

For discussion on
12 April 2016

Legislative Council Panel on Security

Replacement and Enhancement of the Closed Circuit Television Systems for Pak Sha Wan Correctional Institution and Siu Lam Psychiatric Centre

PURPOSE

This paper consults the Panel on the proposal to replace and enhance the closed circuit television (CCTV) systems for Pak Sha Wan Correctional Institution (PSWCI) and Siu Lam Psychiatric Centre (SLPC).

BACKGROUND

2. The Correctional Services Department (CSD) is committed to providing a secure, safe, humane, decent and healthy environment for persons in custody (PICs). Most of the correctional facilities in Hong Kong were either aged or converted from buildings originally used for other purposes. Therefore, it is necessary to enhance the security installations or systems in order to strengthen institutional security. A reliable and secure CCTV system is necessary in each correctional facility to monitor the behaviour of individual PICs, support the operation of institutions, ensure the safety of correctional staff and PICs and maintain institutional security.

3. The existing analogue CCTV system at PSWCI, a medium security institution, was installed more than ten years ago. Meanwhile, the existing CCTV system at SLPC, a maximum security institution, consists of three analogue sub-systems monitoring different areas in the institution. These sub-systems were installed at different times over ten years ago.

4. According to the Electrical and Mechanical Services Department (EMSD), all components of the existing CCTV systems at PSWCI and SLPC have been in use beyond their serviceable life and their performance deteriorates notably. To maintain the normal operation, it is necessary to carry out maintenance work regularly to replace the cameras and video storage system, etc. of the existing CCTV systems. Since the CCTV systems were set up largely according to the technological standards of ten-odd years ago, the videos captured are of unsatisfactory quality and could only provide black and white images in some circumstances. Moreover, the retention period of these

video recordings is 14 days only due to the limited storage capacity. It is necessary to enhance the security installations in order to strengthen institutional security.

PROPOSAL FOR REPLACING AND ENHANCING THE CCTV SYSTEMS FOR PSWCI AND SLPC

5. CSD proposes to replace and enhance the existing analogue CCTV systems at PSWCI and SLPC with new digital systems. The proposal includes installation of approximately 900 high resolution cameras to cover the institutional areas at PSWCI and SLPC (except offices and specific areas such as shower rooms, toilets and sick bays in PSWCI and SLPC). With the introduction of CCTV systems with video analytical function at security sensitive locations such as restricted areas, any intruding objects close to human body temperature in these areas will be identified by the systems which will then generate alert messages for the operating staff to take contingency measures. The level of security in restricted areas will therefore be further enhanced. Each system will also be installed with server, video storage system, network equipment and uninterrupted power supply.

JUSTIFICATIONS FOR THE PROPOSAL

6. CSD proposes to fully replace and enhance the CCTV systems at PSWCI and SLPC for the following justifications –

- (i) Enhancing the system configuration and improving the quality and storage capacity of video recordings

The existing systems and cameras of PSWCI and SLPC have been in operation for a long time. The resolution of the cameras is low and the video recordings are not clear enough; the image quality of stored images fade with time; the image refreshes at a comparatively slow rate resulting in the video being unable to be played smoothly; and there are considerable limits in the video storage capacity of the systems that the recordings can only be retained for 14 days. At the end of 2012¹, the Coroner's Court recommended that without intruding into personal privacy, CSD should enhance the coverage of CCTV system within the

¹ In an inquest into the death of a person in custody, the Coroner's Court commented that the video recordings made by the CCTV at correctional institutions were not clear enough due to their low resolution and the coverage was not sufficiently extensive.

areas of correctional institutions, improve the image resolution and introduce the use of coloured images. Furthermore, during the investigation of another case², the Office of The Ombudsman also recommended that CSD should retain the video recordings for not less than 30 days.

CSD proposes to install new CCTV systems at the two correctional institutions to provide better images with higher resolution and the video recordings will be clear enough for facial identification of the person captured therein. Moreover, the recordings can be retained for up to 31 days³ and the design of open digital CCTV system will be adopted. Recording and storage mechanisms will be standardised and re-configurable to suit the latest operational standards and changing operational needs. The operational efficiency can also be enhanced by the automation features provided in the new systems.

(ii) Rectifying the maintenance problems arising from the ageing system

According to the recommendation of EMSD, the normal service life of the existing analogue CCTV systems is 8 to 10 years for CCTV cameras and around 6 years for video storage systems. However, the analogue CCTV systems in PSWCI and SLPC have been operating for over 17 and 14 years respectively. Therefore, the frequent breakdown and repair of cameras, video storage systems and other components will adversely affect the operation and security of the two institutions.

