

**For discussion
on 8 December 2008**

LEGCO PANEL ON WELFARE SERVICES

Replacement of the Computerised Social Security System of the Social Welfare Department

PURPOSE

This paper briefs Members on the proposal to replace the Computerised Social Security System (CSSS) of the Social Welfare Department (SWD).

BACKGROUND

2. The existing CSSS, which was launched in 2000, is a mission-critical computer system of SWD to support the operation of social security schemes, namely the Comprehensive Social Security Assistance Scheme, Social Security Allowance Scheme, Fee Assistance Scheme, Traffic Accident Victims Assistance Scheme, Criminal and Law Enforcement Injuries Compensation Scheme and Emergency Relief Fund. The total number of recipients under the social security schemes as at September 2008 was close to 1.1 million. Based on the 2008-09 original estimate, the total expenditure of these schemes is estimated to be \$23.4 billion in the year, representing 68% of SWD's annual budget.

3. The CSSS provides on-line support for about 2 100 SWD staff operating the social security schemes at 74 service sites of SWD. It provides functions to cater for on-line input of data and case details as well as retrieval of information, processing applications, investigation, assessment, authorisation and issue of payments. The number of payment transactions processed and delivered through the system is over 1 million per month. The system also provides management information to facilitate service monitoring and policy analysis and reviews, and has the capability to effect changes in policy and operation of social security services.

JUSTIFICATIONS

Need to Replace the Existing System

4. By March 2011, the existing CSSS will reach the end of its serviceable lifespan of ten years. While the system adopted proven technology at the time of implementation, a number of design features and capabilities are no longer adequate, particularly with the advancement in information technology. At the time of implementation, since there was no tool or product in the market that could fulfill the business requirements in full, a purpose-built approach was adopted on the basis of the workflow at that time. The fixed sequence of assessment processes and hard-coded rules make the system inflexible, and any change in the workflow would require considerable efforts and time. Moreover, due to the tightly coupled architecture, a minor amendment in one area would affect many other areas.

5. Since its launching, both the hardware and software of the system have undergone enhancements for improvement in capacity and security and implementation of new policy initiatives. In spite of these efforts, the existing CSSS has inherent limitations to keep pace with the development of and changes in the social security schemes. The system has become less efficient. A long lead time is needed to implement new policy initiatives, such as additional payments, introduction of new types of allowances/supplements, etc. There is inadequate support for sharing and exchanging information with other government departments, and the inter-departmental data matching and checking have to be conducted retrospectively. The system does not have the capability to support provision of e-services to the public.

6. Furthermore, the 10-year maintenance contract of the existing CSSS will expire in March 2011. Some of the hardware and software in use by the system have already become obsolete. There is an urgent need to either upgrade or replace the system in order to maintain smooth administration of the social security schemes.

Proposed System

7. In November 2006, SWD commissioned a consultant to conduct a feasibility study to identify the inadequacies of the system and to propose solutions. Having regard to the architecture of the existing CSSS, the gap between the existing CSSS and the future requirements, and the need to maintain the smooth operation of the existing CSSS during the implementation period, the

consultant concluded that the existing CSSS should be replaced by a new system as even a major upgrade would not bring about any benefits in terms of cost or time and would incur more technical risks.

8. As recommended in the feasibility study, the new CSSS will be developed by using Service-Oriented Architecture which is an approach and design pattern based on open and industry standard technology. The future CSSS will be split into different components and modules so that while the components and modules are integrated, they will not be tightly coupled so as to allow for independent modification and configurable workflow. In addition to performing the full range of functions of the existing CSSS, the new system will be equipped with the following additional functions –

- (a) e-services such as online enquiry, eligibility check, application, etc through the Internet;
- (b) scanning and management facility for documents and papers relating to applications, reviews and investigations; and
- (c) mobile computing facilities for home visits.

ANTICIPATED BENEFITS

Intangible Benefits

9. With the improvements stated in paragraph 8 above, the new system will bring about benefits in the administration of social security schemes in the following major aspects –

(a) *Operational Efficiency*

(i) Implementation of New Policy Initiatives

With a flexible architecture based on components and modules, the efforts and time required for implementing new policy initiatives will be reduced. It is anticipated that the future CSSS will have an average improvement of 10% to 30% in the efforts and time required for implementing new initiatives.

(ii) Integrated Case Management

The new CSSS will incorporate separate computer systems developed for the Support for Self-reliance Scheme Section, the Special Investigation Section and the Risk Management Section so that case information will be integrated and shared by social security staff for the purposes of investigation, assessment and authorisation of payment under social security schemes.

(iii) Data Sharing and Exchange Support

The new CSSS will support information sharing and exchange with other government departments through standardised mechanism on a common platform. Verification of data will be more efficient and effective.

