

## **ITEM FOR FINANCE COMMITTEE**

### **CAPITAL WORKS RESERVE FUND**

#### **HEAD 710 – COMPUTERISATION**

##### **Immigration Department**

##### **New Subhead “Computer Systems for the Immigration Department at the New Control Point for the Lok Ma Chau Terminus of the Sheung Shui to Lok Ma Chau Spur Line”**

Members are invited to approve a new commitment of \$93,289,000 for installing computer systems for the Immigration Department at the new control point for the Lok Ma Chau Terminus of the Sheung Shui to Lok Ma Chau Spur Line.

### **PROBLEM**

We need to install computer systems to support the operation of the Immigration Department (ImmD) at the new control point for the Lok Ma Chau (LMC) Terminus of the Sheung Shui to Lok Ma Chau Spur Line (the Spur Line) scheduled for completion by mid-2007.

### **PROPOSAL**

2. The Director of Immigration, with the support of the Secretary for Security and the Secretary for Commerce, Industry and Technology, proposes to create a new commitment of \$93,289,000 to install computer systems for ImmD at the new control point for the LMC Terminus.

**/JUSTIFICATION .....**

## JUSTIFICATION

### Establishment of a New Control Point at the LMC Terminus

3. On 21 February 2003, the Finance Committee approved vide FCR(2002-03)55 a capital commitment of \$656.5 million in money-of-the-day prices for the essential public infrastructure works for the Spur Line. The scope of the project includes fitting-out, fixtures, and furniture and equipment for cross-boundary facilities for the government portion of the LMC Terminus, including immigration counters.

4. As mentioned in FCR(2002-03)55, we need to seek separate funds under **Head 710 – Computerisation** for ImmD's administrative computer systems for the new control point at the LMC Terminus. Installation of the proposed computer systems is necessary to support the operation of ImmD at the new control point, which is designed to cater for a daily two-way passenger flow of 150 000 and greater passenger volume during weekends and festive periods.

5. Ten computer systems are required to support ImmD's operation at the new control point, including two systems supporting the operation of immigration counters/e-Channels, and eight systems supporting the operation of back offices, as detailed below.

### Systems Supporting the Operation of Counters/e-Channels

6. The two systems required to support the operation of 136 immigration counters (66 traditional counters and 70 self-service e-Channels) at the new control point are the Entry/Exit Processing and Records System (EXPRESS) and the Automated Passenger Clearance (APC) System.

7. EXPRESS supports the process of immigration clearance at all control points, including the implementation of the Easy Travel Scheme under which Hong Kong permanent residents can travel in and out of Hong Kong producing only their Hong Kong identity cards. The optical character recognition (OCR) readers together with the document imaging optical character recognition (DIOCR) readers of the system do away with the need to manually input personal data of holders of Hong Kong identity cards or other machine-readable travel documents by an immigration control officer (ICO) during immigration clearance.

8. The APC System, often referred to as e-Channels, supports immigration clearance through automated means by employing smart card and fingerprint recognition technologies. The e-Channels enable passengers to perform self-service immigration clearance by biometric verification instead of visual inspection by ICO. One ICO can supervise up to five e-Channels.

### **Systems Supporting the Operation of Back Offices at the New Control Point**

9. We also need eight computer systems to support ImmD's back offices at the new control point. Of these, six are required to facilitate the verification of the authenticity of various types of travel documents and further examination of passengers, viz.,

- (a) the Electronic Documentation of Information System on Network (EDISON) for verifying foreign travel documents,
- (b) iPermit System (IPS) for verifying iPermits issued to Taiwan visitors,
- (c) Smart Identity Card System (SMARTICS) for verifying Hong Kong identity cards,
- (d) Travel Document Information System (TDIS) for verifying HKSAR passports, Documents of Identity for Visa Purposes, Re-entry Permits and Seaman's Identity Books,
- (e) the Application and Investigation Easy System (APPLIES) for handling investigation cases and checking the application status of visas, permits and travel passes for the passengers concerned on a real-time basis, and
- (f) System Investigation Information System (SIIS) for accessing up-to-date intelligence relating to syndicate crime, human smuggling and forgery cases.

10. The remaining two are required to support administrative work, viz.,

- (a) the Government Office Automation (GOA) System for providing an effective and efficient means for communication in electronic form between the new control point and other offices, and
- (b) the Electronic Administrative Records Keeping System (EARKS) for facilitating the processing, maintenance and storage of administrative records, such as personnel records.

Encl. 11. The functions and key components of each of the ten computer systems are at the Enclosure.

