

**For discussion
on 22 February 2021**

**Legislative Council
Panel on Administration of Justice and Legal Services**

**Revamp of Case Management and Case Accounting System and
the related query system of the Legal Aid Department**

PURPOSE

This paper seeks Members' views on the proposal to revamp the Case Management and Case Accounting System (CM&CAS) and the related query system, Knowledge Support System (KSS), of the Legal Aid Department (LAD). The technology adopted in the current CM&CAS and KSS, which has been in use for 17 years, has become obsolete and can no longer meet LAD's operational requirements.

BACKGROUND

2. Under the Legal Aid Ordinance (Cap. 91) (LAO), LAD provides legal representation to eligible legal aid applicants who must first satisfy both the merits test and the means test. The LAO provides that the Director of Legal Aid (DLA) may act for an aided person through in-house professional lawyer or assign any lawyer in private practice selected from the Legal Aid Panel. Legal aid is available, *inter alia*, to civil and criminal cases in the District Court, the Court of First Instance, the Court of Appeal and the Court of Final Appeal. It is also available for committal proceedings in the Magistrates' Courts. Since DLA is also designated as the first Official Solicitor under the Official Solicitor Ordinance (Cap. 416) to represent the interests of persons under the age of 18 or mentally incapacitated persons (MIP), LAD maintains an Official Solicitor's Office (OSO) to discharge relevant duties under this Ordinance.

3. To facilitate the effective provision of legal aid services to the public, LAD launched CM&CAS in August 2003 as the critical internal information system with the following primary objectives and functions, covering the entire process of a legal aid case from processing applications, assigning lawyers, monitoring progress of assigned-out cases, conducting litigation at court and costs and accounting management:

- (a) to provide a generic framework to various sections of LAD for processing civil and criminal legal aid applications, monitoring of assigned-out cases and conducting cases assigned in-house;
- (b) to share the common information (e.g., details of Legal Aid Panel lawyers, experts, mediators, applicants/aided persons) across LAD;
- (c) to support the day-to-day operation of professional officers, law clerks and clerical staff in application/monitoring and litigation processes;
- (d) to provide operational support in case costing, case accounting and payment to assigned lawyers, counsel and experts, aided persons and opposite parties;
- (e) to provide necessary billing information for accounting; and
- (f) to support the operation of OSO.

Meanwhile, LAD also maintains a KSS which is designed as an essential companion for the CM&CAS system in handling and generating reports.

4. In 2019, CM&CAS handled 16 074 legal aid applications and the processing of 7 734 legal aid certificates. The system has also provided comprehensive functions in monitoring of about 11 788 assigned-out cases and the administration of 3 234 counsel and solicitors on the Legal Aid Panel. LAD relies heavily on the CM&CAS to conduct its day-to-day operations. Service disruption to and system failure of the CM&CAS will have significant adverse impact on LAD's operations and provision of service to its stakeholders, which include legal aid applicants, relevant courts, the legal profession and other service providers.

JUSTIFICATIONS

5. CM&CAS and KSS have been in use for over 17 years. The technologies adopted at the time of their development are already much outdated and need urgent updating. The outdated software and hardware have also rendered the systems vulnerable to security threats. In addition, due to limitation in system architecture and design, the two systems are inflexible in adding new functions or adopting new technologies to cope with changing and more complicated operational needs of today.

6. To address the above problems and ensure that the systems can continue to meet the users' operational needs efficiently in the long run, LAD

engaged a consultancy firm to conduct a feasibility study in 2018 to assess the operational needs and technical feasibility of revamping CM&CAS and KSS. The study, completed in October 2020, has identified various design, operational and technical limitations of the existing systems, e.g., the cessation of support for the programming language of the existing systems, slow processing time and security vulnerabilities due to outdated hardware and software, etc. There is also much room for improvement in the systems' user friendliness, ability to generate documents, data searching and case progress tracking.

7. Apart from a major revamp, the consultant had also explored the feasibility of using off-the-shelf package with customisation. However, as legal aid service is unique in the market, significant customisation work is needed for these packages in addition to change of internal process required for their adoption. A major revamp, building on new system framework and custom-built design, of the two systems would be more cost effective and minimise implementation risk.

8. LAD accepted the consultant's recommendations to revamp the two systems. The revamped systems will be hosted and operated in the Government Cloud Infrastructure Services (GCIS) platform. The system architecture is multiple-tiered, including web (presentation) tier, application tier, database (data) tier and client tier at LAD with Metro-Ethernet connecting the LAD offices to GCIS through government network.

