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Panel on Security

**Background brief prepared by the Legislative Council Secretariat
for the meeting on 7 November 2011**

**Information systems strategy of
the Immigration Department**

Purpose

This paper provides background information relating to the information systems strategy ("ISS") of the Immigration Department ("ImmD") and summarizes the discussions of the Panel on Security ("the Panel") on the subject.

Background

2.   In 1991, ImmD formulated its first ISS, which was fully implemented in 1995.   According to the Administration, it yielded significant productivity gains and enabled ImmD to delete 613 posts, equivalent to a saving of some $240 million per annum at 1999-2000 price level.

3.   In order to address the changing business environment of ImmD and to meet its long-term business needs, ImmD commissioned a consultancy study to review ISS.   The consultant recommended an updated ISS ("ISS-2") which would enable ImmD to adequately meet the growing demands for public services of higher quality to be delivered at a lower cost in a more responsive manner.   The implementation of ISS-2 was estimated to bring about tangible savings of some $430 million per annum.   This comprised savings of $167 million per annum at 1999-2000 price level arising from the deletion of 425 posts, savings of $23 million per annum in accommodation arising from the conversion of paper records to digital format and redesign of training courses by using computer-based training, and the sustained savings of some $240 million

per annum achieved by the deletion of 613 posts under ISS.   ISS-2 was formulated by ImmD in 1999 and the projects under which were to be implemented in three phases.

4.   On 11 January 2002, the Finance Committee ("FC") approved a new commitment of $362,119,000 for the implementation of Phase I of ISS-2.   FC also approved new commitments of $352,753,000 and $336,845,000 on 24 January 2003 and 14 May 2004 respectively for implementing Phases II and III of ISS-2.   According to the Annual Report on the Implementation of Government Computer Systems for the year ending 31 March 2010 provided by the Administration to FC, the implementation of ISS-2 was completed in 2009-2010.   An extract from the progress report provided by the Administration is in **Appendix I**.

Deliberations of the Panel

5.   The implementation of ISS-2 was discussed at the Panel meetings on 1 November and 6 December 2001, 5 December 2002 and 16 March 2004. The deliberations are summarized in the following paragraphs.

6.   Information was sought on whether measures would be adopted to prevent loss of data arising from failure of the new system and whether there were different levels of restrictions on access of the personnel of ImmD to the electronic records.   According to the Administration, the new system would feature duplex servers and a resilience centre located on the other side of the harbour.   The network would be carefully designed to ensure system security and data integrity.   There would be restrictions on access to the computer system and electronic records according to the nature of work of the respective posts.

7.   Concerns were raised over possible difficulties in finding records of ImmD relating to right of abode ("ROA"); whether the new system would bring about improvement in the storage of records; how ImmD would ensure that records, such as claim of ROA, would not be lost; whether a case number would be assigned to each application; whether an applicant could submit an application for ROA by electronic means and whether ImmD would respond to such an application.

8.   According to the Administration, records would be stored in the form of electronic images under the new system to facilitate retrieval.   It was a practice of ImmD to assign a reference number to each application.   In designing the

new system, ImmD would consider whether a check-list of documents collected from an applicant could be produced by the system for the reference of the applicant. ImmD would answer all enquiries made through electronic mail ("e-mail").

9. There was a suggestion that besides acknowledging receipt of a document, ImmD should also confirm that the document received had been stored in its electronic system. According to the Administration, all documents collected from an applicant would be converted into digital format and stored in the new system, and ImmD would acknowledge receipt of the documents. After an application had been processed, the applicant would be notified of the decision and necessary information would be retained in the system. The new system could incorporate the function of acknowledging receipt of document submitted, if necessary.

10. Members had sought information on the circumstances under which an incoming e-mail would be permanently stored in the new system of ImmD, its legal status under local legislation, and whether it fell within the meaning of a record of ImmD in claims for ROA.

11. According to the Administration, e-mails sent to ImmD would be captured and stored electronically under the proposed system with acknowledgement receipts sent to senders. The Electronic Transactions Ordinance (Cap. 553) provided a general legal basis for the acceptance of electronic submissions and digital signature to satisfy rule of law requirements for information in writing and signature etc., including immigration-related matters. Whether a piece of electronically stored information would constitute a record proving that some other activities had taken place would depend, among other factors, on the overall context and the laws applicable to such activities. In dealing with claims relating to ROA, for example, ImmD had been following, and would continue to follow judgements laid down by the courts.

