Cyber Security Update

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October, 2017

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The Threat Environment is Evolving

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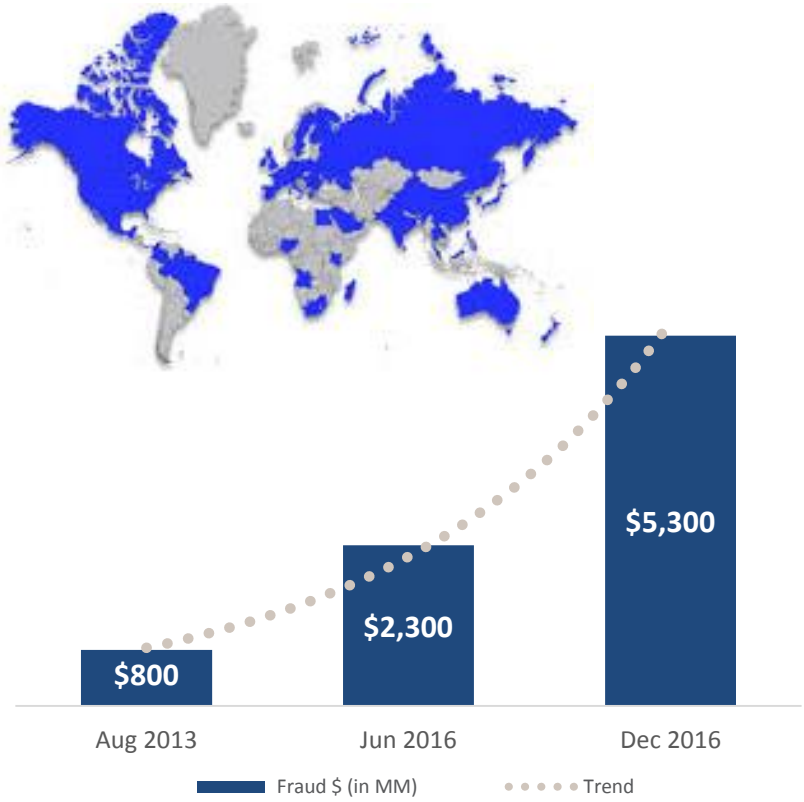
$5.3 Billion

Paid by BEC victims since 2013



Primary destination:
Asian Banks located in China and HK… financial institutions in UK have also been identified as prominent locations

$1 Billion

Paid by ransomware victims in 2016

*"Ransomware has rapidly emerged to become **one of the most serious threats** facing U.K. organisations today. Barely a day passes without fresh reports of yet another major infection, a new variant, or more dire warnings from the authorities.*

*Yet, despite the scale of the problem, **the level of awareness** among organisations and their ability to withstand attacks **is still not enough.**"*

https://www.ic3.gov/media/2017/170504.aspx

Trend Micro: "Ransomware: The Truth Behind the Headlines" September 2016

Fraud Risk in Finance Shared Service Centers

Mitigating the fraud risk

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The foundation that makes FSSCs attractive -- a process-driven efficiency that rewards speed and volume -- may create blind spots that fraudsters can exploit.

Shared Service Centers Present Challenges

- Transaction mindset
- Mundane job
- Manual controls

Five Way to Mitigate Risk

- Test processes
- Implement fraud prevention training
- Automate manual controls
- Train employees
- Foster the right culture

Single Most Effective Barrier to Fraud

Global end-to-end oversight

https://www.kpmg-institutes.com/institutes/shared-services-outsourcing-institute/events/2013/10/podcast-fraud-risk-fssc.html

SWIFT – Customer Security Program

3 Objectives

YOU
Secure and Protect Your Environment

YOUR COUNTERPARTS
Know and Limit Access – prevent and detect fraud in your commercial relationships

YOUR COMMUNITY
Detect and Respond – continuously share information and prepare against future cyber threats in collaboration with others

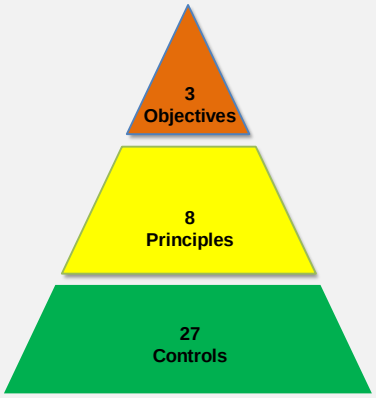
1. Restrict Internet Access
2. Protect Critical Systems from General IT Environment
3. Reduce Attack Surface and Vulnerabilities
4. Physically Secure the Environment

8 Principles

5. Prevent Compromise of Credentials
6. Manage Identities and Segregate Privileges

7. Detect Anomalous Activity to Systems or Transaction Records
8. Plan for Incident Response and Information Sharing

A series of security breaches at banks globally via SWIFT networks triggered the introduction of the CSP.



