

ITEM FOR FINANCE COMMITTEE

CAPITAL WORKS RESERVE FUND

HEAD 710 – COMPUTERISATION

Judiciary

New Subhead “Implementation of Projects under the Information Technology Strategy Plan of the Judiciary”

Members are invited to approve a new commitment of \$682,430,000 for the implementation of projects under the Information Technology Strategy Plan of the Judiciary.

PROBLEM

The existing Information Technology (IT) systems of the Judiciary have been used for many years and are due for replacement. The Judiciary needs to replenish them by latest technologies to ensure sustainable operation in the long run and to enhance the provision of more effective and efficient services.

PROPOSAL

2. The Judiciary, with the support of the Office of the Government Chief Information Officer (OGCIO), proposes to create a new commitment of \$682,430,000 to take forward the Information Technology Strategy Plan (ITSP) with regard to a Six-year Action Plan to achieve the following objectives –

- (a) to replenish the existing IT systems with the latest technologies to ensure sustainable operation in the long run;
- (b) to provide more effective and efficient services of a higher quality to all stakeholders in support of the administration of justice through process re-engineering with the use of IT;

/(c)

- (c) to facilitate active case management throughout the entire litigation/adjudication and ancillary process in improving access to justice for the benefit of all stakeholders; and
- (d) to respond positively to the rising expectations from court users and the community.

JUSTIFICATION

Current Position

3. There are at present 62 application systems supporting the day-to-day operations of the Judiciary. Among them, ten separate case management systems are serving all levels of courts and tribunals. These systems are critical to the operation of the courts and court registries. There are 24 court-related systems providing support for court-related services such as the bailiff service and the jury services, etc. The remaining 28 systems provide support for various administrative functions in many areas, e.g. financial, human resource and office automation areas. Over the years, these systems as well as the IT infrastructure have been enhanced and updated from time to time to cater for new requirements.

4. Since 2003, the Technology Court has been established in the High Court Building for case hearing requiring Internet communications, video conferencing and the use of other technological equipment. A few courts at other court premises are equipped with closed circuit television facilities to support provision of evidence by vulnerable witnesses.

5. The Judiciary conducted an Information Systems Strategy Study (ISSS) in 2011 to 2012 to formulate the ITSP on the application of information technology in support of its operations for the coming ten years and beyond. The findings of the ISSS confirm that the Judiciary's IT infrastructure and application systems have been able to provide support at the basic level of service. However, the following areas for improvement are identified –

- (a) **Need for sustainability:** Many of these application systems have been used for many years. The overall architecture design is becoming obsolete and hence synchronization with the latest developments of technology and user expectation is required. The aging issues have also resulted in increasing demand for resources to support the systems and to tackle their compatibility with other hardware and software components. It is necessary for the Judiciary to replace these application systems to ensure sustainable operation in the long run.

/(b)

- (b) **Need for standardisation:** The case management systems are the core application systems in the Judiciary. There are ten case management systems, each being separate from each other, maintaining information on cases of a particular court level. The systems were originally designed to operate in standalone mode. There is also a disparity in functions across the systems at different levels of courts and tribunals. As a result, the ways in which data are defined, captured and used are not standardised among systems. Over the years, interface mechanisms have been built to facilitate limited data exchange among systems to support transfer of case and processing of appeals. Owing to the disparity of data definition, structure and usage, data exchange among systems still requires duplicate inputting efforts and additional resources. It has also caused difficulties for the Judiciary in generating reports and compiling statistics based on data maintained in different systems.
- (c) **Need for functional enhancement:** The existing systems only provide limited functions and many work processes are still being performed manually. Enhancements to various systems have been made from time to time to cater for changes in legislative and operational requirements. However, the outdated design of some of the applications has been a hindrance for implementing major system enhancements. This has in turn limited the capability of the Judiciary in making use of IT to improve efficiency of operation and provide better support to court users.
- (d) **Need for better support to stakeholders:** There is limited IT support to facilitate the Judges and Judicial Officers and other court users in the litigation processes. Currently, the court processes are in many ways operated manually under a paper-based environment. Court users have to attend court registries in person to submit documents, to make payment and conduct other court processes. Judges and Judicial Officers, Judiciary staff, parties and their legal representatives, as well as litigants-in-person have to handle paper documents in the entire span of a litigation process. There are increasingly more complicated cases with large volumes of bundles which are not easy to transport, store and use. Although most of the bundles may have been prepared by electronic means, the efficiency achievable by the use of electronic documents cannot be realised under the current paper-based environment.

