JUDICIARY ADMINISTRATION'S WORK IN IMPLEMENTING PROJECTS UNDER INFORMATION TECHNOLOGY STRATEGY PLAN

Executive Summary

- 1. The Judiciary, headed by the Chief Justice of the Court of Final Appeal, is responsible for the administration of justice in Hong Kong. It hears all criminal cases and civil disputes. The Judiciary Administration is headed by the Judiciary Administrator, who assists the Chief Justice in the overall administration of the Judiciary. It provides support to the courts in the administration of justice and their operations. The Judiciary uses information technology (IT) extensively to support its operations and services to the public. In 2011 and 2012, the Judiciary conducted an Information System Strategy Study which formulated an Information Technology Strategy Plan (ITSP) on the application of IT in support of its operations for the coming ten years and beyond. Under ITSP, the Judiciary seeks to implement by phases an integrated court case management system (iCMS) to integrate, streamline and standardise court processes across different levels of courts and tribunals, and to put in place a number of non-court systems to meet the Judiciary's operational requirements. The implementation of ITSP is divided into two phases:
 - (a) Phase 1 comprises two stages. Stage 1 mainly covers IT infrastructure foundation and the development of iCMS for the District Court, the Summons Courts of the Magistrates' Courts and the related court offices. Stage 2 mainly covers the development of iCMS for the Court of Final Appeal, the High Court, the Competition Tribunal, the non-Summons Courts of the Magistrates' Courts and the Small Claims Tribunal; and
 - (b) Phase 2 covers iCMS for the remaining courts and tribunals.

In May 2013, the Judiciary obtained the Legislative Council Finance Committee (FC)'s funding approval of \$682.4 million for the implementation of ITSP Phase 1, with scheduled completion dates for Stage 1 and Stage 2 in June 2016 and December 2019 respectively. The Audit Commission (Audit) has recently conducted a review to examine the Judiciary Administration's work in implementing projects under ITSP and other related issues.

Progress in project implementation and problems encountered

- 2. **Delays in completion of projects under ITSP Phase 1.** According to the 2013 FC paper, the implementation plan of ITSP Phase 1 comprised four activities. Audit examination found that as of June 2019, there had been slippages (ranging from 6 to 57 months) in all the four activities:
 - (a) Activity A "Technical studies". Technical studies were completed in April 2015, i.e. a delay of 10 months as compared with the original target completion date of June 2014;
 - (b) Activity B "Implementation of IT infrastructure and Stage 1 court systems". The implementation work, originally scheduled to be completed by June 2016, was still in progress. The revised target completion date was March 2021, i.e. a delay of 57 months;
 - (c) Activity C "Implementation of non-court systems". The implementation work, originally scheduled to be completed by June 2019, was still in progress. If compared with the revised target completion date of December 2019, there would be a delay of 6 months. However, based on information as of September 2019 provided by the Judiciary Administration, some non-court systems would only be progressively rolled out from December 2019 to September 2021, suggesting that Activity C would unlikely be completed by December 2019; and
 - (d) Activity D "Implementation of Stage 2 court systems". The implementation work, originally scheduled to be completed by December 2019, was only at a preliminary stage. If compared with the revised target completion date of September 2022, there would be a delay of 33 months. Moreover, the slippage of earlier Activities B and C might have knock-on effects on Activity D.

The Judiciary anticipated that the implementation of ITSP would bring about improvement in access to justice, workflow automation, operational efficiency, and improve services to court users and the community as a whole. There is a need for the Judiciary Administration to step up monitoring of the implementation of all projects under ITSP Phase 1 and expedite actions where possible to complete the

outstanding projects with a view to reaping the full benefits as early as practicable (paras. 2.2, 2.4, 2.6 and 2.7).

- 3. **Problems encountered during project implementation.** Audit noted that in the course of implementing projects under ITSP Phase 1, the Judiciary Administration encountered the following key problems (para. 2.8):
 - (a) Change of delivery mode and manpower shortage. On the advice of the Office of the Government Chief Information Officer (OGCIO), to reduce project risks, the Judiciary Administration in September 2013 changed the total outsourcing approach for the implementation of projects under ITSP to a hybrid one, i.e. outsourcing plus in-house efforts. As time and efforts were spent to discuss and plan for the change of delivery mode, the commencement of ITSP implementation was deferred from mid-2013 to early 2014 (para. 2.10). In this connection, Audit noted the following issues:
 - (i) Shortage and high turnover of contract staff. Arising from the change of delivery mode, it was necessary to engage 20 to 70 contract staff per year from 2013-14 to 2018-19. However, due to recruitment difficulties, there was a significant shortage of manpower at the rank of Analyst/Programmer, ranging from 2 to 32 staff (i.e. an average of 14 staff per annum) during the period. Moreover, the turnover rates of contract staff involved in the implementation of ITSP for the period from 2014-15 to 2018-19 were considerable, ranging from 6.8% to 33.7% (paras. 2.11, 2.13 and 2.14); and
 - (ii) **Delays in hiring contractors.** To address the manpower shortage, four outsourcing contractors were engaged to perform the programming and system development work of Stage 1 court systems. While the hiring process should be in parallel with the system analysis and design (SA&D) work so that the programming work could start immediately upon completion of SA&D, Audit noted that the hiring of the last outsourcing contractor was only completed in September 2016, i.e. four months after the completion of SA&D in May 2016 (para. 2.13);