9. LAD considers that the revamped CM&CAS and KSS will bring about the following improvements:

(A) Processing of legal aid applications

(i) Enhanced service provided to the applicants

When an applicant makes legal aid applications concerning different subject matters or a number of applicants make applications concerning the same subject matter at the same time, the revamped systems will be capable of creating multiple enquiry notes with common information to facilitate sharing of information electronically, tracking additional information and alerting users for prompt follow-up actions after the enquiry notes are created. This will greatly reduce the processing time for legal aid

application. The work efficiency for frontline staff will also be enhanced.

The revamped systems shall reduce certain manual work in the day-to-day operations and raise efficiency in the provision of legal aid services to the public with workflow oriented design and automation. For example, the system will upgrade the current document generation and storage functions and support version control of documents and multiple levels of templates so that suitable version of documents such as case-specific application forms, notice of assignment of lawyers, etc. could be generated automatically depending on the case nature of the legal aid application and according to whether the aided person is applying in his/her right, or whether he/she is applying as a representative for others etc.

(ii) More efficient information sharing with other parties such as other Bureaux / Departments / organisations

When conducting the means test on legal aid applicants, much time is now spent on obtaining, updating and keeping records of market data of investments being held by the applicants. The revamped systems will speed up LAD's handling of legal aid cases by better and more efficient information capturing, sharing, collaboration and processing. The revamped systems will link with the Hong Kong Exchanges and Clearing Market website to automatically download open market stock prices and update the relevant information in the system so that much time and effort would be saved by LAD' staff in downloading and cross-checking each and every stock to verify their respective prices for assessing means of applicants.

For information received by LAD from other government bureaux and departments, the revamped systems will be capable of capturing the information provided in physical form and to store such information electronically in the systems for easy retrieval.

(B) Assignment of cases

(i) More efficient assignment of legal aid cases

Under the revamped systems, the refined rules on assignment of cases will save handling time for manual checking and verification of information. These include increased search and filtering criteria for lawyers on the Legal Aid Panel to allow officers to identify suitable lawyers in a more efficient manner. The revamped systems will convert manual assignment processes to e-assignment processes. They will also keep track of more information about Panel lawyers and provide alerts to users during assignment.

(C) Monitoring of assigned-out cases

(i) Better performance and operational efficiency in case management

In the process of monitoring assigned-out cases, the case handling officers have to update the progress of the cases regularly and consider applications from assigned lawyers for the extension of legal aid certificates, engagement of experts and counsel, etc. The revamped systems will convert more manual approval processes to e-approval processes. They will also enable more data to be stored in the systems to allow close case monitoring and management.

(ii) Reduce manual work and reliance on physical files and paper documents

The processing and following up of legal aid cases often involve massive paper documents. Unlike the current systems, the revamped systems will be capable of storing additional types of data and documents electronically. Coupled with conversion of various manual approval to e-approval processes, the reliance of physical files will be reduced and time and manpower spent on frequent conveyance and sorting of bulky physical files can be saved.

(iii) Better means for dissemination of information to aided persons / assigned solicitors / other departments

The revamped systems will provide better support for data exchange and processing from the electronic portal of LAD (the Legal Aid Electronic Services Portal) which is accessible by legal aid applicants, aided persons and Panel lawyers for making appointments for applications of legal aid, updating personal information, tracking case information and submission of documents, etc. The revamped systems will also enhance document generation functions and increase the efficiency in generating correspondences with legal aid applicants, assigned lawyers and other stakeholders.

(D) Costs assessment

(i) More efficient bill assessment process

Upon conclusion of the legal aid cases, the assigned solicitors and/or the opposite party will submit their bills of costs for LAD's assessment. The revamped systems will facilitate preparation of bill of costs in pre-defined format with automatic calculation. The converted e-process will enhance accuracy and increase efficiency for costs assessment work. This will greatly reduce the time needed by LAD staff to assess bills of costs and thus speed up the entire process of costs assessment.

(E) Payments by LAD and automatic alerts/validation

(i) Enhance risk management through automating some legal aid operation processes with validation / checks / alerts / warnings

The revamped systems will help reduce the risks of errors in payments related to legal aid, and hence increase work efficiency. Unlike the current system, the revamped systems will be able to cross-check against different validation criteria before a payment to aided persons, assigned lawyers, experts and other parties could be approved through the system¹. The revamped systems will not

¹ For example, it shall cross-check the accounting status of any connected cases and alert users if DLA's First Charge applies and, if so, remind users of the amount of First Charge to be retained. For information, a legally

allow a user to proceed with an approval for payment if criteria are not met so as to reduce the risk of overpayment. Time and cost will be saved for not having to cross-check the above for each payment transaction manually.