/Proposals

Proposals under the ITSP

6. The ITSP proposes that an integrated court case management system be implemented to streamline and standardise court processes, across different levels of court as appropriate and put in place a number of non-court systems to meet the operational requirements of the Judiciary. The key initiatives recommended under the ITSP are –

- (a) **To implement an integrated court case management system:** An integrated court case management system would be set up to support the litigation processes of courts and tribunals. The system would be designed to leverage the commonality of the processes while addressing the unique requirements of specific courts and tribunals. This integrated court case management system would enable appropriate data sharing, data driven workflow and support the use of electronic documents.
- (b) **To standardise processes across different court levels and across non-court sections:** The court and non-court processes would be reviewed and standardised as appropriate.
- (c) **To streamline operations through business process re-engineering and improved automation:** The Judiciary would aim to improve the overall efficiency of its operations through business process re-engineering enabled by the use of IT. Automation of work processes would be introduced as appropriate.
- (d) **To establish an integrated data architecture:** An integrated data architecture with centralized governance would be established to support the operations of the Judiciary.
- (e) **To enable and encourage electronic services for various types of transactions:** Electronic services would be introduced in phases in many of the court processes in which court users interact with the Judiciary. Major initiatives being developed include –
 - (i) a new webpage would be launched for court users and the public to obtain information from the Judiciary and to conduct electronic transactions. The webpage would be accessible through personal computers, or mobile devices which can be connected to the Internet;

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- (ii) documents, such as case initiation documents for civil cases and charge sheets for criminal cases, may be submitted electronically to the Judiciary;
- (iii) to enhance convenience to court users, the Judiciary would seek to explore the feasibility of accepting the use of various payment means, including electronic payment methods;
- (iv) consideration would also be given to introducing electronic mode of listing as appropriate to support scheduling of case hearing right from the stage of making a request up to the ultimate fixing of hearing dates; and
- (v) the scope of information and documents to be made available for electronic search would be expanded gradually.

It is anticipated that implementation of electronic services would reduce the need for court users to visit the courts or court registries in person.

- (f) **To enable electronic court records:** In combination with expanded electronic services, the Judiciary would seek to support the use of electronic records in court proceedings and move towards a “less paper” environment. Electronic versions of documents will facilitate Judges and Judicial Officers, parties and practitioners in carrying out their work. The retrieval of information and record keeping will be more efficient and effective. The Judiciary would implement necessary security measures to ensure authenticity and integrity of the electronic records.
- (g) **To enhance courtroom technologies:** The courtrooms would be equipped with appropriate IT infrastructure, necessary equipment and communication network to support court hearing, including the use, retrieval and display of electronic documents. With built-in infrastructure, the use of electronic bundle, legal research and video conferencing, etc., can be set up in the courtroom much more readily if such activities are required and permitted by the court. The implementation of courtroom IT facilities would be carefully scheduled so as to minimise disruption to court operations. The Judiciary would also align the implementation schedule of courtroom IT facilities with the relocation project of the Court of Final Appeal and the construction project of West Kowloon Law Courts Building.

Benefits

7. According to the ISSS, it is anticipated that the implementation of the ITSP will bring about the following qualitative benefits –

General benefits

- (a) **Improved access to justice:** The Judiciary's services will be more accessible hence improving the access to justice.
- (b) **Improved workflow automation:** The standardised data architecture and streamlined work process across the Judiciary will bring about a greater degree of workflow automation, leading to a reduction in manual work in many operational and support functions.
- (c) **Improved operational efficiency:** The internal operational efficiency will be improved by using IT to facilitate staff collaboration and information sharing across different court levels and sections as staff carry out their duties.
- (d) **Improved data security:** The security of data in information systems will be more effectively supported by a number of measures, including the setting up of a centralized and integrated data architecture, the formulation and enforcement of data policies and procedures and the provision of data encryption technologies and backup facilities.

Service benefits

- (e) **Improved service to court users:** With the implementation of ITSP, the Judiciary will be equipped with appropriate IT facilities to provide more effective and efficient services to all stakeholders, and to respond responsibly to the rising expectation of users and the community. Electronic services to be introduced will enable court users to interact with the Judiciary in a more convenient fashion. The interaction will be timely, efficient, accurate and environmental friendly.

Case management benefits

- (f) **Active case management:** The case management and resource management will be improved by using automatic alerts, integrated workflows, and improved case monitoring mechanisms.

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- (g) **Improved ability to handle complicated cases:** The capability to handle increasingly-complex cases, with growing volumes of documents and data, will be improved.