12. According to the Administration, the length of period in which a piece of electronically stored information was to be retained by ImmD under the present paper/microfilm records system would depend on the nature and possible use of such information. In principle, a piece of electronically stored information would be retained in the system so long as their retrieval might be required for the processing of an application and the taking of follow-up and other actions as might be envisaged. For instance, those related to ROA were permanently kept by ImmD.

Latest development

13. According to the 2010 year-end briefing given by the Director of Immigration, ImmD commissioned an external consultant to conduct a review of ISS-2, with a view to further improving efficiency and delivering better services to the public through judicious use of information technology, from March to September 2010. According to the consultant, ImmD should embark on a new ISS with a view to replacing its existing information systems and information technology infrastructure in the next 10 years.

Relevant papers

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

Council Business Division 2
Legislative Council Secretariat
31 October 2011

Progress Report on Implementation of Information Systems Strategy Plans
Approved under Individual Subheads under CWRF Head 710 as at 31 March 2010

Department	Subhead (Code)	Project Name and Description	Date of Approval	Approved Project Estimate ($M)	Actual Expenditure up to 31.3.2010 ($M)	Scheduled Implementation Date	Any Revision to Scheduled Implementation Date	Achievement / Status
Immigration Department	A033YF	Implementation of phase I of the updated information systems strategy (ISS-2) for the Immigration Department (ImmD) The project comprises the IT Infrastructure Upgrade (ITIU) Programme and the Immigration Control Automation System Enhancement (ICAS-2) Programme. The ITIU Programme aims to put in place a reliable and scalable network to enable ImmD to cope with the increasing workload, and to lay the foundation for implementing various application system projects under the ISS-2. The ICAS-2 Programme aims to maintain the availability and quality of the functions and services provided by the ICAS amidst increasing workload. It will also update the technology platform required to support ImmD's new initiatives to enhance service delivery at control points.	11.1.2002	362.119 **Estimated non-recurrent staff cost ($M at 2009-10 level)** ImmD: 78.202	317.604 **Actual staff cost as at 31.3.2010 ($M at 2009-10 level)** ImmD: 75.772	June 2004	Nil	• The project has been rolled out on schedule and major enhancements were completed by the end of 2009. • For 2009-10, the actual expenditure of $12.672M is 25.3% of the approved provision of $50.063M. The underspending is due to deferment in site work payment and enhancement schedule. • Project implementation has achieved the following benefits: i. the upgraded IT infrastructure catered for the growing operational needs of ImmD as a whole, while the enhanced EXPRESS enabled ImmD to cope with the increasing workload in passenger movements and vehicular traffic at control points; ii. the upgraded IT infrastructure components created a better managed technical environment which laid foundation for implementation of other system projects under the ISS-2, such as the Automated Passenger Clearance System and Automated Vehicle Clearance System as well as the operation of new control points, such as Shenzhen Bay Control Point and Lok Ma Chau Spur Line Control Point. These

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								enhanced systems increased the overall throughput at control points and reduced the waiting time of immigration clearance for the public; iii. the upgraded IT infrastructure enhanced the resilience and reliability of EXPRESS such that the service interruption to the public can be avoided even if there is failure in some parts of the network or application system; and iv. information security was also improved, preventing unauthorized access and hacking into ImmD's network, and safeguarding the information stored in ImmD's systems. • This item has been completed and will be deleted from future annual progress reports.

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Immigration Department	A034YF	Implementation of phase II of the updated information systems strategy (ISS-2) for Immigration Department (ImmD) The project comprises the Automated Passenger Clearance System (APC) and Automated Vehicle Clearance System (AVC). The project objective is to improve the passenger and vehicle throughput at control points by introducing automated immigration clearance processes with the use of smart identity cards and biometrics recognition technology.	24.1.2003	352.753 **Estimated non-recurrent staff cost ($M at 2009-10 level)** ImmD: 61.688	276.656 **Actual staff cost as at 31.3.2010 ($M at 2009-10 level)** ImmD: 61.688	November 2004 – June 2006	December 2004 – May 2006	• The implementation of standard e-Channel for Hong Kong residents was completed in May 2006. A total of 237 APC e-Channels have been installed at 8 immigration control points and another 40 AVC e-Channels at the vehicular control points in Sha Tau Kok, Man Kam To and Lok Ma Chau. • The extension to APC services (APCSII) was implemented to provide self-service clearance facilities to frequent visitors who meet the enrolment criteria. The APCSII had been rolled out at the Airport in May 2008. • The Express e-Channel pilot scheme (10 Express e-Channels and 10 enrolment e-Channels) was rolled out at Lo Wu Control Point in March 2009. Subject to the operational requirement, ImmD will plan to install more Express e-Channels at the Lo Wu Control Point in the coming two years. • For 2009-10, the actual expenditure of $22.11M is 40.9% of the approved provision of $54.033M. The underspending was mainly due to the deferred payment for implementation of APCSII and reprioritization of the enhancement items. • The project has achieved the following benefits: i. the successful implementation of APC and AVC provides better

