"Transforming IT: Security Risk Management for the Coming Decade"

Los Angeles ISSA Chapter
Information Systems Security Association
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June 30, 2012

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Debbie Christofferson, CISSP, CIPP/IT, CISM

- Experienced global Fortune 500 Information Security
 Manager shares secrets of building a successful security
 risk management program
- Offers FREE resource: 7-page Security Risk Management
 Plan you can adapt to your own business today
- Introducing
 - 20+ years international Fortune 500 management experience with Intel Corp, across the US, Europe and Greater Asia, and most recently with the Apollo Group, Inc.
 - Information security consulting with the past 16 months supporting Arizona State's Information Security and Privacy Office, leading a state-wide security risk assessment
 - Published author, columnist, and speaker
 - Director of the Board for International ISSA, & CISO Advisory
 Council Chair. ISSA Distinguished Fellow.









- IT security risk has exploded exponentially. What does this mean to your business and for global, local, IT and security? What is enterprise risk management and how does it apply to security and your business? How much security is enough? Find out what matters most to executive staff, where opportunities and trends lie, and what you can you do today.
 - Join us in this high energy engaging session to learn more about:
 - What enterprise, IT and security risk mean to your business and career
 - The magic principles of risk management
 - What risk management means to your executives, boards, government and clients
 - Where enterprise, local, IT and security fit within risk management and your business
 - Secrets of managing risk on any budget
 - What a successful IT and security risk strategy involves
 - New trends impacting enterprise, security and IT risk to your bottom line
 - Rising career opportunities in risk management
 - Easy steps you can do today—how to get started now

What is the primary mission of your organization, and how does security impact it?

TOPICS

Risky Business Trends Opportunities Call to Action





A measure of the likelihood that damage will happen



By Kate O'Sullivan - CFO.com | US 29-Apr-2010 | ww.cfo.com/article.cfm/14494466



- Global scale
- Public impact
- Cross-industry
- High materiality threshold

Global Risk

Somali piracy is flourishing

"The other parties involved ... stand to gain more ... or lose less, by tolerating it, than by putting up a serious fight."



"Cutthroat Capitalism: An Economic Analysis of the Somali Pirate Business Model", By Scott Carney, 6/22/09, Wired magazine, Issue 17.07

"Cyber-attacks Rank No. 4 on World Economic Forum's List of Global Risks"

Challenges: Complexity of Internet security, lack of reliable data, and fast-changing technological landscape ... Calls for the establishment of a "healthy digital space ... to ensure stability in the world economy and balance of power." The Register (U.K.) (1/12/12)

Security vs. enterprise risk

- Material risks to the business
 - Lifeblood of the business
 - Security drivers
 - Critical business depending on IT
 - What creates a crash and burn



"A former research scientist was convicted of selling trade secrets of Dow Chemical to companies in China and faces 15 yrs in prison."

D-D-Daily@downing-downing.com, 8-Feb-2011

Business Case

√Will your business still be here tomorrow?



- ✓ Are your intellectual property and information assets protected?
- ✓ Are you subject to regulations and costly penalties?
- ✓Will your reputation remain intact?
- ✓Will you still have a job?

How much is ... enough?



TIS-Ingénierie The « MARI@ » Approach

Which level of Risk can you accept in your Company ?





- Device configuration management
- Patching
- Public facing web applications
- Encryption & certificates
- Intrusion Detection/Protection Systems
- NAC & SSO
- SIEM Systems
- SOC Security Operations Centers
- 3rd Party Sourcing
- Data classification and segmentation



December 15, 2011

Dear Debra,

These provocative and timely new in-boardroom programs along with our broad suite of existing basic and advanced offerings can be completely targeted and tailored to meet your board's specific needs.

Contact me today to discuss how we can customize these or any other topics you choose to be delivered at a time and location of your choice.

Today's Technology Means Increased Risk for Boards and Leaders

Today's social and mobile revolutions are changing how empowered consumers, employees, suppliers, and investors interact with each other and their enterprises. The result, new risks and rewards are being created for boards and their organizations. This program offers actionable advice and leading best practices for enhancing the board's role as a strategic advisor to their management teams around how to succeed in a flat and connected world. It also provides a practical guide for identifying and providing effective oversight of major new technologies – social, mobile and cloud – and how to leverage these technologies to improve customer and employee relations, new product innovations, brand building, and shareholder relations.

