#### PROVIDENCE BUSINESS NEWS



## October 11,2018







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Proactive Today for a Brighter Tomorrow













#### PROVIDENCE BUSINESS NEWS



## October 11,2018







## PANEL 1



Jeffrey Ziplow Cybersecurity Risk Assessment Partner BlumShapiro



Francesca Spidalieri Senior Fellow, Cyber Leadership The Pell Center, Salve Regina



Jason Farmer Senior Solution Manager RiskSense



Wade Chmielinski AVP, Cyber Security Consultant FM Global







# Jeffrey Ziplow Cybersecurity Risk Assessment Partner

# BlumShapıro

Accounting Tax Business Consulting









# Francesca Spidalieri Senior Fellow, Cyber Leadership











# Jason Farmer Senior Solution Manager











# Wade Chmielinski AVP, Cyber Security Consultant











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## **PBN CYBERSECURITY SUMMIT**



## Francesca Spidalieri

Senior Fellow for Cyber Leadership Pell Center Salve Regina University



II October 2018



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## **TRENDS & THREATS IN 2018**

- Increased Awareness
- Increased Dependencies
- Increased Vulnerabilities



- Increased Costs of data breaches and cyber disruptions:
  - Cybercrime costs the global economy as much as \$600 billion annually;
  - The average organization takes ~197 days to identify that an incident has occurred and 69 days to contain it the longer it takes, the higher the costs;
  - The average cost of a data breach in the US is ~\$7.9 million.
- Most organizations are still in a reactive mode large companies to SMBs to federal and state agencies.

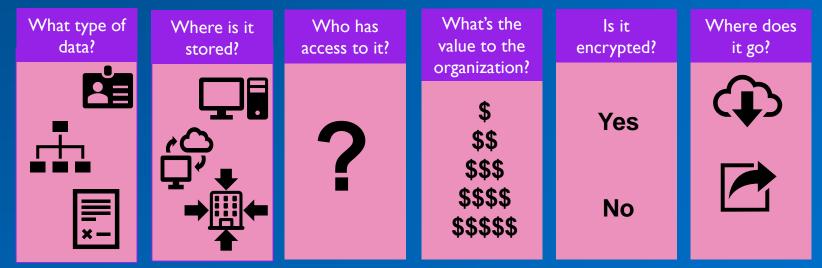






## IDENTIFY & MAPYOUR SENSITIVE AND HIGH-VALUE DATA

Take stock of your most sensitive information, and determine where it is stored, where it is going, who has access to it, and how it is being protected.





**PELL CENTER** *for* INTERNATIONAL RELATIONS *and* PUBLIC POLICY





# PROACTIVE MEASURES TO DETER CYBER THREATS





MONITOR for dangers









# MINIMIZE: ENTERPRISE-WIDE PRIVACY + SECURITY PROGRAM

- Properly configure firewalls and choose strong passwords;
- Install and enable encryption on all sensitive data;
- Regularly **backup** all important information;
- Disable and do not install or use file sharing applications;
- Regularly **update antivirus** and antispyware software;
- Audit and assess periodically;
- **Patch** systems and conduct **penetration tests** to find vulnerabilities;



PELL CENTER

- Establish **policies**, **procedures and standards** to protect data, and determine applicable state and/or federal laws related to the same;
- Implementing security policies and processes to protect the storage and transmission of data – hold your third-party vendors accountable and expect the same high-level standards;
- Establish Website Privacy Policy and Terms of Use; Privacy Policy + Procedures; and Security Policy + Procedures;
- Educate employees through training and awareness.





# MONITOR: CONSIDER THE RISKS TO YOUR DATA

#### Cyber Attacks: How does this happen?

- Through your network
  - Vulnerabilities in your hardware, software or systems.
  - Your employees and mistakes they might make.
  - Your clients, if, and to the extent they have access to your network.
  - Vendors and contractors, if and to the extent they have access to your network.

#### Threat Vectors:

- **Phishing**: A malicious "spam-like" message sent in large batches to a broad audience.
- **Spear-Phishing:** A form of phishing messages appear to come from a familiar or trusted sender and target recipients.
- Ransomware: A type of malicious software designed to block access to a computer system until a sum of money is paid.







