

**For discussion on
4 January 2011**

Legislative Council Panel on Security

**Replacement of the Case Processing System
of the Customs and Excise Department**

Purpose

This paper seeks Members' support for the Customs and Excise Department (C&ED) to implement the replacement of its Case Processing System (CAPS) with a view to providing a more efficient, reliable and secure case processing service.

Background

2. C&ED set up CAPS early in December 2001 to support the processing of cases¹, i.e. handling information relating to arrested persons, seized articles and prosecution matters from case creation to closure. At present, CAPS supports about 900 workstations of C&ED and 1 700 users, including operational officers, investigators, members of prosecution offices and management, etc. The major functions supported by CAPS include –

- (a) Information reporting – handling and dissemination of information collected from public complaints, informants and other law enforcement agencies to the relevant officers for follow-up actions;
- (b) Investigation processing – maintenance of investigation findings, reporting of investigation progress, application for background information checks and collating the results of such checks;
- (c) Case processing – maintenance of case information (including the recording of details on arrested persons and seized articles), preparation of case papers for police bail, initiation of summons

¹ A case refers to a formal criminal investigation by C&ED.

or formal charging, and generation of relevant case reports;

- (d) Prosecution – preparation of documents for confiscation of the seized articles and recording of court rulings; and
- (e) Management of seized articles – recording of movement information of seized articles from receipt to disposal, and maintenance of the inventory records for the seizure stores.

3. In 2009, CAPS processed a total of 13 470 active investigation files and handled a total of 32 041 cases, involving 13 619 arrested persons and about \$942 million worth of seized articles.

The Need for Replacing CAPS

4. To ensure the computer systems of C&ED will be able to cope with changing operational needs and future developments, C&ED formulated a strategic plan for its computer systems in accordance with the recommendations of a consultancy study. The recommendations, which aim to enhance the overall functionalities and benefits of the computer systems of C&ED, mainly include the development of new Customs centralised information technology infrastructure, and the replacement of the Air Cargo Clearance System (ACCS) and CAPS.

5. C&ED obtained the approval from the Finance Committee (FC) of the Legislative Council (LegCo) to develop Customs centralised information technology infrastructure and replace ACCS in February and May 2009 respectively. Upon detailed examination of the business processes of case processing, C&ED considers it necessary to enhance the functionalities of CAPS as summarised below –

- (a) the need to strengthen the automation of case processing with a view to replacing the current hybrid operational mode of using both CAPS and paper files, and to minimise the need to handle the management of seized articles in manual mode as far as possible in order to enhance efficiency;
- (b) the need to integrate CAPS with other C&ED computer systems with a view to facilitate information sharing;
- (c) the need to replace certain technologies in the existing system, such as improving the Document Management System (DMS)

for more effective keeping and processing of electronic records, as well as maintaining proper indexing and retrieval of case documents; adding analysis tools in order to better support investigation and report generation; and

- (d) the need to strengthen the security technology of the existing system in order to further enhance data protection and system security.

Proposal

6. With the support of the Office of the Government Chief Information Officer, C&ED proposes to enhance CAPS in the following aspects –

- (a) to replace ageing servers and associated software while continuing to use compatible parts of the existing CAPS;
- (b) to enhance automation of case processing by using a single platform to connect to electronic records in other C&ED computer systems with a view to enhance operational efficiency in document input, information storage, information reporting, investigation processing, case processing, prosecution and seizure management;
- (c) to strengthen investigation analysis and case management control by adding computerised analysis tools and latest DMS technology; and
- (d) to enhance overall system security by adopting centralised Storage Area Network with encryption capability for proper storage and transmission of all relevant data and supporting documents. Furthermore, digital certificates will be used for user authentication for deposit or retrieval of seized articles in the seizure stores.

Anticipated Benefits

7. The replaced CAPS will bring the following benefits -

- (a) To ensure sustainable system operation

System components with the latest technology will be incorporated in the new system to cope with evolving operational needs. The major components of the existing CAPS of C&ED have been in use for nearly ten years, and the maintenance for these major components and the support service for spare parts will cease in 2013. Timely replacement of the system can maintain the normal operation of CAPS and ensure continued system availability.

- (b) To enhance operational efficiency of management of seized articles

With the replaced CAPS, C&ED officers can more efficiently process information of seizure receipts, registers and labels via electronic means and avoid possible errors stemming from repetitive manual entries of information. Further, the replaced system can reduce the manual efforts and time required for information entry. The need to check and correct inconsistencies in paper records of seizure management due to human writing errors will no longer be necessary. Upon full computerisation of the seizure management module, C&ED officers can also record details for disposal of all seized articles into the system directly and immediately, which in return shorten the turnaround time in seizure disposal cycle by at least four working days.

