Implementation of the new Immigration Control System of the Immigration Department

Purpose

This paper provides background information on the implementation of the new Immigration Control System ("ICONS") of the Immigration Department ("ImmD") and summarizes the past discussions of the Panel on Security ("the Panel") and the Finance Committee ("FC") on the subject.

Background

2. According to the Administration, ImmD has since the 1980s been adopting information technology to support its day-to-day operations, including immigration control, personal documentation as well as visa control and enforcement. ImmD formulated its first Information Systems Strategy ("ISS-1") in 1991, followed by the second ISS ("ISS-2")\(^1\) in 1999.

3. ImmD commissioned consultants to conduct the third Information Systems Strategy ("ISS-3") Review in March 2010 with a view to formulating a long-term information systems strategy. The ISS-3 Review recommended that ImmD should revamp its information technology infrastructure ("ITI") to upkeep ImmD's service quality and enhance its handling capacity to cope with the growing service demands. The Panel expressed support for the proposal of ImmD to develop a new ITI and expand the capacity of its data centres at its

\(^{1}\) ISS-2 initiatives were introduced in 1999 and fully implemented in 2009 with a view to empowering the processing capacity of ImmD through the application of the latest information technology.
meeting on 7 November 2011. The ITI project received funding approval from FC on 9 December 2011.

4. Riding on the new ITI, the ISS-3 Review also recommended that ImmD should consolidate and reconstruct its various control point systems into an integrated one, i.e. ICONS, to enhance its service quality and capacity to meet the challenging business requirements. The Panel supported the funding proposal for the implementation of ICONS at its meeting on 4 December 2012, and FC approved a new commitment of $912,215,000 for the project at its meeting on 8 February 2013. ImmD commenced the implementation of ICONS by three phases starting from January 2016.

Members' deliberations

Efficiency and stability of ICONS

5. Members were concerned about the handling capacity of control points to cope with the increasing number of visitors and the immigration clearance time upon the implementation of ICONS. Concern was also raised about the length of service period of ICONS.

6. The Administration advised that the processing time of a multi-purpose e-Channel was 2.5 times faster than that of a traditional immigration counter. Under the proposed system, Hong Kong residents would continue to undergo automated immigration clearance with their smart identity cards. Registered visitors would be able to undergo automated immigration clearance whereas all visitors holding electronic travel documents would be allowed to enjoy automated departure immigration clearance. The upgrading of some e-Channels to multi-purpose e-Channels would enable ImmD to flexibly deploy e-Channel service among Hong Kong residents and visitors according to passenger traffic pattern. The Administration further advised that the capacity of ICONS was based on a projection of 10.75% increase in the number of visitors per year, and the proposed number of e-Channels could cater for the projected passenger throughput up to around 2020. In addition, ICONS was an open platform system which could be procured from the open market and thus could be further expanded to meet the future needs beyond 2020.

7. Noting that in addition to fingerprint verification, face recognition technology would be adopted for automated immigration clearance, some members were concerned about the stability of the e-Channel system. The Administration explained that face recognition technology had reached a high accurate and mature stage, and was widely used in many advanced European countries for automated border clearance purpose. The Administration further
advised that ICONS had enhanced self-diagnosis and anti-spoofing capabilities, and the system contractor was required to conduct an overall examination of ICONS every six months in addition to ImmD's routine checks. The contractor was required to replace defective components once discovered to ensure continuous operation of the system and to minimize system down time for repair and maintenance.

**Data security of new system**

8. Given that ICONs would adopt cloud computing technology in internal information sharing and store large amounts of biometric information of visitors, some members expressed grave concern about the data security of ICONS. They asked whether there were any international guidelines or standards on the storage of personal data collected from visitors undergoing the automated immigration clearance and whether the Administration would provide resources for staff training to reduce human errors in handling such data.

9. The Administration advised that ICONS would be compliant with the existing security requirements as well as international security standards. Information would be encrypted and stored centrally. Secured infrastructure for private cloud computing would be used to ensure a high degree of security protection. Various authentication protocols would be implemented to ensure secured access to different parts of the system. The Administration further explained that collection of visitors' personal data under the automated immigration clearance system, which would be carried out in compliance with the Personal Data (Privacy) Ordinance (Cap. 486) and related Codes of Practice, would be no more than that currently collected at traditional immigration counters. Capture of face images of doubtful visitors by the automated clearance system was permitted under the law for the prevention and detection of crime.

**Impact on staffing resources**

10. Noting that more than 100 new multi-purpose e-Channels would be introduced under ICONS, some members were concerned whether ImmD had sufficient manpower to backup control operations in case of the breakdown of some of the e-Channels. Some members also asked whether the Administration had any plans to deploy more manpower to facilitate passenger clearance at immigration control points in the interim before the implementation of ICONS in early 2016.

11. The Administration advised that ImmD had been deploying its manpower flexibly to cope with the different passenger volumes at different
periods. During peak periods such as long holidays and festive seasons, ImmD would deploy more staff from non-control point sections to reinforce frontline immigration control work on a need basis. It was believed that the increased automation of passenger clearance resulting from the introduction of ICONS would relieve the work pressure on frontline immigration staff. Members were assured that ImmD would closely monitor its manpower situation and seek to increase the frontline strength as appropriate.

**Latest development**

12. Members may wish to note that in its reply to a written question raised at the Council meeting of 29 March 2017 on the capacity and efficiency of immigration clearance at control points, the Administration stated that the first and second phases of the implementation of ICONS were completed in June and October 2016 respectively. They included the upgrade and integration of the hardware and software of various control point systems, the upgrade of all existing e-Channels at control points to multi-purpose e-Channels and the installation of additional multi-purpose e-Channels. Items under the third phase, including the introduction of self-service departure for visitors, would be implemented gradually in 2017-2018.

13. The Administration will brief the Panel on the progress on the implementation of ICONS at the meeting on 5 May 2017.

**Relevant papers**

14. A list of relevant papers available on the website of the Legislative Council is in the *Appendix.*
## Appendix

### Relevant papers on the new immigration control system of the Immigration Department

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