The revamped systems will also improve the existing Bring Up and e-Diary functions so that the responsible officers will be alerted automatically to the specific tasks entered in the e-Diary such as court hearings and pledge deadline.

(F) Data search, retrieval and analysis

(i) Enhanced data retrieval for comprehensive analysis

The revamped KSS will provide snapshot of operational data regularly to facilitate comparison of data trend. It will also provide on-demand analysis of large volume of cross-functional data from CM&CAS to support management and operational decisions. The revamped KSS will also allow users to retrieve data from CM&CAS in a more user-friendly and flexible manner and to compile comprehensive management and statistical reports more promptly so as to respond to the request for statistics relating to LAD's operations.

(ii) More advanced search engine

An advanced search engine will be introduced to store the index data for efficient full-text search, queries and key-word search, etc. These searching features which are lacking in the current systems will allow users to search for the target data more efficiently and effectively.

aided person who is successful in recovering or preserving any money or property in the legally aided proceedings will be required to repay DLA the sums as required under section 18A(1) of the LAO out of the money or property recovered or preserved in such proceedings. The sum that the legally aided person has to pay DLA out of the money or property recovered or preserved is called DLA's First Charge.

(G) System security

(i) Enhanced system security and better operation support

The revamped systems will run on GCIS, which not only conforms to the latest government security regulations, policies and guidelines, but also provides advance security features². It also streamlines the system operations and reduces system support effort and operating costs.

(ii) Improved system backup

The GCIS further improves system resilience by automatic replication of production data to resilience site, thus saving the transmission time and facilitating speedy system recovery. The revamped CM&CAS will implement a cost-effective disaster recovery (DR) solution, enabling it to have a quick DR Service to restore lost data immediately and ensure continuity of service and minimise disruption of legal aid services to the public.

(H) Support to OSO

The revamped systems will support the maintenance of the inventory list of assets owned by a MIP when the Official Solicitor acts as the committee of the MIP. The system will be able to keep track of all the changes of the inventories of the MIP and generate updated inventory list marked with all changes since creation and allow staff in OSO to seek approval for retrieval, removal or deposit any item in the inventory list and keep a record thereof.

IMPLEMENTATION PLAN

10. Subject to the approval of the Finance Committee (FC) of the Legislative Council, LAD will immediately proceed with the preparation of a tendering exercise with an aim to inviting tender by Q3/Q4 of 2021 and awarding the contract by mid-2022. The revamped CM&CAS will be

² Such as self-configurable inter-zone firewall, anti-DDoS (Distributed Denial of Service), data-at-rest-encryption, etc., to protect tenant applications.

implemented in two phases, with phase 1 rolling-out in mid-2024, covering system functions required for OSO and Accounts Section, and phase 2 rolling-out in mid-2025, covering remaining functions for Application and Processing Section, Civil Litigation Section, Crime Section and other supporting Sections/Units. KSS will be implemented in Q3 of 2025. The two-phase implementation approach will minimize the implementation risk of big-bang rollout and ensure smooth transition to user operations. A tentative implementation schedule is at **Annex A**.

FINANCIAL IMPLICATIONS

11. The implementation of the new CM&CAS and KSS will incur a total capital expenditure of \$79.07 million from 2021-22 to 2025-26. Details are at **Annex B**. In addition, the revamped project will require a temporary project team for tender execution, project management, system analysis and design, site preparation, quality assurance, acceptance testing and implementation control. The staff cost of the project team will be mostly absorbed within the existing resources of LAD.

12. After the implementation of the new CM&CAS and KSS, it will require an indicative annual recurrent expenditure of \$10.33 million from 2026-27 onwards. The cost breakdown of recurrent expenditure is at **Annex C**. The recurrent expenditure includes expenses relating to hardware and software maintenance, cloud services, system maintenance and hiring of contract staff. The current annual recurrent expenditure for the existing systems is \$4.07 million. LAD plans to bid for the additional resources to cover the additional annual recurrent expenditure of \$6.26 million in the relevant financial years.

Cost Savings / Avoidance

13. As the existing CM&CAS and KSS have been used for over 17 years, the overall architecture design and hardware and software are becoming obsolete. To ensure the continuity of effective provision of legal aid service, the revamp of the existing systems is therefore necessary and should be proceeded as soon as possible. Moreover, the revamp will bring in the latest technologies and enable LAD to both enhance the existing functions and build new functionalities for the better support of the service delivery to the legal aid recipients.

