



Human Factors of Information Assurance

Securing the Biggest Hole
in your Information Systems

IT SECURITY?

- What is it?



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It is...

- Maintaining:
 - Confidentiality
 - Availability
 - Integrity



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How?

Regulation and Compliance...

- Mark Luker, VP Educause, said at SURA/Critical Infrastructure Protection Project Conference:
 - **“Higher Education must address their IT Security problems or they are going to find themselves subject to Mandatory Federal Security Requirements. We have to show we are moving in the right direction with regards to IT Security”**



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Lots and lots of laws...

- Colleges are subject to Local, State and Federal Laws.
 - Computer Security Act
 - Electronic Communications Privacy Act
 - FERPA (Family Educational Rights and Privacy Act)
 - HIPAA (Health Insurance Portability and Accountability Act)
 - CFAA (Computer Fraud and Abuse Act)
 - USA PATRIOT Act
 - GLBA (Gramm – Leach – Bliley Act)
 - Social Security Number Protection Act
 - Digital Signatures Act
 - Digital Millennium Copyright Act (DMCA)
- Also subject to non-legislative security regimes.
 - Payment Card Industry (PCI)
 - Sarbanes-Oxley (Not always applicable legally.)



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Stringent Policies to enforce Best Practice...

- Acceptable use
- Disaster recovery
- Information disclosure
- We'll kill you if you do the following...
- Seriously...
- I'm going to beat you to death with your own mom...



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Technology...

- IPS
- IDS
- Firewall
- SIEW
- Log Aggregation
- HIDS
- NIDS
- AV
- Spam filters
- Phishing filters
- Application filters
- Web content filters
- DPI
- EIEIO....



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Metric tons of money...



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IT DRILLDOWN » Security

NEWS

Security Tops IT Budget Priorities

Security is on the minds of American companies and many are still making room in their budgets to invest in IT security initiatives, according to a survey released Monday by Robert Half Technology.

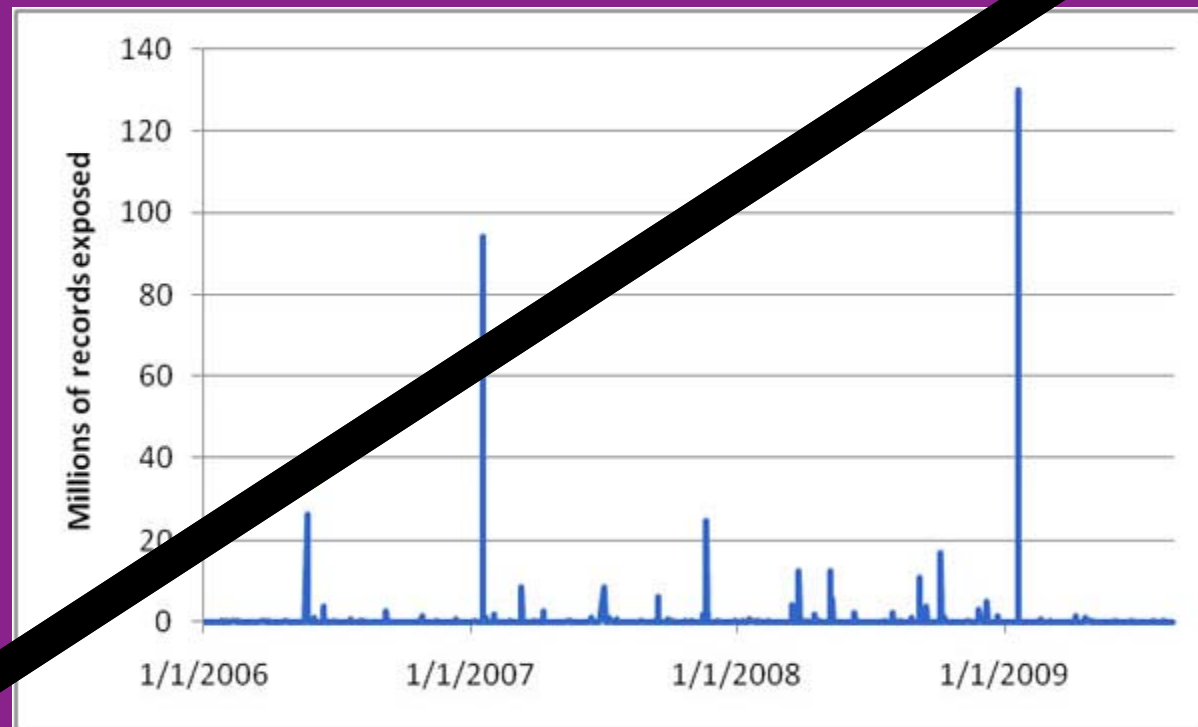
By Joan Goodchild, Senior Editor

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MON, APRIL 13, 2009 — **CSO** — Security is on the minds of American companies and many are still making room in their budgets to invest in IT security initiatives, according to a survey released Monday by **Robert Half Technology**.

The research found that, despite a challenging economy, seven out of 10 chief information officers interviewed recently said their companies will invest in information technology initiatives in the next 12 months (See also: **5 Tips for Managing Security in a Recession**). Information security topped the list of projects executives expect their firms to invest in, with 43 percent of the response. Technology

So... Does all that work?



Source: http://www.csoonline.com/article/501584/Data_Breaches_Patterns_and_Their_Implications



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Why not?

- Resistance to change
- Shadow IT
- Policy non-compliance
- Mistrust between Information Services and “Everybody Else.”
- To put it bluntly, lack of GIVE-A-CRAP.



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Resistance to change

- People don't resist change. Even big change.
- People resist change that is EXTERNAL.
- Solution: Don't *drive* change, *bring your stakeholders along with the change*.



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Shadow IT

- Everyone believes they are doing what they need to in order to accomplish their mission.
- Everyone feels justified in exporting secured data onto their hard drive in order to gather the information they need to accomplish their mission.
- Solution: Setting expectations, Exceptional Customer Service



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Policy non-compliance

- They don't know about it.
- They don't care about it.
- They've been doing what they do for a long time, what are you going to do to make them do it differently?
- You've got no teeth, my Dean will back me up. Go away, punk.
- Solution: Let your stakeholders write the policy they can live with.



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Mistrust between Information Services and “Everybody Else.”

- You’re Information Security.
- You’re the guys who say, “No.”
- Why should I ask you?
- I’m doing the *real* work of the college, you’re in the way.
- Solution: Make their life easier and it’ll make *your* life easier.



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Evangelism

- ... Story time.
- It's not "Do this because it is right."
- It's not "Do this because G-d wants you to."
- It's not "Do this to improve Society."
- **IT IS ALL ABOUT THE PERSON YOU'RE TALKING TO.**



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Concrete examples...

- Write policy in a Wiki
- Policy indemnification clause – I'll keep you out of jail and nobody can touch you.
- Be your User Community's advocate to IS and they'll come to you rather than work around you.
- Respect how they accomplish their Mission and make small, measured changes to accomplish specific goals.



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Social Engineering

- When your Stakeholders see you as an ally in helping them accomplish their mission they are more likely to TALK TO YOU WHEN THEY GET SOCIAL ENGINEERED!



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Parting Thought...

- The only secure IT infrastructure is one that is responsive to our User Community's needs.
- If it is cumbersome it WILL be circumvented.
- Customer focus is as important as good technology and process.