For discussion
on 10 April 2008

Legislative Council Panel on Security

Redevelopment of the Personnel Information Communal System of the Hong Kong Police Force

PURPOSE

This paper seeks Members' support for the proposal to redevelop the Personnel Information Communal System (PICS) of the Hong Kong Police Force (HKPF) into a new strategic human resources (HR) planning and decision-support system.

BACKGROUND

2. On 29 January 1993 and 19 July 1996, the Finance Committee approved a commitment of $299.370 million (later revised to $289.770 million) and an increase in commitment of $66.000 million respectively for the implementation of the Information Technology Strategy of the HKPF. Under this strategy, the PICS was launched in 1997 as part of the Force Administrative Support Systems. Together with its satellite systems[1], the PICS is used for managing the HR records of about 36 000 regular, auxiliary and civilian officers in the HKPF and the administration of personnel matters within the HKPF.

CONSTRAINTS OF THE EXISTING PICS

3. The PICS faces the following system problems and limitations –

(a) The PICS is approaching the end of its serviceable life. Certain key system components (e.g. central processing unit, memory modules and disks) are out of production and the maintenance costs of the PICS and the satellite systems are expected to rise by 50% from $0.302 million to $0.453

[1] The satellite systems include Quartering and Housing System, Holiday Home Information System, Trust and Fund System, Leave Recording and Enquiry System, Health Impaired Officer Automation System, Discipline Office Automation System, Police Indebtedness Management System and E-Junior Police Officer Annual Report Form System.

million a year. It is also increasingly difficult to find technical personnel with the necessary expertise to service the system.

(b) The existing PICS, originally designed as an HR data storage and retrieval system, does not have the necessary analytical and decision-support capabilities to identify officers of suitable competency for posting and operational deployment. Nor does it allow the identification and analysis of the professional skills, knowledge gaps and training needs of individual officers and special units in the HKPF.

(c) The obsolescent technical design of the existing PICS inhibits the development of electronic HR services (e.g. electronic applications and enquiry service for HR matters). Nor does it allow access from home by the HKPF officers to their own personnel records.

(d) As the electronic reports generated from the PICS (e.g. personnel records of officers) do not fully meet the requirements of the Electronic Transactions Ordinance (Cap. 553) and the Evidence Ordinance (Cap. 8), they cannot be directly used in legal proceedings. Extra manual efforts are therefore incurred for preparing and maintaining paper records for such purpose.

(e) The system limitations of the PICS and its satellite systems inhibit the adoption of the latest system security measures to better protect the data stored in these databases.

THE PROPOSED SYSTEM

4. We propose to replace the existing PICS and its satellite systems with a new system that will better meet the HKPF's HR management needs. The new system will have the following improved functions –

(a) The new system will have a comprehensive competency-based database of all officers in the HKPF. The database will provide information on the functional competency (e.g. investigation of domestic violence cases, major event policing, technology crime investigation, intelligence

analysis and bomb disposal skills), psychological competency (e.g. skills on crisis management, conflict management and counselling) and qualifications competency (e.g. accredited qualifications in information security, HR management and forensic science) of individual officers. This would facilitate analysis of the professional skills, knowledge gaps and training needs of individual officers and special units in the HKPF, as well as identification of appropriate measures to maintain the professionalism and efficiency of the HKPF.

(b) The comprehensive competency-based database and HR decision-support functions of the new system will facilitate the efficient matching of the skills and talents of police officers with different policing requirements, thus enabling effective deployment of talents with the relevant expertise and work experience to the appropriate headquarters units and districts/divisions. This will assist the effective implementation of various community policing strategies. Various new functions and analysis reports will also be developed for police commanders at all levels to proactively manage and analyse the policing competencies and training needs of frontline officers, with reference to the prevailing crime trends and patterns in local areas and other policing requirements. The redeveloped PICS will thus be instrumental to raising the professional standard of policing services to the community.

(c) e-HR self-services will be provided under a user-centric environment through a one-stop e-HR portal. Individual officers can access their personal profile and manage and plan their HR needs (e.g. applying for posting and transfer, making leave application and leave enquiries, etc.) conveniently at work and securely at home via web technology.

(d) The redeveloped PICS will have advanced security features such as digital signature, data encryption and enhanced access control and administration. The improved security features will ensure better protection of HR data in the new system. The reports and records generated from the new system will also meet the requirements under the Electronic Transactions Ordinance (Cap. 553) and the Evidence

Ordinance (Cap. 8), and can be used for legal proceedings as appropriate.

ANTICIPATED BENEFITS OF THE NEW SYSTEM

5. The new system will bring the following benefits –

(a) With its workforce analysis and people-oriented manpower planning tools using the competency approach, the new system will facilitate the monitoring and timely development of talents and expertise in specialised fields so as to meet the policing needs of the community as well as the longer term development and succession planning of the HKPF.

(b) The decision-support capability of the system will improve the HKPF's capability in identifying and tasking officers with the right skills to handle diversified and complicated policing problems and to address the specific needs of local communities.

