

Welcome

Cyber – The New Reality for Municipalities

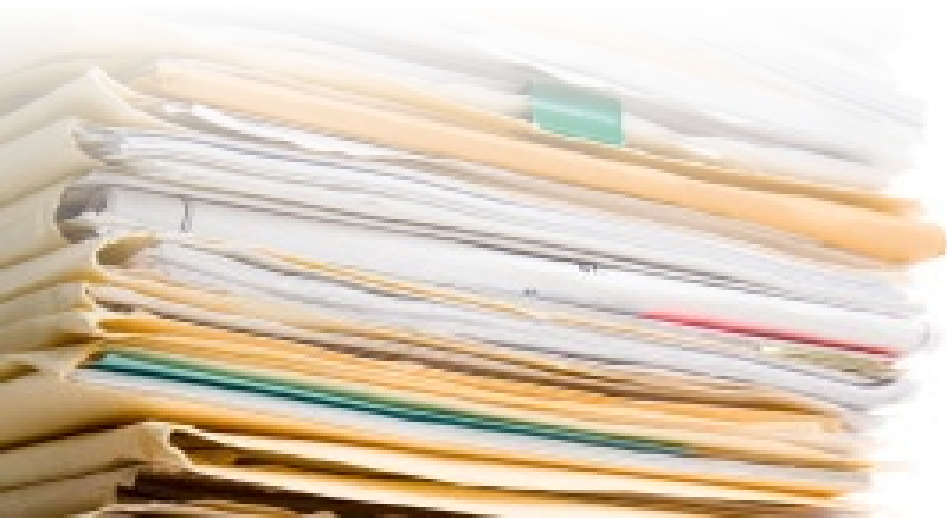
Agenda

1. Today's Cyber Risk Environment
2. Managing Cyber Risk
3. Policies & Procedures
4. Takeaway

Today's Cyber Risk Environment

Yesterday

- Paper files
- Could be stored in a multitude of locations
- How many could be taken out of the office at one time



Today

- Computer Technologies
- Centralized Databases
- Surveillance Technologies
- Portable devices that can hold thousands of records
- Anyone with access to a computer can view

The Changing Landscape

Technological systems and data are becoming increasingly more fundamental and critical to all operations

Increased reliance on technology:

- Paperless document management
- Electronic communications
- Electronic payments
- Electronic billings
- Electronic sharing of information
- Shared networks
- Information is more accessible
- Hacking, Phishing, Viruses.....
- Increased privacy regulations

Cyber

- Tort of Privacy Breach
- Increase legislation/ regulation
- Class Action Lawsuits

Cyber

- Cybersecurity incidents in Canada have increased by 160% year over year according to PwC Canada's Global State of Information Security Survey
- Wasaga beach
- Midland
- Atlanta
- Stratford
- Toronto...

Ransomware - What is it

- Your computer/network is locked or encrypted and ransom demanded. If paid keys or methods of decryption are provided
- Files are not stolen – they remain on your computer
- Opening an attachment from an email or downloading
- software/apps that look legitimate
- In Canada mainly through business applications

