WEBINAR: HONG KONG CYBER SECURITY

21 November 2018
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SPEAKERS

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leroY Yau, President, ISACA China Hong Kong Chapter
About me...

• President of ISACA China Hong Kong Chapter
• IT Interest Group operating committee member for HKICPA
• Previously advisory partner at EY focusing on cyber security, risk management and internal controls
• Currently running my businesses in Hong Kong and Taiwan around startup investment and advisory
• Course developer and instructor for “Certificate in FinTech and Innovation in Banking” by the Hong Kong Institute of Bankers
About ISACA

• HQ established in 1969
• Over 140,000 Members
• ISACA has more than 200 chapters established in over 80 countries worldwide

• Hong Kong Chapter established in 1982
• Number of member: ~3,000
• One of the largest chapters world-wide
Key certifications
Referral cases with global collaboration accounted for 91% of cases in 2017.

Source: HKCERT
HKCERT 2018 security outlook

- Financially Motivated Cyber Crimes continue to proliferate
- Internet of Things (IoT) attacks on the Rise
- Mobile Payment Apps as New Attack Targets
- Supply Chain Attacks bypass Enterprise Defense
Other (my) observations about HK

- Cyber security professionals are in huge demand
- Larger advisory firms are looking for acquisition targets whilst SME service providers are looking for merging opportunities
- Financial service sector, particularly banking, is pushing hard on cyber security initiatives
Potential contact points

Fintech Facilitation Office

ASTRI Security Lab

Cyberport / HKSTP

InvestHK
Market opportunities in HK

- Key budgets are still held by the FSIs but SMEs are recognizing the needs
- Big space for the startup scene
- Decision making process for services are driven locally whilst product are likely to be driven at regional/global level
- Privacy/regulatory requirements are often bundled with cyber security
- Plenty of opportunities to collaborate
Contact

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ISACA HQ Website: www.isaca.org
KOK TIN GAN
PARTNER,
CYBER SECURITY & PRIVACY
PWC HONG KONG
Don’t be the low hanging fruit
Get your cyber defence up to speed
Trends of cyber-attacks & lessons learnt
In HK, cyber-attacks have been around us...
PwC received 20+ cyber incident rescue requests in last 12 months

How did they recover?

How did the hacker get in?

What went wrong?
Case #1 – a telecommunication company

Location: Asia Pacific

Target: Personal data
**What went wrong?**

- Hacker stayed in client’s network for 19 days and customer data have been stolen.

- 4 business services needed to be shutdown due to malware infection – the hacker modified the business systems and used them to launch further cyber attacks.

- 27 systems / servers were found to be hacked by Advanced Persistent Threat.
How did the hacker get in?

**Sophistication of attack technique**
- Targeted attack – the hacker focuses on identifying employees with high privilege of access, rather than senior management.
- Advanced cyber weapons – not able to be detected or protected by traditional defences (e.g., firewall).

**Infrastructure complexity**
- Large and complex network
- Mixed of technologies without standardised logging and monitoring capabilities

**Lack of resources on security**
- Budget constraint
- Unprotected legacy systems
- Lack of monitoring
- Insufficient technologies to address advanced cyber attacks
Case #2 – a property development company

Location: **US & HK**

Target: **Monetary asset**
What went wrong?

Hacker was able to hack 8 persons email tricked finance department to send USD 500,000.00 to the malicious hacker for payment

In addition, hacker hijacked the hacked accounts and sent out phishing email to other staff that redirected recipients to fake website asking for login credentials

A staff entered his login credentials, the hacker immediately used it and login to the staff’s email inbox
## How did the hacker get in?

<table>
<thead>
<tr>
<th>Inadequate payment control</th>
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<tbody>
<tr>
<td>• No additional confirmation with the payee</td>
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<tr>
<td>• Insufficient control over vendor bank account changes</td>
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<table>
<thead>
<tr>
<th>Lack of security awareness</th>
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<tbody>
<tr>
<td>• Clicked links in phishing email</td>
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<tr>
<td>• Provided company email and used same password in third-party websites</td>
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<tr>
<td>• Did not verify the “payee” request</td>
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<table>
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<th>Lack of authentication and access control</th>
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<td>• Privileged / mission critical systems accessible from the Internet</td>
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<tr>
<td>• No multi-factor authentication was in place to protect internet-facing mission critical systems</td>
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';--have i been pwned?

Check if you have an account that has been compromised in a data breach

email address

Demo #2: Have I been hacked?

Generate secure, unique passwords for every account

Learn more at 1Password.com

297
owned websites

5,369,804,192
owned accounts

75,618
paste accounts

82,628,728
paste accounts
Cyber attacks kill chain

1. Initial attack
2. Persistence
3. Privilege escalation
4. Lateral movement
5. Exfiltration/Exploitation

Increasing impact of being hacked by external attacker along kill chain
Four quick tips to enhance cybersecurity posture and get ready for upcoming challenges
FOUR quick tips

Password management and MFA

1
FOUR quick tips

Endpoint hardening
FOUR quick tips

Network segregation

3
FOUR quick tips

Empower our employees to protect their data
Thank you for participating
DALE JOHNSTONE
CHIEF INFORMATION SECURITY OFFICER
CHIEF TECHNOLOGY OFFICE
AXA CHINA REGION INSURANCE COMPANY LIMITED
AXA GENERAL INSURANCE HONG KONG LIMITED
INDUSTRY TRENDS, DEVELOPMENTS, OPPORTUNITIES AND CHALLENGES
BACKGROUND (36 YEARS)

• 1st Role in Security When 15
  › Hacking (Testing) Computer Systems (Pre-Internet)
• Moved to HK in 2000 after being:
  › Commonwealth Government
  › CISO National Crime Authority
  › TELSTRA
  › Local CISO Consultant to Transfield Defence Systems
  › Asia CISO for NATWEST MARKETS
  › Global CISO for QANTAS AIRWAYS
• Hong Kong (18 years)
  › Global CISO Hong Kong Telecom
  › Local CISO Hospital Authority
  › Local CSO AXA Hong Kong
Why Move to Hong Kong?

Likes

Dislikes
CORPORATE CULTURE

EDUCATION / LEARNING ENVIRONMENT

GOVERNMENT APPROACH TO INFORMATION SECURITY

STRENGTHS

WEAKNESSES
SAM GUTHRIE
SENIOR TRADE AND INVESTMENT COMMISSIONER
AUSTRADE HONG KONG
HOW WE ASSIST

Identifying opportunity
Providing insight and information
In-market advice & referral
Identifying decision makers, customers, contacts
Leveraging badge of government to engage customers


• Cloud Expo, 22–23 May 2019 (Cloud, Devops, IoT, Data, Platform, Infrastructure) www.cloudexpoasiahk.com
WANT TO KNOW MORE ABOUT AUSTRADE SERVICES?

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Q & A
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THANK YOU