For discussion
on 18 December 2009

FCR(2009-2010)45

ITEM FOR FINANCE COMMITTEE

HEAD 112 - LEGISLATIVE COUNCIL COMMISSION
Subhead 885 Legislative Council Commission
New Item "Integration and Application of Information Technology in the New Legislative Council Complex"

Members are invited to approve a new commitment of $99,018,000 for implementing the integration and application of information technology in the new Legislative Council Complex at Tamar.

PROBLEM

The existing information technology (IT) system of the Legislative Council (LegCo) is outdated and scattered in four buildings. LegCo needs to build an integrated IT infrastructure, migrate existing applications systems, and install new application systems[1] to support the business operation of LegCo.

PROPOSAL

2. The Secretary General of Legislative Council Secretariat, with the support of the Government Chief Information Officer, proposes to create a new commitment of $99,018,000 to implement an IT system in the new LegCo Complex at Tamar and to enhance or replace certain essential application systems before relocation.

/JUSTIFICATION .....

[1] The IT system refers to servers, data network, internet/intranet, and various infrastructural and software application systems for maintaining IT services in the new LegCo Complex which are not covered by the main contract of the Tamar Project.

JUSTIFICATION

IT Strategic Development Plan

3. To prepare for the relocation to the new LegCo Complex and to meet its long-term business need, Legislative Council Commission (LCC) approved in December 2008 the conduct of the Information Systems Strategic Plan (ISSP) Study. The Study is carried out by IT specialists from the private sector, under the supervision of LegCo's Project Team for the new LegCo Complex.

4. The ISSP Study is divided into two phases. The main focus of the first phase, which was completed in mid 2009, concerns the setting up of a new IT environment, including the establishment of IT infrastructure, systems migration and the implementation of applications which are essential to the core operation of LegCo business. With the benefit of the Study, the working team for the ISSP Study considers that the existing IT infrastructure is aging and fragmented, and the application systems are inadequate and outdated. In other words, the current IT environment cannot meet the LegCo's present and future IT development and business needs. The recommendations arising from the first phase of the Study (covered under the current proposal) were endorsed by LCC at its meeting on 16 July 2009.

5. The second phase of the Study, which is targeted to complete in January 2010, concentrates on the overall IT strategic development plan which will take into account the new IT infrastructure in the new LegCo Complex and the non-core administrative needs of LegCo, identify technical options, draw up budget requirements and formulate an implementation plan for the longer term. Subject to the approval of LCC, the recommendations of the second phase of the Study would be pursued separately after the LegCo relocation.

Establishing New IT Infrastructure and Systems Migration

6. In view of the inadequacy of the current IT infrastructure, the working team for the ISSP Study recommends the construction of a reliable, secure, scalable and green IT network with necessary hardware and software capable of meeting LegCo's IT development and business needs in the new LegCo Complex. The new infrastructure should have all requisite foundation for integrating the existing systems and implementing various application systems to strengthen LegCo's corporate information and resource management.

7. In addition to the building of a new IT infrastructure in the new LegCo Complex, IT relocation-related works, including system integration and implementation, user acceptance test, relocation approach, migration strategy, multi-site operation management and system change-over, should commence at an early stage. Most of the existing production servers, application systems, desktop computers, peripherals and IT-related applications and systems are required to be upgraded or replaced. IT systems which are re-usable and compatible with the new LegCo Complex would be relocated for continued use as far as possible. As all these servers and applications are mission-critical IT services for LegCo's daily business operation, careful and detailed planning is required for the overall IT relocation exercise so that any unnecessary technical and operational risk, service interruption, downtime and impact on users could be minimised. Early planning of the relocation plan will also enable better integration with the electronic systems in the new LegCo Complex.

8. As the Tamar Project has proceeded to the Detailed Design Stage and the related works for IT infrastructure and electronic systems will commence soon, the IT implementation and relocation project for the new LegCo Complex should start as early as possible so that the new IT system for LegCo and related integration could be fully aligned with the Tamar Project.

Implementation of New and Enhanced Application Systems

9. While most application systems will be enhanced/replaced upon relocation to the new LegCo Complex, the working team for the ISSP Study has identified some application systems which are essential to the core operation of LegCo and should be enhanced or replaced prior to the commissioning of the new LegCo Complex. These application systems, which will also be funded by the proposed commitment, include the LegCo Events Scheduling System which is the core business application system for the operation of Council meetings, the LegCo Website and Webcasting System which is essential for the dissemination of LegCo information to the public, and the Transcription System which is the core system for the production of verbatim transcripts for LegCo Council meetings.

ANTICIPATED BENEFITS

10. The successful implementation of the new LegCo IT infrastructure and enhanced/new application systems will enable LegCo to achieve the following intangible benefits –

/(a) .....