After the replacement of the systems, the frequency of system malfunctioning due to the ageing problem can be reduced. Moreover, the new open systems will meet the international industry standards for more cost-effective maintenance services.

(iii) Extending the system coverage and efficiency in surveillance

Since the existing CCTV systems at PSWCI and SLPC only cover part of the institutions, the coverage of the systems is considered

² In the investigation into a complaint, the Office of The Ombudsman commented that the 14-day retention period for audio or video recording was not adequate and recommended that CSD should review its procedural guideline on retention and disposal of files and records.

³ Regarding the retention of the CCTV data, CSD has made reference to the practice adopted by the Hong Kong Police Force in retaining CCTV data obtained at police stations and also the standards stipulated in the guidelines provided by the police of the United Kingdom for users of CCTV systems. In deciding on the retention period of 31 days, CSD has given due consideration of the recommendation made by the Office of The Ombudsman with regard to retaining the recordings for not less than 30 days.

inadequate.

In the light of the current circumstances and the recommendation of the Coroner's Court mentioned at paragraph 6(i) above, the proposed procurement of the new CCTV systems will cover all areas accessible by PICs (except toilets, shower rooms and sick bays etc.) in order to provide a more comprehensive coverage so as to enhance the effectiveness of surveillance. Moreover, in security sensitive areas (such as areas in the proximity of the protective walls of SLPC and perimeter fence of PSWCI), the sub-systems installed will be equipped with video analytical function.

FINANCIAL IMPLICATIONS

Non-recurrent Cost

7. The estimated total non-recurrent cost for replacing and enhancing the CCTV systems at PSWCI and SLPC is \$51.546 million. The detailed breakdown is as follows –

	\$ million
	<u>Sub-total</u>
(a) Builders and building services works for server & control rooms	12.576
(b) CCTV cameras ⁴	9.240
(c) Control and surveillance system ⁵	5.390
(d) Video storage system	4.060
(e) Network and cabling system ⁶	4.280
(f) Infrastructure and associated building services ⁷	5.330
(g) Electrical and Mechanical Services Trading Fund (EMSTF) project management services ⁸	6.570

⁴ Including the procurement of some 900 sets of CCTV cameras at PSWCI and SLPC, including those to be installed at security sensitive locations which will have a video analytic function.

⁵ Including the procurement of workstation computers, display panels and video management sub-systems.

⁶ Including the procurement of network equipment, such as core switches, edge switches, network supporting units, and the carrying out of the associated cabling works.

⁷ Including the procurement of support infrastructure facilities/building services works.

⁸ The services provided by EMSTF include the preparation of tender documents, tender evaluation, approval of contractor's design submissions, monitoring of contractor's installation, acceptance tests, and co-ordination with various government departments and the contractor during the project.

(h) Contingencies (approximately 10% of items (a) to (f) above)	4.100
Total	51.546 (in money-of-the-day prices)

8. The estimated cash flow requirement is as follows –

Year	\$ million
	<u>Sub-total</u>
2016-17	2.685
2017-18	3.497
2018-19	4.097
2019-20	16.691
2020-21	24.576
Total	51.546

Recurrent Expenditure

9. We estimate that after the new CCTV systems are put into use in PSWCI and SLPC, the relevant annual recurrent cost (including expenses on maintenance, equipment spare parts and electricity tariffs etc.) will be around \$4.61 million.

IMPLEMENTATION PLAN

10. Subject to Members' comments on the proposal, we plan to seek funding approval from the Finance Committee as soon as possible. Assuming that funding approval from the Finance Committee could be secured within this legislative session, the tentative implementation timetable is as follows –

Activity	Target Date of Completion
(a) Project planning, system design/tender preparation	April 2017
(b) Tendering and award of contract	October 2017

Activity	Target Date of Completion
(c) Approval of system design	January 2018
(d) Manufacturing of equipment, delivery and site work preparation	July 2018
(e) Installation and building service works	January 2020
(f) Acceptance test and training	March 2020
(g) System commissioning	April 2020

11. The above schedule was drawn up with reference to previous experience and the advice of EMSTF. As the said projects will cover all areas of the two institutions, the installation and replacement works will be carried out by phases so as to accommodate the normal operation of the two institutions. During the installation period, CSD will ensure that the operation of PSWCI and SLPC will remain unaffected.

ADVICE SOUGHT

12. Members are invited to comment on the above proposal.

Security Bureau
Correctional Services Department
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