- (b) Long lead time in procurement of IT infrastructure. Under ITSP, the required hardware, software and services for upgrading the central IT facilities were procured through an open tender exercise. Due to an over-optimistic work schedule for tendering work involving the Government Logistics Department and the Department of Justice, there was a delay of 13 months in completing the tender exercise and awarding the contract (paras. 2.16 and 2.17);
- (c) Long time taken in developing Stage 1 court systems. The development of Stage 1 court systems generally involved three stages, namely: (i) collection of user requirements; (ii) SA&D; and (iii) implementation and user acceptance tests (UATs). Audit found that additional time had been taken to collect user requirements and complete SA&D, causing an overall delay of 11 months. Also, a substantial number of change requests (about 1,400 as of December 2017) were raised during UATs, resulting in a further delay of about two years (paras. 2.18 to 2.20); and
- (d) Engagement of prosecuting departments and agencies to prepare for the rollout of iCMS. At Stage 1 of ITSP Phase 1, iCMS would be implemented in the Summons Courts of the Magistrates' Courts. About 40 prosecuting departments and agencies were expected to migrate from the Judiciary's existing electronic platform to iCMS for submitting summons applications handled by the Summons Courts within a period of three years after the rolling out of iCMS in all the Magistrates' Courts. Since 2015, the Judiciary Administration had been engaging the prosecuting departments and agencies to prepare for the rollout of iCMS. Audit found that: (i) from June 2016 to August 2017, the Judiciary Administration held 19 engagement meetings with the prosecuting departments and agencies on the rollout of iCMS. However, internal notes of meeting were only prepared for 4 meetings; (ii) while another round of briefings to the prosecuting departments and agencies was planned to be held on the design and usage of the web portal in mid-2017, such briefings were only provided to two key prosecuting departments in January and August 2018 respectively; and (iii) there were a few unresolved issues between government departments on the setting up of system interface with iCMS, such as the one between the Hong Kong Police Force and the Transport Department relating to traffic-related offences, which had been discussed since 2016 and remained unresolved up to July 2019 (paras. 2.22 to 2.24).

Project governance

- 4. Governance structure of ITSP. The governance structure of ITSP can be broadly divided into two groups, i.e. one led by Judges and Judicial Officers (JJOs) and the other led by the Judiciary Administrator (the project owner of ITSP). The group led by JJOs mainly includes the Committee on Information Technology (CIT), which is the overarching body overseeing the development and implementation of ITSP at the strategic level. Three working groups are set up to advise CIT on various issues. The group led by the Judiciary Administrator mainly includes the Information Technology Strategy Plan Steering Committee (the Steering Committee), which is a dedicated administrative committee set up to oversee the detailed implementation of ITSP. The Steering Committee is supported by an Information Technology Strategy Plan Delivery and Assurance team (ITSP Delivery and Assurance Team) and a Programme Management Office. The Government Chief Information Officer participates in the Steering Committee as the Government's IT advisor. The terms of reference of CIT and the key roles and responsibilities of the Steering Committee are defined in the Programme Management Plan (paras. 1.10, 1.11 and 3.2).
- 5. *Areas for improvement*. Audit examination of the project governance of ITSP has revealed the following areas for improvement:
 - Need to review the governance structure of ITSP. According to the (a) original governance structure endorsed by CIT in April 2013, the Steering Committee would monitor the implementation of ITSP at a strategic level, and project management responsibilities (such as committing project resources, and endorsing acceptance of project plans and deliverables) would be delegated to three project steering committees and their respective project assurance teams set up under the Steering Committee. February 2014, the three project steering committees and their respective project assurance teams were grouped collectively under ITSP Delivery and Assurance Team. However, Audit found that the project management responsibilities had not been delegated to ITSP Delivery and Assurance Team. Therefore, the Steering Committee might need to arrange more frequent meetings to discharge its project management responsibilities. There is merit in reviewing the need for delegating some of the project management responsibilities to ITSP Delivery and Assurance Team to avoid overloading the Steering Committee (paras. 3.3 to 3.5);

