>
</tr>
</tbody>
</table>

Source: OCR’s “Guidance on Risk Analysis Requirements under the HIPAA Security Rule” and NIST “SP 800-30 Risk Management Guide for Information Technology Systems”
Determine the Potential Impact of Threat Occurrence: assess the magnitude of the potential impact resulting from a threat triggering or exploiting a specific vulnerability. (45 C.F.R. §§ 164.306(a)(2), 164.308(a)(1)(ii)(A), and 164.316(b)(1)(ii))

- Quantitative vs. Qualitative Assessment
- Loss of Integrity, Confidentiality, Availability

<table>
<thead>
<tr>
<th>Magnitude of Impact</th>
<th>Impact Definition</th>
</tr>
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<tr>
<td>High</td>
<td>Exercise of the vulnerability (1) may result in the highly costly loss of major tangible assets or resources; (2) may significantly violate, harm, or impede an organizations’ mission, reputation, or interest; or (3) may result in human death or serious injury.</td>
</tr>
<tr>
<td>Medium</td>
<td>Exercise of the vulnerability (1) may result in the costly loss of tangible assets or resources; (2) may violate, harm, or impede an organization’s mission, reputation, or interest; or (3) may result in human injury.</td>
</tr>
<tr>
<td>Low</td>
<td>Exercise of the vulnerability (1) may result in the loss of some tangible assets or resources or (2) may noticeably affect an organization’s mission, reputation, or interest.</td>
</tr>
</tbody>
</table>

Source: OCR’s “Guidance on Risk Analysis Requirements under the HIPAA Security Rule” and NIST “SP 800-30 Risk Management Guide for Information Technology Systems”
# ELEMENTS OF A RISK ANALYSIS

Determine the Level of Risk: assign a risk level based on the average of the assigned likelihood and impact levels. (45 C.F.R. §§ 164.306(a)(2), 164.308(a)(1)(ii)(A), and 164.316(b)(1))

- Inherent Risk = Likelihood * Impact
- Residual Risk = Inherent Risk - Safeguards (Controls)

<table>
<thead>
<tr>
<th>Risk Level</th>
<th>Risk Description and Necessary Actions</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>If an observation or finding is evaluated as a high risk, there is a strong need for corrective measures. An existing system may continue to operate, but a corrective action plan must be put in place as soon as possible.</td>
</tr>
<tr>
<td>Medium</td>
<td>If an observation is rated as medium risk, corrective actions are needed and a plan must be developed to incorporate these actions within a reasonable period of time.</td>
</tr>
<tr>
<td>Low</td>
<td>If an observation is described as low risk, the system’s DAA must determine whether corrective actions are still required or decide to accept the risk.</td>
</tr>
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Source: OCR’s “Guidance on Risk Analysis Requirements under the HIPAA Security Rule” and NIST “SP 800-30 Risk Management Guide for Information Technology Systems”
# RISK DETERMINATION – EXAMPLES

<table>
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<th>Risk Rating</th>
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<td>1) Employees are educated to protect the physical security of the device on an annual basis</td>
<td>High (5)</td>
<td>High (5)</td>
<td>Critical (25)</td>
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<td>Desktops, Laptops, Servers, SAN, etc.</td>
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<td>1) Employees are educated on social engineering threats annually 2) Social engineering tests are performed twice a year to assess employee awareness</td>
<td>Moderate (3)</td>
<td>High (5)</td>
<td>High (15)</td>
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### ELEMENTS OF A RISK ANALYSIS

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<th></th>
<th>Description</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Finalize Documentation: the Security Rule requires the risk analysis to be documented but does not require a specific format. (45 C.F.R. § 164.316(b)(1))</td>
<td>OCR’s “Guidance on Risk Analysis Requirements under the HIPAA Security Rule”</td>
</tr>
<tr>
<td>9</td>
<td>Periodic Review and Updates to the Risk Assessment: conduct continuous risk analysis to identify when updates are needed. (45 C.F.R. §§ 164.306(e) and 164.316(b)(2)(iii))</td>
<td>OCR’s “Guidance on Risk Analysis Requirements under the HIPAA Security Rule”</td>
</tr>
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</table>
ELEMENTS OF RISK MANAGEMENT

Risk management is the **implementation of security measures** to sufficiently reduce an organization's risk of losing or compromising its ePHI and to meet the general security standards.

### Example Risk Management Steps

- Develop and implement a risk management plan [this plan describes what will be done to further mitigate the identified risk].
- Implement security measures.
- Evaluate and maintain security measures.

*Source: HHS “HIPAA Security Series, 6 Basics of Risk Analysis and Risk Management”*
RISK MANAGEMENT – EXAMPLES

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Risk Management Plan:
1) Encrypt all devices that may receive ePHI. Implement a MDM Solution to manage these devices.
2) Use the MDM solution to perform monthly inventory checks to see if any devices have gone missing and investigate.
3) Remotely wipe any devices that cannot be located.

