Information Technology and Broadcasting

Research Office
Legislative Council Secretariat

Statistical Highlights

ISSH06/17-18

Cyber security in Hong Kong

Figure 1 —Total financial losses of cybercrime

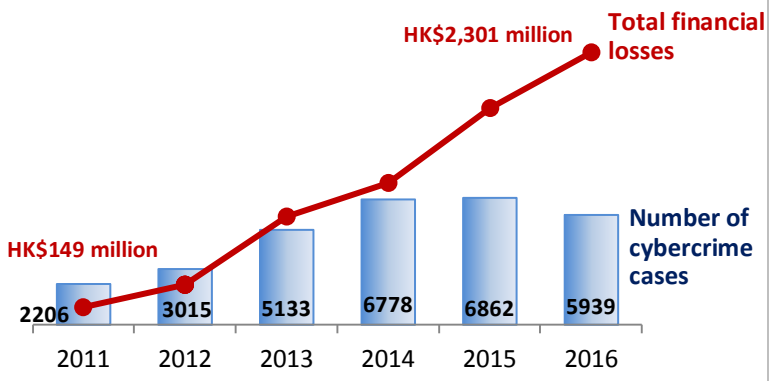
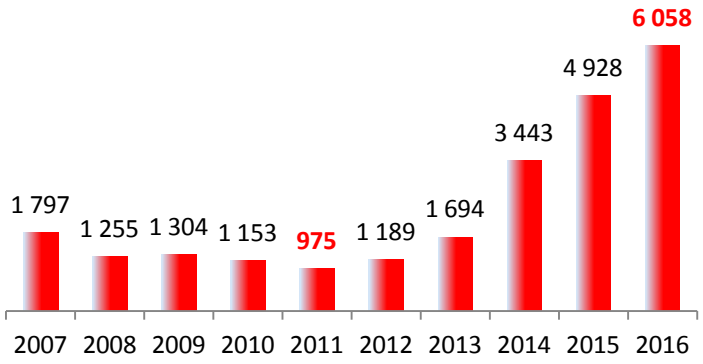


Figure 2 — Cybercrime cases by type

	2011	2013	2015	2016
Online business fraud	888	1 449	1 911	**1 602**
Social media deception	N.A.	261	1 422	**1 150**
Unauthorized access to computer	567	1 986	1 223	**1 107**
Naked chat-related blackmail	N.A.	477	1 098	697
Others	751	960	1 208	1 383
Total	2 206	5 133	6 862	5 939

Figure 3 — Number of IT security incidents*



Note: (*) Cases reported to Hong Kong Computer Emergency Response Team Coordination Centre.

Highlights

- In view of a 207% upsurge in cybercrime in just three years till 2014, the Police established the Cyber Security and Technology Crime Bureau in 2015. While it helped lower cybercrime cases by 13.5% in 2016, total financial losses increased visibly further by 26% to reach a new high at HK$2.3 billion (**Figure 1**). Average financial loss per case even surged by 45% to reach a high at HK$387,400 last year.

- Analysed by type, online business fraud was the largest category of cybercrime in Hong Kong, accounting for 27% of the overall cases in 2016, followed by social media deception at 19% (**Figure 2**). Although unauthorized access to computer was the third largest category (with a share of 19%), it was the largest contributor to the recent surge in the financial loss. In 2016, the financial losses arising from corporate-level email scams under the category of unauthorized access to computers surged by 363% to HK$1.8 billion.

- Separately, there has been a noticeable increase in security risk disrupting confidentiality, integrity and availability of computer systems. The number of information technology ("IT") security incidents has increased by 23% to 6 058 cases in the single year of 2016, and by a total of 521% during 2011-2016 (**Figure 3**).