Communications benefits

- (h) **Safeguard for the privacy of individuals:** The court information will be transmitted and stored more securely.
- (i) **Enhanced communication with external stakeholders:** The communications with external stakeholders such as the legal profession, institutional and individual court users, etc., will be enhanced.

Cost Savings/Avoidance

8. Other than the above qualitative benefits, there are also tangible quantifiable benefits that can be realised from improving the use of IT in the Judiciary. It is anticipated that the implementation of projects under this submission will bring about estimated total savings of \$81,108,000 in 2019-20. The total savings are made up of three main categories –

- (a) realisable savings of \$26,472,000 per year from reducing the hardware, software, and other associated expenditure in maintaining the existing systems;
- (b) notional savings as a result of improved operational efficiency for Judges and Judicial Officer and Judiciary staff of \$44,404,000 per year; and
- (c) notional cost-avoidance from the avoidance of potential future costs such as avoidance of paper storage accommodation costs, potential hardware and software replacement costs, etc. of \$10,232,000 per year.

Encl. 9. A cost and benefit analysis of the proposal is at Enclosure.

/FINANCIAL

FINANCIAL IMPLICATIONS**Non-recurrent Expenditure**

10. The estimated non-recurrent expenditure over a six-year period from 2013-14 to 2018-19 is \$682,430,000 with breakdown as follows –

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
(a) Hardware	15,420	35,494	38,291	17,792	24,759	12,629	144,385
(b) Software	18,000	52,907	31,719	7,970	24,627	12,372	147,595
(c) Implementation services	14,539	63,868	64,833	24,123	40,844	30,961	239,168
(d) Contract staff services	12,777	18,486	19,883	7,384	9,431	7,087	75,048
(e) Site preparation	2,200	3,719	1,401	246	1,083	541	9,190
(f) Communication services	-	386	-	-	-	-	386
(g) Training cost	125	1,237	1,150	678	892	537	4,619
(h) Contingency	6,306	17,610	15,728	5,819	10,163	6,413	62,039
Total	69,367	193,707	173,005	64,012	111,799	70,540	682,430

11. On paragraph 10(a) above, the estimated expenditure of \$144,385,000 is for acquisition of computer hardware, including servers, switches, storage devices, system backup equipment, and staff equipment, etc.

12. On paragraph 10(b) above, the estimated expenditure of \$147,595,000 is for acquisition of computer software, including operating systems, database management system, and enterprise software such as enterprise content management system, web portal software and business process management software, etc.

13. On paragraph 10(c) above, the estimated expenditure of \$239,168,000 is for hiring of services from external service providers to implement the projects, including technical studies, system analysis and design, technical consultancy, system development, installation and nursing, etc.

14. On paragraph 10(d) above, the estimated expenditure of \$75,048,000 is for engagement of IT professional contract staff services to supplement the in-house project management team to provide support in project planning and management, system development, system implementation, and system tests, etc.

15. On paragraph 10(e) above, the estimated expenditure of \$9,190,000 is for site preparation works at the Judiciary data centres, server rooms and offices, including installation of new uninterruptible power supply devices, power points, network nodes, as well as the associated trunking and cabling works.

16. On paragraph 10(f) above, the estimated expenditure of \$386,000 is for installation of the upgraded communication services in data centres and court buildings.

17. On paragraph 10(g) above, the estimated expenditure of \$4,619,000 is for acquisition of training service for Judiciary users in participating in the ITSP and in administering and using the new systems.

18. On paragraph 10(h) above, the estimated expenditure of \$62,039,000 represents a 10% contingency on items set out in paragraph 10(a) to (g) above.

Other Non-recurrent Expenditure

19. The proposed implementation of the ITSP will require the setting up of a project team, consisting of both Judiciary support staff and IT professional grade staff, for handling the multifarious responsibilities involved in tendering, project management, support for system analysis and design, and conducting acceptance tests. This will entail a total of non-recurrent staff cost of \$69,990,000 from 2013-14 to 2018-19 as follows –

/2013-14

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Staff cost	11,665	11,665	11,665	11,665	11,665	11,665	69,990
Total	11,665	11,665	11,665	11,665	11,665	11,665	69,990

20. The staff cost represents a total of 216 man-months of judicial clerk grade staff, 360 man-months of IT professional grade staff and 72 man-months of executive officer grade staff. The staff resource requirements for 2013-14 have been included in the 2013-14 Draft Estimates. The staff resource requirements for subsequent years will be dealt with by the established mechanism in the relevant year.

