

ITEM FOR FINANCE COMMITTEE

CAPITAL WORKS RESERVE FUND

HEAD 710 – COMPUTERISATION

Immigration Department

New Subhead “Computer Systems at Control Points”

Members are invited to approve a new commitment of \$168,548,000 for installing computer systems at control points under the Immigration Department.

PROBLEM

The Immigration Department (ImmD) needs to install computer systems for supporting its operation at the control point at the Hong Kong-Zhuhai-Macao Bridge (HZMB) Hong Kong Boundary Crossing Facilities (HKBCF).

PROPOSAL

2. The Director of Immigration, with the support of the Secretary for Security and the Government Chief Information Officer, proposes to create a new commitment of \$168,548,000 to install computer systems for ImmD at the HZMB HKBCF or other ImmD control points.

JUSTIFICATION

Immigration clearance at control points

3. Currently, ImmD provides immigration clearance services for passengers entering or leaving Hong Kong by air, land or sea at 12 existing control points¹. Passengers can go to one of the traditional immigration counters at these

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¹ The 12 control points are: (a) the Hong Kong International Airport; (b) three Ferry Terminals (China Ferry Terminal, Macau Ferry Terminal, Tuen Mun Ferry Terminal); (c) Kai Tak Cruise Terminal; (d) three rail control points (Lo Wu, Hung Hom, Lok Ma Chau Spur Line); (e) four vehicular control points (Man Kam To, Lok Ma Chau, Sha Tau Kok, Shenzhen Bay). Other than these 12 control points, ImmD also provides immigration clearance for incoming and outgoing vessels by the Harbour Control Unit and at the River Trade Terminal.

control points for immigration clearance services. Hong Kong permanent residents and other eligible Hong Kong residents and visitors may also make use of e-Channels which provide more efficient immigration clearance services. At the four existing vehicular control points, vehicular kiosks are installed for providing immigration clearance services to cross-boundary passengers and drivers. Whilst some vehicular kiosks are manned, other kiosks are automated with e-Channels installed for eligible Hong Kong cross-boundary drivers who have previously enrolled for the service.

New control points to be established

4. As in other existing control points, ImmD needs to install various computer systems at new control points to support its operations and provision of immigration clearance services for in- and out-bound passengers and vehicles.

5. According to the Government's latest assessment, the HZMB HKBCF is anticipated to be completed by end 2017. At the HZMB HKBCF, passenger arrival and departure clearance will be conducted at the Passenger Clearance Building while vehicular clearance will be conducted at vehicular kiosks. For private car drivers and passengers, their arrival and departure clearance can also be conducted at the Passenger Clearance Annexure.

6. Based on available passenger and vehicular traffic projections², we consider that up to a total of 73 e-Channels, 96 traditional immigration counters and 72 vehicular kiosks³ will be required at the new HZMB HKBCF in the first ten years after its commissioning for the clearance of in- and out-bound passengers and vehicles (including goods vehicles, private cars and coaches) (see also paragraph 24 below).

7. To optimise the use of public resources, we propose to deploy any surplus computer equipment within the above planning ceilings (arising from less than estimated passenger and vehicular traffic or other unforeseen reasons) to cope with possible need for replacement of equipment identified at existing and/or new control points as and when appropriate.

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² According to the Transport and Housing Bureau (THB), based on the assessment of the Feasibility Study of the HZMB project, the number of daily in and out-bound cross boundary vehicles and passengers using HZMB is projected to be 9 200 to 14 000 and 55 850 to 69 200 respectively upon commissioning. ImmD's assessment on the number of e-Channels, traditional immigration counters and vehicular kiosks required is based on such traffic projection.

³ Up to 40 vehicular kiosks will be equipped with vehicular e-Channels.

8. The immigration clearance services provided at the above traditional immigration counters, e-Channels and vehicular kiosks are supported by the Immigration Control System (ICONS)⁴ and various computer systems.

Computer systems supporting immigration clearance services

Immigration Control System (ICONS)

9. Since January 2016, ICONS is being implemented by phase at all control points to support the operation of traditional immigration counters, e-Channels and vehicular kiosks. ICONS is going to replace the existing sets of control point systems⁵ which supports the highly demanding round-the-clock immigration clearance services for the heavy passenger and vehicular traffic at various control points. For traditional immigration counters and manned vehicular kiosks, workstations with supporting peripherals (such as document readers, landing slip printers, etc.) are installed. When a passenger or driver presents himself / herself for immigration clearance, ICONS will facilitate ImmD staff to conduct record checks and update passenger movement records accordingly.