14. It is anticipated that the revamp of CM&CAS and KSS will bring about a total cost savings / avoidance of \$113.82 million (as explained in more details in Annex D) from 2025-26 to 2031-32, mainly through the streamlining of procedures and reduction in staff efforts in various Sections/Units of LAD given the enhanced and new features of the revamped systems. This will allow LAD the flexibility to redeploy manpower to strengthen other service areas in need. Details of the cost savings / avoidance are at **Annex D**.

ADVICE SOUGHT

15. Members are invited to provide their views on the implementation of the proposed revamp of the CM&CAS and KSS by LAD. Subject to Members' support, we will seek the necessary funding from the FC within this legislative session.

Legal Aid Department
February 2021

Implementation Schedule

Activities **Target Completion Date**

Case Management and Case Accounting System

Tender preparation, tendering and award of tender	June 2022
System Analysis and Design (Phase 1 & 2)	January 2023
Phase 1 User Acceptance Test	May 2024
Phase 1 Live Run	June 2024
Phase 2 User Acceptance Test	May 2025
Phase 2 Live Run	June 2025

Query System (Knowledge Support System)

Procurement	January 2025
User Acceptance Test	July 2025
System Live Run	August 2025

Annex B

**Non-recurrent Expenditure
for Implementation of the Case Management and Case
Accounting System and Knowledge Support System
(in \$'000)**

Item	2021-22	2022-23	2023-24	2024-25	2025-26	Total
(a) Hardware				660		660
(b) Software		1,513	2,863		2,109	6,485
(c) Cloud Services		178	302	1,030	879	2,389
(d) Communication Network		63	333	84	21	501
(e) Implementation Services		5,332		11,954	32,839	50,125
(f) Contract Staff	194	1,859	3,080	3,241	2,696	11,070
(g) Security Risk Assessment & Audit and Privacy Impact Assessment			178	60		238
(h) Training			106	221	89	416
(i) Contingency	19	895	686	1,725	3,863	7,188
Total	213	9,840	7,548	18,975	42,496	79,072

Notes:

Item (a): comprises hardware required for implementation of the new system.

Item (b): comprises system software for servers, database, optical character recognition software, antivirus software, reporting tool, etc.

Item (c): comprises the Cloud Services for the new system.

- Item (d): comprises upgraded network services and network security assessment, etc.
- Item (e): comprises implementation and support services from service providers. Main implementation activities include system analysis and design (SA&D), application development, system installation and configuration, infrastructure implementation at data centres, production rollout and nursing, etc.
- Item (f): comprises engagement of services of contract information technology professional staff to supplement the in-house project management team on tendering, project management, support for system analysis and design, and conducting acceptance tests.
- Item (g): comprises the consultancy service for conducting Security Risk Assessment & Audit and Privacy Impact Assessment for the new system.
- Item (h): comprises the training service for internal stakeholders.
- Item (i): represents about 10% of the costs required for items set out in Items (a) to (h).

**Annual Recurrent Expenditure
(in \$'000)**

Item	Total
(a) Hardware and Software	1,031
(b) Cloud Services	1,253
(c) Communication Network	84
(d) System Maintenance	6,254
(e) Contract Staff	1,708
Total	<u>10,330</u>

Notes:

Item (a): comprises hardware and software maintenance required for supporting the new system.

Item (b): comprises Cloud Services.

Item (c): comprises upgraded network services.

Item (d): comprises maintenance and support services from service providers for the new system.

Item (e): comprises engagement of contract information technology professional staff to supplement the in-house maintenance team on the maintenance of application, infrastructure and enhancement of the new system.

Breakdown of Cost Savings / Avoidance

- (a) Realisable savings of \$27.34 million – This represents the maintenance and support cost of existing CM&CAS and KSS from 2025-26. The realisable savings, which is recurrent in nature, should start after retirement of the existing system in 2025-26 to 2031-32. The savings will be ploughed back to cover part of the maintenance and support costs of the new system;
- (b) Notional savings of \$66.73 million – With the improvement brought about by the new system, notional savings, which is recurrent in nature from 2025-26 to 2031-32, will be achieved mainly through fragmented reduction in staff effort in various Sections/Units from new features such as diary, alerts and enhanced content search, better preparation of ad hoc management reports and statistical data for planning and analysis, and reduced support effort and operating costs after adopting cloud technologies;
- (c) Cost avoidance of \$19.75 million – The additional non-recurrent (\$10.99 million) and recurrent cost (\$8.76 million) for upgrading and enhancing the existing system from 2025-26 to 2031-32 will be avoided.