

LIST OF ACRONYMS

AAU—Agents Affairs Unit
DLSUs—Departmental legal service units
EDMS—Electronic Document Management System
IFMS—Integrated Financial and Materiel System
IMB—Information Management Branch
IT —Information Technology
LCSS—Legal Contracts Support Section
LPMU—Litigation Practice Management Unit
PKI—Private Key Infrastructure
PRI—Personal Record Identifiers
RCMP—Royal Canadian Mounted Police
SDLC—Systems Development Life Cycle
SQL—Standard Query Language (an IT industry-standard language for creating, updating and, querying relational database management systems)
SRA—Secure Connectivity Service
TBS—Treasury Board Secretariat
TKS—Timekeeping System
TRAs—Threat and Risk Assessments

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EXECUTIVE SUMMARY

Caseview is an integrated case management, document generation/retrieval and timekeeping system used by the Department since 1995. By 2001, the Department realized that Caseview had reached its limit in terms of meeting new requirements and technological trends. In 2002, the Department began development of iCase with a view to combining in a web-based environment the functions of Caseview, other timekeeping systems, and systems used to process legal agent invoices. With more than 3,000 potential users, iCase will be a key case tool for lawyers and an important system for the management of resources.

During the audit fieldwork phase, the iCase software was in Phase 1 of its development, which included a pilot in Montreal. The target was to fully implement iCase in Montreal by March 2003. Overall implementation of iCase at Headquarters, regional offices, departmental legal service units (DLSUs), and legal agents will take two to three years subject to funding availability.

The audit reviewed and assessed the system functions and management framework in place. The audit included an examination of the iCase development process, consultations with developers, stakeholders and prospective users, review of system development documentation and the test version of iCase. Since iCase is based to a large extent on Caseview, the auditors conducted a limited review of the usefulness of Caseview.

The Legal Information Management Directorate (LIMD) manages the business aspects of Caseview and iCase under the direction of the Senior Regional Director, Quebec Regional Office, a member of the Executive Committee. The iCase/Caseview team of the Practice Management Section, Front Office, Information Management Branch (IMB) supports Caseview and is developing and implementing the iCase software under the functional direction of the Legal Information Management Directorate.

Project Management

Various management processes are in place. However, a formal management control framework is required to ensure effective implementation and use and to keep key stakeholders well informed. Planning documents for iCase software development and implementation cover mainly the activities of the iCase/Caseview team. Although significant progress has been made, no formal plan exists that lists all required business activities to implement and complete iCase nor is there formal regular reporting to senior management on progress, issues, achievement of success factors, and funding required.

The responsibilities for software development and implementation are defined in the *iCase Project Charter* (prepared by the iCase/Caseview team). However, this is only a portion of the responsibilities for iCase. Complete roles and responsibilities of those who will support, manage, and use the system need to be defined.

There are various methods for consultation with stakeholders but there is no committee to oversee the whole project as is usually the case for large system development projects. Given the scope and importance of iCase to the Department, major decisions should be made and supported by a management committee following a formal process.

Ownership of data has not been formally defined and needs clarification. iCase's central database will make it easier to access and produce reports with data from all regions and departmental legal service units. The regions are concerned about use of the data without their consent. The intention is to consult with the regions before their data is used. However, it will not always be possible or effective to do so before the preparation and use of national reports.

We were informed that the iCase/Caseview team's funding for Operations and Expenses has remained the same for about five years. Every year the budget has been insufficient, and the practice has been to provide additional funding by the end of the year. In September 2002, the estimated shortfall in required funds would be about \$700,000 for 2002/03. The iCase project continues in development with these unresolved funding issues. This uncertainty is partly derived from the lack of a business case. We recommended in September 2002 that a business case be developed. In January 2003, we were informed that one would be prepared in February 2003. The iCase system is essential for the Department, and funding delays resulting in project interruptions may result in larger costs and delayed benefits in the long run.

Software Development

The iCase/Caseview Team defined a successful system development methodology for iCase. Testing and quality control were completed. Acceptance testing is scheduled to be completed while the system is being implemented in order to give the user representatives the opportunity to verify system functionality and usability. The team has consulted users both directly and indirectly. For a system with such a large user base, a reasonable approach has been followed.

An independent consulting firm formally reviewed the iCase design architecture in February 2002. They concluded that the best option was to use a central database. The review also indicated that iCase performance should be good on the Departmental network except for the northern regions. The review recommended that an iCase performance and capacity monitoring and reporting process be implemented.

Our review of iCase showed that iCase is easy to use and has more functionality than Caseview. The web-application style of iCase allows use from a regular browser, which, as it is a familiar format, is expected to also reduce training needs for users.

Since iCase is based on Caseview, we conducted a sample of interviews to assess the use of Caseview. We found that Caseview reports are widely used and considered valuable at the national and regional levels. Also, Caseview works well for recording and accessing case records and documents.

Legal agents requirements are being addressed in two phases. In Phase I, legal agents will be able to use iCase to record time and prepare printed bills for submission to the Department by mail or fax. In Phase 2, they will submit the invoices electronically and iCase will provide a link to the Integrated Financial and Materiel System (IFMS).

While iCase will have better data and reporting capabilities, the departmental information requirements need to be better defined and iCase amended to meet them, if required.

Documentation, Procedures, and Protocols

Caseview manuals combine both business procedures and instructions on the use of the system. iCase's improved documentation will separate system instructions from business procedures.

Business protocols include procedures as well as national and portfolio standards. Protocols have been developed or are being written for all portfolios but some need revision to exclude system instructions. All should be expanded to include their purpose, the responsibilities of stakeholders, and data integrity and management controls. Proper technical system documentation also has either been completed or is planned.

Features and Benefits

iCase is a better system than Caseview and will have several added benefits. Some examples follow:

- A single system will provide a consistent approach to working with cases and documents related to cases as well as one application for case, time, and agents management purposes.
- The central database will allow for easier, faster national searches and more complete reporting.
- iCase will be available to users working outside the Department's WAN (wide area network).
- Those using iCase will have to follow national and portfolio standards making the information easier to consolidate and analyze.
- One single system will make maintenance, support, and staff training easier.
- Once Phase 2 is implemented, the processing of legal agents invoices should be faster, more accurate, and efficient.

The *Privacy Impact Assessment Policy*, Treasury Board Secretariat (TBS) requires the development of Privacy Impact Assessments (PIAs). No Privacy Impact Assessment was completed or planned for iCase.

iCase Integration and Interfaces With Other Systems

Systems integration is desirable to share information, reduce data duplication, and improve data integrity. The first version of iCase has an interface with the national Records Management System (RIMS). Future versions of iCase in Phase 2 may link or integrate with other departmental systems. In particular, the Electronic Document Management System (EDMS) is intended to manage all electronic records, and iCase contains a very large portion of the Department's electronic documents. The linking of these two systems is important and should take place in Phase 2.

The LIMD produces reports from both Caseview and the Timekeeping system. For these reports, it maintains its own database of employees and obtains some information from PeopleSoft, a human resources application. The process is cumbersome and error-prone. This interface is important to assist in preparing more accurate national reports and should be addressed as soon as possible.

The responsibility for the coordination, integration, and interfacing of iCase with other systems is beyond the authority of the iCase/Caseview team, but rather should be assigned to a manager who has the appropriate authority and tools to coordinate the development of system interfaces and integration.

Security

iCase has better security than Caseview. Access can be restricted by providing different access rights and allowing access only to those who need it. Also, iCase can record an audit trail but a decision on what is to be tracked was yet to be made.

The proper method for addressing system security is the completion of a threat and risk assessment. Threat and risk assessments allow management to demonstrate that risks have been properly considered and decisions made to reduce them if required. One had been planned for Phase 1 but is delayed because of a lack of funds.

Data Integrity

Since iCase is based on Caseview, we conducted limited inquiries on the accuracy of Caseview reports. While the Caseview administrators' perception is that the data is accurate, national portfolio managers had concerns about data accuracy. When Caseview was introduced, it was deemed more important to gain acceptance than to enforce edits. Therefore, the Caseview system enforces few edits. The iCase edits will be similar to those of Caseview. As in Caseview, audit reports with missing data will be printed for iCase administrators or users to correct. This process does not identify data errors.

The benefits of a central database and national reporting and analysis will be decreased if the data is inaccurate. An accepted and proven industry practice is that the best time to correct data is when it is entered or shortly thereafter. Edits at data entry time should be improved, consideration should be given to the implementation of screens or reports to facilitate the

verification of data shortly after it is entered, and a more formal process for the review of the data soon after it is entered should be implemented.

Conclusions

The iCase project has achieved considerable progress in view of the complexity of the task. However, some issues need to be addressed. Most importantly, iCase requires a formal management control framework to ensure effective implementation and use, a decision on stable funding, a business case to support the determination of funding levels and measure success, and the improvement of data integrity measures to ensure that more reliable information is obtained from the system.

The management response to the recommendations contained in this report was provided by the Director, Legal Information Management Directorate, on October 30, 2003.