10. Apart from traditional immigration counters, e-Channels (including vehicular e-Channels) are also a key component of ICONS, enabling passengers to perform self-service immigration clearance. When a passenger presents himself / herself for clearance at e-Channels, his or her biometric information (i.e. fingerprints) is captured for identity verification purpose. On top of the fingerprints recognition, a new face recognition technology will also be introduced by mid-2017, allowing visitors holding electronic travel documents to perform self-service departure clearance at e-Channels. ICONS, in particular e-Channels, enables ImmD to maintain effective and efficient immigration control and provide facilitation to visitors in general.

Other computer systems

11. Other computer systems at existing control points are also essential for ImmD staff to perform immigration clearance duties, including verifying the authenticity of various types of travel documents and conducting further examination of passengers. These systems include –

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⁴ The Finance Committee approved a capital commitment of \$912.22 million for the implementation of the new ICONS on 8 February 2013. See FCR(2012-13)67.

⁵ The then existing set of control point systems comprised the Entry/Exit Processing and Records System (EXPRESS), Automated Passenger and Vehicle Clearance Systems (APVCS/e-Channels), Face Recognition System (FACES) as well as Deployment Information and Command System (DICS).

- (a) the Electronic Documentation of Information System on Network, 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. It facilitates ImmD to detect forged foreign travel documents by providing high-resolution colour digitised images of genuine travel document specimens stored in the system;
- (b) the Application and Investigation Easy System, an electronic records system that supports the handling of investigation cases and applications for visas, permits, travel passes, etc. It enables real-time on-line record checks of the application status of visas, permits and travel passes relating to passengers concerned;
- (c) the Smart Identity Card System, a system that supports the processing, personalisation and issuing of smart Hong Kong identity cards (HKICs) and the related record management. It enables on-line record checks to help ImmD verify the authenticity of HKICs presented by passengers and the identities of passengers; and
- (d) the Electronic Passport System, a system that supports the processing, personalisation and issuing of Hong Kong Special Administrative Region (HKSAR) travel documents and the related record management. It allows ImmD to conduct on-line record check on HKSAR travel documents presented by passengers.

12. Apart from the above, there are other administrative computer systems to support speedy communication and dissemination of information both within ImmD and with other bureaux and departments; and to automate the handling of administrative records and documents through electronic means. They include –

- (a) the Government Office Automation System, a system that enables speedy communication and dissemination of information through electronic means. It provides an effective and efficient means for file and mail exchanges in electronic form between control points and other offices; and
- (b) the Electronic Records (Administrative) System, an electronic records and document management system that supports the handling of administrative records through electronic means. It automates the processing, maintenance and storage of administrative records.

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13. The implementation of ICONS and six other computer systems at new control points is essential to providing un-interrupted quality and mission-critical immigration clearance services at the new control points upon commissioning in support of Hong Kong's leading position as an international trade and tourism hub.

FINANCIAL IMPLICATIONS

Capital expenditure

14. It is estimated that the proposed project to be implemented by phase will incur a total capital expenditure of \$168,548,000 over five financial years from 2016-17 to 2020-21. An indicative breakdown is as follows –

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Items	2016-17	2017-18	2018-19	2019-20 #	2020-21#	Total
(a) Hardware	-	12,982	62,981	686	11,658	88,307
(b) Software	-	2,785	10,760	91	1,536	15,172
(c) Communication Network	14	317	-	-	-	331
(d) Implementation and Contract Staff Services	427	7,037	25,110	817	3,782	37,173
(e) Site Preparation	109	5,483	4,434	1,108	1,108	12,242
(f) Contingency	55	2,861	10,329	270	1,808	15,323
Total	605	31,465	113,614	2,972	19,892	168,548

Subject to review nearer the time, based on actual growth in traffic and passenger volume by then.

15. On paragraph 14(a) above, the estimated expenditure of \$88.31 million is for acquisition of computer hardware for system infrastructure (such as system servers, network equipment, storage system, etc.) and front-end operations (such as workstations, e-Channel equipment, etc.).

16. On paragraph 14(b) above, the estimated expenditure of \$15.17 million is for acquisition of system and application software.

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17. On paragraph 14(c) above, the estimated expenditure of \$331,000 is for installation of communication network.