Responsible Party: CIO
Remediation Date: 10/1/2017
## RISK MANAGEMENT – EXAMPLES

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2) Social engineering tests are performed twice a year to assess the employees awareness | Moderate (3) | High (5) | High (15) |

**Risk Management Plan:**

1) Increase education to occur quarterly through a variety of different avenues.
2) Communicate the results of the social engineering tests to reaffirm the issue with the workforce.
3) Use real-life examples to further enhance awareness.

Responsible Party: Education Team
Remediation Date: 12/31/2017
AREA OF SCRUTINY

OCR will be looking for evidence that you took action on the identified risks in some form or fashion.

Audit Protocol

- Obtain and review documentation demonstrating the security measures implemented and/or in the process of being implemented as a result of the risk analysis or assessment. Evaluate and determine whether the implemented security measures appropriately respond to the threats and vulnerabilities identified in the risk analysis according to the risk rating and that such security measures are sufficient to mitigate or remediate identified risks to an acceptable level.

- Have this information documented.

HIPAA Penalty Enforcement

- February 1, 2017 – OCR levied a $3.2 million civil money penalty against Children’s Medical Center of Dallas for lack of addressing known security risks.
  - Encryption was identified as a risk in 2007, was not remediated until 2013.
  - Children’s suffered 2 breaches during this time that encryption would have protected against.
TRENDING RISK AREAS

RISKS TO LOOK FOR IN YOUR ENVIRONMENT
TRENDING RISK AREAS – VENDOR MANAGEMENT

- Vendors are a key part of many healthcare organization’s business processes, but have also been an avenue for compromising of PHI/ePHI.

- Threat: Vendor’s are not diligent in their security measures.

- Vulnerability: Vendor’s lack of controls may put your data at risk.

- Recommended Controls:
  - Robust contracts and BAAs that specify the requirements to protect the data and implications for failure to do so
  - Vendor management and assessment process up-front and ongoing to assess the controls the vendor has in place. Could be accomplished through:
    - Reviewing SSAE16 SOC Reports (third party’s assessment of controls)
    - Questionnaire to vendor
    - Audits of vendor to test controls effectiveness
  - Process to monitor for new vendors (working with Contracting/AP/Supply Chain, etc.)
TRENDING RISK AREAS – MEDICAL DEVICES

- Threats: Hackers, Patients, Malware, etc.
- Vulnerabilities: Unpatched vulnerabilities, out of date operating systems, default user/admin credentials, weak wireless encryption, etc.
- Recommend Controls:
  - Physically secure devices
  - Segment applicable network segments
  - Regular vulnerability scans
  - Implement a life cycle management program for devices
- Need to be managed throughout the entire life cycle:
  - Planning and Requirements
  - Procurement and Contracting
  - Implementation
  - Maintenance
  - Decommission

FDA RECALLED:
- Hospira Symbiq Infusion System – Cybersecurity vulnerability
- Alaris Medley Large Volume Pump – Defective part
TRENDING RISK AREAS – BUSINESS CONTINUITY / DISASTER RECOVERY

- With the increased reliance on electronic records and applications in the healthcare industry, the more important it is to have proper business continuity/contingency/disaster recovery plans in place.

- Threats: Natural disasters, man-made disasters, cyber attacks, IT changes, etc.

- Vulnerabilities: Proper business continuity and/or disaster recovery (IT) plans are not in place or are not actionable, plans are not tested for readiness, etc.

- Recommended Controls:
  - Detailed Business Impact Analyses to determine key technologies, people, and processes, and required recovery time objectives (RTOs) and recovery point objectives (RPOs).
  - Documented Business Continuity and Disaster Recovery Plans.
  - Regular testing of the plans including operationally how workforce would continue functioning without critical applications/network access/etc.
  - Regular testing of the ability to recover critical applications, and the associated timeframe for doing so through different scenarios.
TRENDING RISK AREAS – SOCIAL ENGINEERING

• Threats: Attackers External or Internal
• Vulnerabilities: Users not aware of social engineering tactics
• Recommended actions:
  - Education, education, education (upon hire, annual reminders, ad-hoc updates, learning experiences, etc.)
  - Testing of your users, perform phishing efforts, do physical walkthroughs, perform phone calls, etc.
  - Ensure other security controls are strong.
    • Use multi-factor authentication where possible (does not mean two different passwords)
    • Administer least-privilege access (network, apps, devices, etc.)
    • Segment the critical data
    • Perform proactive penetration testing and vulnerability assessments to identify weaknesses and address accordingly
    • Have good backups and a solid and ready Disaster Recovery Plan
TRENDING RISK AREAS – SOCIAL ENGINEERING