## **MANAGE: DEVELOP AN INCIDENT RESPONSE PLAN**

Create an Incident Response and Breach Notification Plan <u>BEFORE</u> an incident occurs:

- To be effective, the incident response plan and breach notification process should be part of a comprehensive information security program:
  - Risk assessment;
  - Trigger events;
  - Mitigation plan.
- Identify Laws and Requirements that may apply to you (e.g., GDPR);
- Communications/Media Team/Vendors in Place;
- Assemble an incident response team and assign overall responsibility for enterprise-wide information privacy & security oversight (appoint a data privacy and a data security officers).
- Make employees aware of the important role they play in privacy and security – your employees are your front line of defense when it comes to security (and also one of your highest risks).

#### Cyber Incident Response Team

	Stakeholders	<ul> <li>Legal</li> <li>IT</li> <li>Finance</li> <li>Other Senior Execs</li> </ul>
	Core Team	<ul> <li>Incident Team Leader</li> <li>Support staff</li> <li>Updates to stakeholders</li> </ul>
	Investigative Team	<ul> <li>Technical Team Leader</li> <li>Technologists or Subject Matter Experts</li> </ul>







## C MANAGE: Implement Your Incident Response Plan

Prepare and define roles & responsibilities  $\rightarrow$  Preparation, Establish Accountability Know how to identify/verify that an incident has occurred and what data has been compromised  $\rightarrow$  Identification / Detection & Analysis

- Mitigate damages and remove threat  $\rightarrow$  Containment and Removal
- Determine legal implications → Notification
- Activate your Business Continuity Plan  $\rightarrow$  Recovery
- Document data breaches and all actions taken in response
- Conduct a Post-Incident Review

#### "Failing to Plan is Planning to Fail!"



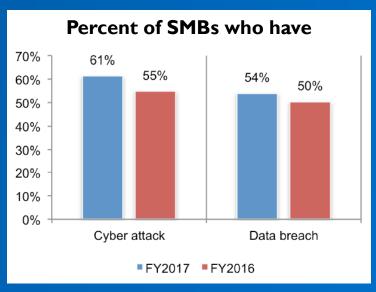






### SMALL & MEDIUM-SIZED BUSINESSES ARE A PRIME TARGET

- 52% of SMBs experienced a ransomware attack in the past year, up from 2% the previous year.
- 58% of malware attack victims are small businesses;
- Over 66% of small business would go under if they suffered a cyber attack.



2017 State of Cybersecurity in Small & Medium Sized Business (SMB) Ponemon Institute, Sept 2017



The number one cause of cyber breaches are a company's own employees!





# **RISKSENSE OVERVIEW**

- Founded in 2015, Sunnyvale, CA and Albuquerque, NM
  - CACTUS (US Congress): Computational Analysis of Cyber Terrorism against the US

Company

- NSA/DHS National Academic Centers of Excellence
- Early Warning of WannaCry and Developed First RFID Fragmented Malware
- Solutions
- Vulnerability and Threat Prioritization
- Attack surface validation and verification
- Attack monitoring and early warning of Threats
- Continuous and relative risk scoring









# INTELLIGENT CYBER RISK PLATFORM

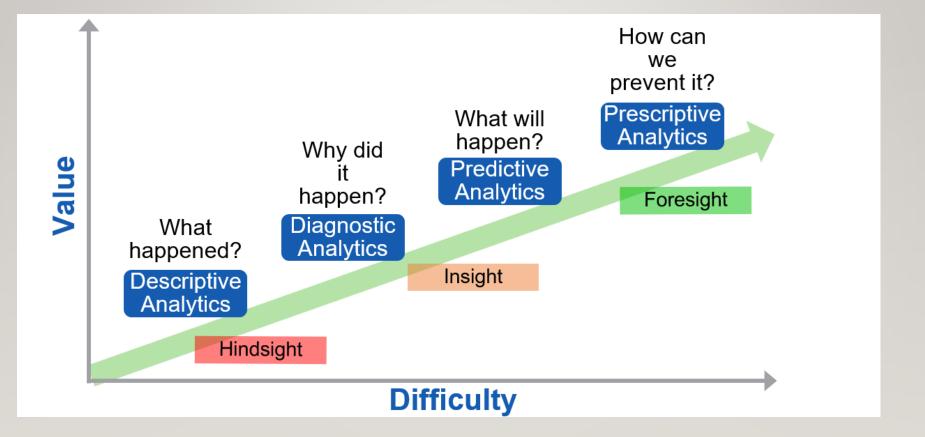
#### RiskSense is disrupting the cyber risk market with a Risk-as-a-Service based platform.