(c) The e-HR self-services will improve internal work efficiency. Paper consumption will also be reduced as a result, hence improving green management.

(d) The introduction of enhanced security measures will not only provide better protection to the system and the data stored therein, but also enable the reports and records generated from the system to meet legal requirements for admissibility in court proceedings.

6. The proposal to redevelop the PICS has the support of the Office of the Government Chief Information Officer (OGCIO). OGCIO also notes that certain HR management functions of the proposed system have the potential to become common HR management applications for adoption by other bureaux/departments.

FINANCIAL IMPLICATIONS

Non-recurrent Expenditure

7. We estimate that the total non-recurrent cost of the project will be $57.600 million over a period of four years from 2008-09 to 2011-12, of which $49.812 million will be capital expenditure, $5.038 million for staff training and project management, and $2.750 million for contingency. A breakdown is at **Annex A**. The project will also entail an additional non-recurrent staff cost of $12.909 million, which represents a total of 162 man-months of Police officers and information technology staff for collecting user requirements, planning and monitoring the project, quality assurance, user acceptance and change management. The HKPF will absorb the additional non-recurrent staff cost through internal redeployment.

Recurrent Expenditure

8. The estimated recurrent cost for the proposed system is $1.674 million in a full year from 2013-14 onwards, which will be absorbed by the HKPF within its existing resources. This includes $0.826 million for hardware maintenance and $0.848 million for software maintenance. A breakdown is at **Annex B**.

Cost Savings / Avoidance

9. We expect that the proposed redeveloped PICS will bring about total savings of $14.390 million in a full year with effect from 2016-17, comprising –

(a) realisable savings of $1.823 million a year of which $1.515 million is the recurrent staff savings of four posts and $0.308 million is the annual savings in departmental expenses such as maintenance cost of the existing system;

(b) notional savings of $6.125 million a year, achieved through more efficient processes, including the reduction in staff requirement for processing leave applications and internal transfers, identification of suitable officers for various policing tasks and preparing personnel records for legal proceedings. There will also be Force-wide savings of the time that officers currently spend on HR matters during office hours; and

(c) cost avoidance of $6.442 million a year, arising mainly from avoidance of additional storage space for staff reports and staff time required for training and conducting system security checks.

The notional savings in manpower will be internally re-deployed for handling an increasing number of public requests on personal data under Personal Data (Privacy) Ordinance (Cap. 486), implementation of Occupational Safety and Health initiatives, facilitating staff in attending duty-related training, etc.

IMPLEMENTATION PLAN

10. Subject to Members' views, we plan to seek funding approval from the Finance Committee in May 2008 with a view to implementing the proposed system by 2011. A tentative implementation schedule is at **Annex C**.

Security Bureau
Hong Kong Police Force
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Annex A

Non-recurrent Expenditure for the Proposed System

	Cost Item	2008-09 $'000	2009-10 $'000	2010-11 $'000	2011-12 $'000	Total $'000
(a)	Hardware including servers, smart card readers for digital signature	-	-	1,700	4,244	5,944
(b)	Software including operating system, database management system, reporting tools, key management software, etc.	-	-	2,878	2,130	5,008
(c)	System development and implementation services to redevelop and consolidate PICS and its satellite systems, to enhance system security, to develop new functions for career planning with competency model and for manpower and succession planning	-	-	7,304	29,216	36,520
(d)	Data conversion and migration	-	-	-	2,340	2,340
(e)	Contract staff services for management and necessary support for overall project implementation	125	1,000	1,000	885	3,010
(f)	Provision of user training	-	-	-	2,028	2,028
(g)	Contingency (5% of (a) – (f) above)	6	50	650	2,044	2,750
	Total :	**131**	**1,050**	**13,532**	**42,887**	**57,600**

Annex B

Recurrent Expenditure for the Proposed System [Note]

	Cost Item	2012-13 $'000	2013-14 onwards $'000
(a)	Hardware maintenance for servers and smart card readers	235	826
(b)	Software licence and subscription fee as well as support for the system software, database management software, reporting tool and key management software	489	848
	Total:	**724**	**1,674**

[Note] The project also entails recurrent staff cost of $3.900 million a year, representing 77 man-months of IT staff and 24 man-months of police/executive officer for providing on-going system administration services to the proposed system, which is the same amount as that for the existing PICS. This will be met by redeploying existing staff efforts in the administration of the existing PICS and its satellite systems.

Annex C

Tentative Implementation Schedule of the Redevelopment of the PICS

	Activity	Start Date	End Date
(a)	Tender and specification preparation	June 2008	May 2009
(b)	Tendering and award of contract	June 2009	November 2009
(c)	System analysis and design	December 2009	May 2010
(d)	System development, customisation, data conversion and testing	June 2010	April 2011
(e)	User acceptance test and training	May 2011	August 2011
(f)	System roll-out	September 2011	December 2011