1. INTRODUCTION

1.1 Background

iCase is an extensive information management system currently being developed at the Department of Justice. Conceived as the successor to the current system, Caseview, it is designed to address a greater number of business requirements. Caseview is an integrated case management, document generation/retrieval, and timekeeping system. First used in the Vancouver Regional Office in 1995, it now serves more than 2,000 users in all regional offices and at national Headquarters. Caseview is also implemented at Health Canada and Treasury Board departmental legal service units (DLSUs).

Caseview provides an interface with the Department's national Records Management System (RIMS). Caseview contains case-related data on legal files and electronic versions of documents. RIMS tracks all paper files and records, including records of folders, pockets (i.e. within file folders for bound documents), charge-outs (i.e. records identifying who has taken out a document), location, and records destruction. Caseview is a decentralized system. Each Department of Justice site has its own database, which allows for entering data associated with a file, creating and retrieving relevant text documents, and relating text documents to a file.

The Department also operates other systems that serve different user communities. The Timekeeping System (TKS) is used to keep track of billable and non-billable time against projects, cases, and files for lawyers, paralegal and legal staff deployed across several DLSUs. Some DLSUs use other systems with a similar functionality to the TKS. The Justice Electronic Forms (JEF) is a system that allows legal agents to bill the Department for services rendered and recoverable expenses. JEF was introduced as a pilot project in April 1997. It is now used by about 40 agents to print invoices, which are submitted in paper form to the Department for review. The Integrated Financial and Materiel System (IFMS) is used to record all invoices and pay those for work funded by the Department. Other invoices are paid by client departments.

In April 1998, the Auditor General called for better information on the use of litigation resources, noting that the new Caseview system was critical to the efficient and effective management of the litigation process, although its implementation had been proceeding slowly. It should be noted that the Department of Justice completed an audit of Caseview in 1999.

Although over its history Caseview has improved the management of legal cases, in early 2001 the Department realized that Caseview had reached the limit of its capability. It could not meet new requirements, was not using current technology, and was expensive to support. In 2002 a decision was made to develop the iCase system to combine the functions of Caseview, timekeeping systems (e.g. TKS), and the systems used to process legal agent invoices (i.e. JEF and some of the verification performed by IFMS).

1.2 Project Organization

The Legal Information Management Directorate (LIMD) manages the business aspects of Caseview and iCase under the direction of the Senior Regional Director, Quebec Regional Office, who is a member of the Executive Committee. The LIMD Director provides functional direction to the iCase/Caseview team, which is assigned on a full-time basis to the development and implementation of iCase as well as to the continued support of Caseview. The team consists of IMB staff from the Practice Management Section, Front Office Directorate, Information Management Branch.

Once implemented iCase will be used by all legal portfolios of the Department. This includes counsel, paralegals, assistants, iCase administrators, records management staff, and managers at various levels. iCase intends to provide a national case management and reporting system, accessible to all authorized users regardless of physical location—whether at Headquarters, regional offices, or DLSUs. The Agents Affairs Unit (AAU) and the Litigation Practice Management Unit (LPMU) will use the system to review, approve, analyze, and monitor the costs and use of legal agents. The Coordinator, Identification and Management of Legal Risk will also use the system for legal risk management purposes. Serving more than 3,000 users nationally, iCase will be a key case tool for lawyers and an important system for the management of resources.

The iCase project will be built in two phases. Phase 1 will encompass the design, development, and delivery of a product that will incorporate all of the current Caseview functionality (with approved enhancements) as well as other processes to allow it to be extended to staff and legal

agents who record time (e.g. against projects, legal cases, files). Phase 1 will also replicate (with minor improvements) the existing integration between the Caseview and RIMS applications and will define the integration requirements and specifications between iCase and IFMS. However, the integration with IFMS will only be built during Phase 2 of the iCase project. Future integration with other systems will be considered after iCase implementation/roll-out.

As part of the planning process, four main activities were defined for Phase 1: project initiation, design and development, implementation, and post-implementation. The first two activities are completed with some exceptions. At the time of the audit the implementation activity had started with the running of a pilot and implementation in Montreal. The post-implementation activity will follow implementation.

1.3 Objectives and Scope

The audit reviewed and assessed the adequacy of the system functions and the management framework in place for developing and implementing iCase. More specifically, the audit examined the extent to which the stated objectives for Phase I of the iCase development project can be or are being met. The audit did not address Phase 2 of iCase.

As set out in *the iCase Project Charter* (prepared by the iCase/Caseview team) the iCase objectives for Phase 1 are to:

- replace the functionality of the current Caseview, TKS, and JEF applications, while providing improved performance;
- establish, distribute, and maintain a single case management/timekeeping application within the Department, with its own independent national database;
- integrate iCase with other applications (i.e. RIMS, IFMS (deferred to Phase 2), and PeopleSoft, a human resources application) to share information and reduce data duplication and redundancy;
- support a combination of nationally and locally defined code tables (e.g. province, person type, document group);
- continue to use the existing Caseview document templates;
- define a baseline for national reporting requirements and for the development of ad hoc, local reports by implementing a report generator;
- restructure business support for national and regional portfolios;

- achieve improved and expanded connectivity for users outside the Department's IT infrastructure (DLSUs and legal agents);
- maintain and improve the application to allow the use of new technology.

1.4 Methodology

The methodology employed in this audit consisted of:

- a) interviews with staff of IMB and the Legal Information Management Directorate
- b) interviews with representatives of the Agents Affairs Unit (AAU) and the Litigation Practice Management Unit (LPMU)
- c) interviews with a sample of representatives of national and regional portfolios and the Coordinator, Identification and Management of Legal Risk
- d) interviews with a sample of Caseview administrators
- e) review of current Caseview reports and report requests
- f) review of maintenance requests for Caseview
- g) review of various documents on iCase
- h) review of the test version of iCase

Audit fieldwork was conducted between September 2002 and January 2003.

2. PROJECT MANAGEMENT FRAMEWORK

Given the scope and importance of iCase to the Department, a clear and formal management control framework is required to ensure that the development and implementation of iCase is effective and that stakeholders are well informed. The audit addressed the various aspects of the management framework—roles and responsibilities, planning and priorities, management reporting, business case and funding, change management process, and communications.

2.1 Roles and Responsibilities

The Legal Information Management Directorate (LIMD) manages the business aspects of Caseview and iCase. This Directorate also manages the preparation and publishing of national reports and regional reports not directly available to Caseview users. Some reports use Caseview data alone and others combine information from Caseview and the various timekeeping systems. The reports are used by departmental managers, clients, and the Treasury Board Secretariat (TBS). The LIMD also prepares iCase business protocols and will coordinate iCase use. The LIMD Director provides functional direction to the iCase/Caseview team.

IMB staff from the Front Office Directorate are assigned to the support of Caseview and to the development and implementation of iCase. The team consults with other IMB sections and IT regional staff regarding IT infrastructure and connectivity issues. IT regional staff are responsible for the operation of the regional servers and LANs. Other sections of IMB are responsible for providing services used by iCase such as the WAN (wide area network), LANs (local area networks), and secure connectivity. The responsibilities for software development and implementation, as defined in the *iCase Project Charter*, include system developments, technical support, and database management. The *iCase Project Charter* does not define responsibilities for iCase once it is operational. However, it indicates that an organization change plan to assess how new applications will impact the business is to be prepared. We found that improved

coordination is required with other IMB project and services (see section iCase Integration and Interfaces With Other Systems).

Although there are various methods in place for consultation with iCase stakeholders, there is no committee to oversee the whole project, as is usually the case for large system development projects. Given the scope and importance of iCase to the Department, a clear and formal management control framework is important to approve plans, strategies, and make important decisions.

Responsibilities for ownership of data have also not been formally defined and need clarification. Caseview's data is presently located in regional offices in separate databases. However, both regional and national portfolios have an interest in the data. Regions have concerns about use of the data without their consent. When reports are produced at Headquarters using regional data, the regions want to be consulted to correct or change data, if necessary, to ensure that it is the right data for the context in which it is going to be used. The number of stakeholders with an interest in the data will increase when iCase is implemented with departmental legal service units (DLSUs) and legal agents. The data will also be used for other purposes such as legal risk management and establishing precedents. It will not always be possible or effective to consult with all those who provide data before the preparation and use of national reports.

The Agents Affairs Unit (AAU) coordinates the activities of federal prosecution legal agents and the Litigation Practice Management Unit (LPMU) in the Civil Litigation Branch coordinates those of civil litigation agents. The Legal Contracts Support Section (LCSS), Accounting Services Section, Finance, Administration and Program Directorate, Corporate Services Branch has some accounting and payment responsibilities for the verification and recording of legal agents invoices. They are also responsible for and use legal agents data. The audit team finds these responsibilities sufficiently defined with regard to iCase. A separate audit of the Legal Agents' Accounts Verification Process conducted in 2001 and 2002 made recommendations on responsibilities beyond the scope of iCase.

iCase business practices will be based on those already established for Caseview. Yet the role of current Caseview administrators is not well documented. Complete roles and responsibilities of those who will manage and use the system need to be defined. They include the Legal Information Management Directorate, user-managers, and various levels of iCase administrators (templates, national codes, reporting, portfolio codes, local codes, section administrators, and local iCase administrators). Their responsibilities for the monitoring of data quality and the use of information need definition and should include data entry and integrity (see Data Integrity

section). Also, an activity to analyze organizational change to assess how iCase will impact the business was identified in the *iCase Project Charter* but not completed.