China: Opportunities and Risks

A comprehensive China briefing customized for a public or private board and c-suite executive team. Our faculty experts share advice and front-line lessons learned to benefit companies that have China aspirations or operations, or compete against those that do. This session will deliver company specific perspectives to enhance board decisions regarding China including economic, political, cultural and competitive aspects of doing business in China. We will include a discussion on the implications of Sarbanes Oxley, Foreign Corrupt Practices and Dodd Frank in a China context.

Board Excellence in the Current Environment

Our faculty of experienced board members will drive an interactive discussion with your board and c-suite executives through the most critical issues and questions facing organizations in the current environment, including the critical takeaways from NACD's renowned Board Leadership Conference, peer exchange roundtables, and Directorship 100 Forum. We will discuss how a board can bridge gaps in knowledge and performance by focusing on purpose, culture, leadership, information, advice, debate and self-renewal.

Today's technology increases risks for boards & directors: Cloud, Mobility and Social Networks

CFO Priorities - Risk Management Key Conference Topics

"CFOs Weigh in on 2012 Investment Priorities"

Robert Half Management Resources Survey: Spending Expected in IT, New Service Lines

MENLO PARK, Calif., Sept. 15, 2011 / PRNewswire/

+50% = New/upgraded IT systems & development of new products & service lines







Global economics Leadership skills

Risk management

Banking relationships
Social media

Growth fundamentals
Audit fees

Fraud prevention
Managing IT systems
Corporate governance

Workforce motivation
Board dynamics
International accounting standards

How to Get Funding

"Preview: The 2011 Global Information Security Survey" Source: Bill Brenner, Editor, CSO Security Standard, bbrenner@csoonline.com

- Compliant requirement
- Aligning with business
- Risk-based
- Getting senior management support
- Competitive advantage
- Proposal requirement to build security in
- Annual budget cycle



"The Price of Regulation"

By Russ Banham, *Chief Executive* magazine, May/June 2010, P. 44



- Ernest & Young 2009 survey shows 4% revenue spent on managing risk and compliance by the average US company, with very low return

"... SOX compliance adds 2-3% to an acquisition's price tag."

Jerre Stead, chairman and CEO of HIS Inc, a global provider of market intelligence

ca

Compliance opportunity: Improve processes, increase efficiency, reduce compliance costs

CFO speaking at 2008 EWF Conference



Regulatory Business Driver

PCI

- "It's our lifeblood... We're out of business if we lose accreditation."
 - Brian Swartz, CFO & Treasurer, and Sr. VP of the Apollo Group, Inc., Guest Speaker at Women in Technology Mastermind, held on site at Apollo
 - Title IV, FERPA, PCI, SOX, eDiscovery, Privacy, ...
 - How IT can best support compliance needs
 - Automate IT
 - High quality
 - Test
 - Exact
 - Always look at cost vs. benefit

"The Cost of Confidence"

Two proposals aim to increase auditor

independence, but may cause problems for CFOs'

By David M. Katz, CFO magazine, January/February 2012

- PCAOB Public Company Accounting and Oversight Board
 - Oversight of auditors
 - Protect investors
 - They see a problem with more audit mistakes, deficiencies in reports, cozy relationships between companies and auditors
- Rotate audit firms every 5-10 years
- Seek more robust accounting reports
- CFOs see this as costly, disruptive, and nonproductive:
 - Increased audit fees
 - Delayed financial reporting
 - Diversion of internal resources
 - Auditors creating original material for financial statements

IT Risks



"DDoS Attack Forces Hong Kong Exchange Offline For Second Day"

By Christopher Brook, Threat Post, August 11, 2011, http://threatpost.com/en_us/blogs/ddos-attack-forces-hong-kong-exchange-site-offline-second-day-081111