18. On paragraph 14(d) above, the estimated expenditure of \$37.17 million is for acquisition of implementation services from external service providers and contract staff, including system analysis and design, development, testing and installation, etc.

19. On paragraph 14(e) above, the estimated expenditure of \$12.24 million is for site preparation, including computer room facilities, data ports and power points as well as trunking and cabling works.

20. On paragraph 14(f) above, the estimated expenditure of \$15.32 million represents a 10% contingency on the cost items set out in paragraphs 14 (a) to 14(e).

Other non-recurrent expenditure

21. The implementation of the proposed project will require a dedicated team for project management, procurement of hardware, software and services, system analysis and design, site preparation, user acceptance tests, implementation support, etc. This will entail an estimated non-recurrent staff cost of some \$11 million from 2016-17 to 2017-18. ImmD will review the staffing requirement nearer the time and include the provision in the Estimates of the respective years.

Recurrent expenditure

22. The proposed project will entail an indicative annual recurrent expenditure of \$273,000 in 2017-18, increasing to \$24.61 million from 2021-22 onwards, assuming full implementation by then. This expenditure covers the costs of hardware and software maintenance, communication network, system maintenance service and additional staffing required. Such requirements will be reflected in the Estimates of the relevant years, with the following breakdown –

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Items	2017-18	2018-19	2019-20	2020-21#	2021-22 and onwards#
(a) Hardware and Software Maintenance	-	4,214	15,076	15,827	18,081
(b) Communication Network	138	328	328	328	328
(c) System Maintenance Service	-	1,251	4,781	5,001	5,659
(d) Staff Cost	135	539	539	539	539
Total	273	6,332	20,724	21,695	24,607

Subject to review nearer the time, based on actual growth in traffic and passenger volume by then.

IMPLEMENTATION PLAN

23. Subject to Finance Committee (FC)'s approval of the proposed new commitment and the latest advice from Highways Department (HyD) on the progress of the HZMB HKBCF nearer the time, we plan to implement the proposed project according to the following schedule –

Activity	Target Completion Date
Tendering	Fourth quarter 2016
System Development and Implementation	
System Analysis and Design	First quarter 2017
System Development and Testing	Second quarter 2017
User Acceptance Test	Third quarter 2017
System Installation	Fourth quarter 2017
Production Roll-out	
Stage 1	Fourth quarter 2017
Stage 2#	Fourth quarter 2019 C

Subject to review nearer the time, based on actual growth in traffic and passenger volume by then.

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24. For Stage 1 implementation, ImmD plans to install 53 e-Channels and 68 traditional immigration counters for the clearance of in- and out-bound passengers. In addition, 40 vehicular kiosks (with 28 equipped with vehicular e-Channels) is planned to be constructed for the clearance of in- and out-bound vehicles (including goods vehicles, private cars and coaches)⁶. Subject to review nearer the time based on actual growth in traffic and passenger volume, ImmD will proceed to Stage 2 implementation by installing the remaining 20 e-Channels, 28 traditional immigration counters, as well as 32 vehicular kiosks (with 12 equipped with vehicular e-Channels).

25. We will liaise closely with HyD on the progress of the development of HZMB HKBCF. Sufficient flexibility will be built into the contract for allowing phased implementation and/or flexible deployment of computer resources to other new or existing control points as appropriate for optimization of resources.

PUBLIC CONSULTATION

26. We consulted the Legislative Council (LegCo) Panel on Security on 3 May 2016. The Panel supported the proposal and its submission to the FC for funding approval.

BACKGROUND

27. On 18 November 2011, the FC of the LegCo approved the funding of \$30,433.9 million in money-of-the-day prices for the construction of the HZMB HKBCF⁷. As mentioned in the said funding proposal, separate funding from the FC for installing computer systems to support ImmD's operation at the HZMB HKBCF will be sought under the Capital Works Reserve Fund Head 710 – Computerisation⁸.

Security Bureau
June 2016

⁶ According to THB, based on the assessment of the Feasibility Study of the HZMB project, the number of daily in and out-bound cross boundary vehicles and passengers using HZMB is projected to be 9 200 to 14 000 and 55 850 to 69 200 respectively upon commissioning. ImmD's assessment on the number of e-Channels, traditional immigration counters and vehicular kiosks required is based on such traffic projection.

⁷ FC further approved an increase of the project estimate from \$30,433.9 million to \$35,895.0 million in money-of-the-day prices on 30 January 2016. See FCR(2015-16)45.

⁸ See footnote 10 of PSWC(2011-12)30.