## FINANCIAL IMPLICATIONS

### Non-recurrent expenditure

12. We estimate that the installation of the computer systems required by ImmD for the new control point, viz., EXPRESS, APC, EDISON, IPS, SMARTICS, TDIS, APPLIES, SIIS, GOA and EARKS, will require a total non-recurrent expenditure of \$93,289,000 over a three-year period from 2005-06 to 2007-08, broken down as follows –

	2005-06 \$'000	2006-07 \$'000	2007-08 \$'000	Total \$'000
(a) Hardware and software	-	-	69,370	69,370
(b) Implementation and contract staff services	93	1,515	11,899	13,507
(c) Site preparation	-	770	278	1,048
(d) Communication network	-	-	730	730
(e) Consumables and miscellaneous	-	-	337	337
(f) Contingency	9	229	8,059	8,297
<b>Total</b>	<b>102</b>	<b>2,514</b>	<b>90,673</b>	<b>93,289</b>

13. As regards paragraph 12(a), the expenditure of \$69,370,000 is for acquisition of hardware and software for the implementation of the required computer systems including mid-range servers, workstations, load balancers, security related components, OCR/DIOCR readers, APC auto-gates and equipment.

14. As regards paragraph 12(b), the expenditure of \$13,507,000 is for acquisition of services from external service providers and contract staff to implement the project. Main activities include system configuration, system delivery, system testing and provision of technical support.

15. As regards paragraph 12(c), the expenditure of \$1,048,000 is for site preparation including installation of e-Channels, data ports and power points as well as trunking and cabling works.

16. As regards paragraph 12(d), the expenditure of \$730,000 is for installation of communication network.

17. As regards paragraph 12(e), the expenditure of \$337,000 is for acquisition of start-up consumables such as backup tapes and toner cartridges.

18. As regards paragraph 12(f), the expenditure of \$8,297,000 represents an approximately 10% contingency on the cost items set out in paragraphs 12(a) to (e).

#### **Other non-recurrent expenditure**

19. The implementation of EXPRESS and APC System will entail an additional non-recurrent expenditure of \$3,624,000 for both system development and implementation. The cost breakdown is as follows –

	<b>2005-06</b>	<b>2006-07</b>	<b>2007-08</b>	<b>Total</b>
	<b>\$'000</b>	<b>\$'000</b>	<b>\$'000</b>	<b>\$'000</b>
Staff cost	505	2,544	575	3,624
<b>Total</b>	<b>505</b>	<b>2,544</b>	<b>575</b>	<b>3,624</b>

20. As regards paragraph 19, the expenditure of \$3,624,000 represents the staff cost of immigration service grade and information technology (IT) professional grade staff for setting up a project team. It comprises 33 man-months of immigration service grade staff (involving one Senior Immigration Officer and two Immigration Officer posts) and 15 man-months of IT professional grade staff (involving one Senior Systems Manager and one Systems Manager posts). The project team will be responsible for development and implementation of the EXPRESS and APC System including monitoring the performance of the external service providers and project activities like system development, site preparation, installation support as well as performing system acceptance/user acceptance/load tests, etc.. ImmD will absorb the non-recurrent staffing requirement from within its own resources.

**/Recurrent .....**

**Recurrent expenditure**

21. We estimate that additional recurrent expenditure arising from the computer systems required by ImmD for the new control point is \$12,754,000 per annum as from 2008-09, as set out below –

	<b>2008-09 and onwards \$'000</b>
(a) Hardware and software maintenance	9,896
(b) System support and maintenance services	1,089
(c) Communication network rental	1,002
(d) Consumables	307
	<b>Sub-total 12,294</b>
(e) Staff cost	460
	<b>Total 12,754</b>

22. As regards paragraph 21(a), the annual expenditure of \$9,896,000 is for hardware and software maintenance as well as software licence fees to support the computer systems required.

23. As regards paragraph 21(b), the annual expenditure of \$1,089,000 is for system support and maintenance services provided by external service providers for the computer systems including the EXPRESS and APC System.

24. As regards paragraph 21(c), the annual expenditure of \$1,002,000 is for rental of communication and data lines.

25. As regards paragraph 21(d), the annual expenditure of \$307,000 is for acquisition of consumables such as backup tapes and toner cartridges.

26. As regards paragraph 21(e), the annual expenditure of \$460,000 represents the recurrent staff cost of seven man-months of immigration service grade staff (involving one Senior Immigration Officer and one Immigration Officer posts). They will be responsible for providing additional on-going support and maintenance of the computer systems. ImmD will absorb the recurrent staffing requirement from within its own resources.