Mergers & Acquisitions in Technology Sector: "Down To Business: The New Reality Of Tech Industry Consolidation"

by Rob Preston, InformationWeek, 15-Feb-2011, http://www.informationweek.com/news/global-cio/interviews/showArticle.jhtml?articleID=229218699&cid=RSSfeed_IWK_ALL

"Report: Application Security Still Mostly Sucks"

DHS Open Source Enterprise Daily Cyber Report, 20-Apr-2011, Source: HSEC-1.6; Date: 19-Apr-2011

http://threatpost.com/en_us/blogs/report-application-security-still-mostly-sucks-041911

- Emerging attack vector:
 - -"ERP apps are often forgotten when it comes to security, overshadowed by database flaws and other worries"

DHS Open Source Enterprise Daily Cyber Report, 3 May 2011

"IT vs. Business - Who Should You Blame When Projects Fail?"

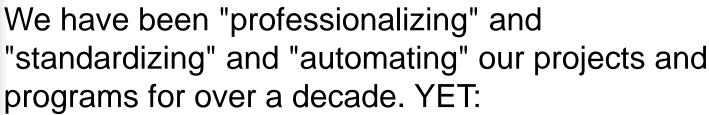
By Jeff Vance, 28-Feb-11, CIO Update, Source: 3/1/11, SmartBrief on ExecTech



"Program and Portfolio Management: What's Hot and What's Not"

Gardner Webinar, 17-May-2012,

http://my.gartner.com/portal/server.pt?open=512&objID=202&mode=2&PageID=5553&resId=1974416&commId=45633&channelId=5501

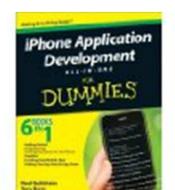


- Success rates of IT projects haven't radically improved.
- We don't have the project leaders with the skills we need.
- Our improvement initiatives still meet high organizational resistance.
- PMOs implode at rates above 30% annually.
- Highly uncertain and constantly changing current and future environment.



IT Trends









- Mobile Devices & Apps
 - "IPhone Attack Reveals Passwords In 6 Mir

10-Feb-2011; Source: http://www.computerworld.com/s/article/9208920

 "IT, Security Can't Keep Up As Consumer Device Use Grows"

12 July 2011; http://www.computerworld.com/s/article/9218357/], from DHS Open Source Enterprise Daily Cyber Report, 13 July 2011



By <u>Russell Nichols</u> | July 2011, Governing (magazine) staff writer http://www.governing.com/topics/technology/cloud-computing-no-easy-fix.html?nlid=t110703

IDC predicts explosion of digital data storage: Increase of 48% in 2012 over 2011

Cloud Computing as a Threat to Older Tech Companies, *By Quentin Hardy, 1-Dec-*2011, New York Times, "Bits" Blog, http://bits.blogs.nytimes.com/2011/12/01/cloud-computing-endangers-older-tech-companies/?partner=rss&emc=rss





Risk – Cloud Contracts Favor Service Providers

Rigid cloud contracts offer SMBs little flexibility, study finds

The majority of contracts for cloud computing services are too rigid and favor the provider over the customer, according to new research from Queen Mary College's Centre for Commercial Law Studies, which says replacing one-size-fits-all deals with more flexible terms will be critical to cloud providers' future competitiveness. The analysis -- conducted by the Centre's Cloud Legal Project -- found that while large enterprises are beginning to demand more customer-friendly terms, many small and midsized businesses are forced to accept cookie-cutter contracts that don't address all of their needs. IT PRO (London) (5/23/12)

"Cloud contracts need more flexibility", By Rene Millman, 5/23/12, IT Pro, One-size-fits-all cloud deals should be replaced, say academics.

