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Panel on Information Technology and Broadcasting

Meeting on 14 March 2016

Updated background brief on information security

Purpose

This paper gives a summary of views and concerns raised by Members during previous discussions on the Government's information security programmes.

Background

2. The objectives of the Government's information security programmes are to formulate and implement information security policies and guidelines for compliance and reference by bureaux and departments ("B/Ds"), ensure that all the Government's information technology ("IT") infrastructure, systems and information are secure and resilient, and promote and enhance the awareness of information security and cyber risks among organizations and members of the public.

3. The Government has launched dedicated programmes to strengthen the security measures of its information systems and Internet infrastructures, and has collaborated with key stakeholders to raise public awareness and knowledge of information security through sharing best practices and guidelines in the following three areas:

  (a) Information security trends and challenges;
  (b) Key initiatives on safeguarding information security; and
  (c) Information security awareness and education programmes.

Information security trends and challenges

4.　　To combat rising incidents of cyber threat, the Administration has implemented projects to safeguard and strengthen the security of its information systems and data assets.　These projects include security risk assessments and audits, technical security solutions, and upgrade of security infrastructures. The Office of the Government Chief Information Officer ("OGCIO") also works proactively with B/Ds to guard against malicious cyber activities and step up defensive efforts to protect the government information systems and data assets.

5.　　To raise public awareness, OGCIO collaborates with the Hong Kong Computer Emergency Response Team Coordination Centre ("HKCERT")[1] and security service providers to gather information on security vulnerabilities and issue timely alerts on malicious cyber activities to the public and private sectors. The Administration also co-ordinates with various stakeholders, including Internet service providers, the Hong Kong Internet Exchange, and the Hong Kong Internet Registration Corporation Limited, to strengthen protection against cyber attacks on critical information infrastructures.

Key initiatives on safeguarding information security

6.　　To enhance information and cyber security within Government, the Administration has implemented the following measures:

(a) strengthening security controls and technical measures, including gathering and analyzing security intelligence and alert and advice B/Ds on emerging threats;

(b) strengthening governance, risk management and the compliance framework by formulating security policies, issuing guidelines on the use of IT within the Government and launching information security compliance monitoring and audit mechanism for B/Ds;

(c) conducting health checks (including vulnerability scanning and penetration tests) on web services and cyber security drills on information security incidents;

(d) enhancing computer emergency response mechanism: OGCIO formed the Hong Kong Government Computer Emergency

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[1] Hong Kong Computer Emergency Response Team Coordination Centre ("HKCERT") is managed by the Hong Kong Productivity Council to co-ordinate computer security incident response for local enterprises and Internet Users.

Response Team in April 2015 to gather information on security threats and centrally co-ordinate incident responses. It also established the Internet Infrastructure Liaison Group to maintain close liaison with Internet infrastructure stakeholders and to sustain the healthy operation of the Internet infrastructure in Hong Kong in collaboration with industry players; and

(e) monitoring and responding to cyber threats and attacks through collaboration among OGCIO, HKCERT and the Hong Kong Police Force ("HKPF").

Information security awareness and education programmes

7. To promote information security awareness and education programmes, the Administration has taken steps to:

(a) enhance capability of government staff through organizing security awareness seminars and training for government IT staff, users and departmental IT security officers;

(b) raise public awareness of information security by reaching out to different target audience (including small and medium enterprises ("SMEs"), information and communications technology practitioners, teachers, students and the general public) and collaborate with the industry players through different publicity channels;

(c) promote information security standards and best practices developed by international standards bodies such as the International Organization for Standardization ("ISO") and the International Electrotechnical Commission to cope with security threats. The Administration also drives the development and adoption of cloud computing through workshops, expert group meetings and the InfoCloud Portal (www.infocloud.gov.hk) to enhance the awareness of cloud computing services and security standards among various stakeholders; and

(d) strengthen local and international collaboration through information sharing sessions with local industry and keeping in close contracts with other governments and global organizations.

Previous discussions

<u>Panel on Information Technology and Broadcasting</u>

8.   At the meeting of the Panel on Information Technology and Broadcasting ("the Panel") on 17 July 2015, the Administration briefed members on the progress and development of the Government's information security programmes since July 2014.   Members' main concerns included the Administration's efforts in reviewing the information technology security policy, combating increasing cyber security threats, raising public awareness of information security as well as nurturing talents.

Review of the information technology security policy

9.   Some members expressed concerns about whether OGCIO's review of IT security policy would include the use of IT outside the Government.   The Administration advised the Panel that the objective of the review was to strengthen information security in the Government, and the review would be conducted in consultation with information security personnel of B/Ds and information security consultants.   The Administration did not intend to extend the scope of the review to cover the information security policy outside the Government.

Increasing cyber security threats

10.   Some members enquired how the Administration planned to deal with the rising trend of security incident reports received by HKCERT.   The Administration advised that:

(a)   the Administration would assist SMEs and individuals in responding to security incidents and doing recovery;

(b)   OGCIO, HKCERT, and HKPF shared cyber security threat information and assist operators of critical information infrastructures to protect their IT facilities;

(c)   OGCIO launched a thematic Cyber Security Information Portal (www.cybersecurity.hk) in January 2015 to provide practical tips and advice, as well as useful tools for the general public to protect their computing devices and websites;

(d)   HKCERT and the Hong Kong Government Computer Emergency Response Team maintained a good co-ordination network with

related parties outside Hong Kong on information security matters;

(e) HKCERT worked closely with software vendors, such as Microsoft, to assist citizens in cleaning up their computers infected by virus and advised service providers to take proactive measures to remind their clients to clean their computers;

(f) the Administration adopted international standards, such as ISO 27001, for creating an information security management system, as well as working with the Hong Kong Applied Science and Technology Research Institute, on the development of technology solutions such as data encryption standards and tools

11.   One member raised the concerns that the Wikileaks had revealed that the Independent Commission Against Corruption had sought information about an encryption-cracking surveillance software from an overseas cyber intelligence firm, and he queried whether the incident reflected existence of loophole in the Government's information security system.

Raising public awareness of information security

12.   Some members expressed concerns about whether the Administration had implemented measures to educate local SMEs on the importance of information security. The Administration advised that it had reached out to different target audience (including SMEs) using different publicity channels. The Administration would provide security information to the public and SMEs through the GovHK Notifications Mobile Application.

13.   One member asked how the Administration educated the public to protect their personal computers and mobile devices. The Administration responded that information and resources on information security, including those on internationally accredited anti-virus software, were available on the Government's InfoSec website (www. infosec.gov.hk) and the Cyber Security Information portal (www.cybersecurity.hk).

Nurturing talents

14.   Some members expressed concern about the shortage of talents in the field of information security and in the IT industry. They suggested that the Administration should conduct forecasts on the longer-term demand for IT and information security talents, and should nurture IT talents to cope with information security threats. The Administration responded that the Vocational Training Council, which conducted annual manpower surveys,

found that the supply of local IT and information security professionals would be sufficient to meet industry demand. The Administration would continue to promote Certified Information Systems Security Professional certification in collaboration with the IT industry.

Latest position

15. The Administration will brief the Panel on 14 March 2016 on the progress and development of the Government's information security programmes.

Relevant papers

16. A list of the relevant papers with their hyperlinks is at:

http://www.legco.gov.hk/yr14-15/english/panels/itb/papers/itb20150717cb4-1212-3-e.pdf
http://www.legco.gov.hk/yr14-15/english/panels/itb/papers/itb20150717cb4-1212-4-e.pdf
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