## IMPLEMENTATION PLAN

27. The proposed implementation plan is as follows –

<b>Activity</b>	<b>Timing</b>
Procurement	December 2005 to November 2006
System development	May 2006 to December 2006
Cabling, installation and commissioning	October 2006 to February 2007
System acceptance test	January 2007 to March 2007
System roll-out	To be ready before the commissioning of the Spur Line by mid-2007

## BACKGROUND INFORMATION

28. We circulated a paper to the [Legislative Council Panel on Security on 1 March 2005](#) to brief Members on the funding proposal for installing computer systems to support the operation of ImmD at the new control point at the LMC Terminus. Members noted the paper and had not raised any comments on the proposal.

**Brief Description of Computer Systems  
for the Immigration Department at the New Control Point for  
the Lok Ma Chau Terminus  
of the Sheung Shui to Lok Ma Chau Spur Line**

**Systems supporting the operation of counters and e-Channels**

*Entry/Exit Processing and Records System (EXPRESS)*

- EXPRESS supports the process of immigration clearance at counters (including the implementation of the Easy Travel Scheme under which Hong Kong permanent residents can travel in and out of Hong Kong producing only their Hong Kong identity cards).
- At the new control point, apart from supervisor terminals, EXPRESS workstations with optical character recognition readers and document imaging optical character recognition readers will be installed at counters to support the traditional type of immigration clearance.

*Automated Passenger Clearance (APC) System*

- APC System supports self-service immigration clearance by employing smart card and fingerprint recognition technologies.
- At the new control point, e-Channels (comprising entrance and exit door gates, sensors, industrial personal computers, smart card readers, fingerprint scanners, Liquid Crystal Display monitors, etc.) will be set up to enable self-service immigration clearance. To monitor the traffic flow at the e-Channels, equipment (including CCTV system, Digital Video Recording System, etc.) will also be installed in the two Command Offices.

**Systems supporting the operation of back offices at the new control point**

*Electronic Documentation of Information System on Network (EDISON)*

- EDISON is a data storage and retrieval system that keeps an archive of high quality colour images featuring the security characteristics of various types of travel documents.
- At the new control point, EDISON workstations will be installed to facilitate immigration officers to detect forged foreign travel documents by providing high-resolution colour digitised images of genuine travel document specimens stored in the system.



### ***iPermit System (IPS)***

- IPS supports the processing of applications for visit permits submitted by residents of Taiwan and issuing of visit permits to them through electronic means and the related record management.
- At the new control point, IPS workstations will be installed to enable on-line record checks so as to help verifying iPermits issued to Taiwan visitors.

### ***Smart Identity Card System (SMARTICS)***

- SMARTICS supports the processing, personalisation and issuing of Hong Kong smart identity cards and the related record management.
- At the new control point, SMARTICS workstations will be installed to enable on-line record checks so as to help verifying the authenticity of Hong Kong identity cards held by passengers.

### ***Travel Document Information System (TDIS)***

- TDIS supports the processing, printing and issuing of HKSAR passports, Documents of Identity for Visa Purposes, Re-entry Permits and Seaman's Identity Books and the related record management.
- At the new control point, TDIS workstations will be installed to enable on-line record checks so as to help verifying the authenticity of HKSAR passports, Documents of Identity for Visa Purposes, Re-entry Permits and Seaman's Identity Books held by passengers.

### ***Application and Investigation Easy System (APPLIES)***

- APPLIES is an electronic records system which supports the handling of investigation cases and applications for visas, permits, travel passes, etc. and the related record management through electronic means.
- At the new control point, APPLIES workstations will be installed to help handling investigation cases and to enable on-line record checks of the application status of visas, permits and travel passes relating to the passengers concerned on a real-time basis.

***System Investigation Information System (SIIS)***

- SIIS stores a database of up-to-date intelligence relating to syndicate crime, human smuggling and forgery cases.
- At the new control point, SIIS workstations will be installed to enable speedy access to intelligence relating to syndicate crime, human smuggling and forgery cases.

***Government Office Automation (GOA) System***

- GOA System provides an effective and efficient means for file and mail exchanges in electronic form between GOA users.
- At the new control point, GOA workstations and administrative network will be installed to provide an effective and efficient means for communication in electronic form between the new control point and other offices.

***Electronic Administrative Records Keeping System (EARKS)***

- EARKS is an electronic records system which supports the handling of administrative matters and the related record management through electronic means.
- At the new control point, EARKS will run on the GOA workstations to automate the processing, maintenance and storage of administrative records, such as general circulars and personnel records.

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