https://www.risksense.com/company/about-risksense/

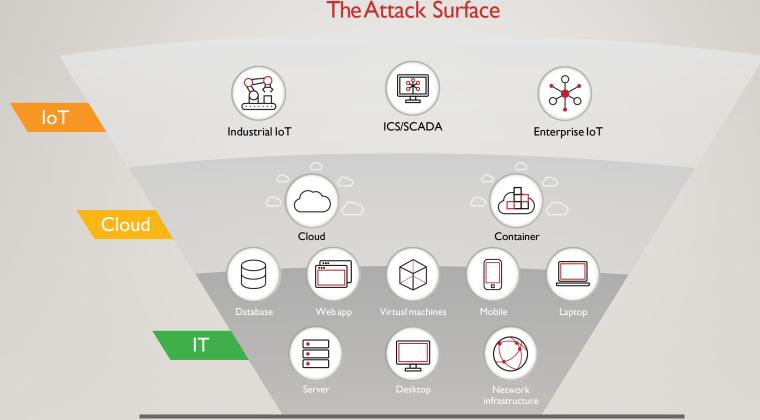


### **Proactive & Preventative**





#### DIGITAL TRANSFORMATION IS LEADING TO EXPONENTIAL GROWTH OF ATTACK SURFACE



The Attack Surface



# NEW ERA OF SECURITY – CYBER RISK MANAGEMENT

# Your Organization Will Be Hacked and Breached

Are you prepared? How fast can you respond?





## THE PROBLEM

#### Known Security Vulnerabilities are the Leading Cause of Data Breaches

IOOK7X60+VulnerabilitiesNumber of AssetsDaysNumber of UniqueAverage Number ofAverage Time toVulnerabilities (CVEs)Critical Vulnerabilities per<br/>Asset = 7Remediate a Critical<br/>Vulnerabilities

#### Most Security Tools Produce a Lot of Data without Context



No Visibility & Hard to Collaborate

Hard to Measure & Manage Risk



Lack of Prioritization



## **EXECUTIVE DASHBOARD**





## Cyber Security Journey

#### CURRENT CYBER SECURITY STANDARDS

ISO 27001 ISO 27002 **ISO/IEC 15408** ISO/IEC 15408 ITIL/ISO/IEC 2000 series ISO 27001/2. HITRUST (HIPAA) **DEVELOPING** 

#### **Compliance-Centric**

- Annual orientation
- Activity based
- Record keeping
  - Basic standards
- Not contextual, continuous or threat-adaptive
  - "Checking the boxes"



#### ©2018 RiskSense, Inc.

NIST

COBIT

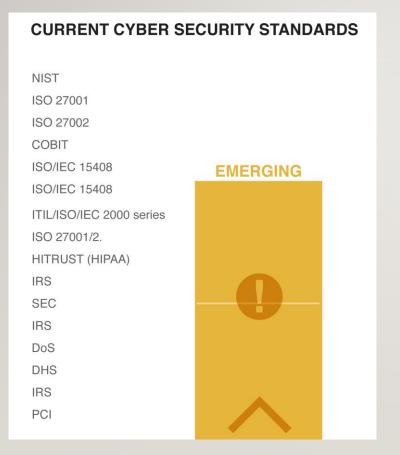
IRS

SEC

IRS DoS

DHS IRS PCI

## Cyber Security Journey

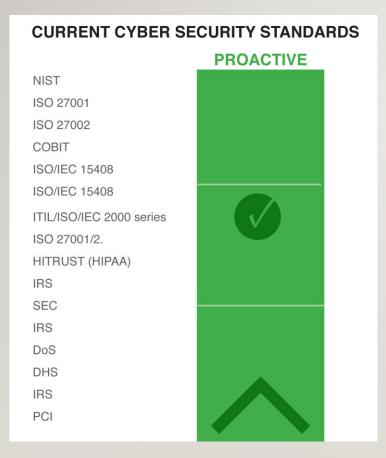


#### **Increasing Compliance**

- Semi-annual or quarterly
- Role definition increasing
- Processes maturing
- Increased standard rigor
- Not contextual, continuous or threat-adaptive
- "Compliance emerging in importance"