"Wi-Fi-Hacking Neighbor From Hell Sentenced to 18 Years"

By David Kravets, 12-July-2011, Wired magazine, http://www.wired.com/threatlevel/2011/07/hacking-neighbor-from-hell/

- Be careful which neighbors you anger. Regardless of the outcome, this placed enormous pressure and problems on the targeted neighbors...
- Their Wi-Fi network was repeatedly hacked, to try and frame them for kiddy porn, sexual harassment, professional misconduct, and to send threatening letters to high ranking politicians...
- Hacking was to retaliate when neighbors contacted law enforcement in his kissing their 4-year old on the lips



Cybercrime as a Service Webcast September 2011 Bradley Anstis VP Technical Strategy, CCSK M86 Security

http://www.m86security.com/webinars/09_11/thank-you.asp?mkt_tok=3RkMMJWWfF9wsRonua7JZKXonjHpfsXx7u0lWK6g38431UFwdcjKPmjr1YIASsN0dvycMRAVFZl5nQEATPOQf5VS8%2BFE

Fraud Risk

Lessons

- Database for stolen equipment
- Interface with law enforcement & insurance companies
- Education/training for dealers



Q? Who is most likely to commit fraud? Of those, who creates greatest losses?



Video: Ex-Olympus executives arrested Reuters Video

Thursday, Feb. 16, 2012 6:20AM EST

Japanese prosecutors swoop in on three former executives of Japan's disgraced Olympus Corp.

Arrested: Former CEO, Exec VP and in-house auditor

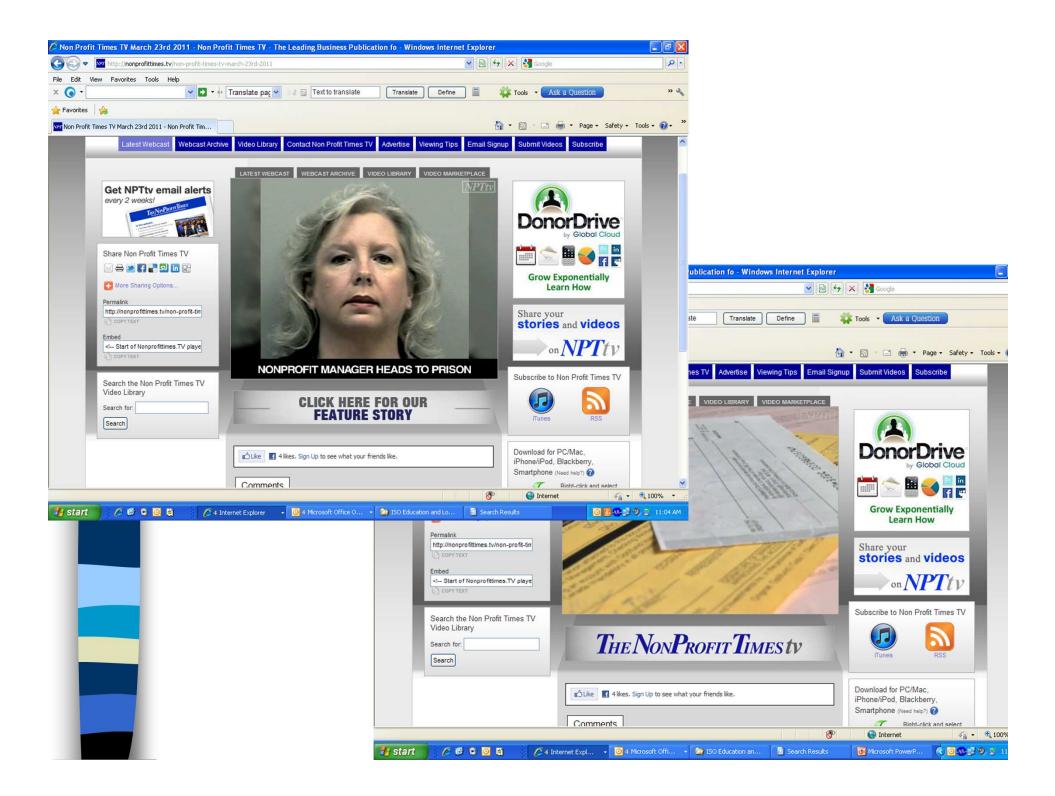
April shareholder meeting will usher in a new management team. In the meantime, shareholder equity plummeted 75% and stock by half since the scandal broke in October.