Recommendations and Management Response

1. It is recommended that the Director, Legal Information Management Directorate:

- a) Request that a senior management committee assume responsibility for steering the iCase project approving plans, strategies, and making major decisions.**

The members of the iCase Steering Committee have been identified and the organization of the first meeting is in progress.

- b) Take steps to obtain approval to define and document the ownership of the iCase data.**

The question of ownership of the data and documents captured by the various information management systems used by the Department has always been an issue and the object of serious debate. This is one of the first questions the iCase Steering Committee will address in order to set departmental guidelines that will be abided by all organizational unit managers.

- c) Propose a model and obtain approval for the responsibilities of the iCase user community such as business managers and local system administrators.**

The model has been partially approved by BIT.COM. The complete model will be finalized and presented for approval to the iCase Steering Committee once the business analyst have been recruited and their functions refined through business processes. The iCase project Charter has been updated to include a definition of the role and responsibilities of individuals at all levels of the information management infra-structure created to overview all the different aspects of legal information management. This includes the National Business Manager, the Business Analysts, and the Organizational Unit iCase administrators.

2.2 Planning and Priorities

There are several planning documents for iCase software development and implementation including the following: an *iCase Project Charter*, which sets out project objectives, software development and implementation responsibilities, target dates, etc.; a project plan; and minutes of regular progress review meetings. These documents cover mainly the activities of the iCase/Caseview team. The iCase project is also included in the strategic plan for IM/IT 2002-2007, in the yearly list of projects of IMB, and is subject to regular peer reviews by IMB management.

As discussed in the Project Organization section, the first version of iCase (Phase 1) will provide the functionality of Caseview as well as several enhancements. All sites will continue to use RIMS to open files and the relevant file details (e.g. file number, name, status, type) will be electronically exchanged with iCase. The iCase/Caseview Team has deferred further iCase enhancements to Phase 2 subject to funding availability. At the time of the audit, the iCase/Caseview team's priorities were to complete the remaining Phase 1 requirements, stabilize the application (i.e. bug fixes, minor enhancements), and plan for the national implementation of iCase (including capacity planning).

During the audit, the iCase/Caseview Team was piloting iCase in the Quebec Regional Office in Montreal. The target was to fully implement iCase there by March 2003. Afterwards, iCase will be implemented one region at a time. This is a large undertaking and it will probably take more than one year to implement the system in all regions. Implementation at departmental legal service units will likely take longer since each DLSU has different business requirements and a different technical environment. The implementation of iCase in the offices of legal agents will also take additional time. The iCase/Caseview team's plan was to complete iCase development and to implement it in the next two to three years at Headquarters, regional offices, DLSUs, and legal agents subject to funding availability.

The audit team found that most objectives outlined on the *iCase Project Charter* have appropriate planned schedules, but a few have no set target dates. This is understandable for a system that is still in development. Of the required activities we note no planned target dates for the following:

- implementation dates for regions other than Montreal, DLSUs, and legal agents
- definition and assignment of user activities and responsibilities

- integration with other projects such as PeopleSoft and Electronic Document Management System (EDMS)
- finalization of pending protocols and revision of existing ones
- completion of pending standards to be used by iCase such as the National Timekeeping Task List

The project business activities include coordinating user activities, defining requirements, commenting on iCase design, and developing procedures and standards. Although there are several ongoing activities regarding the use and implementation of the system, we found no formal plan listing all required activities to implement and complete iCase. The development and implementation of iCase is a large undertaking and a formal management control framework is required to ensure key stakeholders are well informed and can gain a good understanding of the project and its targets. Implementation and successful use requires coordination and involvement of various levels of management, system administrators, and users.

Recommendations and Management Response

- 2. It is recommended that the Director, Legal Information Management Directorate, prepare a formal and complete iCase plan, approved by senior management, to be communicated to the iCase user community.**

A plan will be prepared and finalized for the beginning of December.

2.3 Management Reporting

The iCase/Caseview Team holds regular progress review meetings and maintains records to keep track of progress. However, management reporting is informal and incomplete for the business activities. Formal reporting to senior and stakeholder management on progress, issues, achievement of success factors, and funding is required.

Recommendations and Management Response

- 3. It is recommended that the Director, Legal Information Management Directorate, prepare regular written reports of project progress for senior management and stakeholder management.**

Such reports will be tabled regularly as of the beginning of December.

2.4 Business Case and Funding

Although iCase began as an enhancement of Caseview, it has developed into a much larger system with a wider scope that affects several departmental functions. At the start of this audit, we noted that, although some documents had elements of a business case, no actual business case had been completed. Typically a business case contains the project purpose and scope, justification for the project, relationship of the project to departmental objectives and plans, assumptions, project risks, benefits, total costs, and an explanation of how the project will be managed. It presents information in a manner that senior managers can use to make decisions concerning approval and funding. Business cases are normally completed for IT projects that include systems development and major IT enhancements. With iCase the business case is particularly important because of the uncertainty that surrounds obtaining the required funds for the project. The preparation of a business case for iCase was identified in the *iCase Project Charter* but has not been completed.

The securing of project funding was identified in the *iCase Project Charter* but it has not been achieved. Funding issues remain a concern with the iCase project. We were informed that the iCase/Caseview team has had the same funding for about five years—\$740,000 for Operations and Expenses in 2002/03. IMB provides seven FTEs for the team for timekeeping and Caseview support and for iCase development and implementation. The rest of the team is staffed by consultants. Every year the budget is insufficient, so the practice has been to provide additional funding by the end of the year. In September 2002, the estimate was that the required funds would be \$1.4 million for 2002/03. It became unclear whether the project would be allowed to continue, even though most of the software had been developed. By December 2002, it was decided to conduct a pilot in Montreal from December 2002 to February 2003 and implement iCase in Montreal by March 2003. The option of moving work in-house from contractors was also being considered to reduce costs. As of the date of the audit, funding for later years was still not approved. An earlier budget prepared for 2002/03 indicated that iCase would be implemented in all regions in 2002/03. This target however was too ambitious, and not surprisingly by December 2002 full implementation was expected to take two to three years.

The determination of total costs of a project should include all development, implementation, and operating costs usually covering at least five years. User costs may also be noted even if there is separate funding for them; they are still departmental costs. Costs expected to be covered

by existing facilities, operations, or other projects that are expected to provide services to iCase should also be noted.

In the iCase project operational costs such as the IMB costs for connectivity, operation and maintenance of servers, and user support have not been fully documented. Also, costs to users to implement and manage the system have not been estimated. There are also additional costs incurred by the Legal Information Management Directorate (including about seven FTEs) for report preparation. Other costs include those related to staff assigned by portfolios to assist with Caseview and iCase standards, protocols, and requirements.

The costs for secure connectivity to allow users such as legal agents and those in DLSUs to access iCase will be high. There are various solutions for secure connectivity. The preferred solution has a cost of about \$1,000 per user per year. Other solutions have a higher cost. The funding of the costs is still under discussion. However, for legal agents the Department was to provide two licences for each agent with additional licences, if required, being paid by the legal agents, themselves.

iCase will have many benefits (see Systems Features and Benefits Summary) and most objectives mentioned in the *iCase Project Charter* are being met. In 2002 the Department had significant funding problems and iCase will provide useful information to assist in the management of departmental costs related to the use of legal agents and staff. However, there are no objectives stated in business terms (such as data integrity targets, use of reports, improvements expected on the management of resources, improved service to clients) and these should be in the business case. On September 19, 2002 we recommended that a business case be developed. In January 2003, we were informed that a business case would be prepared in February 2003. The system is essential for the Department and funding delays resulting in project interruptions may mean increased costs in the long run.

Recommendations and Management Response

- 4. It is recommended that the Director, Legal Information Management Directorate, develop a business case and obtain both senior management approval and a decision on related funding.**

A business case was prepared and approved by BIT.COM and the Executive Committee in late June. At that point in time the Department was ready to give funding on an annual basis by covering the accumulated deficits of the Directorate at the end of each fiscal year.

Permanent funding does not seem to be a departmental priority at this point in time. A revised business case will be prepared and presented to the iCase Steering Committee this fall. In this business plan, more consideration will be given to costs for secure connectivity and costs associated to software maintenance, support and enhancements.

2.5 Change Management Process

The iCase project has in place a process for system technical change management (the controlled acceptance of change requests and deployment of software updates), but it is not well linked to the project funding. In other words, sufficient consideration is not always given to the required project funding to meet the technical changes. The scope of iCase has broadened resulting in unexpected costs—for example, the Document Management System and Fine Recovery function were added for Montreal, and the software required for legal agents necessitated more work than anticipated. Also, requests for Caseview reports have increased in number so the Legal Information Management Directorate decided to begin implementing charges for the preparation of new reports that are not in support of departmental billing, both to recover costs and to reduce the number of unjustified requests. Although some improvements to the cost control process were being initiated, further efforts are required.