## Cyber Security Journey



#### **Proactive & Preventative**

- Cadence is continuous
- Prioritization based on risk
- Process maturity based on a unified focus
- Visibility up and down the chain of command
- Contextual, continuous and threat-adaptive
- "Compliance is a byproduct"

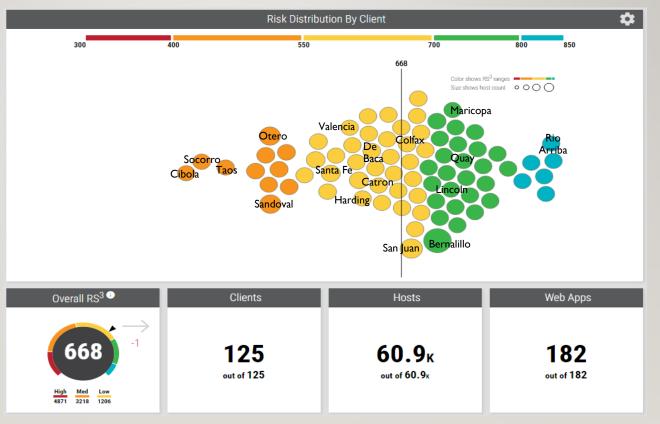


# RISKSENSE – MULTI-CLIENT DASHBOARD

#### EXAMPLE: STATE OF NEW MEXICO WITH REPRESENTATIVE

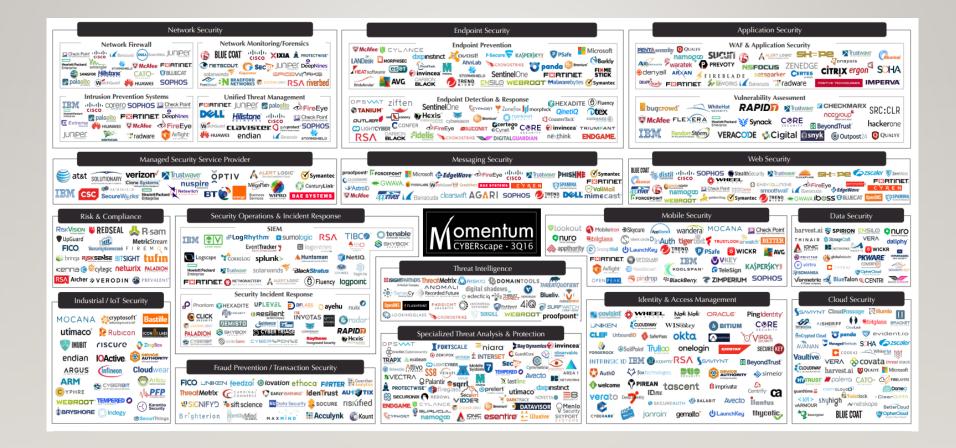
COUNTIES Data for all Entities:

- RiskSense Distribution Map
  - Color-coded by RiskSense Security Score (RS3) Range
- Overall RS3 score
  - Vulnerability distribution
  - Daily trending info
- Total number of hosts
- Total number of web applications