Hotel Confirmation

Hotel Confirmation
4021 Washington Avenue, Waco, Texas 76701 USA
1-254-323-4420 Hotel Website Map & Directions Plan Your Stay

Reservation Confirmation: 81864412

For [USERNAME]
CHECK-IN DATE: Monday, November 2, 2015
CHECK-IN TIME: 03:00 PM
CHECK-OUT DATE: Thursday, November 5, 2015
CHECK-OUT TIME: 12:00 PM

[button] Modify your reservation
[button] Cancel your reservation

Dear [NAME],

We are pleased to confirm your reservation. Details about your booking, your room(s), and your destination can be found below.

Sincerely,

Waco Area Guest Services

Delivery Notice

Your package has been delivered
Tracking # 59519131219

Ship (P/U) date: Friday, 11/4/15
San Francisco, CA US

Delivery date: Saturday, 11/7/15
7:47 AM
Delivered

Shipment Details:

Our records indicate that the following package has been delivered:

- Tracking number: 59519131219
- Status: Delivered
- Reference: 254360
- Delivered to: Location
- Service type: Free 2Day
- Packaging type: Your Packaging
- Number of pieces: 1
- Weight: 2.08 lbs.
- Special handling/services: Hold at facility
TRENDING RISK AREAS – SOCIAL ENGINEERING

Payment Notification

Online Payment Confirmation
March 8, 2016 16:14:02 PDT
Transaction ID: 80312611893812345

Hello [NAME]

You sent a payment of $339.95 USD to boadn3lki (boadn3lki@yahoo.com)

Thank you for your recent transaction. To see all the payment details, log in to your account. It may take a few moments for this transaction to appear in your account.

Note to seller
You haven't included a note.

<table>
<thead>
<tr>
<th>Description</th>
<th>Unit price</th>
<th>Qty</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO DESCRIPTION WAS PROVIDED</td>
<td>$339.95 USD</td>
<td>1</td>
<td>$339.95 USD</td>
</tr>
<tr>
<td>Item# 2312912331141</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total $339.95 USD
Payment $339.95 USD

IMPORTANT: To dispute this charge or if you believe you are receiving this message by mistake, please visit the resolution center.

Transaction Email ID PP843 - 43d6a5b5645D111

Secure Email

You have received a secure email from Secure Messages Inc. that may contain confidential information.

Click here to login and view your secure email by 2016-05-27 11:26 PDT.
TRENDING RISK AREAS – RANSOMWARE

• Threats: Malware, Attackers External and Internal, Social Engineers/Phishing

• Vulnerabilities: Users not aware of threats, poor network security measures, lack of data backups

• Recommended Controls:
  − Education of workforce
  − Testing of network security controls through penetration testing
  − Testing of data backups and disaster recovery readiness
  − Block unnecessary tasks/privileges from users (block office macros, block executable file coming from external domains, restrict administrator tasks on workstations, etc.)
  − Have a plan
CLOSING REMARKS
WHAT YOU SHOULD BE DOING TODAY

Take action on the following:

- Monitor Phase 2 audit developments and apply lessons-learned.
- Periodically test the operating effectiveness of control activities.
- RemEDIATE identified gaps/risks in a timely manner.
- Continue building a “culture of compliance” at your organization!
- Ensure sufficient Gap Evaluation and Risk Analysis efforts have been completed.
- Create documentation / evidence that can stand on its own.
Matt Jackson
Director
matthew.jackson@protiviti.com

Phone: 469-374-2479

Matt is a founding member of Protiviti and is a Director in the Dallas office with more than 17 years professional experience providing operational, technology, and regulatory consulting and internal audit services to the healthcare industry. Matt serves as Protiviti’s National Healthcare Information Technology and Security Solutions Leader. He is a frequent speaker on, and has published various articles related to, internal audit, compliance, and information technology improvement initiatives.

Kevin Dunnahoo
Senior Manager
kevin.dunnahoo@protiviti.com

Phone: 972-788-8529

Kevin is a Senior Manager with Protiviti’s Dallas office and has more than 9 years of professional experience providing IT consulting and auditing services to the Healthcare industry. Kevin is a member of Protiviti’s National Healthcare Practice and is a key lead for HIPAA Security Compliance services. In the Healthcare industry, Kevin has provided value to his clients through his insights and understanding of the HIPAA Security regulations, information security practices, business continuity, and IT audit. Kevin is a certified HCISPP, CISSP, ABCP, and HITRUST CSF Practitioner, and has also co-authored various Protiviti thought leadership whitepapers specifically related to HIPAA compliance and enforcement.
Face the Future with Confidence