

Chapter 23

Information Technology

Acquisition of Goods and Services

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Information Technology

Acquisition of Goods and Services

Main Points

23.1 In auditing acquisition activities (procurement) for large information technology projects in the government, we found that two recent acquisitions followed some essential elements of a procurement approach and project management framework designed to improve large technology projects. The approach emphasizes the benefits to be derived from a project, rather than focussing on a specific solution to a business problem. Although both projects are still in the construction phase, they have progressed and delivered as planned. While full implementation and deployment of the new systems are not assured, the results to date are encouraging.

23.2 We found, however, that the acquisition activities still spanned 18 months or more. The government needs to improve the timeliness of those activities to adequately support its objective of putting government on-line by 2004.

23.3 We also examined the acquisition process for the routine supply of microcomputers, equipment for local area networks and software. We found that the government has yet to finish replacing its discontinued method of supply for routine, low-volume purchases of software licences and software solution services. As a result, user departments and agencies do not have a ready, prenegotiated means for low-value purchases of certain software products and services.

23.4 We also found that the replacement method as developed thus far is inadequate, and there is still a risk that the government will continue to acquire installed bases of software on a piecemeal and non-competitive basis. Where user departments and agencies have done so, the government can become vulnerable to the filing of complaints with the Canadian International Trade Tribunal in relation to contracts that extend the use of the software to the entire department or involve department-wide maintenance and upgrade of the software.

23.5 Acquiring software licences and software solution services appropriately continues to be a challenge. The government needs to consider a strategy for acquiring software as a technology investment.

Background and other observations

23.6 Our data analysis showed that the significant expenditures involved in the acquisition of information technology (IT) goods and services have been on the rise. We estimated that in 1998–99, spending on IT amounted to about \$3.4 billion, including salary costs.

23.7 The method of supply for routine, low-volume purchases of microcomputers and products related to local area networks has merit and adds value to the acquisition process. Nevertheless, in our view there are opportunities for cost savings of about \$10 million a year by taking more advantage of consolidated purchases.

23.8 Our audit looked at eight user departments and agencies. We conducted a test of their compliance with the procurement authority delegated to them. We found a few minor deviations but no indication of blatant or widespread misuse of delegated authority.

23.9 Recent determinations by the Canadian International Trade Tribunal (CITT) were the main reason for changing the standing offer method of supply for routine, low-volume purchases of software licences and software solution services. Moreover, even though CITT cases have been few, government users and the IT community have indicated that they have generated intense scrutiny of all technology acquisitions in government in order to

avoid potential complaints to the Tribunal. In our view, there is a need to better respect the government's contracting objectives — meeting operational requirements with due regard to value for money while also respecting the principle of open and fair competition by complying with government regulations and trade agreements.

The government is generally supportive of the recommendations contained in the chapter.

Introduction

Acquisitions are made in a highly complex environment

23.10 The acquisition or procurement of information technology (IT) goods and services in the government is a large and complex business. In recent years, the government has made major investments in information systems and technology to support the delivery of programs and services to Canadians. Its acquisitions range from small volumes of low-cost goods to large purchases for multi-year development projects that integrate IT goods and services from different suppliers.

23.11 Unlike the private sector, the government must follow many rules and regulations in its acquisitions, including its purchases of IT goods and services. Principal among them are the contracting policy, the Treasury Board Contracts Directives, the Government Contracts Regulations (pursuant to the *Financial Administration Act*) and the Supply Manual.

23.12 The Treasury Board Secretariat is responsible for the government's contracting policy. Public Works and Government Services Canada (PWGSC) acts as the contracting authority for most government acquisitions and is in charge of the Supply Manual — the procedural manual for its supply activities. Government acquisitions are also subject to multilateral and federal-provincial trade agreements: the *North American Free Trade Agreement*, the *World Trade Organization–Agreement on Government Procurement*, and the *Agreement on Internal Trade*. The Canadian International Trade Tribunal, an administrative tribunal, conducts inquiries into complaints by potential suppliers about government procurement actions, where they are covered by the trade agreements.

23.13 The contracting policy states:

The objective of government procurement contracting is to acquire goods and services and to carry out construction in a manner that enhances access, competition and fairness and results in best value or, if appropriate, the optimal balance of overall benefits to the Crown and the Canadian people.

Policy statements further underscore the pre-eminence of operational requirements; the ability to withstand the test of public scrutiny; support for industrial and regional development and other appropriate national objectives; and compliance with the government's obligations under trade agreements.