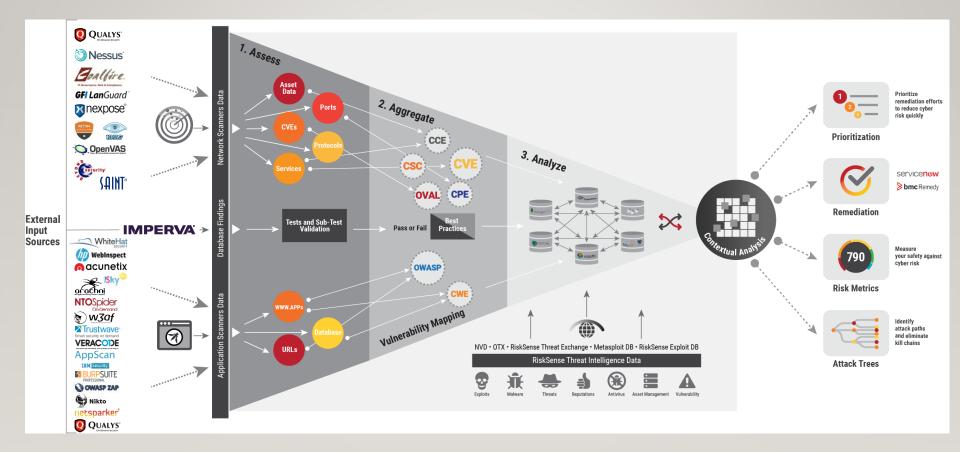


### IT-Centric Cyber Security – Which tool?





### **RISKSENSE PLATFORM (SAAS)**





### THE COST OF CYBER BREACH



"Cyber-attacks are the number one problem facing mankind, even worse than nuclear weapons." - Warren Buffett

- A new global study conducted by IBM suggests the financial impact of a data breach for an organization is, on average, \$3.86 million.
- In the worst cases, "mega breaches" may cost the enterprise between \$40 million and \$350 million.
- The average time it took to uncover a data breach is 197 days, and once identified, it takes roughly 69 days to contain.
- However, the **speed of incident response teams can have a huge impact** on the overall cost of a data breach.
- When a breach is contained in less than a month, IBM suggests businesses may be able to save up to \$1 million in comparison to slower companies.





### PANEL 2



Colin Coleman *Partner* Partridge Snow & Hahn



Cindy Lepore Client Executive/ Business Insurance Marsh McLennan Agency



Larry Selnick Director, Treasury & Payment Solutions Webster Bank



Eric Shorr President Secure Future Tech Solutions







# Colin Coleman Partner











## Cindy Lepore Client Executive/ Business Insurance











## Larry Selnick Director, Treasury & Payment Solutions











# Eric Shorr President











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#### 2018 PBN CYBER SUMMIT

October 11, 2018 | Crowne Plaza

**Cindy Lepore** Client Executive | Business Insurance

Marsh & McLennan Agency MMA-NE.com

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2018 PBN Cyber Summit Agenda

- I. About The Panelist
- II. Cyber Liability Insurance

I

III. Summary

# ABOUT THE PANELIST

2018 PBN CYBER SUMMIT

#### ABOUT THE PANELIST CINDY LEPORE, CLCS AND GSC CYBERSECURITY AND INTELLIGENCE



#### **Cindy Lepore**

Client Executive, Property & Casualty Marsh & McLennan Agency

- Business Insurance-Cybersecurity Champion New England
- Over 20 years in Telecom and IT
- Disciplines include Technology, Education, Non-Profit, Private and Advanced Manufacturing
- Member of the Rhode Island State Police Cyber Task Force and InfraGard
- Graduate of Bryant University
- MBA program Salve Regina University

# POTENTIAL COSTS & LOSSES

2018 PBN CYBER SUMMIT

#### 2018 PBN Cyber Summit Potential Costs and Losses

- Brand Deterioration
- Legal Liability
- Regulatory
- Data Assets
- First Party
- Third Party
- Business Interruption



#### 2018 PBN CYBER SUMMIT

**CRISIS MANAGEMENT** 

#### 2018 PBN Cyber Summit Crisis Management

- Legal Costs
- Notification Cost
- Computer Forensic Costs
- Credit Monitoring and Identity
   Theft Protection Costs
- Public Relations and Crisis Management Consultancy Costs



2018 PBN CYBER SUMMIT STAKEHOLDERS

CYBER RISK – EVERYONE HAS A STAKE

"Cost of data breach will reach 2.1 trillion globally by 2019."

