



Joseph L. Rotman School of Management
University of Toronto

Best Practices in Canadian IT Security

Professor Walid Hejazi

Rotman School of Management



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Objectives

- Appreciate Risk
- Understand that IT security can give you a competitive advantage
- Matter of governance not just budget
- Communicate!

The Importance of Information

- In the **New Economy**, collecting and analyzing information is essential to success
- Some companies exploit the information contained in that data more than others
 - An important source of competitive advantage
- However, all companies must protect information – **IT SECURITY**
- Customers must feel confident their information will be safe (used appropriately)
- The business case for IT security is obvious

How Costly are Breaches

- Study by MCAFEE on economic losses
 - Global study
 - 800 CIOs
- Cost of breaches includes
 - Direct financial losses
 - Losses of intellectual property
 - Repairing damage/limiting risk exposure
- Economic losses at **\$1 TRILLION last year**
- *“Based on the survey findings McAfee **conservatively** estimates that the global damage from data loss to top one trillion dollars”*

Dave DeWalt,
president and chief executive officer of McAfee.

Measured and Unmeasured ...

- Many losses detected, but many are not detected, or not reported
- Makes coming up with a precise measure impossible
- However, few would argue the costs are low
- Another dimension to this issue is the risk of security breaches:
 - Hacker's Panel: it won't be long before breaches and their associated costs escalate

Cyber Security = U.S. National Security



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IT spend in a downturn

- Many companies apply “across the board” cuts
- However security breaches likely rise in an economic downturn as layoffs mount
 - Insiders
 - Outsiders
- As information leaves the organization, risk profile of company is increased

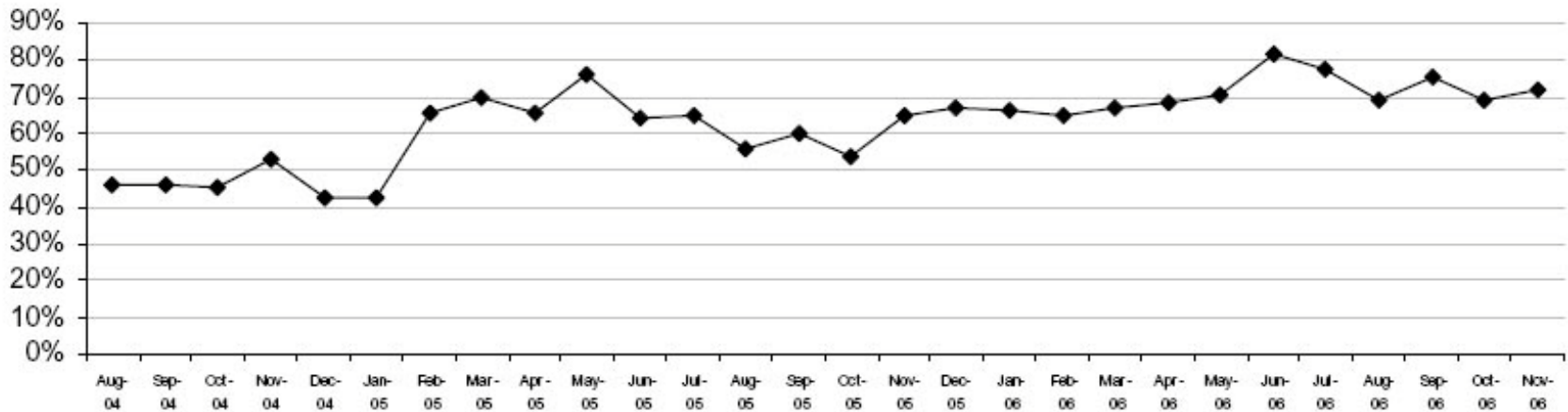
Misplaced Emphasis

- Even though a majority of attacks originate outside the company, there may be too much focus on “outsiders”
- The “cause” of an attack or the “attack itself ” can originate from inside the company
 - Insider breaches accounted for 18% of attacks
 - 88% of data breaches were caused by simple negligence on the part of staff.
- Insider attacks are potentially more damaging because insiders know where "THE CROWN JEWELS ARE LOCATED" whereas outside attackers need to search

Many costs around a breach may not be borne by the Company - directly

Percentage of individuals in the US with the belief they will become victim to identity theft in the future

Percentage of individuals stating Yes or Unsure to the question:
Yes or Unsure Response to "Will you become a victim of an identity theft at some point in the future?"



Margin of error not greater than 3.5% in any month

Rotman-TELUS study Canadian IT practices

- There are many studies available
- Mainly focused on the Global Economy, Developed or Advanced Economies, or on the US alone, but not necessarily on Canada
- The Rotman-TELUS partnership is working to fill that void
 - Complementary strengths in research from the two partners

The Rotman-TELUS study provides Clarity on the State of IT Security in Canada

- Canada is different from USA
 - Public vs. Private Healthcare
 - 6 banks vs. 7500 banks
 - Role and approach to government is different
- Current studies tend to be descriptive rather than proscriptive
- General lack of understanding around IT security issues
 - I believe IT security is a C-level business issue

IT security Breaches are Costly in Canada

Rotman-TELUS 2008 Study

- Annual loss for 2008
 - private company is \$293,750
 - publicly traded companies is \$637,500
 - government it is \$321,429

- Comparison to the US (CSI)
 - 2007: average cost \$345,000
 - 2006: average cost \$167,000

US Costs doubling!

The Rotman-TELUS study ...