Recommendations and Management Response

- 5. It is recommended that the Director, Legal Information Management Directorate, ensure that costs are estimated and carefully considered as part of the process of making systems change decisions.**

The assistance provided by the portfolio business analysts should have a definite impact on the amount and variety of information required from the users by senior management and consequently on the requests for enhancements. Nonetheless all requests for enhancements must be approved by the Legal Information Management Director. Furthermore all major system enhancements will have to be approved by the iCase Steering Committee.

2.6 Communications

The project has various good communication methods. These include regular meetings with user representatives, notices by email to all staff, and the maintenance of an Intranet Web site containing project documents.

We found that Caseview administrators were generally well informed about iCase. However, some new staff have questions about iCase that they neither asked nor researched. Most portfolio managers knew that iCase would be better than Caseview but did not have a sufficient understanding of its benefits. The representatives for the legal agents and timekeeping processes had a good understanding of iCase.

We also found that the regional IT representatives had questions or concerns about iCase. In some cases answers to their questions were available on the iCase Intranet site. In other cases they could have asked the questions either at the regular meetings or directly to the iCase/Caseview team, but had not. Some concerns were unfounded such as regions being unable to access data for specific regional needs. However, some concerns needed clarification such as iCase availability targets and contingencies if the database is down, iCase speed of response when large reports are running, and whether any costs are to be charged to the regions. Regional concerns mainly revolved around controls on access and use of the regional data by Headquarters (see Project Organization and Responsibilities, User Involvement, and Data Integrity sections). Two of five regions consulted believed that the decision to have a centralized database was arbitrarily taken by the iCase/Caseview team.

iCase is a complex project and it is not likely that those with casual involvement will understand it well. However, they should be encouraged to ask questions. It may not be possible to answer all questions at this time as the system is still in development.

Recommendations and Management Response

- 6. It is recommended that the Director, Legal Information Management Directorate, issue a notice to key stakeholders informing them where to access available information on iCase and to whom they should direct questions.**

Key stakeholders are reached through various communication means including email, *JustInfo*, on site presentations and a web site.

3. SOFTWARE PROJECT MANAGEMENT

3.1 Systems Development Methodology

Since the Department did not have an approved systems development methodology, the iCase/Caseview team used a methodology that was based on various examples developed by other organizations but modified to better suit the needs of the iCase project. The resulting methodology includes rapid application development (RAD) techniques. RAD is a methodology widely used within the informatics industry for faster systems development. Because iCase is not an entirely new system, its specifications for enhancements are based on Caseview. For the legal agents functions the previous JEF system was used as a model. Upcoming changes and enhancements to Caseview were considered by a working group that decided which to incorporate in iCase. Also, the Caseview's user interface was re-engineered to a web-based application. The audit team finds the project is following this methodology with success.

3.2 Testing and Quality Control Process

The iCase/Caseview team have followed various steps for testing and quality control:

- A plan for the iCase test was prepared, followed, and test results documented.
- Several users tried a demonstration version of iCase during its development.
- The pilot will include a subset of users in a region and a DLSU as well as one or two legal agents.

Volume testing is normally used to test large systems under simulated conditions of full use (e.g. generating large quantities of reports and carrying out the expected number of searches). However, volume testing was not carried out for iCase. The iCase/Caseview team informed us that they expected that performance would not be a problem because the *Technical Architecture Review for iCase* says that the IT infrastructure capacity is appropriate for the requirements. It is

the audit team's view that this entails a risk that performance problems under full load conditions will only be known as iCase is being implemented, particularly in the regional environment.

Acceptance testing is scheduled to be completed as the system is being implemented. This will give the user representatives the opportunity to verify that the system functions as required prior to being moved to production.

Recommendations and Management Response

- 7. It is recommended that the Director, Legal Information Management Directorate, ensure that iCase performance is measured as the system is further implemented in locations other than Montreal and action taken to correct performance deficiencies, if needed.**

Performance monitoring is currently being carried out for the iCase application web service and the SQL Server database in terms of response time, transaction volume and data access. Standard methods for testing and monitoring wide area network performance are being developed in collaboration with IMB Technical Services Division. These will be in place by January 2004.

3.3 User Involvement

The development team has involved users directly by consulting portfolio representatives and Caseview administrators, user representatives for legal agents and the Timekeeping System, as well as indirectly by basing iCase on existing systems and enhancement requests for those systems.

For such a large system with such a large user base a reasonable approach has been followed. It has not been practical to consult with more users, and those user representatives who were consulted have not always sought the input from staff in their sections.

We found that regional IT staff believe that the decision for the central database was taken without a formal process. Therefore they perceive they will lack access to their data and control over access to it by others. A regional IT representative provided a list of concerns to the iCase/Caseview team in July 2002, which went unanswered. However, statements made in the *iCase Project Charter* (Version 1.2 prepared in April 2002) address most of the concerns. We

were also informed that a regional IT representative was involved in the development of the *Technical Architecture Review for iCase* study, which concluded that a central database was the preferred approach. The iCase/Caseview team informed us that other solutions will be looked at if the central data base solution has difficulties. (See also the discussion on data ownership in the Project Organization and Responsibilities section.) In our opinion the central database is a reasonable solution and regional concerns can be addressed with system access controls and procedures.

Recommendations and Management Response

- 8. It is recommended that the Director, Legal Information Management Directorate, ensure that a response is provided to the questions received in July 2002 and circulated to all regional IT representatives.**

Action has been completed in response to this recommendation.

4. PROJECT DELIVERABLES

4.1 User Requirements

The user requirements were defined with much consultation following a rapid application development (RAD) process (no consolidated document shows complete requirements). The existing Caseview, Timekeeping, and JEF systems were used as the basis of the requirements. Enhancements to existing systems to be incorporated in iCase are documented on spreadsheets. Caseview administrators were provided with a demonstration version of iCase and they provided feedback on the design and functionality. The requirements include some data integrity controls, features to track access (audit trail), and controls to authorize access. The existing documentation on user requirements is not easy for user representatives to understand. However, toward the end of the audit period users were given the opportunity to observe the demo system as well as the pilot in Montreal. The lack of user-friendly documented requirements will be a problem only if disputes arise about specifications. Although this is a risk resulting from the chosen systems development methodology, the methodology has allowed for the rapid development of the system.

iCase will include the functions of Caseview. The regional staff will be able to prepare reports, and we were informed that existing regional Caseview reports will be maintained. The system will have a central national database for case records. Documents will be held in regional servers. Each region will control access to its own documents and will be able to provide access or copies of documents to staff located outside the region. Over time regions have built add-ons to Caseview. We did not look at the ability of iCase to meet the add-on requirements, but the iCase/Caseview team informed us that most functions provided by local systems will be incorporated in iCase.

However, iCase also has additional functionality over Caseview. The web-application style of iCase allows use from a regular browser. Since most users are familiar with using browsers, it is expected that the need for training will be reduced. Our review of iCase showed:

- It is easy to use. A few tasks are not intuitive but they could easily be improved or may be learned with training.
- Searches are very flexible.
- Reports will be available electronically in various formats or can be printed.
- Legal risk codes can be assigned to cases for selective reporting or statistical analysis.
- The user lists from Caseview have been converted to organizational units, which is a more logical grouping.
- In Caseview files were assigned to a person. In iCase files are assigned to an organizational unit.

Since iCase is based on Caseview, we conducted a sample of interviews to assess the use of Caseview. We found that Caseview reports are now used primarily for managing resources and billing clients. The reports are widely used and considered valuable at the national and regional levels. Managers are increasing their use of reports, so that each week there are several requests for additional reports. Nevertheless, the use of the Caseview information is far from reaching its potential. Data integrity processes and protocols need improvement. For national analysis the national standards need improvement such as for the opening and closing of files. At present different practices are followed in different regions. To increase effectiveness of reports, the Department needs to more clearly define its information requirements so that the data requirements for iCase can be determined. iCase has the capacity to accommodate changes to standards and produce new reports. We found that Caseview also works well for recording and accessing case records and documents.

iCase will cover the function of the timekeeping systems. Time can be recorded against a case or a project. iCase will provide reports with the information now available from the timekeeping systems.

The requirements for legal agents are being addressed in two phases. In Phase I, legal agents will be able to use iCase to record time and prepare printed bills. The Department will receive the printed bills, process, and enter them into IFMS, as they do now. In Phase 2, legal agents will submit the invoices electronically. The following is yet to be resolved:

- The current iCase user interface allows for entering data one invoice at a time. This is not efficient for the bulk data entry required at Legal Contracts Support Section (LCSS) when the invoices are received.

- Uncertainty remains as to whether most prosecution agents with heavy workloads will accept iCase. It is not intended for agents who have a small workload because it would be impractical for them to learn iCase and obtain software certificates for remote access.
- The requirements for civil legal agents are loosely defined because it is uncertain how much iCase will be used by civil legal agents.