- (b) Need to ensure that any revisions to governance structure are properly endorsed. According to the Judiciary Administration, as the implementation of ITSP progressed, the ways and mechanism in overseeing its implementation might need to be adjusted to cater for its operational needs, particularly in light of experience and having regard to the nature of work required at different stages of the projects. For example, for the implementation of Stage 1 court systems, the relevant project study teams under the Steering Committee and the relevant advisory committees under CIT had been consolidated since May 2017. Audit however found that such revision had not been properly reflected in the Programme Management Plan endorsed by the Steering Committee (para. 3.6);
- (c) Need to convene timely meetings for the Steering Committee and provide more timely project progress updates to CIT. From May 2013 to June 2019, 15 Steering Committee meetings were held. Audit found that fewer meetings had been held since 2016 and the intervals between meetings had become longer. For CIT, the numbers of meetings held and ITSP-related papers issued to members were also on a decreasing trend from April 2013 to June 2019. In particular, from January 2018 to June 2019, no CIT meeting had been held and no ITSP-related papers had been issued to CIT members (paras. 3.8 and 3.10);
- (d) Need to improve timeliness of submission of monthly highlight reports and their quality. The Programme Management Office is required to provide the Steering Committee and ITSP Delivery and Assurance Team with a monthly highlight report on the overall progress of ITSP and any project risks, issues and change requests. Audit examination found that: (i) of 65 monthly highlight reports from March 2014 to July 2019, 46 (71%) were not timely submitted in the following month; (ii) some of the monthly highlight reports tended to present over-optimistic overall project status; and (iii) all the 65 reports did not report project issues and change requests (para. 3.12); and
- (e) Need to maintain proper records on the Steering Committee's approvals of revisions of completion dates of project activities. Revision of completion dates of project activities is one type of project changes that should be approved at the Steering Committee's meetings. Audit examination of the papers and minutes of all the 15 Steering Committee meetings from May 2013 to June 2019 found that approvals for revision of

completion dates of project activities had not been explicitly sought during the meetings (para. 3.13).

- 6. **Annual progress reports to FC.** The Government undertakes to provide FC Members with an annual progress report on the implementation of major computer projects (para. 3.14). Audit examination has revealed the following areas for improvement:
 - (a) Need to report completion dates by stages. In all the five annual progress reports submitted to FC from 2014 to 2018, only the overall project completion date of ITSP projects (i.e. completion date of Stage 2 court systems) and narrative updates on the latest project status and achievements of key milestones were reported. In order to present a complete picture of the project progress, it is more desirable to report the scheduled/revised completion dates by stages (para. 3.16(a)); and
 - (b) Need to ensure that completion dates reported are up-to-date. According to the information papers on ITSP progress update issued to members of the Steering Committee in January 2018, the overall completion date of implementing ITSP was deferred from December 2019 to June 2021. However, the overall completion date had not been updated in the annual progress report submitted to FC in October 2018 showing the position as of March 2018 (para. 3.16(b)).
- 7. *Need to improve progress reports to OGCIO*. The Judiciary Administration is required to submit progress reports for OGCIO to monitor the health status of the projects under ITSP (para. 1.12). Audit examination found that:
 - (a) there were cases of omissions and delays in reporting revised/actual completion dates in the progress reports. For example, the completion date of Activity D (i.e. Implementation of Stage 2 court systems) was deferred in June 2017 but the revised completion date had not been reported in any progress reports submitted to OGCIO. Subsequently, the completion date was further deferred in January 2018 but the revised completion date was only reported in July 2018 (i.e. a delay of six months) (para. 3.18(a)); and

(b) there were also cases of not indicating approvals for revising the completion dates, not documenting analysis on project slippage, or reporting inaccurate revised completion dates in the progress reports (para. 3.18(b) to (d)).