Recurrent Expenditure

21. It is estimated that the annual recurrent expenditure arising from the project will be \$271,000 in 2013-14 and will progressively increase to \$56,782,000 in 2018-19, with the breakdown by expenditure items as follows –

	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20 and onwards
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
(a) Hardware and software maintenance	-	156	156	7,551	17,723	23,527	26,123
(b) On-going system support services	241	1,436	7,234	23,389	24,804	29,503	31,253
(c) Communication services	-	1,806	3,612	3,612	3,612	3,612	3,612
(d) Consumables	30	75	90	115	140	140	160
Total	271	3,473	11,092	34,667	46,279	56,782	61,148

22. For the years beyond 2018-19, the annual recurrent expenditure arising from hardware and software maintenance cost is expected to increase with the expiry of warranty period of the installed components.

23. On paragraph 21(a) above, the estimated annual expenditure of \$26,123,000 in 2019-20 is for provision of hardware and software maintenance, and for software licence fees to support the new systems.

24. On paragraph 21(b) above, the estimated annual expenditure of \$31,253,000 in 2019-20 is for on-going system support and maintenance services for the new IT infrastructure.

25. On paragraph 21(c) above, the estimated annual expenditure of \$3,612,000 in 2019-20 is for rental of the upgraded communication services in data centres and court buildings.

26. On paragraph 21(d) above, the estimated annual expenditure of \$160,000 in 2019-20 is for acquisition of consumables such as backup storage media and toner cartridges.

27. The proposed implementation will entail an annual recurrent expenditure of \$61,148,000 starting 2019-20, including hardware and software maintenance costs of the new systems. After deducting the current annual realisable saving of \$26,472,000, the net additional expenditure for 2019-20 is about \$34,676,000. Such requirements will be reflected in the Draft Estimates of the relevant year.

Other Recurrent Expenditure

28. Additional staff resources will be required for supporting the new infrastructure and application starting from 2016-17 and the recurrent staff cost for 2016-17 to 2019-20 and onwards is as follows –

/2016-17

	2016-17	2017-18	2018-19	2019-20 and onwards
	\$'000	\$'000	\$'000	\$'000
Staff cost	8,169	8,169	10,797	17,513
Total	8,169	8,169	10,797	17,513

29. The staff cost for 2016-17 to 2018-19 represents a total of 108 man-months of judicial clerk grade staff and 348 man-months of IT grade staff. The annual staff cost for 2019-20 and onwards represents a total of 36 man-months of judicial clerk grade staff and 216 man-months of IT grade staff and 12 man-months of executive officer grade staff. The staff resource requirements will be dealt with by the established mechanism in the relevant year.

IMPLEMENTATION PLAN

30. The Six-year Action Plan maps out the requisite activities for implementing the initiatives defined in the ITSP.

31. Based on the assessment of the logical grouping and prioritization of the courts and tribunals in terms of the anticipated benefits and current pressure points, the ISSS recommends including the implementation of the integrated court case management system for the following courts and tribunals in the Six-year Action Plan as the first phase of implementation –

- (a) the Court of Final Appeal;
- (b) the High Court, including the Probate Registry;
- (c) the District Court;
- (d) the Magistrates Courts; and
- (e) the Small Claims Tribunal.

32. This first phase of implementation is further broken down into two stages, each lasting for about three years, for better management. The first stage focuses on building up the technical and infrastructure foundation components, conducting process re-engineering, streamlining and standardizing court operations, and implementing the integrated court case management system in the District Court and the Summons Courts of the Magistrates' Courts. The second stage of the Six-year Action Plan will include rolling out the system to the Court of Final Appeal, the High Court, the Small Claims Tribunal and the non-summons Courts of the Magistrates' Courts.

33. The ISSS recommends that the integrated court case management system for the remaining courts and tribunals (including Family Court, Labour Tribunal, Lands Tribunal, Obscene Article Tribunal and the Coroner's Court) be implemented in the seventh to ninth year as the second phase implementation. With the foundations to be built and the experience to be gained in the first phase, the Judiciary will work out concrete plans and make funding application for the implementation of the integrated court case management system for the remaining courts and tribunals (i.e. second phase implementation) at a later time.

34. On the timeline of the ITSP, the ISSS recommends that subject to funding approval, the Judiciary would commence the implementation in accordance with the following schedule –

Activities	Tentative Schedule
(a) Technical studies	July 2013 to June 2014
(b) Implementation of IT infrastructure and Stage 1 court systems	July 2013 to June 2016
(c) Implementation of non-court systems	July 2015 to June 2019
(d) Implementation of Stage 2 court systems	July 2016 to Dec 2019

PUBLIC CONSULTATION

Panel on Administration of Justice and Legal Services

35. On 26 February 2013, the Judiciary consulted the Panel on Administration of Justice and Legal Services of the Legislative Council. Members supported the proposal and its submission to the Finance Committee for funding approval.