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								service to the travelling public and improved security and effectiveness of immigration clearance. The throughput among different control points has increased significantly over the years. Shorter waiting time upon immigration clearance is also conducive to the tourism and trade industries of Hong Kong; ii. the APC System makes use of smart card authentication, fingerprint verification and facial recognition technologies to ascertain passenger's identity during self-service immigration clearance. Those technologies are effective in detecting identity card imposters and forgers; iii. the AVC system facilitates cargo flow across the boundary which enhances the development of logistics industry in Hong Kong; and iv. as more Hong Kong residents use APC e-Channel, ImmD can have the flexibility to deploy more resources to serve visitors, which also facilitate the tourism business in Hong Kong. • This item has been completed and will be deleted from future annual progress reports.

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Immigration Department	A036YF	Implementation of phase III of the updated information systems strategy for Immigration Department (ImmD) The project comprises the Application and Investigation Easy System (APPLIES) and the Electronic Records Programme (ERP). APPLIES will enable ImmD to cope with increasing workload and continuous demand for service improvements; achieve productivity improvement; and provide necessary management information for better decision making and resources planning. Specifically, it will – a. allow officers to work in a paperless environment supported by imaging facilities and employ expert system technology to facilitate investigation; b. enable applicants to check the progress of the applications by electronic means; c. integrate standalone systems developed through end user computing to provide better system	14.5.2004	336.845 **Estimated non-recurrent staff cost ($M at 2009-10 level)** ImmD: 98.464*	263.382 **Actual staff cost as at 31.3.2010 ($M at 2009-10 level)** ImmD: 169.287*	May to December 2006 by phases	April to December 2008 by phases	• The project was completed in February 2010. Some follow up activities, such as programme enhancements of APPLIES and the setup of a resilience site for e-Services, are planned to improve the operational efficiency and overall system performance. These activities are targeted for completion in 2012-13. • For 2009-10, the actual expenditure of $137.146M is 81.7% of the approved provision of $167.915M. The underspending is mainly due to the postponement in acceptance of project deliverables and development of enhancement items. • The project has achieved the following benefits: i. the modernized and centralized records system facilitates ImmD to shorten the turnaround time for application processing and record retrieval. Besides, the number of documents that applicants need to furnish can be minimized and the number of their visits to immigration offices can be reduced. In fact, the "one-stop" service is available for most applications. The new system enables ImmD to cope with the growth in workload arising from an increasing number of applications for immigration facilities (such as registration of births, deaths and marriage,

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		support; and d. provide enhanced functionalities to investigation officers including information analysis, data dissemination, operation support, retention control and electronic printing of recognisance forms. ERP will put in place the necessary technical architecture to provide for a paperless environment in ImmD through the employment of imaging, workflow and document management technologies. All references to records, processing of cases and handling of administrative matters can be done on-line under a secure and tight control environment. The modernised mode of records management will further enhance productivity and facilitate green management.						visas, permits, travel passes and nationality matters) as well as increasing expectation from the public on service level; ii. the electronic interface in APPLIES renders support to the implementation of various electronic services of ImmD, including appointment booking of applications, e-submission of applications, e-payment of service fees and communication with ImmD through electronic service delivery channels. As a result, the public can enjoy round-the-clock electronic services provided by ImmD. The public can also check the progress of their applications submitted and obtain information provided by ImmD through electronic means; and iii. digitization of records enables ImmD to move from a paper-driven and constrained workplace to an efficient working environment, improving the efficiency of record retrieval, knowledge sharing and green management. • This item has been completed and will be deleted from future annual progress reports.

* Staff effort met by internal redeployment.

**Relevant papers on the information systems strategy of
the Immigration Department**

Committee	Date of meeting	Paper
Panel on Security	1.11.2001 (Item III)	Agenda Minutes
Panel on Security	6.12.2001 (Item III)	Agenda Minutes
Finance Committee	11.1.2002	Minutes FCR(2001-02)54
Panel on Security	5.12.2002 (Item III)	Agenda Minutes
Finance Committee	24.1.2003	Minutes FCR(2002-03)51
Panel on Security	16.3.2004 (Item IV)	Agenda Minutes
Finance Committee	14.5.2004	Minutes FCR(2004-05)10

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