- More than a 100 questions
- 300 Canadian organizations participated in the study
- Areas covered:
 - Respondent details
 - IT Governance Issues
 - IT Security Budgets
 - IT Security Breaches
 - IT Security Initiatives

Key findings from 2008 Rotman-TELUS study

- 1) Canadian tech investment as good as USA
- 2) Compliance driving Investment and Dissatisfaction
- 3) Encryption expected to be a big focus in 2009
- 4) Breaches costs higher in Canada, less than US (insiders versus outsiders)
- 5) 3/5 surveyed open to security outsourcing

3 critical success factors in Security



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Performance Management: best practices

Policy

- Link security objectives into personal performance objectives
- Have business level security metrics in place

Risk Assessment

- Perform risk assessments at least once a month

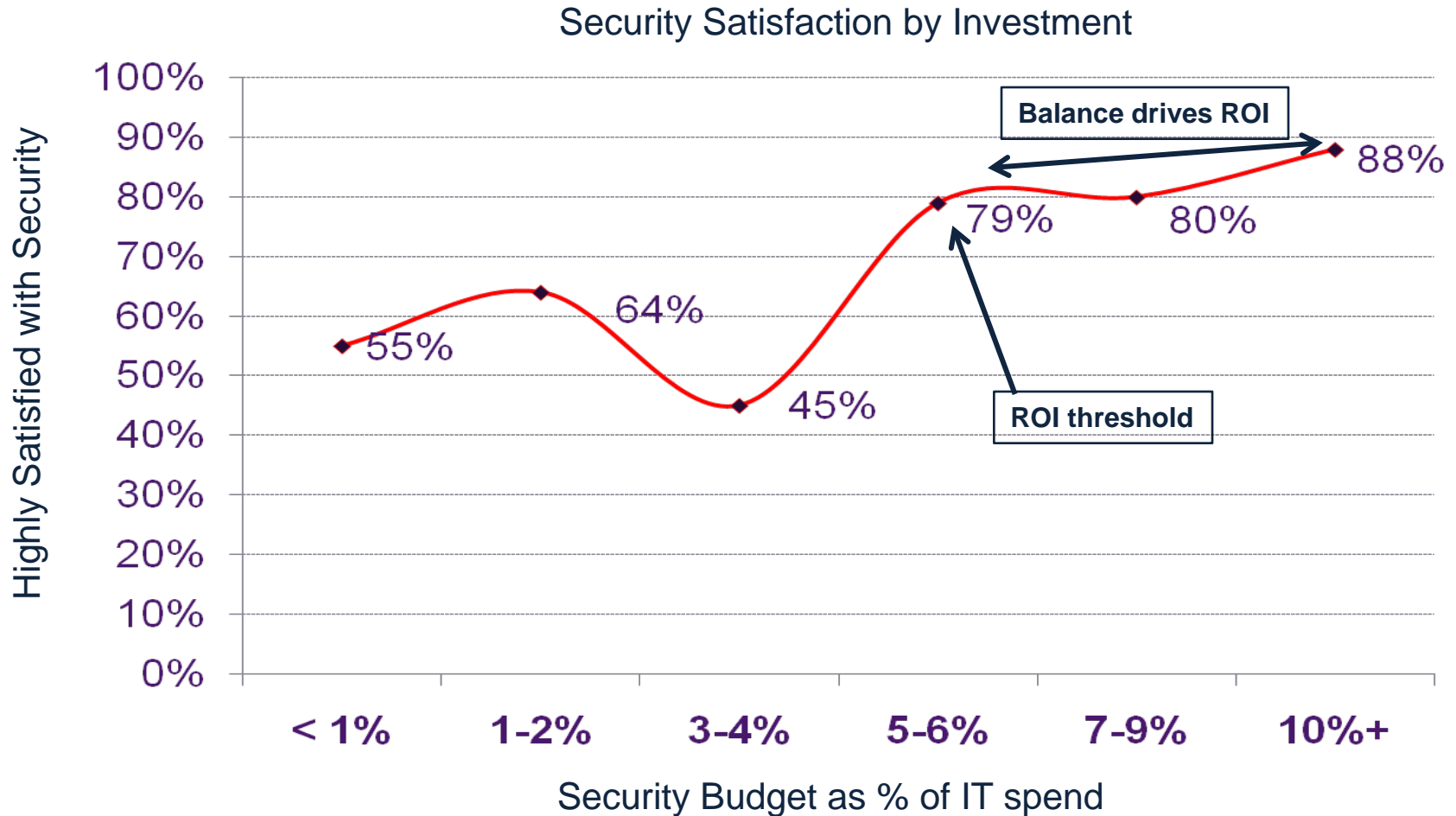
Communication

- Communicate at least monthly to stakeholders about security

Focus on Securing Applications

- Investment in application security showed significantly less application-related breaches
 - No defacements
 - Less identity theft
 - Less likelihood of successful phishing attacks
 - Less likelihood of web-application misuse

Invest enough in the right things



This Year's Study – 2009 RT Study

- Trends – build off of last year's responses
- Cross country engagement (increased regional & industry participation)
- Measure the impact of the 2009 financial crisis on IT security spend, initiatives, and other IT security issues
- Bush, Obama, the Patriot Act, and Outsourcing
- Attitudes within companies around IT security personnel: internal affairs feel
- Do IT security personnel and employees have “too much” access
- TO BE RELEASED: September 29, Toronto Board of Trade

Summary

- IT security threats are significant and increasing
- It is a business and a National Security Issue
- Threats emanate both inside and outside the organization
- Canada is different than the US and other countries
- Governance, Balance, and Budgets matter
 - Need to get it right

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For more information

- Contact

Professor Walid Hejazi

hejazi@rotman.utoronto.ca

Alan Lefort, Director, TELUS Security Labs

Alan.lefort@telus.com

Nika Pedersen, Manager, Business Client Marketing

Nika.Pedersen@telus.com



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