"Arrests Go Beyond Olympus", By Kana Inagaki and Phred Dvorak, Wall Street Journal Tokyo, Asia Technology, 17-Feb-2012, http://online.wsj.com/article/SB10001424052970204059804577226893254082440.html

"Audit Details Money Guard Official Embezzled"

"Inadequate oversight over 8 years led to \$2.7M theft from emergency fund"

By JJ Hensley, The Arizona Republic, 28-Feb-2012, B1



"Inside the Chinese Boom in Corporate Espionage"

By Michael Riley and Ashlee Vance on 15-March-2012, Bloomberg BusinessWeek – Global Economics http://www.businessweek.com/articles/2012-03-14/inside-the-chinese-boom-in-corporate-espionage

Are we selling away our future?

China's Wind Energy and the stealing of a company

- Trade secret theft, corporate espionage and the buying of an insider --a software engineer, to facilitate that theft.
- Executives make a
 choice to outsource and
 with intellectual
 property, even when
 you think you protect
 yourself, the risk can be
 great. How much risk is
 too much?



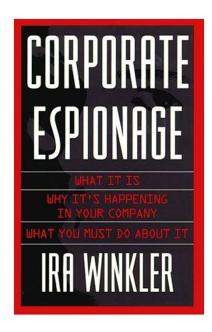
American Superconductor Corp (NSDQ:AMSC)

http://www.stocknod.com/AMSC-American-Superconductor-stock-prices.aspx

"Brain Drain"

"Been sleeping OK? Chances are you're not doing enough to safeguard your firm's intellectual property—a major undertaking for nearly all companies.

By Lauren Gibbons Paul, February 12, CSO magazine, CSOonline.com



Other Trends







"GlobalSign Set to Reopen Tuesday Despite Web Server Hack"

By John Ribeiro, 12-Sep-2011, Computerworld,

"Cyber security - 80% breaches tied to organized crime"

DHS Open Source Enterprise Daily Cyber Report, 28-Jul-2010

Counterfeiting: "ICE seizes music/merchandise Web sites"

GSN Government Security News, 2010-11-29 By: Mark Rockwell, ICE notice Immigration and Customs Enforcement

"Social Media: The New Battleground for Spam, Malware"

DHS Open Source Enterprise Daily Cyber Report, 26 May 2011 Source: http://www.thenewnewinternet.com/2010/05/26/hackers-target-small-businesses

"P2P Networks a Treasure Trove of Leaked Health Care Data"

DHS Open Source Enterprise Daily Cyber Report 18 May 2010 [Date: 17 May 2010; Source: www.computerworld.com/s/article/9176883

"Energy Firms Fear Major Cyber Attack On Grid This Year"

DHS Open Source Enterprise Daily Cyber Report, 23-Feb-2011, Source:http://www.telegraph.co.uk/technology/8341566/Energy-firms-fear-major-cyber-attack-on-grid-this-year.html © 2012 DebbieChristofferson@earthlink.net 480-988-4194

Disaster Planning Risk

"State of SCADA Security Worries Researchers"

HSEC-1.1; 5-Feb-2012: http://www.eweek.com/c/a/Security/State-of-SCADA-Security-Worry-Researchers-234517/
DHS Open Source Enterprise Daily Cyber Report 6 February 2012 UNCLASSIFIED

"Industry Fights Copper Thieves with new Telecoms Cable"

'Drastically Reduces Amount of Valuable Copper in Cable"

- "... Copper theft costs U.S. companies \$60M a year."

By John E Dunn, February 2012, CSO magazine, csoonline.com

- Supply chains impacted by flooding in Thailand and Japan's Tsunami
- Significant impact to Japan on nuclear power loss
 - Atomic reactors previously provided 30% of Japan's electricity
 - Liquefied natural gas up 32% in December from a year earlier
 - Crude oil use increased fivefold
 - » According to the Federation of Electric Power Companies

Global Economics, February 6-12, 2012, Bloomberg Businessweek, P. 20

IT systems failures cost business an average of 545 employee hours per company

25-May-2011, By Mark Cox, eChannelLine USA Daily News at http://www.echannelline.com/usa/story.cfm?item=26845

Despite this, 56% of organizations in North America and 30% in Europe don't have a formal and comprehensive disaster recovery policy.