Vendor Best Practices

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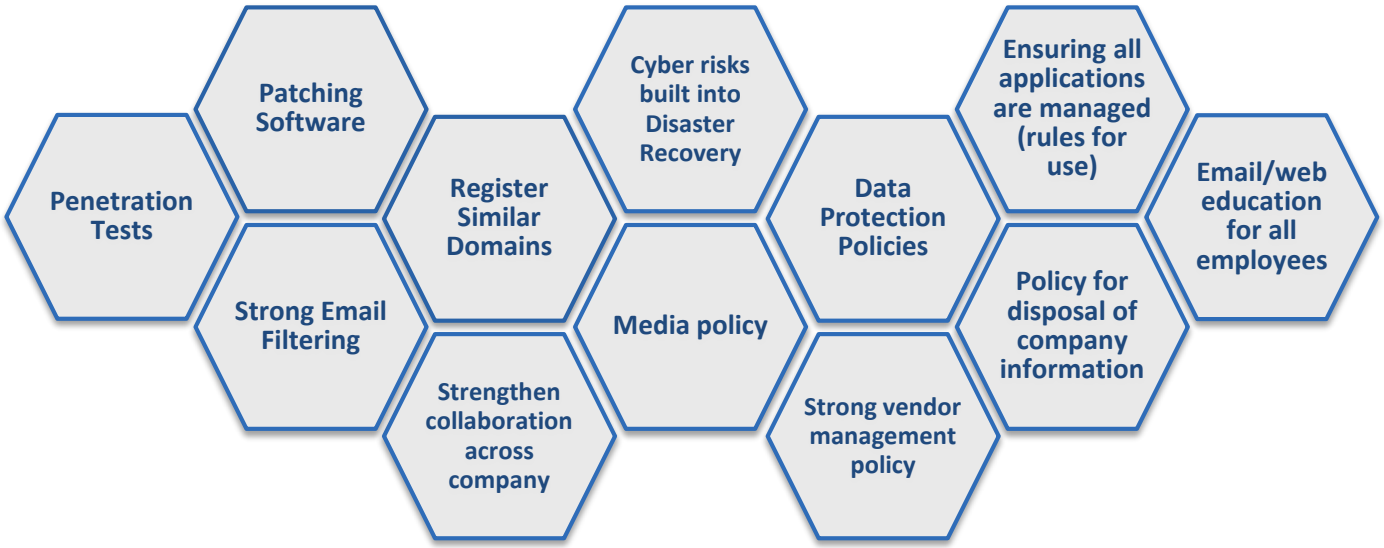
Ongoing Evaluation of Your Security Practices

Have you considered…



Vendor Best Practices

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What you should know about your vendor

- Who is responsible if information is breached due to vendor action or inaction?
- Who is financially liable?
- Can you shift vendors/resources and recover quickly?

Best Practices

- Perform site review; leverage security and process experts in your company
- Allow vendor access only to required data
- Limit and segregate log-ins to mitigate potential breaches
- Address responsibilities and liability if your vendor becomes compromised and impacts your business
- Understand vendor's loss recovery processes and service level agreements currently in place
- Do your homework – check references, awards, company standards regarding product, data security processes, procedures to ensure balanced risk-reward decision
- Hold your vendor to the same "Best Practice" standards you adopt internally

Firm Wide Planning – Incident Response Plans

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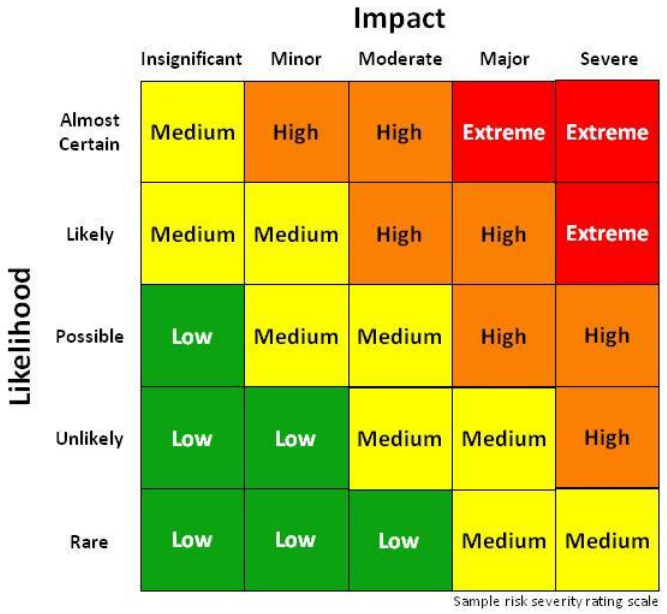
Create plan

- Identify Key Stakeholders
  - Define the role of each Stakeholder
  - Identify event owner
  - Create fraud event playbook

Senior Management	Information Technology	Risk Management
Business Controls	Media Relations	Treasury/ Finance
Legal	Internal Audit	Other Staff

Engage and respond

- Event triggered - fraud action plan engagement
  - Assess the Fraud Risk
    - Is this an active event?
    - What is the severity?
    - What is the financial exposure?
  - Assemble broader team
    - Stop the event – prevent further impact
    - Manage event based on complexity and severity
- Engage external resources where appropriate
  - Financial Institution
  - Forensic Accountant, Security Expert
  - Law Enforcement
  - Vendor



Security and Newer Technology

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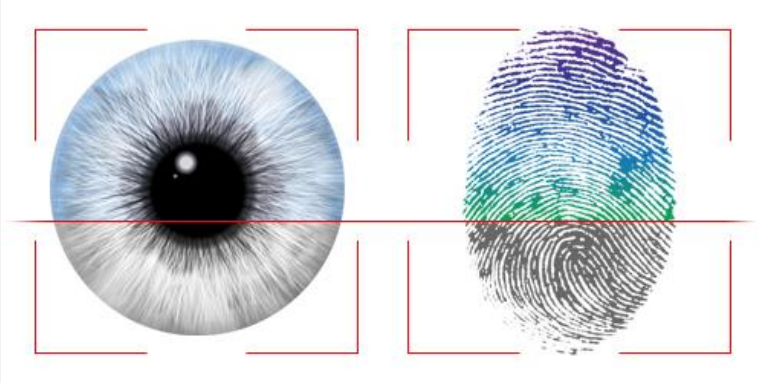
Bitcoin

Cloud computing

Biometrics



Machine learning - AI

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