(a) the building of the new LegCo IT infrastructure will enable LegCo to enhance its overall efficiency, productivity and effectiveness and will cater for its future needs;

(b) the implementation of enhanced/new application systems under one roof will eliminate duplication of efforts in maintaining different systems and databases, enhance information and knowledge management, and streamline administrative processes;

(c) as a result of system integration and business process automation, notional savings can be derived from elimination of duplicated effort in data entry. Savings in power and paper consumption is also anticipated following the deployment of Green IT in the new LegCo Complex; and

(d) enhanced information sharing functions will facilitate public understanding of LegCo business and improve LegCo's effectiveness in responding to requests from the public.

FINANCIAL IMPLICATIONS

Non-recurrent Expenditure for New IT Infrastructure and Systems Migration

11. For the building up of a new IT infrastructure and migration of application systems, a total non-recurrent expenditure of $72,948,000 is required, with breakdown as follows –

Items		**$'000**
(a)	Procurement of hardware and software	50,321
(b)	IT implementation and relocation services	11,750
(c)	Business applications migration services	1,300
(d)	Temporary high-speed communication link services	2,545
(e)	IT technical training	400
	Sub-total	66,316
(f)	Contingency	6,632
	Total	**72,948**

Encl. 1 Detailed descriptions of these items are set out at Enclosure 1 and the breakdown of expenditure over a four-year period from 2009-2010 to 2012-2013 is at Encl. 2 Enclosure 2.

Non-recurrent Expenditure for New and Enhanced Application Systems

12. Non-recurrent expenditure totalling $26,070,000 is also required for the development and enhancement of application systems which are considered to be essential to the core operation of LegCo. The breakdown of the expenditure is as follows –

Items		**$'000**
(a)	LegCo events scheduling system	2,500
(b)	Website redevelopment project	6,500
(c)	Webcasting system	4,600
(d)	Electronic display system	2,900
(e)	Annunciator system	2,500
(f)	Information display system	3,700
(g)	Digital transcription system	1,000
	Sub-total	23,700
(h)	Contingency	2,370
	Total	**26,070**

Encl. 3 Detailed descriptions of these systems are set out at Enclosure 3 and the breakdown of expenditure over a four-year period from 2009-2010 to 2012-2013 at Encl. 4 Enclosure 4.

IMPLEMENTATION PLAN

13. Subject to the approval of funding, we plan to adopt the following implementation schedule –

Stage	**Task**	**Duration**
0	Recruitment of IT manpower	December 2009 to January 2010
1	Preparing system design, analysis and integration specification	February to June 2010

Stage	Task	Duration
2	Drawing up detailed migration schedule and IT relocation and implementation plan	July to October 2010
3	Procurement and delivery of hardware and software	October 2010 to February 2011
4	Off-site testing	January to April 2011
5	On-site installation and testing	May to September 2011
6	System migration and relocation	October to December 2011

PUBLIC CONSULTATION

14. On 8 December 2009, we consulted the LegCo Panel on Development on the proposed implementation of the integration and application of IT in the new LegCo Complex at Tamar. Members supported the proposal.

BACKGROUND

15. In June 2006, the Finance Committee approved a project estimate of $5,168.9 million in money-of-the-day prices for the design and construction of the Tamar Development Project, including Central Government Complex, new LegCo Complex, an open space and associated facilities[2]. Separate funding is required for the integration and application of IT in the new LegCo Complex at Tamar.

Legislative Council Secretariat
December 2009

[2] At the Finance Committee meeting on 18 December 2009, approval will be sought to increase the project estimate by $359.8 million from $5,168.9 million to $5,528.7 million in money-of-the-day prices.

New IT Infrastructure and Systems Migration for New Legislative Council Complex

Item	Description	Estimated Cost ($'000)
Procurement of Hardware and Software	The estimate is for the procurement of hardware, associated software for the new infrastructure, and security facilities. It also covers the cost for the WiFi and remote access equipment, disaster recovery site and continuous business setup, replacement of desktop computers and printers for Members and staff, as well as the setting up of a testing environment for newly developed and upgraded IT systems and applications to ensure that any hidden technical problems can be detected and fixed before they are put into operation. Furthermore, start-up consumables such as backup tape cartridges for all servers are also included. The capacity of the new LegCo IT infrastructure is also designed for handling high definition digital content multimedia and rich media information delivery including business needs of the future LegCo expansion.	50,321
IT Implementation and Relocation Services	The estimate is for the acquisition of services from contract IT professional staff and external service providers for detailed design and implementation of the IT relocation project and management of new and enhanced application systems. Main activities include project management, tender preparation and management, system design and analysis, off-site testing, integration, installation, configuration, quality assurance, system delivery and migration, end-user training and the preparation of training material, provision of help desk technical support and IT systems de-commissioning/disposal exercise.	11,750
Business Applications Migration Services	The estimate is for the acquisition of services from external service providers (who are currently responsible for the maintenance of the business application systems of LegCo) to migrate the current systems to the new LegCo IT infrastructure and to conduct necessary technical compatibility testing and development on the new desktop computer platform and environment. The estimate also covers the cost for the relocation of the existing IT equipment which can be reused or straight-moved to the new LegCo Complex.	1,300
Temporary High-speed Communication Link Services	The estimate is for the installation of some temporary high-speed communication links between the existing LegCo premises and the new LegCo Complex before or during the IT relocation period. This will facilitate system and data migration, pilot users testing (including internet, video conferencing, WiFi, webcasting and video streaming), relocation rehearsal and final switch-over of all necessary IT systems and applications before all offices are moved. These services are required to be set up early to facilitate network integration, file/email/network/business applications migration and testing.	2,545
IT Technical Training	The estimate is for the provision of IT training for technical support staff to prepare them for the new IT products management and daily administration in order to minimise the impact of new changes on users and to ensure a smooth transition. Training for end-users for new IT services will be conducted by in-house IT staff of LegCo.	400