The Legal Information Management Directorate produces reports from the Caseview and timekeeping systems. For these reports they maintain their own database of employees and obtain information from PeopleSoft such as employee group and level, personal record identifiers (PRI), full employee names, collator financial codes, and responsibility centre financial codes (this information is not recorded by the Caseview or timekeeping systems). The interface with PeopleSoft was an objective of the *iCase Project Charter* for Phase 1 but it has been postponed by about two or three years to Phase 2. The improvement of this interface is important to assist in preparing more accurate national reports and should reduce the work of the Legal Information Management Directorate. Also, iCase will allow for the entry of PRIs for employees because some locations are using Caseview or the Timekeeping System (TKS) to record PRIs. But it is not intended that PRIs will be recorded for all employees. The PRIs in iCase will duplicate those in PeopleSoft.

In addition to the above, development of software for the following is also still outstanding:

- Only basic reports (national and audit) are available in iCase. Software to program most reports is yet to be developed.
- A report generator is yet to be developed (this was set as a Phase 2 objective).
- iCase works with the Internet Explorer browser but it is not yet tested for Netscape, a requirement for legal agents.
- A decision has yet to be made on whether two Caseview functions will be available in iCase—first, whether users will be able to select colours on their screen; second, whether Workload Points in Participants, a function used only by Vancouver, will be assigned.

Recommendations and Management Response

9. It is recommended that the Director, Legal Information Management Directorate, ensure that:

- a) Departmental information requirements are better defined and iCase amended to meet them, if required.**

Certain aspects of Legal information management will be resolved via the Legal Information Management Infrastructure. It is the responsibility of the National Business Manager to help the individual Portfolio managers define their legal information business needs so that they can be mapped to iCase in existing or improved versions. Notwithstanding this fact, from a policy perspective departmental legal information management needs remain to be defined. The same comment could apply to legal information management issues relating to performance. Hopefully those may be addressed through iCase and the Legal Information Management Directorate provided adequate financing is granted.

- b) The requirement for bulk data entry of invoices is assessed, a decision made, and iCase amended, if required.**

An assessment of this issue will be carried out from April to June 2004 subsequent to the initial period of iCase use by Crown Agents.

- c) The process for the preparation of national reports by the Legal Information Management Directorate and the use of PeopleSoft is analyzed and improvements made as soon as possible and earlier than Phase 2.**

We agree with the objective of this recommendation; however, we disagree with the urgency of addressing iCase – PeopleSoft integration at this time due to schedule, resource and funding constraints. Phase 2 plans and associated costs will be developed during FY 2004-05.

d) A decision is made on pending deliverables and those to be implemented are included in the project plan and completed.

A detailed project plan has been prepared in response to this recommendation. The plan and related funding requirements was presented to BIT.COM in Spring 2003.

4.2 System Features and Benefits Summary

iCase is a better system than Caseview and will have the following features:

- A single system will provide a consistent approach to working with cases and documents related to cases as well as for time recording. iCase will provide a single application for case, time, and agents management purposes. At present Caseview contains records for about two-thirds of the total potential user population. The remaining users use other systems to record time that do not record case information and documents. Locations not using Caseview use office support software to create and access documents that are only locally available.
- iCase users will follow national and portfolio standards making the information easier to consolidate and analyze. Tables for data entry are being refined with more options so that choices can be more precise. iCase will support a combination of national, portfolio, and locally defined code tables. The use of a common litigation code set is an objective.
- A single system will be easier to maintain and support. As iCase uses regular Internet browsers, it does not need to be installed on the personal computers (PCs).
- Staff training will be simpler as they will need to learn only one system as they move through various areas of the Department. Staff should also find using Internet browsers to access the system easier to learn.
- iCase will be available to users working outside the Department's WAN such as DLSUs, staff in small satellite offices, staff assigned to work on client sites, teleworkers, and legal agents.
- The central database will allow for easier and faster national searches and reporting.
- National reports will be more complete and easier to produce. They can potentially include information on all departmental legal cases. At present national reports lack consistency, as they are assembled from 65 different data sources. iCase reports display on the screen and can be refined before printing or they can be saved in Rich Text Format (readable by most text processors), Excel, and PDF (readable by Adobe Acrobat) formats.
- The search function has been improved. Users now can search more fields and all national cases. The searches will return all found cases, but users can only open cases for which they

have authorization. iCase allows for searching the metadata (data about documents) stored for each document in the central database and for full text searches of documents by any user in any region. iCase allows users to store search parameters under an assigned name. With Caseview the search was limited to the eleven fields in the local database and names of local documents, unless special processes were followed by the iCase/Caseview team at Headquarters.

- Search results can be viewed on the screen and searches refined. Search results can also be printed or saved in Excel file format. This feature should decrease the current need to request that special reports be programmed by Headquarters.
- iCase will provide access controls to manage users' rights to data and functions. Only authorized staff will be able to open documents. Staff will usually be given rights to open all cases and documents in their portfolio and location.
- Improved access control and audit trails should contribute to improved data integrity. Caseview has no software controls to prevent unauthorized staff from changing or deleting data and documents.
- Once Phase 2 is implemented, the processing of legal agents invoices should be faster, more accurate, and efficient. iCase will also open up the possibility for collecting more information on cases from legal agents thereby allowing for better cost control and management decisions on the use of agents.

4.3 User Documentation, Procedures, and Protocols

Caseview manuals combine both business procedures and instructions on the use of the system. iCase's improved documentation will separate instructions on how to use the system from business procedures. Since each manual can be separately updated as required, this will facilitate keeping information up to date. Documentation for users developed by the iCase/Caseview team includes the following:

- A Help function will be available from all screens to provide instruction for someone who is using the system. This was almost complete.
- A User Guide will be developed that will consist of the entire contents of the Help function supplemented with displays of sample screens. This was to be developed.

The Legal Information Management Directorate is responsible for developing the business protocols that include business procedures and both national and portfolio standards. It has developed or is in the process of writing protocols for all portfolios. The following protocols,

although in various stages of completion, all need revision to exclude instructions on how to use the system and to focus on business procedures and standards:

- National Timekeeping Task List (almost complete)
- Citizenship and Immigration, Business Regulatory, and Tax (complete)
- Federal Prosecution Services protocol (in the process of being updated)
- Aboriginal Portfolio protocol (proceeding at a slow pace as it waits for decisions regarding procedures and standards)
- Timekeeping procedure (being prepared)
- Legal agents procedure (being written)

A protocol for preparation of reports (using Caseview) was developed and improved for quarterly reports. The procedure for ad hoc reports was to be developed based on recent changes to business practices. The protocol will have to be modified for iCase.

The protocols (completed or being written) address procedures and standards for data but will lack a description of the protocols' purpose, a definition of stakeholders responsibilities , and adequate data integrity and management controls.

Recommendations and Management Response

10. It is recommended that the Director, Legal Information Management Directorate, ensure that business protocols are completed, maintained up to date, and expanded to include their purpose, responsibilities of stakeholders, and data integrity and management controls.

All business protocols have been completed and integrated in each portfolio business manual. As recommended independent iCase training manuals have been created for each portfolio in order to separate the business procedures and standards from systems training issues. The business manuals have been modified to identify their purpose, the responsibilities of those involved in legal information management at all levels, as well as to maintain data integrity through proper control mechanisms.

4.4 User Support

As funding decisions for the iCase project are pending, uncertainty remains about whether the iCase/Caseview Team will be able to continue with the same capabilities. Nevertheless, the team is assuming that it will have a similar role for iCase as it had for Caseview. Yet the team has not formally defined how users are to be supported. We were informed that iCase section administrators would provide the first line support (i.e. simple issues such as training), the local iCase administrator, the second, and the iCase/Caseview team, the final line of support (i.e. complex issues). We found that a service level support agreement was yet to be defined and documented. The IMB help desk will continue to receive and log the iCase calls and dispatch them to the iCase/Caseview team.

The iCase/Caseview team intends to provide some training for iCase, however responsibility for user training will rest primarily with the Legal Information Management Directorate and the business partners. We were informed that the iCase/Caseview team will provide initial training as the system is implemented. The intention is to train national administrators in the Legal Information Management Directorate and the AAU as well as local trainers who will provide training to the user community and new staff, refresher training to all staff, and training on system enhancements. These training intentions are appropriate but responsibilities for training need formal definition and approval.

To reap the benefits of the high investment made by the Department in developing and maintaining iCase, managers need training to ensure they are familiar with what the system can offer and how to obtain and use the information. We were informed that the Legal Information Management Directorate has conducted some orientation sessions to this end.

Recommendations and Management Response

11. It is recommended that the Director, Legal Information Management Directorate, ensure that:

a) A service level support agreement is defined and documented.

Formal service level support agreements are being developed for all stakeholder areas, to be completed April 2004.

b) Responsibilities and a process for ongoing training is formalized, approved, and implemented.

The business plan presented to BIT.COM in June 2003 did not provide for permanent financing for ongoing training. The business plan for fiscal year 2004-2005 will call for such financing and an ongoing training program will be developed.

c) A process is developed for training managers on what the system can offer and how to obtain and use the information.