"Heading for disaster: small and mid-sized firms are not prepared"

11-Jan-2011, http://www.infosecurity-us.com/view/15096/heading-for-disaster-small-and-midsized-firms-are-not-prepared

"Hackers Shift Attacks to Small Firms"

By Geoffrey A. Fowler & Ben Worthen, Wall Street Journal, July 21, 2011,

http://online.wsj.com/article/SB10001424052702304567604576454173706460768.html?mod=dist_smartbrief

"Data Loss Impacts Half of Small Businesses: Survey"

By Nathan Eddy, eWeek, July 21, 2011, http://www.eweek.com/c/a/Midmarket/Data-Loss-Impacts-Half-of-Small-Businesses-Survey-624685/?kc=rss



What can you do today?

"To line of business folks, security managers might as well be Dr. No."

"Taking a Lead on Change", By Bill Snyder, InfoSecurity Professional magazine, Issue Number 12, 2010 Vol4, P 120

- Resources vs. business alignment
- Metrics
- Reporting vs. business value perception
- Communication
- Attracting young blood



Why a Risk "Assessment"?

- Measure risk in a given area
- Prepare for future audits
- Create a baseline and measure against it later (metrics)
- Increase visibility and resources in high risk areas



"Almost"



- Security strategy
- SWOT
- Incident response & escalation
- Contract management
- Service Level Agreements
- Security steering committee
- Security ambassadors in user community
- Self-auditing
- Hiring and management strategies
- Change management
- "Freeware" isn't always free





Implementing an Effective Security Awareness Program

AZ Dept of Transportation
Infrastructure Protection Group
April 2011

Best Practices: Tops down support, Automation, Security Consulting approach with the business



Risk Vs. Training and Awareness

"Study: Negligence cause of most data breaches"

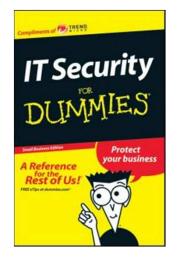
by Elinor Mills, 8-Mar-2011, CNet InSecurity Complex Blog

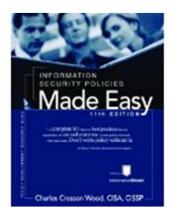
http://news.cnet.com/8301-27080_3-20040861-245.html#ixzz1G73dsdbp

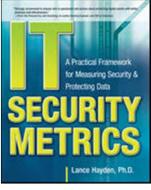
"Lost, Stolen Laptops Cost Companies Billions in 2010"

By Fahmida Y Rashid, 21-Apr-2011, eWeek magazine http://www.eweek.com/c/a/Security/Lost-Stolen-Laptops-Cost-Companies-Billions-in-2010-574365/?kc=rss

Process Improvement









Sad Face Cookies at Elegance in Meats, http://www.chewonthatblog.com/tag/sad-face-cookies/

"Policy Management Best Practice"

By Matt Kelly, Compliance Week, 8/1/11, http://www.complianceweek.com/policy-management-best-practice/article/208804/

Risk Career Trends

Security Spending Outpaces Overall IT Market Analyst firm puts software at \$23B by 2015" By Valerie Valentine,

Information Management Online, 15-Sep-2011 htp://www.information-management.com/news/security-spending-outpaces-it-market-10021128-1.html

"Antivirus Software Sales Expected to Show Strong Growth in 2012"

By Jeremy Kirk, IDG News, PC World,

http://www.pcworld.com/businesscenter/article/246656/antivirus software sales expected to show strong growth in 2012.html

"Networking Gear, Data Storage To Lead 2012 IT Sales"

By Rick Whiting, CRN, 6-Feb-2012,

http://www.crn.com/news/data-center/232600297/networking-gear-data-storage-to-lead-2012-it-sales.htm;jsessionid=jYFTI5tmCUAQ2GVa0SuFlA**.ecappj01

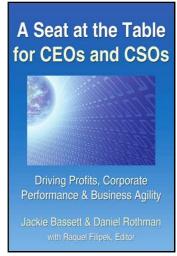
"Analysis: Computer security attracts venture capitalists"

http://www.reuters.com/article/2011/06/15/us-cybersecurity-venturecapital-idUSTRE75E3V220110615
By Sarah McBride, SAN FRANCISCO, June 15, 2011, Reuters





- GRC Governance,
 Regulation, Compliance
- Chief Risk Officer
- Chief Privacy Officer
- Chief Compliance Officer
- Enterprise Risk Manager





"Disturbing Trend: Chief Risk Officers Blowing Past CFOs on the Way to Meeting With the Boss"



Emerging Boardroom Role

"How Risky Is Your Board?"