23.14 At the user level, buying IT goods and services can involve several groups of staff in a government department. The acquisition process generally involves the users — program managers with operational needs to be met — and those IT staff who have knowledge of and expertise in technology matters as well as those who may be affected directly by the acquisition of a particular technological solution. It may also involve corporate services staff engaged in materiel management or representing the department's contracting authority. In departments where operations are highly decentralized, additional groups may be involved.

23.15 The government's procurement environment, already complex and involving many stakeholders, is complicated further in the field of information technology. Information technology evolves at a very rapid pace. New products and technological solutions are constantly being developed. Users sometimes find themselves with problems whose solutions are difficult to anticipate or fully understand at the time of procurement. Moreover, current acquisitions often involve major investments and can have significant

Users sometimes find themselves with problems whose solutions are difficult to anticipate or fully understand at the time of procurement.

implications for choices of technology in the future.

23.16 In this complex environment, the government is challenged to meet operational needs with a solution that provides best value while enhancing access, competition and fairness in its IT procurement activities.

Focus of the audit

23.17 The objective of our audit was to assess the extent to which IT acquisitions in the federal government meet policy objectives while giving due regard to efficiency and economy.

23.18 The audit focussed on the acquisition process and activities for large IT projects and for the routine supply of microcomputers, equipment for local area networks, and software. As it is discussed in this chapter, the process starts when users identify an operational need and ends when a contract has been awarded and any challenges to the award have been resolved.

23.19 We analyzed data on IT expenditures to understand the extent and the nature of IT acquisitions in government. We reviewed the processes, methodology and tools that have been established to facilitate IT procurement activities, and we looked at procurement cases that demonstrated their use.

23.20 We conducted interviews at the Treasury Board Secretariat, PWGSC, the Canadian International Trade Tribunal and eight departments and agencies, where we also examined cases of IT acquisitions to support and illustrate potential issues. We examined several IT acquisitions that had resulted in challenges before the Canadian International Trade Tribunal.

23.21 Further information about the audit objective, scope and criteria can be found at the end of the chapter in **About the Audit**.

Observations and Recommendations

Analyzing Information Technology Expenditures in Government

Government-wide data are not available

23.22 To better understand the acquisitions of IT goods and services, we asked for information on IT expenditures incurred by the government. From our discussions with the Treasury Board Secretariat and Public Works and Government Services Canada, we learned that data are not specifically coded as IT expenditures and thus are not aggregated. While the Secretariat annually reports on total contracting in government, no reporting on government-wide IT acquisitions is available. (The subject of contract reporting is addressed in Chapter 29 of this Report.)

23.23 In the absence of such information, we set out to analyze IT expenditures government-wide and by department as well as by type of goods and services acquired. Our analysis also included a general estimation of payroll costs in support of IT development and operations. The analysis spanned four fiscal years, from 1995–96 to 1998–99.

23.24 Based on expenditure data from the Public Accounts of Canada, we estimated a rough order of magnitude for IT-related expenditures other than payroll by using selective codes of economic object. To estimate IT-related payroll expenditures, we used portions of salary and employee benefit costs, by pay classification, from data provided by the Public Service Commission. We also sought input from the Treasury Board Secretariat in making our estimates.

23.25 Our estimation was conservative in nature. For example, we did not attempt to include expenditures coded for specialized work such as constructing

satellites or other highly sophisticated equipment, like weaponry systems.

23.26 Our analysis confirmed that IT expenditures are significant and rising. Exhibit 23.1 shows that IT expenditures increased from almost \$3 billion in 1995–96 to about \$3.4 billion in 1998–99, or by almost 14 percent. During the same period, spending on IT as a proportion of total budgetary expenditures for government operations increased from 8.6 percent to 10.1 percent.

23.27 Our analysis also showed that four departments, each with annual IT spending of more than \$100 million, accounted for about 60 percent of the total expenditures on IT in the government. Departments and agencies with moderate IT expenditures (from \$25 million to \$100 million a year) accounted for almost 30 percent of the total. Exhibit 23.2 shows IT expenditures of departments and agencies by category of large, moderate or small amount spent in the past four years. In summary, about 20 departments with the highest spending on IT accounted for roughly 90 percent of the government’s total IT expenditures.