Due to the lack of funding and limited resources, limited training is provided to managers on this matter in the context of the implementation strategy. Nonetheless extensive training and support will be provided to managers through the local iCase administrators and the national business analyst.

(For a recommendation on organizing user support see Operational System Management section.)

4.5 Privacy

The *Privacy Impact Assessment (PIA) Policy* of the Treasury Board Secretariat came into effective on May 2, 2002. The objective of the policy is to assure Canadians that privacy principles are being taken into account when there are proposals for, and during the design, implementation, and evolution of, programs and services that raise privacy issues by:

- prescribing the development and maintenance of PIAs
- communicating routinely the results of PIAs to the Privacy Commissioner and the public.¹

The development of a major system requires a PIA. The audit team found no Privacy Impact Assessment was completed or planned.

¹ Canada, Treasury Board of Canada Secretariat, Privacy Impact Assessment (PIA) Policy of the Government of Canada (Ottawa 2002) Introduction.

Recommendations and Management Response

12. It is recommended that the Director, Legal Information Management Directorate, ensure that a Privacy Impact Assessment is completed.

All the necessary steps are being taken to proceed with the Privacy Impact Assessment. Nonetheless, due to budgetary constraints it is unlikely that the formal assessment will begin until the next fiscal year.

5. TECHNICAL AND INTEGRATION ASPECTS

5.1 System Architecture and Design

In February 2002 a consulting firm formally reviewed the design architecture and prepared the *Technical Architecture Review for iCase* report. The main conclusion was that the best option was to use a central database. The review indicated that iCase performance should be good on the departmental network, except for the northern regions because of their data communication links. The report does not document what assumptions were made regarding the increased use of the network by other systems or services. The iCase/Caseview team mentioned that as far as it knows there are no planned departmental systems or services that will increase the load on the network to the point where iCase performance degrades. This last issue is beyond the scope of the audit.

The following recommendations made by the review are awaiting implementation:

- development of a good performance and capacity monitoring system
- development of a process to conduct system improvement analysis
- thorough analysis of the servers in each region to determine if there is need for replacement to meet new requirements such as to accommodate more data and meet iCase availability requirements (The iCase/Caseview Team anticipated that, because regional servers are multi-purpose and some are old, many would have to be replaced with servers dedicated to iCase documents.)

We concur with these recommendations. The iCase/Caseview team informed us that they intended to implement the above recommendations.

Recommendations and Management Response

13. It is recommended that the Director, Legal Information Management Directorate, ensure that:

- a) Testing system performance for the northern regional offices is conducted sufficiently ahead of implementation of iCase to allow for changes if required.**

We agree. Wide area network connectivity to the northern offices, and the impact on iCase performance, is being reviewed in collaboration with IMB Technical Services Division and technical personnel from the Northern Region. This assessment will be completed in September 2004, six months prior to scheduled iCase implementation.

- b) An iCase performance and capacity monitoring and reporting process is implemented.**

We agree. In addition to ongoing monitoring described in response to recommendation 7, monthly technical reviews and statistical analysis regarding performance and data volumes will be implemented beginning in April 2004.

- c) A process to conduct system improvement analysis is developed and implemented.**

We agree. This will be undertaken in concert with performance measuring activities described in response to recommendation 7. Completion date is June 2004.

5.2 System Documentation

Proper system documentation for the following has been completed:

- data model
- data dictionary
- source code documentation with comments in the code
- test plan, cases, and scripts
- technical architecture document
- iCase-RIMS technical integration document

System documentation for the following is still being prepared:

- data conversion guidelines.
- database administrators guide
- report development/standards guide
- administrators guide for advanced iCase features
- security model/protocol

5.3 iCase Integration and Interfaces With Other Systems

Systems integration is desirable to share information, reduce data duplication, and improve data integrity. The first version of iCase has an interface with the national Records Management System (RIMS). As with Caseview, all regional offices will continue to use RIMS to open case files, and the relevant file details (e.g. file number, name, status, type) will be electronically exchanged with iCase. Updates in RIMS will also be automatically updated in iCase. No changes will occur in RIMS functionality. The iCase system will have one national database and RIMS databases for each location. Currently there are several databases for Caseview alone.

After the implementation of the initial version of iCase is completed in two to three years, future versions of iCase may link or integrate with other departmental systems. Possible linkages may be with:

- Integrated Financial and Materiel System (IFMS) to process legal agents invoices (a Phase 2 objective)
- Barrister's Briefcase (departmental system for automated litigation support), not specified as an objective in the *iCase Project Charter*
- PeopleSoft (departmental human resources system) for the preparation of national and billing reports
 - Originally stated as a Phase 1 objective, it is now delayed to Phase 2 (see iCase Project Deliverables and User Requirements)
- LOPORS (national database of full text legal opinions)
 - It was not specified as an objective in the *iCase Project Charter*.
 - iCase will be capable of recording precedents and opinions but all opinions will not necessarily be entered into iCase during Phase 1.
- CLASMate (the HRDC DLSU system used to verify Canada Student Loan agents' invoices and allow agents to enter their time and disbursement costs online through the Internet)

- This was not specified as an objective in the *iCase Project Charter*.

The *iCase Project Charter* mentioned that integration with the Electronic Document Management System (EDMS) will be considered after iCase Phase I implementation but made no commitments to implement such an interface in Phase 2. iCase and EDMS have significant overlaps. iCase contains all documents created using iCase as well as some documents received and loaded in iCase. EDMS is intended to manage electronic records and iCase contains a very large portion of the Department's electronic documents. iCase allows for creation, accessing, and searching of electronic iCase documents but is not intended to have document management functionality such as version management, document history, retention, and document location control. The linking of these two systems is important and should take place in Phase 2.

The responsibility for the coordination, integration, and interfacing of iCase with other systems whether operational, planned, or under development is beyond the authority of the iCase/Caseview team. Management should assign this task to a manager who has the appropriate authority and tools to coordinate the development of system interfaces and integration.

Recommendations and Management Response

14. It is recommended that the Director, Legal Information Management Directorate, request that senior management assign the responsibility to coordinate system interfaces to a responsible manager who can provide direction and coordination to the iCase/Caseview Team regarding interfaces and integration of systems that have overlapping functions and data.

We recognize the need to obtain directions regarding Information Management Policy considerations as well as the interfaces and integration of systems that have similar and overlapping functionality and data. Business and application architecture work is required to help assess the situation and define the requirements. Work had started but has stopped due to funding availability. A project proposal will be tabled as part of the annual IM/IT proposed investments exercise and will be subject to the departmental priority setting and funding availability.

5.4 Connectivity

One improvement of iCase over Caseview is that it will allow secure connectivity required by departmental offices not previously connected to the departmental WAN (i.e. DLSUs, legal agents, and other departmental satellite offices).

The secure connectivity service is the responsibility of the Connectivity Office, IMB. For the pilot in Montreal, Secure Remote Access (SRA) is being used, which is approved to process information up to the Protected B security level. SRA is not an ideal solution. There may be problems using SRA through the firewalls of departments hosting DLSUs. Also, SRA requires installation on each personal computer (PC).

A better solution is TruePass software, now used in the Department for other purposes. The Connectivity Office is working to make TruePass work for iCase. TruePass approval by the Communications Security Establishment is in process, and the Department has been verbally assured that it will be approved to process information up to the Protected B security level. One advantage is that it is web-based so there is no need to install it on each PC. Also, the software is easier to update, has a lower cost than SRA, and works well with firewalls.

5.5 Security

iCase has improved security over the present system. In each region Caseview allows access to all the regional data by all staff located there who have Caseview accounts. With iCase access can be restricted by providing different access rights and allowing access only to those who need it.

iCase can also record an audit trail but the iCase/Caseview team has yet to make a decision on what is to be tracked.

The case records in the iCase central database (stored at Headquarters) will keep cross-references to related documents that are kept in the servers of the locations where they were created such as regional offices or DLSUs. iCase will conduct several verifications of the database but there is no process to periodically match the database to the distributed document servers to ensure that all references to documents are accurate.

iCase also addresses other aspects of security such as reliability and backup. The Headquarters equipment has duplicate components to decrease the possibility of downtime. Computer processors and hard disks are redundant (there are more units than necessary) and would be switched automatically if one malfunctions. There is a second web server but if the main one is down the second one would have to be switched manually. Downtime would be less than one hour. In the regions and DLSUs, if the servers were down, the users could still access the central database and case records but not their documents.

At Headquarters, there will be a nightly iCase database backup as well as a weekly process to check the database. The processes were set up so that one person, the database administrator, would get an email with the results of the nightly and weekly processes. The risk is that, if the one person does not check or does not read the email, a problem could go unnoticed without corrective action.

