For Discussion on
2 February 2010

Panel on Security of the Legislative Council
Review of e-Channel Service

Introduction

This paper briefs Members on the automated passenger clearance system ("e-Channel service") and its development.

Background

2.   Through the use of smart identity card and fingerprint verification technologies, the e-channel service enables passengers to perform self-service immigration clearance at control points.   The Immigration Department ("ImmD"), in February 2002, commissioned a consultant to study the feasibility of e-Channel service.   The consultant confirmed that the introduction of such service in Hong Kong would substantially enhance passenger handling capacity at control points.   The Finance Committee of the Legislative Council, in January 2003, approved funding for the ImmD to implement the service.

3.   When a resident inserts a smart identity card into an electronic card reader at the gate of an e-Channel, the gate will open following authentication of the encrypted smart identity card key by the computer

system. The user will then enter the e-Channel and place his or her thumb onto a fingerprint scanner. The fingerprint image will then be captured and converted into a template. This will be verified against the template stored in the smart identity card and clearance will be completed if the two templates are matched. The average processing time for immigration clearance using on e-Channel is about 12 seconds.

4. As from December 2004, the ImmD has introduced the e-Channel service at a number of control points. Eligible users include permanent residents aged 11 or above, residents holding a Document of Identity, persons who have the right to land in Hong Kong, and those who are permitted to stay in Hong Kong without being subject to conditions. At present, the ImmD has installed 371 e-Channels at 11 control points. Details are at Annex A.

Developments

Service for Cross-Boundary Students

5. Since December 2007, the e-Channel service at the Lo Wu Control Point has been extended to cross-boundary students under the age of 11 years old but above 1.1 metres tall. E-Channels for use by such students are equipped with lower gates and installed with optical readers for the verification of the travel documents of the students. Students may use such e-Channels following enrolment with the consent of their parents/guardians.

6.   Up to 31 December 2009, 3 200 students have enrolled for such service.

Service for Frequent Visitors

7.   Since May 2008, frequent visitors coming to Hong Kong e-Channel service at the Hong Kong International Airport ("HKIA") following enrolment. Eligible visitors include those who are holders of Hong Kong Special Administrative Region Travel Pass, Asia-Pacific Economic Co-operation Business Travel Card, HKIA Frequent Visitor Card or frequent flyer programme membership card of various airlines.

8.   A visitor using e-Channel is required to place his or her travel document onto an optical reader installed in front of the e-Channel. The visitor may then enter the e-Channel and after verification of his or her fingerprint, a label containing the conditions and limit of stay for the visitors will be printed out (no such label will be printed upon departure).

9.   Up to 31 December 2009, there was 36 000 visitors have enrolled for the service (Annex B).

Pilot Scheme on Express e-Channels

10.   Since March 2009, the ImmD has launched a pilot scheme on Express e-Channel at the Lo Wu Control Point. It aims to provide faster e-Channel service to Hong Kong residents aged 18 or above.

11. To use the Express e-Channel service, a resident has to enrol in advance. During the enrolment process, his or her personal data and fingerprint templates will be retrieved from the chip of identity card and stored in a database at the control point. When the resident uses Express e-Channel, he or she only needs to place the identity card onto an optical reader. The system will read the information on the surface of the identity card and retrieve the relevant data required for clearance from the database at the control point. Since retrieving information from the database at control point is faster, the clearance time can be shortened to eight seconds.

12. To safeguard the security of the personal data involved, the data collected during enrolment will be transmitted via a closed and secure network to back-end servers for storage. All the back-end servers are installed at computer rooms purpose-built in compliance with the relevant security requirements. Only authorised officers (of the rank of Immigration Officer or above) may gain access to the data at designated computer terminals. The system will keep track of the records of all access to the database for security auditing. Moreover, the computer system has protection devices against hacking and intrusion.

13. Enrolment for using Express e-Channel is voluntary. A resident interested to enrol is required to indicate his or her consent to the ImmD, on the screen on an enrolment channel, for the retrieval of his or her personal data from the chip of the identity card and the storage of such data at the database. Upon confirmation, the person will enter the enrolment e-Channel for fingerprint verification as usual. An enrolment office is set up at the Lo Wu Control Point to provide any

necessary assistance to Hong Kong residents on the self-service enrolment process.

14.   Up to 31 December 2009, over 900 000 Hong Kong residents have enrolled for using Express e-Channels (Annex C).

E-Channels for Hong Kong and Macao Residents

15.   Since 10 December 2009, Macao permanent residents may use e-Channels service following enrolment at the Macao Ferry Terminal in Sheung Wan and the China Ferry Terminal in Tsim Sha Tsui. Eligible Hong Kong residents can likewise enjoy automated clearance service in Macao. Holders of valid Hong Kong permanent identity cards aged 11 or above can enrol for the service at Macao Outer Harbour Ferry Terminal or Macao Taipa Ferry Terminal. They may use the service 15 minutes after enrolment. Hong Kong permanent residents aged 18 or above may also use self-service enrolment kiosks set up in Hong Kong. After completion of the enrolment process, an applicant may normally use e-Channel after five working days (the lead time will be shortened to three working days with effect from 1 February 2010).

16.   Up to 31 December 2009, nearly 40 000 Macao residents have enrolled for the Hong Kong e-Channel service. Meanwhile, nearly 65 000 Hong Kong residents have enrolled for the Macao's automated clearance service.

Way forward

17.   The e-Channel service has been well received by the public since its introduction. Over 70% of trips made by Hong Kong residents through control points involve the use of the e-Channels. At Lo Wu which is the most frequently used control point, the rate is 80%.

18.   The ImmD plans to extend the existing e-Channel service, including the installation of more Express e-Channels at the Lo Wu Control Point, and will consider of extending Express e-Channel service to other control points. The ImmD will also further promote the e-Channel service to visitors coming to Hong Kong.

Advice Sought

19.   Members are invited to note the content of the paper.

Security Bureau

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Number of e-Channels at Various Control Points

Control Point	Number
Macau Ferry Terminal	46 (including 4 e-Channels for Macao residents)
China Ferry Terminal	22 (including 4 e-Channels for Macao residents)
Tuen Mun Ferry Terminal	6
Lo Wu	112 (including 6 e-Channels for cross boundary students, 20 Express e-Channels and 8 enrolment e-Channels)
Lok Ma Chau Spur Line	70
Shenzhen Bay	29
Lok Ma Chau	20
Hung Hom	10
Man Kam To	9
Sha Tau Kok	6
Airport	41 (including 10 for frequent visitors)
Total	371

Enrolment Number for Frequent Visitor e-Channels

Month	Number	Cumulative
May 2008	751	751
June	1 557	2 308
July	2 379	4 687
August	1 740	6 427
September	1 630	8 057
October	1 664	9 721
November	1 126	10 847
December	1 566	12 413
January 2009	1 551	13 964
February	1 950	15 914
March	2 029	17 943
April	2 273	20 216
May	2 138	22 354
June	1 976	24 330
July	2 013	26 343
August	2 068	28 411
September	2 030	30 441
October	2 124	32 565
November	1 807	34 372
December	1 739	36 111

Enrolment Number for Express e-Channels

Month (2009)	Number	Cumulative
March	238 464	238 464
April	126 999	365 463
May	87 343	452 806
June	72 942	525 748
July	91 171	616 919
August	81 059	697 978
September	55 959	753 937
October	57 244	811 181
November	45 131	856 312
December	50 139	906 451