By Kate O'sullivan, CFO magazine, 16-Feb-2010

"For growing companies that want outside perspectives and expertise, an advisory board may be just the thing"

"Good Advice: Start an Advisory Board", By Alix Stuart, 8-March-2011, CFO magazine US, http://www.cfo.com/article.cfm/14561033

Security Jobs

CSO Wanted

Chief Data Security for Board of Directors position

ChaseAmerica Washington DC

Job Description

Have You Considered being a Chief Security Officer For a Board of Directors?

Contact

David Stefan 1800 JFK Blvd Suite 300 Philadelphia, PA

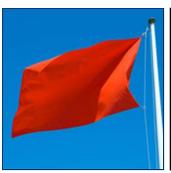
E-Mail: davidstefan@chaseamerica.net

This job was posted on:

Feb 16, 2011



Hiring Trends





"Report: Companies Will Hire More Privacy Pros"

IAPP Daily Dashboard, 3-Feb-2011, www.privacyassociation.com

Battle for Tech Geeks: Street vs. Silicon Valley (Computer Programmers & Software Engineers)

By Kristina Peterson, The Wall Street Journal, 18-Jan-2011

- Changing Internal Audit Focus:
 - Corporate governance, enterprise risk management and international accounting standards will be among the chief concerns of internal auditors over the next 5years

SmartBrief for CFOs 15-Feb, 2011, from Accounting WEB (2/14/11

 "Game Changer – Tech Firms Eschew Hiring in Favor of Contractors, Services"

InformationWeek (4/23/11), according to InformationWeek Analytics' State of IT Outsourcing Survey







Featured Job Listing

Client Data Protection Architect, Accenture, Chicago, VA/DC, Miami, Atlanta, U.S.

The Client Data Protection Architect will be responsible for assessing and establishing data protection controls and standards on client engagements to reduce business risk to Accenture, our clients and our clients' clients.

Complete Job Listing

From: IAPP Daily Dashboard [mailto:publications@www-privacyassociation.ccsend.com] On Behalf Of IAPP Daily Dashboard

Sent: Monday, December 05, 2011 10:47 AM

To: Debbie Christofferson

Subject: Landmark Case Establishes Employee Monitoring Guidelines

International Association of Privacy Professionals

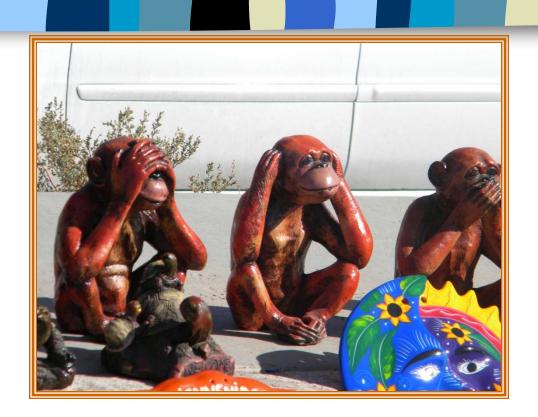
Your questions before we wrap-up?

Who is responsible for accepting risk? What is your role?



"Money is never a resource issue. It's always a priority issue"

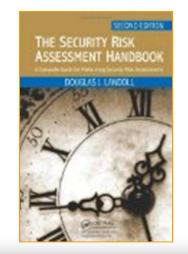
- Alan Weis, The Global Consultant



Guarantee Your Success

- Where is your business's money tree?
- How do you support it?
- What can you do now?





Call to Action

Focus on business risk
Collaborate on strategy
Communicate in business terms

FREE Announcing 7-page Security Risk Management Plan:

Send email to: <u>DebbieChristofferson@earthlink.net</u>

Use subject line: "062012 ISSA Risk Plan"

Or request by phone to: 480-988-4194



DebbieChristofferson@earthlink.net 480-988-4194