Although some security measures are in place, the proper method to ensure that security is addressed is to complete a threat and risk assessment. Threat and risk assessments (TRAs) explain what the information system should be protected from, substantiate the degree of protection required, identify weaknesses in protection, and present recommendations to improve security. They allow management to demonstrate that risks have been properly considered and decisions made to reduce them, if required. A TRA had been planned for Phase 1 (*iCase Project Charter*) but is delayed because of a lack of funds. A statement of sensitivity is also required and can be included in the TRA or prepared separately. A statement of sensitivity describes the value of the information and systems. It defines confidentiality, integrity, availability, and accountability requirements associated with the information and system. It also describes the impact resulting from errors, accidents, or malicious actions.

Recommendations and Management Response

15. It is recommended that the Director, Legal Information Management Directorate, ensure that:

- a) A decision is made on what is to be tracked by the audit trail.**

This question will be submitted to the iCase Steering Committee shortly after its creation.

- b) Email that needs to be checked for the successful completion of computer processes goes to more than one person.**

The iCase support team will be notified in addition to the database administrator. This enhanced notification will be in effect in January 2004.

- c) A threat and risk assessment including a statement of sensitivity is completed.**

A threat and risk assessment will be carried out from January to March 2004. In accordance with emerging practices, the threat and risk assessment will be integrated with the privacy impact assessment.

6. DATA INTEGRITY

Ensuring the accuracy and completeness of iCase data is an important concern, since the data will be used to produce reports, some of which will provide information for highly significant decisions. Since iCase is based on Caseview, we conducted limited inquiries on the accuracy of Caseview reports. While the Caseview administrators perception is that the data is accurate, national portfolio managers had concerns about data accuracy. We also learned that old data has many inaccuracies.

Systems can be designed to prevent users entering erroneous data and to force them to enter mandatory data by rejecting entries that do not contain the specified data. When Caseview was introduced it was deemed more important to gain acceptance than to enforce edits. Therefore, the Caseview system enforces few edits:

- The case closing date can be earlier than the case opening date.
- Mutually exclusive initiatives are not defined and enforced.
- There are few mandatory fields to accept a case.
- The system issues few warnings for possible wrong or missing data

The iCase edits will be similar to those of Caseview. As in Caseview, some audit reports will be printed monthly and others quarterly for iCase administrators or users to correct. These reports print missing data. There are no statistics on how long and how much data is missing. This process does not find wrong data.

The benefits of a central database and national reporting and analysis will be decreased if the data is inaccurate. At data entry time, users follow written procedures in protocols that document what data is required. Sometimes the data is checked by two people—the lawyer and the assistant. Often they will enter data in separate screens, which will make it difficult to visually verify. iCase does not present a summary of the data on the screen before it is updated, unlike some other web-based systems. We were informed that the iCase data entry screens were

designed based on approved user requirements and allow for the verification of basic data in one screen. Data in one screen is easier to verify since it can all be viewed together. It is an accepted and proven industry practice that the best time to correct data is when it is entered or shortly thereafter. However, there is no requirement or assurance that this will happen. It always takes more time to correct data later when the documents may be filed away and case details forgotten. Also, if the data is not used for several months or is to be used in aggregated form, errors would be hard to notice. Since a primary objective of iCase is to provide better management information, integrity controls should be improved. This could be achieved by increasing the system edits at data entry time and implementing a more formal process for reviewing data soon after it is entered. Review of entered data could be assisted by screens or reports designed or modified for that specific purpose.

Regions are concerned that aggregated or other reports produced at Headquarters may be based on incorrect data or information that is taken out of context. To address this concern, the Legal Information Management Directorate implemented a procedure at the end of 2002 whereby the LIMD submits affected reports along with a request for the data and an explanation of how it will be used to the regions for review prior to the reports being released. The regions will also have more time to review the new reports. In addition, a procedure was set up in the LIMD to verify that rush reports are justified. However, this procedure is not as good as ensuring that the data is correct soon after being entered. Further, there may be aggregated historical reports for which it is impractical or too time consuming to check the data. Sometimes Headquarters requires reports to be prepared within a short period of time and the cycle to distribute reports to the regions and obtain corrections therefore creates delays, or reports have to be used without having been checked by the regions.

As we commented in the Planning and Scheduling, iCase Project Deliverables and User Requirements, and User Documentation sections of this report, the procedures and responsibilities for data integrity are not sufficiently documented and business protocols need to be completed to address data integrity.

As we mentioned in the iCase Project Deliverables and User Requirements sections, the cumbersome existing interface with PeopleSoft and the quality of its data result in some inaccuracies in the national reports.

Recommendations and Management Response

16. It is recommended that the Director, Legal Information Management Directorate:

- a) ensure that the edits at data entry time are improved;**
- b) consider the implementation of screens or reports to facilitate the verification of data shortly after it is entered;**
- c) consider implementing a feature whereby iCase provides statistical information on the number of errors;**
- d) implement a more formal process for the review of the data soon after it is entered;**
- e) ensure the central database is periodically matched to the documents stored in the various decentralized servers to identify and correct inconsistencies.**

In general business rules respecting data integrity are enforced via audit and review processes rather than “hard coded” validation. As the rate of change of business standards and data requirements decreases it will be acceptable to address recommendations a) thru d). However, at this time current methods of audit reporting and data reviews are deemed satisfactory to ensure integrity of data captured and maintained using iCase. These recommendations shall be reassessed during the detailed planning cycle for subsequent phases of the iCase project.

We agree with recommendation e). A utility used with the Caseview database shall be updated to perform this data – document validation in iCase. Target completion date is April 2004.

7. OPERATIONAL SYSTEMS MANAGEMENT AND IMPLEMENTATION

7.1 Operational Management

Roles and responsibilities for managing the iCase system once it is operational are not yet documented. However, the iCase/Caseview team informed us that, contingent upon funding, it will handle enhancements, problems, database management, capacity planning, some user training, and the iCase help desk function. At the same time, the iCase/Caseview team will continue to support Caseview and the Timekeeping System as they are being replaced by iCase.

The following are yet to be defined and documented:

- responsibilities of national system administrators identifying the differences between the management role of the Legal Information Management Directorate and the iCase/Caseview team
- responsibilities for the various other levels of administrators for templates, national codes, reporting, portfolio codes, local codes (in particular the role of the section and local iCase administrators)
- default rules for security and how security is to be managed—iCase security administration will be more involved and comprehensive than with Caseview

One iCase/Caseview team member has the role of database administrator. He informed us that the database will be regularly reorganized and monitored. Microsoft SQL Server, the software for the database, has automatic weekly optimizing functions. (Structured Query Language (SQL) is an IT industry-standard language for creating, updating, and querying relational database management systems.) We agree that these are good database management measures.

The role of regional IT staff is yet to be defined. The iCase/Caseview Team was waiting for the completion of the pilot before confirming the decision to use a central database and subsequently proposing and documenting the role of regional IT staff.

Recommendations and Management Response

17. It is recommended that the Director, Legal Information Management Directorate ensure that:

- a) the iCase business and technical support organization is defined and responsibilities determined and documented;**
- b) the role of the IT regional staff is defined, documented, and implemented.**

We agree with this recommendation. In collaboration with IMB and regional personnel, roles and responsibilities will be defined, documented and implemented by June 2004.

7.2 Conversion

Conversion plans that include data preparation, validation, and correction of old data are in place. The iCase/Caseview Team is working with Caseview administrators to clean regional data ahead of iCase implementation. Also, most templates will be automatically converted, including region-specific templates. The iCase/Caseview Team will fix those requiring manual conversion.

The team is writing programs to convert the Timekeeping System data. Some sections in Headquarters and regional offices were migrating from Timekeeping to Caseview as an intermediate step towards the conversion to iCase.

Not all DLSUs will convert to iCase. Some host institutions such as the RCMP have security standards that do not allow networked PCs to be connected to the Internet.

The preparation of programs to convert legal agent data had been postponed until funding issues were resolved.

Data conversion procedures listed in the *iCase Project Charter* are being completed.

7.3 Implementation Process

As mentioned in the Planning and Scheduling section, iCase was being tried on a pilot basis in Montreal and was to be implemented in Montreal in February and March 2003. Further implementation was not to be decided until funding decisions were made.

8. CONCLUSIONS

The project has achieved considerable progress in view of the complexity of the task. Most of the iCase software is developed and ready for a pilot. iCase is a better system than Caseview and will have several added benefits. Also, it incorporates the features of timekeeping systems and meets part of the requirements for the processing of legal agents bills. Some issues still need to be addressed. Most importantly, the iCase project requires a formal management control framework to ensure effective implementation and use, a decision on stable funding, a business case to make the funding determination and measure success, and the improvement of data integrity measures to ensure that more reliable information is obtained from the system.

9. RECOMMENDATIONS AND MANAGEMENT RESPONSE

1. It is recommended that the Director, Legal Information Management Directorate:13

- a) **Request that a senior management committee assume responsibility for steering the iCase project approving plans, strategies, and making major decisions.**

The members of the iCase Steering Committee have been identified and the organization of the first meeting is in progress.

- b) **Take steps to obtain approval to define and document the ownership of the iCase data.**

The question of ownership of the data and documents captured by the various information management systems used by the Department has always been an issue and the object of serious debate. This is one of the first questions the iCase Steering Committee will address in order to set departmental guidelines that will be abided by all organizational unit managers.