-JUNIPER



# 2018 PBN CYBER SUMMIT



#### Summary

- Transfer Risk
- Plan Your Cyber Strategy
- Train and Educate All Employees
- Use a broker who is experienced



#### Client Executive, Business Insurance Marsh & McLennan Agency Cindy.Lepore@marshmma.com

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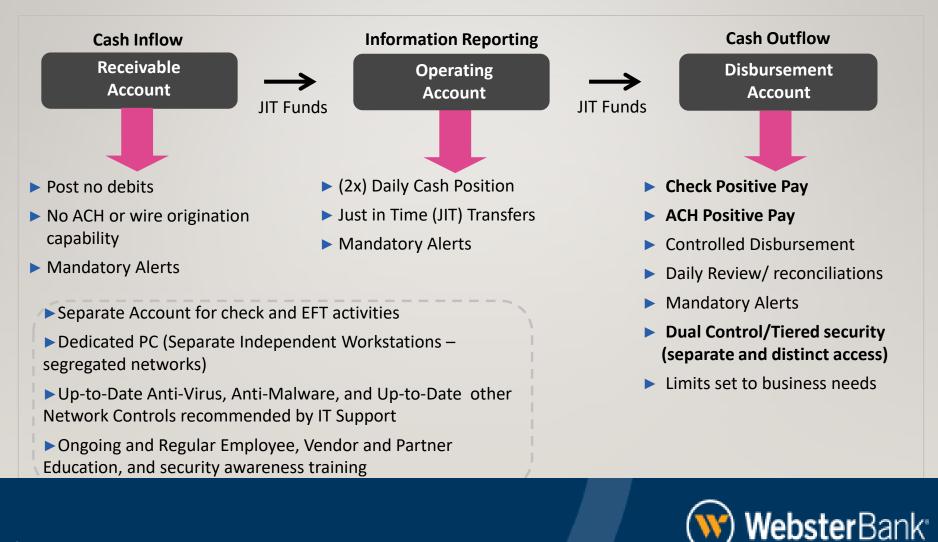
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### **How to Mitigate Risk**

#### **Banking Security in Layers**

#### Recommend dedicated accounts for receivable, operating, and disbursement accounts :



### **Types of Fraud** *E-Mail Account Compromise*

- E-mail Account Compromise (EAC) is a sophisticated scam that targets the general public and professionals associated with, but not limited to, financial and lending institutions, real estate companies, and law firms.
- The EAC scam is very similar to the Business E-mail Compromise (BEC) scam, except that it targets individuals rather than businesses.
- 2017, IC3 received a total of 301,580 complaints with reported losses in excess of \$1.4 billion!

Social Engineering: The clever manipulation of the natural human tendency to trust



## TYPES OF FRAUD FBI Internet Crime Complaint (www.ic3.gov)



The mission of the Internet Crime Complaint Center is to provide the public with a reliable and convenient reporting mechanism to submit information to the Federal Bureau of Investigation concerning suspected Internet-facilitated criminal activity and to develop effective alliances with law enforcement and industry partners. Information is analyzed and disseminated for investigative and intelligence purposes to law enforcement and for public awareness.

#### About Us

Since 2000, the IC3 has received complaints crossing the spectrum of cyber crime matters, to include online fraud in its many forms including Intellectual Property Rights (IPR) matters, Computer Intrusions (hacking), Economic Espionage (Theft of Trade Secrets), Online Extortion, International Money Laundering, Identity Theft, and a growing list of Internet facilitated crimes. It has become increasingly evident that, regardless of the label placed on a cyber crime matter, the potential for it to overlap with another referred matter is substantial. Therefore, the IC3, formerly known as the Internet Fraud Complaint Center (Internet Fraud Complaint Center), was renamed in October 2003 to better reflect the broad character of such matters having an Internet, or cyber, nexus referred to the IC3, and to minimize the need for one to distinguish "Internet Fraud" from other potentially overlapping cyber crimes.

#### Site Navigation

**Alert Archive** 

FAQs

Disclaimer

Privacy Notice

Internet Crime Prevention Tips

**Internet Crime Schemes** 

#### **Annual Report**





## HOW TO MITIGATE RISK Fraud Checklist

- Engage your Partners:
  - Accountant
  - Insurance
    - Cyber Liability
  - Legal
    - Involve your Practice Partners
  - IT Consultant
    - Forensic IT on call
  - Banker
  - Public Relations

#### Fraud Awareness & Risk Management Checklist



73% of organizations experienced attempted or actual payments fraud.\* Your organization can't afford to be disrupted or funds stolen by criminals and malicious software. To help make sure you have secure fraud controls in place to protect your organization's finances, review this checklist on a regular basis.