23.28 We also set out to analyze IT expenditures by type of purchase, such as hardware, software, professional services, and telecommunication products and

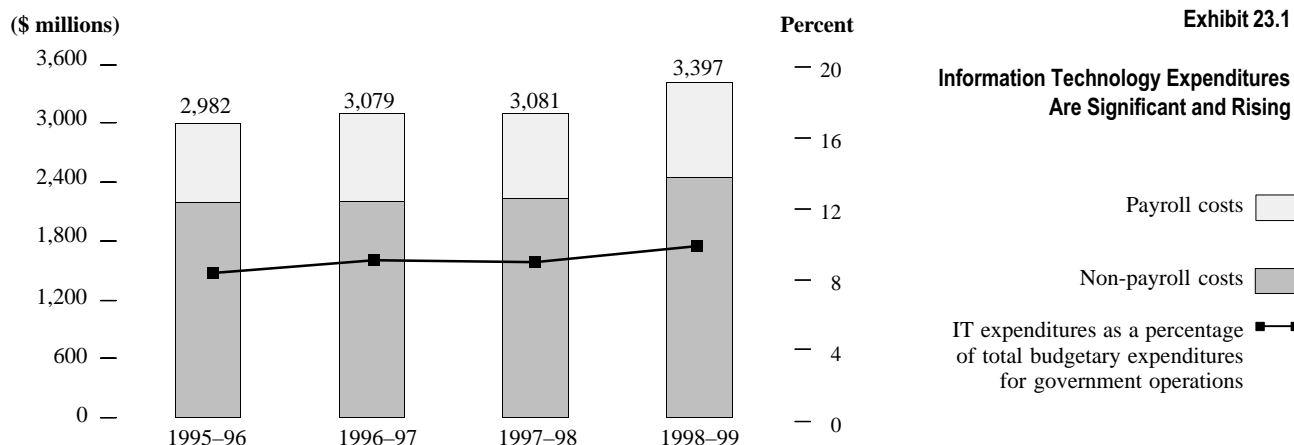
services. However, because departments and agencies were inconsistent in the way they applied economic object codes and coded their expenditures for large IT projects, it was not feasible to complete that analysis in a meaningful way.

Procuring Large Information Technology Projects

23.29 Large projects to develop information systems as business solutions often meet with failure to varying degrees, from not meeting business needs fully to not delivering and implementing the systems on time, to incurring excessive costs. This general observation was supported by our audits of government systems under development that we reported to Parliament in 1995, 1996 and 1997.

23.30 Past research has shown that there are a number of major factors that cause projects to fail. The acquisition phase and the related procurement activities are one such factor. At that time, the process of procurement for large IT projects typically resulted in multi-year, fixed-price contracting. The contracts would include detailed specifications and requirements, and the lowest bidder, based on a combined evaluation of technical merits and price, would be awarded the contract.

Information technology expenditures are significant and rising.



Source: Receiver General and Public Service Commission

New framework and approach developed to improve results

23.31 In 1996, PWGSC undertook to develop a new procurement methodology that would address some of the shortcomings of the existing approach to large and complex IT acquisitions. The Department collaborated with the Treasury Board Secretariat, representatives of user departments and agencies, and industry associations representing suppliers. In March 1997, PWGSC released the second version of the Benefits Driven Procurement (BDP) approach as a solution for the acquisition phase of large IT projects.

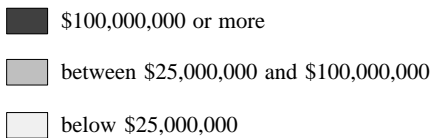
23.32 The BDP approach emphasizes the results and benefits to be derived from a project, rather than emphasizing a specific solution to a business problem. Thus, it focusses on making a strong business case. Instead of the detailed specifications and requirements of a solution, the approach highlights the benefits that the solution will provide. The

project is delivered in phases that provide “off-ramps” — opportunities to halt the project, if appropriate. Compensation is based on performance, usually at the completion of defined tasks. In addition, BDP supports clear accountability by all parties to the contract, and sound project management disciplines that include rigorous identification and management of risk. Since its development, the approach has been recommended for use in procurements for large and complex IT projects.