Other related issues

- 8. **Provision of e-services.** The Judiciary's website provides information about schedules of court hearings and related matters mainly via the Daily Cause Lists and e-hearing date enquiry services. The website also provides other judicial information such as judgments of various levels of courts via the online Legal Reference System (paras. 4.5 and 4.7). Audit examination has revealed the following areas for improvement:
 - (a) Need to consider improving dissemination of future hearing information. The Daily Cause Lists provide a more user-friendly enquiry function (i.e. a search could be conducted by party name in addition to case number) than the e-hearing date enquiry services. However, the information provided is for hearings on the next working day only. Users who wish to enquire information about future hearings can only conduct a search via the e-hearing date enquiry services provided that the case number is known (para. 4.6(a));
 - (b) Need to consider enhancing search functions of Legal Reference System. Audit visited other legal reference websites in Hong Kong and other jurisdictions and noted that their search functions were more user-friendly. In particular, they allowed more search parameters to be used in a conjunctive manner and longer date range for search by date of judgment, and offered more options for sorting the list of judgments (para. 4.8);
 - (c) Need to ensure accuracy of information uploaded onto the Judiciary's website. Audit visited the Judiciary's website and noted a few discrepancies in the provision of judicial information, such as inaccurate judgment date and update time of the Daily Cause Lists (para. 4.10); and
 - (d) Need to improve mobile-friendliness of e-services. Audit noted that some e-services provided through the Judiciary's website had not been enhanced to adopt a "mobile-friendly design" to facilitate public access through mobile devices (para. 4.12).

- 9. Need to provide enhanced/up-to-date audio-visual presentation systems (AVPS). Apart from IT systems which cover computers and their peripherals, various types of audio-visual equipment have been installed in courtrooms. As of January 2019, there were AVPS installed in 102 (49%) of 208 courtrooms for the playback of evidence in different formats through computers and media players, and the broadcasting of electronic documents to the public during hearings. According to a review conducted by the Judiciary Administration in 2016, about 47% of AVPS had been installed for over 10 years with outdated/obsolete devices. The outdated/obsolete AVPS did not support signals inputted from notebook computers or portable equipment brought in by court users and their display resolution was far behind the current audio-visual technology. For example, AVPS in 12 courtrooms of the District Court were equipped with small size monitors (ranging from 6.4 to 12 inches) and connected through analog signal cables. As of March 2019, 11 of the 12 courtrooms were still using outdated/obsolete AVPS (paras. 4.15, 4.17 and 4.18).
- 10. Need to expedite legislative amendments and consider promoting wider use of Electronic Bundles in Portable Document Format (EBPDF). To facilitate court proceedings, in 2011, the Judiciary made available the use of EBPDF at the High Court where paper bundles were scanned into portable document format for uploading to IT devices for JJOs and counsels to view and make notes and to conduct hearings with the use of EBPDF. Since 2016, users of the District Court have been able to submit hearing bundles via an e-submission platform. Audit found that the utilisation of EBPDF in the High Court and the District Court was very low from 2011 to 2018. In Audit's view, for improving operational efficiency and achieving environmental friendliness, there is merit in encouraging wider use of EBPDF at all levels of courts in the long run. As the existing legislation requires the submission of paper bundles to the court, the Judiciary Administration needs to expedite actions to complete the legislative amendments to remove such legal restrictions (paras. 4.28, 4.31, 4.32(b) and 4.33).

Audit recommendations

11. Audit recommendations are made in the respective sections of this Audit Report. Only the key ones are highlighted in this Executive Summary. Audit has *recommended* that the Judiciary Administrator should:

- (a) step up monitoring of the implementation of all projects under ITSP Phase 1 and expedite actions where possible to complete the outstanding projects as early as practicable (para. 2.25(a));
- (b) taking into account lessons drawn from the problems encountered during project implementation, enhance the planning and implementation of future IT projects (para. 2.25(b));
- (c) improve the engagement work with the prosecuting departments and agencies in preparing for the rollout of iCMS (para. 2.25(c));
- (d) consider reviewing the current governance structure of ITSP and ensure that any revisions are properly endorsed by the appropriate authority (para. 3.19(a));
- (e) improve the project governance under ITSP and the reporting of project progress (para. 3.19(b) and (c));
- (f) consider improving the dissemination of court hearing information through the Judiciary's website and explore possible enhancements to the online Legal Reference System (para. 4.13(a) and (b));
- (g) remind the Judiciary Administration's staff to ensure the accuracy and consistency of information before uploading onto the Judiciary's website (para. 4.13(c));
- (h) enhance e-services by adopting a "mobile-friendly design" to facilitate public access through mobile devices (para. 4.13(f));
- (i) take measures to ensure that enhanced/up-to-date AVPS are provided to support court proceedings (para. 4.24(a)); and
- (j) expedite actions to complete the legislative amendments for using the electronic mode of handling court-related documents and consider whether and, if so, how best to promote the wider use of EBPDF at various court levels in the long run (para. 4.34(a) and (b)).

Response from the Judiciary

12. The Judiciary Administrator generally agrees with the audit recommendations.