Figure 4 — Types of IT security incidents in 2015-2016

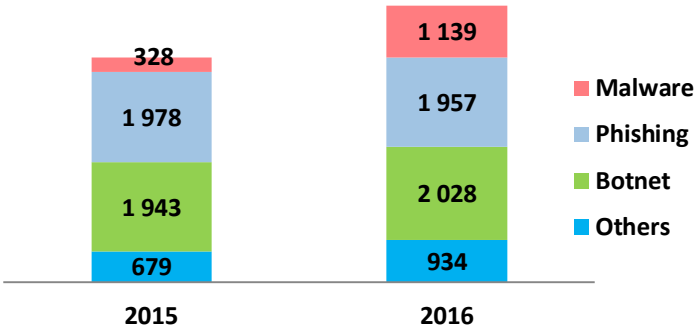


Figure 5 — Number of IT security employees by sector in 2016

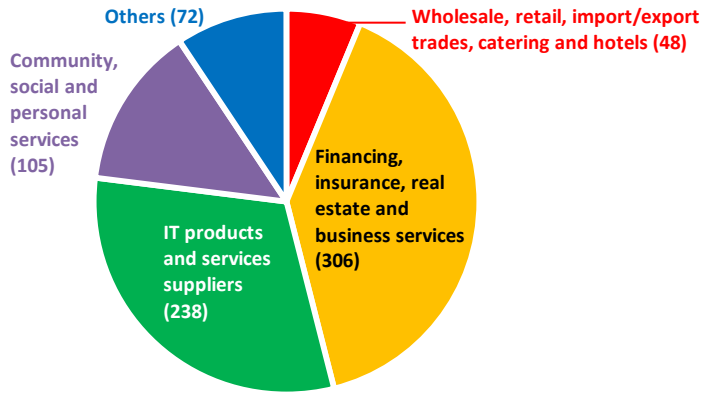
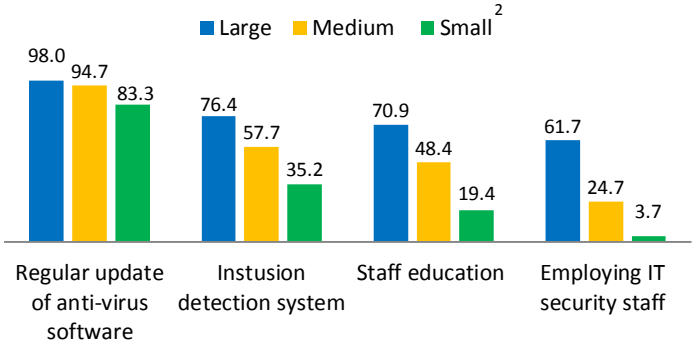


Figure 6 — Selected types of IT security measures adopted by business in 2015 (%)[1]



Notes: (1) % of establishments having adopted IT security measures.
(2) Small establishments are those with nine employees or below, while medium-sized establishments are those with 10-99 employees in manufacturing sector or 10-49 employees in service sectors.

Highlights

- Amongst all IT security risks in 2016, Botnet (i.e. networks of infected computers controlled by hackers) and Phishing (i.e. scam messages to obtain sensitive information) took up 66% of cases (**Figure 4**). More recently, there have been growing concerns over increased malware attacks (i.e. intrusive software causing harm to computers), with a 247% increase to 1 139 cases in 2016. Amongst these malware attacks, 27% involved ransomware (i.e. malware threatening victims to publish their data or block their access to their data unless a ransom is paid).

- In 2016, there were just 769 IT employees specializing in IT security in Hong Kong, representing only 0.9% of all IT employees and suggesting an underestimation of IT security risks in the local community. As the majority (71%) of these IT security specialists were employed in IT, financial and business-related sectors, there are concerns that IT security manpower support to other sectors is rather limited (**Figure 5**).

- By and large, small and medium-sized establishments are more vulnerable to cyber security threats due to resource constraints. According to a survey on business establishments with IT security measures, only 4% of small establishments and 25% of medium-sized establishments had IT security staff, far less than that of large establishments (62%) (**Figure 6**).

Data sources: Latest figures from Census and Statistics Department, Fight Crime Committee, Hong Kong Computer Emergency Response Team Coordination Centre, Hong Kong Police Force and Vocational Training Council.

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