#### PROTECT YOUR PASSWORD

- Do not share IDs, passwords, account or log-on credentials with anyone
- Use smart, easy to remember, hard to guess passwords with upper and lower

case, special characters and numbers i.e. \$GoAway2manyHackers! Something that cannot be socially engineered (children birthdores, favorite food)

 Disable user IDa/passwords during leave/vacation
 Never use the 'save ID/password' option on websites where sensitive and/or financial data is accessed/stored

 Consider privacy overlays on computer screens, especially log-on credentials

 Ensure passwords are stored securely (not in desk drawer/under keyboard)

#### PROTECT YOUR COMPUTER AND MOBILE

Do not open attachments or click on links in an email unless you're expecting them or recognize the sender

Review internet security regularly; validate best practices
 Do not download from unfamiliar file sharing sites

 Back-up files on a regular basis to off-site, nonnetworked file

(See reverse side for additional information)

#### PROTECT YOUR STAFF AND ORGANIZATION

- Secure your workplace and access to your paper files by non-employees (i.e. trash)
- Limit authorization to employees who need it Segregate duties within accounting department
- Conduct surprise audits Introduce policies that require periodic risk
- assessments and controls evaluation Rotate barking duties among staff to prevent collusion
- Review system access privileges regularly
- Regularly educate employees, vendors, temps, and customers on cyber security issues, external dangers, internal controls, and to protect information and systems. Putit in writing - ensure understanding and compliance
- Ensure your board and senior management are aware of cyber security activities and management
   Do not embed signatures in emails or put executive
- email addresses on your website

"2016 Annual Payment Fraud and Control Survey, Association for Financial Professionals. "Restrict access to these computers and specific access sites. Ideally with no email or general internet access

#### PROTECT AND CONTROL FINANCIAL TRANSACTIONS

- ☑ Use dedicated and protected computers. One for each user, following Dual Control procedures, including, but not limited to, online ACH originations/file transmissions, Fed wires, check processing and Remote Deposit<sup>™</sup>
- Reconcile daily/monthly (separate duties staff that issue payments vs. those that reconcile)
   Validate email instructions, by phone or in person,
- a valuate email instruction, by proceed in person, to place a wire or to change any recipient, address or account information - before processing any wire or account change request

Create procedure to void iscoure checks remotely deposited
Stued deposited items after predetermined timeframe
Convert paper-based payments to electronic
payments

 Review and update signature cards annually
 Always turn off your computer at night (do not default to automated timeout)

- Do not share, publish or provide your Employer ID number unless absolutely required and validated
- Do not include sensitive information such as SSNs in payroll file transmissions
- Negotiable documents should have a control # that is managed under Dual Control

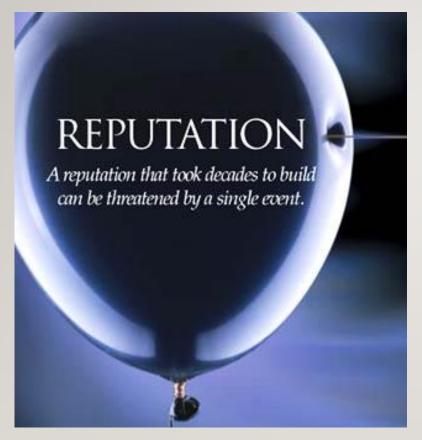
#### PROTECT YOUR CHECK SUPPLY

- Use a trusted, established vendor. Choose a unique check style for each account for easy differentiation of payments
- Use check stock with pre-printed numbers to easily identify missing checks
- Incorporate security features into your check design
   Monitor check orders and inform supplier if not delivered in a reasonable time
- Use secure storage with controlled access for your checks, printing and Remote Deposited checks, endorsement stamp and cancelled checks
   Never sign checks in advance

Note: There is a difference between when checks are deposited drawn on other banks, when funds are made available (per regulations) and when funds are "good" funds, and therefore collected.



# Value of Your Reputation... Priceless!



- The true costs to business from threats are far greater than merely the financial implications.
- In addition to direct costs there are:
  - The cost of computer downtime
  - Plummeting productivity
  - Lost sales opportunities
  - Regulatory fines
  - Worried Customers
  - Concerned vendors





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