(iv) Document Management

At present, physical copies of case documents are kept and centrally stored. In retrieving these documents, physical delivery has to be arranged. The new CSSS will be equipped with imaging capabilities to provide online storage and retrieval of the electronic copy of the scanned documents. Storage, retrieval and transfer of information will be more efficient. Moreover, more than one social security staff can have access to the same piece of information at the same time, thus improving the efficiency of workflow.

(v) Mobile Computing Facility

The new CSSS will provide facility for the use of wireless and mobile devices so that staff will be better supported in their field work. There will also be benefits in workplace arrangement as there would be more flexibility in setting up or relocating service units/offices.

(vi) Monitoring of Service

The new CSSS will be equipped with tools to support analyses and to provide alert or warning messages on anomalies. This would enhance detection and prevention of

errors, fraud and abuse. There will be more effective monitoring of service quality.

(vii) Management Information

The new CSSS will be designed and constructed to facilitate multi-dimensional trend and impact analysis. Management information can be more efficiently provided for statistical reports and policy reviews.

(b) Customer Services

- (i) With the integration of the separate systems into the new CSSS and the provision of capability to store and retrieve scanned documents, the new system will provide better on-line support for processing applications and reviews. Social security staff will be better equipped with data and information of the cases through the system and less dependent on paper documents so that cases will be processed more efficiently to better serve the customers.
- (ii) The new CSSS will be able to support the provision of services through the Internet to improve the accessibility of social security services so as to provide convenience to customers. As a first step, self-service facility can be provided to the public for submission of application and preliminary checking of eligibility for the social security schemes with inputting of data on family and financial situation. In a longer run, the new CSSS can possibly proceed to include e-services that would require authentication such as reporting changes and online enquiry of case information.

Tangible Benefits

10. We estimate that the proposed replacement of CSSS will generate annual savings of \$81,630,000 from 2014-15 onwards, comprising –

- (a) realisable savings of \$47,065,000. These are the recurrent system maintenance costs of the existing CSSS, and staff effort which will no longer be required when the new CSSS goes live. The savings will be ploughed back to cover part of the recurrent costs of the new CSSS; and

- (b) notional savings of \$34,565,000. With the improvements brought about by the new CSSS, notional savings will be achieved mainly through reduction in staff effort required for various activities, such as handling of recipients' enquiries and reduced manual efforts in data matching.

FINANCIAL IMPLICATIONS

Non-recurrent Expenditure

11. We estimate that the implementation of the proposal will incur a non-recurrent cost of \$386,139,000 over a period of three years from 2009-10 to 2011-12. The cost breakdown of the non-recurrent expenditure is set out at Annex.

12. The proposal also entails non-recurrent staff costs of \$39,712,000 to cover the time-limited resources for the formation of a project team for 34 months from April 2009 to January 2012 to take forward the project.

Recurrent Expenditure

13. We estimate that the recurrent expenditure for maintaining and supporting the new CSSS is \$61,808,000 per annum as from 2015-16, which will be partly met by the realisable savings of the proposed replacement of CSSS mentioned in paragraph 10(a) above. The remainder will be absorbed by SWD from within its existing resources.

Implementation Plan

14. The new CSSS will be implemented in three phases. The first phase will cover the setting up of the infrastructure, platform and application system so as to take over the existing CSSS. In the second phase, the improved functionalities of the management information system and information exchange/sharing system will be implemented. In the third phase, the e-services functionalities will be enabled. The planned implementation timetable is as follows –

	Activity	Target completion date
(a)	Tendering for the implementation of the new CSSS	July 2009
(b)	Development of the new CSSS – Phase 1 (New CSSS goes live)	July 2011
(c)	Development of the new CSSS – Phase 2	October 2011
(d)	Development of the new CSSS – Phase 3	January 2012

WAY FORWARD

15. Subject to Members' views, we plan to seek the Finance Committee's approval for the proposal in January 2009.

ADVICE SOUGHT

16. Members are invited to note and comment on the proposed replacement of the existing CSSS.

**Labour and Welfare Bureau
Social Welfare Department
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Annex

Non-recurrent Expenditure of the proposed Replacement of CSSS

Expenditure	Purpose	Amount (\$'000)
(a) Hardware	Acquisition of computer hardware, including computer servers, network equipment, desktop and notebook computers and other information processing equipment.	69,536
(b) Software	Acquisition of system software, including operating systems, database licenses and personal computer software.	49,849
(c) Communication Network	Installation of communication lines connecting the data centres and various SWD service units.	5,137
(d) Implementation	The contract out services to provide system development and implementation.	208,130
(e) Contract Staff	Hiring technical contract staff to provide project management services for the system development and implementation.	14,850
(f) Site Preparation	Trunking, cabling and installation of power sockets at SWD service units and data centres.	15,288
(g) Training	Provision of staff training on applications of the new CSSS.	4,461
(h) Consumables	Acquisition of consumables such as toner cartridges, CDs, papers and backup tapes.	500
(i) Contingency	5% of the above expenditure items.	18,388
Total :		386,139