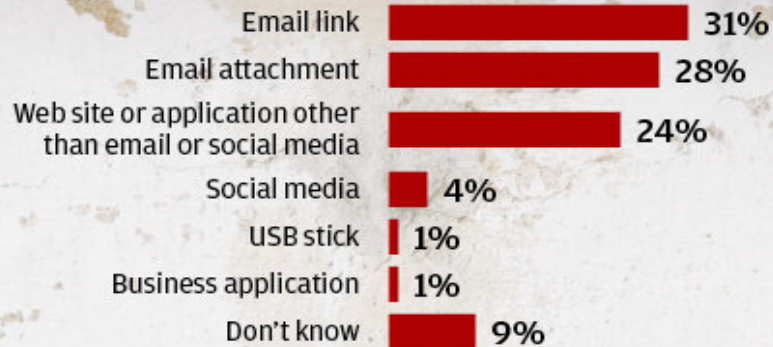


Question

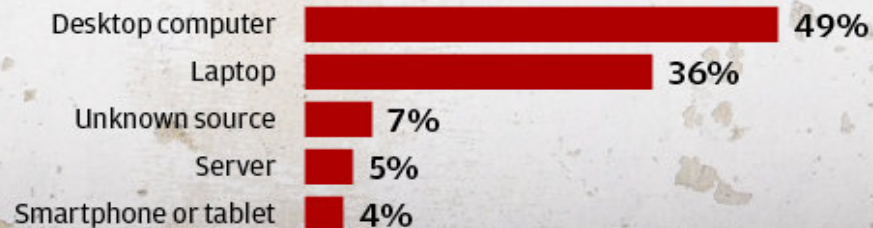
- What is the most common way Ransomware enters an organization?
 1. Social media
 2. Email link
 3. Sketchy websites

HOW RANSOMWARE ENTERS AN ORGANIZATION

By application...



By physical location...



SOURCE: OSTERMAN RESEARCH

Costs of a Privacy Breach

- Personnel costs – notification; regulators
- Post incident – media, call centre, forensics, repairs, credit monitoring
- Legal costs – regulators, liability assessments, defence costs, damages, fines

Fraudulently Induced Transfer (F.I.T.)

- Fraud today has become much more sophisticated and complex with F.I.T. (otherwise known as Social Engineering) trending in today's marketplace
- Ottawa
- Saskatoon...

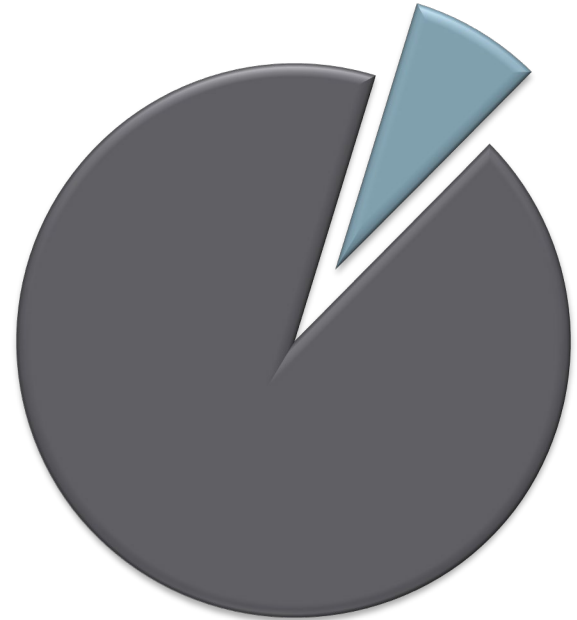
Managing Cyber Risk



Network Security

Corporate Issue not just an
IT Issue

IT is part of the whole but
not the whole



Mitigating the Risk

- Assess your current level of preparedness
- Evaluate your vulnerabilities regularly
- Apply software with the most recent security releases as quickly as possible
- Identify, prioritize and protect confidential/essential data
- Determine what information you're collecting and why you're collecting it
- Determine who can access what data
- Vendor Management
- Encryption

Mitigating the Risk

- Reduce the # of users with administrative privilege
- Develop effective cyber security practices
- Educate your employees
- Require strong passwords; regularly changing passwords
- Encourage employees to question what they feel is suspicious
- Determine your risk tolerance & financing requirements

How?

- Build a Risk Management Culture
 - Understanding your Duty of Care
 - Knowing the Governing Legislation
 - Risk Transfer
 - Incorporating Best Practices
 - Documentation
 - Training
 - Don't just test your systems – test your people!
- Canadian Cyber Incident Response Centre (CCIRC)
- Share your experience and learn from others – don't re-invent the wheel!

Why?

Without good risk management practices, government cannot manage its resources effectively. Risk management means more than preparing for the worst. It also means taking advantage of opportunities to improve services or lower costs.

Sheila Fraser, Former Auditor General of Canada

Policies & Procedures



What are Insurers Looking for?

- Breach Response Plan
- Data Backup & Disaster Recovery Plan
- Information Systems Disaster Recovery & Business Continuity Plan
- Acceptable Use Policy
- Remote & Mobile Computing Policy

Takeaway

- Risk management is the practice of being prepared: understanding your environment and your exposure to existing or emerging risk factors.
- The right risk management strategy helps reduce your costs, which goes beyond the insurance premiums you pay.

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