- c) **Propose a model and obtain approval for the responsibilities of the iCase user community such as business managers and local system administrators.**

The model has been partially approved by BIT.COM. The complete model will be finalized and presented for approval to the iCase Steering Committee once the business analyst have been recruited and their functions refined through business processes. The iCase project Charter has been updated to include a definition of the role and responsibilities of individuals at all levels of the information management infra-structure created to overview all the different aspects of legal information management. This includes the National Business Manager, the Business Analysts, and the Organizational Unit iCase administrators.

- 2. It is recommended that the Director, Legal Information Management Directorate, prepare a formal and complete iCase plan, approved by senior management, to be communicated to the iCase user community.....15**

A plan will be prepared and finalized for the beginning of December.

- 3. It is recommended that the Director, Legal Information Management Directorate, prepare regular written reports of project progress for senior management and stakeholder management.....15**

Such reports will be tabled regularly as of the beginning of December.

- 4. It is recommended that the Director, Legal Information Management Directorate, develop a business case and obtain both senior management approval and a decision on related funding.17**

A business case was prepared and approved by BIT.COM and the Executive Committee in late June. At that point in time the Department was ready to give funding on an annual basis by covering the accumulated deficits of the Directorate at the end of each fiscal year. Permanent funding does not seem to be a departmental priority at this point in time. A revised business case will be prepared and presented to the iCase Steering Committee this fall. In this business plan, more consideration will be given to costs for secure connectivity and costs associated to software maintenance, support and enhancements.

- 5. It is recommended that the Director, Legal Information Management Directorate, ensure that costs are estimated and carefully considered as part of the process of making systems change decisions.18**

The assistance provided by the portfolio business analysts should have a definite impact on the amount and variety of information required from the users by senior management and consequently on the requests for enhancements. Nonetheless all requests for enhancements must be approved by the Legal Information Management Director. Furthermore all major system enhancements will have to be approved by the iCase Steering Committee.

- 6. It is recommended that the Director, Legal Information Management Directorate, issue a notice to key stakeholders informing them where to access available information on iCase and to whom they should direct questions.19**

Key stakeholders are reached through various communication means including email, *JustInfo*, on site presentations and a web site.

- 7. It is recommended that the Director, Legal Information Management Directorate, ensure that iCase performance is measured as the system is further implemented in locations other than Montreal and action taken to correct performance deficiencies, if needed.....22**

Performance monitoring is currently being carried out for the iCase application web service and the SQL Server database in terms of response time, transaction volume and data access. Standard methods for testing and monitoring wide area network performance are being developed in collaboration with IMB Technical Services Division. These will be in place by January 2004.

- 8. It is recommended that the Director, Legal Information Management Directorate, ensure that a response is provided to the questions received in July 2002 and circulated to all regional IT representatives.....23**

Action has been completed in response to this recommendation.

- 9. It is recommended that the Director, Legal Information Management Directorate, ensure that:28**

- a) Departmental information requirements are better defined and iCase amended to meet them, if required.**

Certain aspects of Legal information management will be resolved via the Legal Information Management Infrastructure. It is the responsibility of the National Business Manager to help the individual Portfolio managers define their legal information business needs so that they can be mapped to iCase in existing or improved versions. Notwithstanding this fact, from a policy perspective departmental legal information management needs remain to be defined. The same comment could apply to legal information management issues relating to performance. Hopefully those may be

addressed through iCase and the Legal Information Management Directorate provided adequate financing is granted.

- b) The requirement for bulk data entry of invoices is assessed, a decision made, and iCase amended, if required.**

An assessment of this issue will be carried out from April to June 2004 subsequent to the initial period of iCase use by Crown Agents.

- c) The process for the preparation of national reports by the Legal Information Management Directorate and the use of PeopleSoft is analyzed and improvements made as soon as possible and earlier than Phase 2.**

We agree with the objective of this recommendation; however, we disagree with the urgency of addressing iCase – PeopleSoft integration at this time due to schedule, resource and funding constraints. Phase 2 plans and associated costs will be developed during FY 2004-05.

- d) A decision is made on pending deliverables and those to be implemented are included in the project plan and completed.**

A detailed project plan has been prepared in response to this recommendation. The plan and related funding requirements was presented to BIT.COM in Spring 2003.

10. It is recommended that the Director, Legal Information Management Directorate, ensure that business protocols are completed, maintained up to date, and expanded to include their purpose, responsibilities of stakeholders, and data integrity and management controls.....31

All business protocols have been completed and integrated in each portfolio business manual. As recommended independent iCase training manuals have been created for each portfolio in order to separate the business procedures and standards from systems training issues. The business manuals have been modified to identify their purpose, the responsibilities of those involved in legal information management at all levels, as well as to maintain data integrity through proper control mechanisms.

11. It is recommended that the Director, Legal Information Management Directorate, ensure that:32

a) A service level support agreement is defined and documented.

Formal service level support agreements are being developed for all stakeholder areas, to be completed April 2004.

b) Responsibilities and a process for ongoing training is formalized, approved, and implemented.

The business plan presented to BIT.COM in June 2003 did not provide for permanent financing for ongoing training. The business plan for fiscal year 2004-2005 will call for such financing and an ongoing training program will be developed.

c) A process is developed for training managers on what the system can offer and how to obtain and use the information.

Due to the lack of funding and limited resources, limited training is provided to managers on this matter in the context of the implementation strategy. Nonetheless extensive training and support will be provided to managers through the local iCase administrators and the national business analyst.

12. It is recommended that the Director, Legal Information Management Directorate, ensure that a Privacy Impact Assessment is completed.34

All the necessary steps are being taken to proceed with the Privacy Impact Assessment. Nonetheless, due to budgetary constraints it is unlikely that the formal assessment will begin until the next fiscal year.

13. It is recommended that the Director, Legal Information Management Directorate, ensure that:36

a) Testing system performance for the northern regional offices is conducted sufficiently ahead of implementation of iCase to allow for changes if required.

We agree. Wide area network connectivity to the northern offices, and the impact on iCase performance, is being reviewed in collaboration with IMB Technical Services Division and technical personnel from the Northern Region. This assessment will be completed in September 2004, six months prior to scheduled iCase implementation.

b) An iCase performance and capacity monitoring and reporting process is implemented.

We agree. In addition to ongoing monitoring described in response to recommendation 7, monthly technical reviews and statistical analysis regarding performance and data volumes will be implemented beginning in April 2004.

c) A process to conduct system improvement analysis is developed and implemented.

We agree. This will be undertaken in concert with performance measuring activities described in response to recommendation 7. Completion date is June 2004.

14. It is recommended that the Director, Legal Information Management Directorate, request that senior management assign the responsibility to coordinate system interfaces to a responsible manager who can provide direction and coordination to the iCase/Caseview Team regarding interfaces and integration of systems that have overlapping functions and data.38

We recognize the need to obtain directions regarding Information Management Policy considerations as well as the interfaces and integration of systems that have similar and overlapping functionality and data. Business and application architecture work is required to help assess the situation and define the requirements. Work had started but has stopped due to funding availability. A project proposal will be tabled as part of the annual IM/IT proposed investments exercise and will be subject to the departmental priority setting and funding availability.

15. It is recommended that the Director, Legal Information Management Directorate, ensure that:40

a) A decision is made on what is to be tracked by the audit trail.

This question will be submitted to the iCase Steering Committee shortly after its creation.

- b) Email that needs to be checked for the successful completion of computer processes goes to more than one person.**

The iCase support team will be notified in addition to the database administrator. This enhanced notification will be in effect in January 2004.

- c) A threat and risk assessment including a statement of sensitivity is completed.**

A threat and risk assessment will be carried out from January to March 2004. In accordance with emerging practices, the threat and risk assessment will be integrated with the privacy impact assessment.

16. It is recommended that the Director, Legal Information Management Directorate:45

- a) ensure that the edits at data entry time are improved;**
- b) consider the implementation of screens or reports to facilitate the verification of data shortly after it is entered;**
- c) consider implementing a feature whereby iCase provides statistical information on the number of errors;**
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- e) ensure the central database is periodically matched to the documents stored in the various decentralized servers to identify and correct inconsistencies.**

In general business rules respecting data integrity are enforced via audit and review processes rather than “hard coded” validation. As the rate of change of business standards and data requirements decreases it will be acceptable to address recommendations a) thru d). However, at this time current methods of audit reporting and data reviews are deemed satisfactory to ensure integrity of data captured and maintained using iCase. These recommendations shall be reassessed during the detailed planning cycle for subsequent phases of the iCase project.

We agree with recommendation e). A utility used with the Caseview database shall be updated to perform this data – document validation in iCase. Target completion date is April 2004.

17. It is recommended that the Director, Legal Information Management Directorate ensure that:48

- a) the iCase business and technical support organization is defined and responsibilities determined and documented;**
- b) the role of the IT regional staff is defined, documented, and implemented.**

We agree with this recommendation. In collaboration with IMB and regional personnel, roles and responsibilities will be defined, documented and implemented by June 2004.