Non-recurrent expenditure of $72,948,000 over four-year period from 2009-2010 to 2012-2013

		2009-10 $'000	2010-11 $'000	2011-12 $'000	2012-13 $'000	Total $'000
(a)	Hardware and Software	1,000	4,126	43,995	1,200	50,321
(b)	IT Implementation and Relocation Services	500	5,353	5,897	-	11,750
(c)	Business Application Migration Services	-	200	900	200	1,300
(d)	Temporary High-speed Communication Link Services	-	-	2,500	45	2,545
(e)	IT Technical Training	-	100	300	-	400
(f)	Contingency	150	978	5,359	145	6,632
	Total	**1,650**	**10,757**	**58,951**	**1,590**	**72,948**

New and Enhanced Application Systems for New Legislative Council Complex

System	Project Description	Estimated Cost ($'000)
LegCo Events Scheduling System	Redevelopment of the LegCo Event Scheduling System is essential for the booking of various new facilities in the new LegCo Complex. Apart from the need to redevelop the system to meet the booking need of increasing number of facilities, the system should also be enhanced to automate the production of various statistical reports to facilitate the evaluation of utilization of these facilities. The enhanced system should also be capable to interface and integrate with various new LegCo business applications, such as the Annunciator System and Electronic Display System for showing daily LegCo business in different locations of the new LegCo Complex.	2,500
Website Redevelopment Project	Apart from general information on LegCo business such as meeting papers and LegCo Calendar, specific business requirements such as online booking of group visits to the new LegCo Complex and online souvenir shop would be considered in the context of the Website Redevelopment Project. Search engine enhancement and optimisation for legislative knowledge discovery is one of the main objectives of the redevelopment. Furthermore, enhancement in content management, website security, website user access activity tracking, user survey, live video webcasting, video on demand and streaming media technology deployment etc, would also be explored.	6,500
Webcasting System	The system is for the video and audio webcast of all open meetings and press conferences held in the new LegCo Complex. Various features including simulcast of presentation materials shown at the meeting and sign language interpretation would also be included in the system.	4,600
Electronic Display System	The system includes information kiosks for LegCo users to access information relating to LegCo business.	2,900
Annunciator System	The system includes LCD display panels in various locations to display information such as live meeting broadcast and meeting agenda.	2,500
Information Display System	The system includes LCD monitors installed in Members' Desks in the Chamber and Conference Room A for showing meeting broadcast and internet access.	3,700
Digital Transcription System	The system will provide an online solution for the verbatim transcription for Council meetings to replace the existing analogy audio system. It will also provide a data management function to merge all records together and hence greatly enhance the efficiency of verbatim transcription. Cost savings include abandoning the use of cassette tapes for recording and reducing manpower resources for transporting cassette tapes from meeting venues to transcribers could be achieved.	1,000

Enclosure 4 to FCR(2009-10)45

Non-recurrent expenditure of $26,070,000 over a four-year period from 2009-2010 to 2012-2013

		2009-10 $'000	2010-11 $'000	2011-12 $'000	2012-13 $'000	Total $'000
(a)	LegCo Events Scheduling System	-	1,200	1,100	200	2,500
(b)	Website Redevelopment Project	-	2,500	3,700	300	6,500
(c)	Webcasting System	-	3,000	1,500	100	4,600
(d)	Electronic Display System	-	1,500	1,310	90	2,900
(e)	Annunciator System	-	1,650	800	50	2,500
(f)	Information Display System	-	2,000	1,580	120	3,700
(g)	Digital Transcription System	-	650	250	100	1,000
(h)	Contingency	-	1,250	1,024	96	2,370
	Total	**-**	**13,750**	**11,264**	**1,056**	**26,070**