- (c) To strengthen investigation analysis

With the introduction of computerised analysis tools into the replaced CAPS, C&ED officers can analyse the information collected during the investigation more systematically (such as identifying correlations among different cases) so as to enhance investigative powers and better support the decision-making process.

- (d) To enhance management control for case processing

Management applications will be provided by the replaced CAPS to keep the relevant officers better informed of the overall caseload and case progress under their purview with a view to more effective analysis and planning. Exceptional cases will also be highlighted for management attention and

necessary actions.

- (e) To minimise the number of deferred payment cases

The replaced CAPS will integrate with another system (namely the Customs Control System) to support e-payment on excessive dutiable commodities carried by arrival passengers at C&ED control points, allowing passengers with insufficient cash or no cheque in hand to pay the required duty immediately. It is estimated that about 1 400 deferred payment cases can be reduced a year.

- (f) To facilitate information sharing

The replaced CAPS will be able to store all case information and send files electronically. Apart from helping achieve a paperless working environment and reducing the amount of time required for parallel processing of both paper and electronic files, an efficient and immediate sharing of information through CAPS will allow C&ED officers to promptly review investigation findings. We estimate that about 14 000 manual dispatch of files can be obviated with the transmission of files through CAPS. Besides, as CAPS is equipped with extraction, copying and sorting functions, relevant C&ED officers will also be able to print documents directly from the system, hence saving time in preparing trial document bundles for court cases. While strengthening information sharing, C&ED will ensure that stringent security functions to be employed, especially during the transmission of sensitive case information.

8. Notwithstanding the enhanced operational effectiveness for C&ED in case processing brought by the replacement, we will endeavour to provide a safe and reliable CAPS with proper safeguards for protecting data privacy and system security.

Financial Implications

Non-recurrent Expenditure

9. We estimate that the replacement will incur a total

non-recurrent expenditure of \$45.720 million over a period of three years from 2011-12 to 2013-14. A detailed breakdown is set out at **Annex A**.

10. In addition, overseeing procurement, system development and implementation will entail a non-recurrent staff cost of \$7.220 million, which will be absorbed within C&ED's existing resources.

Recurrent Expenditure

11. We estimate that, after the free warranty period of the hardware of the new system expires in 2015 by phases, the recurrent expenditure required for the entire proposal will be \$10.148 million a year from 2015-16 onwards. This includes the maintenance of computer hardware and software, on-going system support and administration services, rental of communication lines and procurement of consumables. A detailed breakdown is set out at **Annex B**. C&ED will absorb the relevant expenditure within its existing resources.

Cost savings/Avoidance

12. We estimate that the successful replacement of CAPS will bring about a realisable savings of \$7.134 million a year, mainly from savings in the maintenance cost of the existing system. The savings will be used to absorb some of the recurrent expenditure of the replacement.

13. Apart from realisable savings, we estimate that there will be a total notional savings of \$10.114 million a year, mainly due to staff savings as a result of the reduction of manual efforts for conducting investigation analysis, seizure management, and preparing trial document bundles and management reports.

14. With the savings in manpower after the replacement of CAPS, C&ED will internally re-deploy the staff concerned to undertake other duties such as mounting special operations on passenger and cargo clearance, conducting investigation, stepping up risk management and handling prosecution cases.

Advice Sought

15. Subject to Members' views on this proposal, we plan to seek

funding approval from the LegCo FC in early 2011. Subject to FC's funding approval , we will commence the replacement of CAPS in April 2011 in accordance with the timetable as set out at **Annex C**.

Security Bureau
Customs and Excise Department
December 2010

**Non-recurrent Expenditure Required for the
Proposed Replacement of Case Processing System**

Expenditure Item	\$ '000			
	2011-12	2012-13	2013-14	Total
(a) Hardware	150	9,477	1,147	10,774
(b) Software	150	11,075	0	11,225
(c) Implementation services	3,690	10,995	3,269	17,954
(d) Site preparation	0	100	0	100
(e) Communication lines	0	88	60	148
(f) Consumables and miscellaneous	6	1,334	23	1,363
(g) Contingency	399	3,307	450	4,156
Total	4,395	36,376	4,949	45,720

**Recurrent Expenditure Required for the
Proposed Replacement of Case Processing System**

Expenditure Item	\$ '000		
	2013-14	2014-15	2015-16 onwards
(a) Hardware maintenance	568	634	1,365
(b) Software maintenance	2,492	2,492	2,492
(c) On-going system support and administration	5,501	5,501	5,501
(d) Communication lines	350	350	350
(e) Consumables and miscellaneous	440	440	440
Total	9,351	9,417	10,148

**Implementation Plan for the
Proposed Replacement of Case Processing System**

Activity	Target completion date
System analysis and design	August 2011
Procurement and system development	December 2012
User acceptance test	March 2013
System roll-out	May 2013