MANAGING AND INVESTING IN YOUR COMPANY'S SECURITY

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INFORMATION SECURITY VS CYBER SECURITY

INFORMATION SECURITY

Protection of physical and digital data from unauthorised access, use, disclosure, disruption, modification and destruction.

Cyber Security

- A subset of Information Security - deals with the digital world.
- Protection of networks, computers and data from unauthorised digital access, attacks, or damage.

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WHY INVEST IN SECURITY?

Poor Security Practices Can Cost

- Business Loss
- Penalty and damages
- Litigation Cost
- Loss of goodwill

Increasing Cost of Breach

- 2014- $ 445 billion
- 2017- $ 600 billion
- 2021- predicted to be $6 trillion

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WHY INVEST IN SECURITY?

EQUIFAX BREACH	• Personal data of more than 147 million people compromised. *Cost of breach to Equifax $300 million*
HOME DEPOT BREACH	• 50 million credit card number and 53 million e-mail addresses stolen. *Cost of breach to Home Depot $ 179 million*
MALWARE ATTACK	• 58% of victims are small businesses. *(Source: Verizon DBIR)*
COST OF CYBER ATTACKS	• $22,35,000 – Average for small and medium businesses in 2017. • *(Source: Ponemon Institute)*

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WHY INVEST IN SECURITY?

Small and Medium Businesses

- Have valuable customer data and business information;
- Can provide access to bigger companies via unprotected connections
- 40% experienced ransomware attacks. *(Source: Ponemon Institute)*
- Only 21% have the ability to effectively mitigate cyber risks and attacks.
- An attack cannot be prevented, but precaution helps reduce the impact.

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CONTRACTUAL REQUIREMENTS

- Contracts often require suppliers to have a certain level of security maturity.
- Vendors are threat vectors in many industries.
- Compliance with specific regulations - HIPAA, GDPR, Sarbanes Oxley Act etc,.
- Clients may require vendors to have certifications evidencing their information security standards e.g.: ISO 27001: 2013 and PCI Certification.
- Non-compliance will result in breach of contract.
- Breach of clauses pertaining to confidentiality and information security requirements - Often excluded from limitation of liability.
- Strong information security practices will help build trust and confidence.

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INTRODUCTION TO FEW SECURITY THREATS

- Ransomware
- Malware
- Phishing
- Denial of Service (DoS)
- Password Attacks
- SQL Injection
- Drive by Attack

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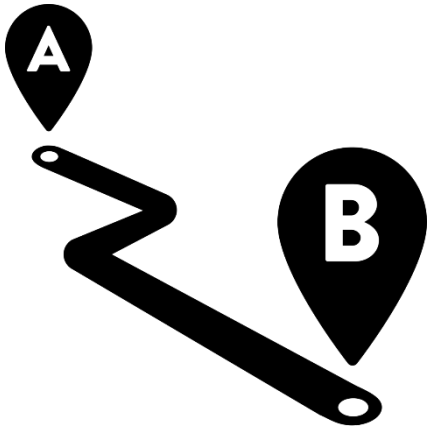
HOW DO I START?

- Define business goals
- Perform Security Risk Assessment
- Identify the current security maturity and gaps
- Review top 10 client contracts to understand the security requirements
- Engage with information security consultants to identify relevant compliances and standards
- Determine the security maturity to be achieved
- Define a roadmap to achieve desired security maturity



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WHERE DO I INVEST?

- Training to Employees
- Security Risk Assessment
- Effective Information Security and Management policies
- Network Security (Firewall, AV, IDS/IPS, DLP)
- SSL Certificates and their renewal
- Vulnerability Management
- Managed Security Service Provider
- Cloud Security Management (AWS, Azure, Google Cloud etc)
- Certifications such as ISO 27001: 2013, PCI Certification

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HOW MUCH SHOULD I INVEST TO ENSURE MY ENTERPRISE IS SECURE?

- Security is not expensive, its priceless
- Return on security investment will be proportional to the security investment
- Cannot ascertain a fixed amount, will depend on the tools used and the size of the organization and the model adopted (onsite or offshore)
- $200 million- boost in Equifax's budget for security and technology
- The ideal approach to finding an answer would be to consider:
  - ✓Current security maturity
  - ✓Security aspirations
  - ✓How/where/what- collection and storage of critical non-public information
  - ✓Investment appetite

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CASE STUDY

Home Depot

What went wrong..

- Use of older version of anti-virus software on its point of sale machines
- Hackers stole third party vendors credentials and used malware to grab credit card information

How it could have been avoided…

- ✓ P2P encryption would encrypt confidential data before being sent to memory, preventing hackers from using malware to scrape unencrypted card information from RAM
- ✓ Network segmentation

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Questions?

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