/Consultation

Consultation with Stakeholders

36. In formulating the ITSP, the Judiciary has sought the views of stakeholders including the Hong Kong Bar Association, the Law Society of Hong Kong and relevant government departments on the possible use of IT in the operations of the Judiciary and their interaction with the Judiciary. In May 2012, the Judiciary issued a consultation document to 57 relevant stakeholder organizations, including the legal professional bodies, bureaux and departments in the administration, agencies and organizations. The consultation document described the key preliminary proposals of the ITSP and invited stakeholders to comment on the proposals. Altogether 26 organizations, including all major stakeholders, provided comments to the Judiciary. In general, the feedback was supportive and encouraging. Most of the stakeholders welcomed the proposals in the ITSP and expressed their support.

37. In particular, the Hong Kong Bar Association and the Law Society of Hong Kong indicated their support to the proposals stated in the consultation document. They also gave valuable suggestions to the Judiciary. Some stakeholders shared with the Judiciary their experience in implementing electronic services, provided advice on areas for attention and made suggestions on areas for improvement. Some stakeholders indicated that they were ready to adopt the proposed electronic services.

38. In October and November 2012, the Judiciary also consulted the Family Court Users' Committee, the Civil Court Users' Committee and the Criminal Court Users' Committee on the proposals in the ITSP. In general, the Committees showed support for the ITSP.

BACKGROUND

ISSS in the 1990s

39. The Judiciary conducted its first ISSS about 20 years ago. Based on the recommendation then formulated, the Judiciary set up its IT infrastructure and implemented a series of application systems to support its operations.

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The 2011-2012 ISSS

40. The Judiciary has all along observed the developments in the IT services in other jurisdictions. It is noted that there is a general trend of greater use of IT in other jurisdictions.

41. In 2011, the Judiciary embarked on a fresh round of ISSS to formulate an up-to-date and comprehensive strategic plan on the use of IT in support of its operations for the coming ten years and beyond. The Judiciary engaged a consultancy firm for conducting the ISSS. The consultants have prepared an ITSP which defines the recommendations on the long-term IT direction of the Judiciary as well as a Six-year Action Plan which sets out a portfolio of IT projects and activities for the Judiciary to take forward to implement the ITSP.

42. The consultants reviewed the current status of use of IT in the Judiciary and made proposals on the direction along which the Judiciary may consider operating having regard to relevant considerations of the processes, technologies and users/stakeholders involved. The consultants have mapped out the high level design of the application landscape, the data architecture, the security features and the IT infrastructure for enabling the provision of IT support for the future operations of the Judiciary.

43. The consultants also analysed the applicability of IT best practices, IT standards and services for adoption by the Judiciary and made recommendations on IT practices and standards to be adopted, the technical components and the implementation approach, etc.

44. OGCIO was consulted regarding the use of IT throughout the ISSS.

Cost and Benefit Analysis for the Implementation of Projects under the Six-year Action Plan of the ITSP

Cash flow (\$'000)								
	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	Total
Cost								
<u>Non-recurrent</u>								
Expenditure	69,367	193,707	173,005	64,012	111,799	70,540	-	682,430
Staff cost	11,665	11,665	11,665	11,665	11,665	11,665	-	69,990
Sub-total	81,032	205,372	184,670	75,677	123,464	82,205	-	752,420
<u>Recurrent</u>								
Expenditure	271	3,473	11,092	34,667	46,279	56,782	61,148	213,712
Staff cost	-	-	-	8,169	8,169	10,797	17,513	44,648
Sub-total	271	3,473	11,092	42,836	54,448	67,579	78,661	258,360
Total cost	81,303	208,845	195,762	118,513	177,912	149,784	78,661	1,010,780
Savings								
<u>Non-recurrent</u>								
Cost avoidance	-	-	-	-	-	-	-	-
Sub-total	-	-	-	-	-	-	-	-
<u>Recurrent</u>								
Realisable savings	-	-	1,796	1,796	14,609	17,061	26,472	61,734
Notional savings	-	-	46	12,490	25,162	25,437	44,404	107,539
Cost avoidance	-	-	536	2,829	4,586	4,586	10,232	22,769
Sub-total	-	-	2,378	17,115	44,357	47,084	81,108	192,042
Total savings	-	-	2,378	17,115	44,357	47,084	81,108	192,042
Net shortfall	81,303	208,845	193,384	101,398	133,555	102,700	-2,447	818,738
Net cumulative shortfall	81,303	290,148	483,532	584,930	718,485	821,185	818,738	