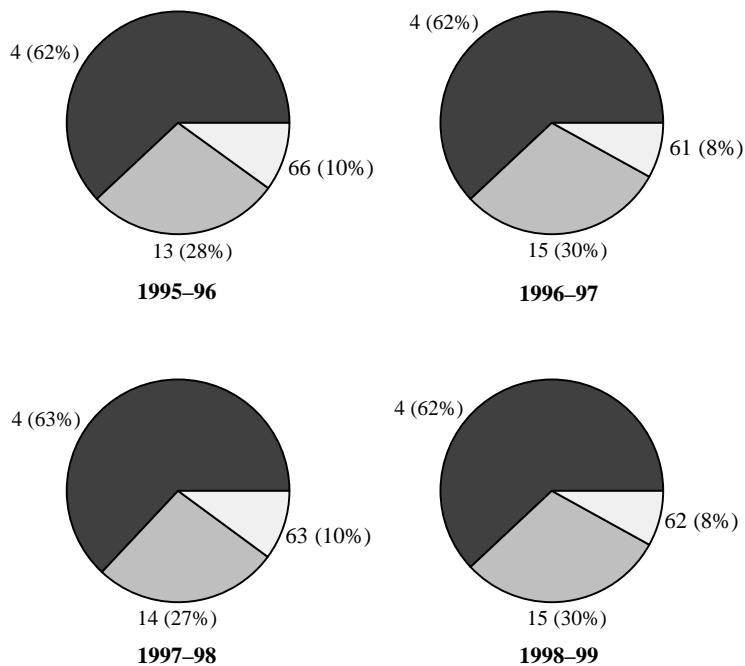
23.33 The BDP approach is fully consistent with the Enhanced Management Framework (EMF) for managing large IT development projects. The Treasury Board Secretariat developed the EMF in 1995 to address weaknesses that we had identified in our audits of systems under development. The elements of BDP, such as the requirement for a strong business case with periodic updates and the emphasis on up-front planning, are also key elements of the Framework.

Exhibit 23.2

Spending on Information Technology by Departments and Agencies



Number of Departments and Agencies (percentage of total IT expenditures)



Source: Receiver General

Few projects are available for review but new concepts are being used

23.34 With the development of the EMF and the BDP approach, we would expect current acquisitions for large IT projects to apply their essential elements.

23.35 We set out to identify large IT acquisitions made in the past few years in order to select a sample for review. However, meetings with officials of the Treasury Board Secretariat, PWGSC and the selected user departments revealed that except for two major initiatives, few large IT projects have been launched in recent years.

23.36 The Year 2000 computer problem was a top priority of the government for most of 1998 and 1999. Most systems development work was deferred in favour of remediation and testing of non-compliant systems and devices, especially those considered mission-critical. As a prudent measure, most departments, even after putting compliant systems in place, resisted making changes in their systems to avoid any risk that their computer environment would be non-compliant for Year 2000 as a result. At the same time, departments and agencies were also converting their financial systems or implementing new systems to meet the requirements of the government's Financial Information Strategy by its 2001 deadline. We have audited the Strategy in the past and will be conducting more audits of it in the future.

23.37 We focussed this audit on large IT projects that are using the concepts and elements of the newly developed approach and framework. Aside from IT work related to Year 2000 and the Financial Information Strategy, very few large IT projects have been undertaken in the last two years. Nevertheless, we identified two recent large IT acquisitions — Export and Import Controls System and Materiel Acquisition and Support Information System — and reviewed their acquisition

phase. The Year 2000 omnibus contract has been cited as an example of another procurement strategy. We conducted a limited review of that procurement.

23.38 The Export and Import Controls System (EICS) project at Foreign Affairs and International Trade was designed to support the Department's control over export and import activities under the *Export and Import Permits Act*. It was intended to replace two existing systems that were becoming obsolete, and to provide interfaces with key stakeholders in industry and in other government entities.

23.39 National Defence had earlier made a number of attempts to optimize the availability of its equipment and weaponry systems. The Materiel Acquisition and Support Information System (MASIS) project in its current form is aimed at optimizing their availability throughout their life cycle. It is meant to provide an integrated environment for Canada's Air, Land and Marine Forces and the Department's administrative units, to replace the separate information systems that have managed and supported the military equipment and weaponry systems of each Force.

23.40 The "Year 2000 omnibus contract" was an initiative to ensure the availability of skilled technical resources for Year 2000 remediation, testing and implementation work. Under the initiative, seven contracts were awarded and they formed a supply arrangement for departments and agencies. The arrangement guaranteed an overall minimum business volume to the suppliers. The initiative initially applied only to work on systems that support government-wide mission-critical functions. It was later extended to cover systems that support departmental mission-critical functions. The supply arrangement was established for work on all mission-critical systems.

The business case is a cornerstone of successful implementation of large, complex IT projects.

23.41 The two IT projects are in various stages of implementation. The Year 2000 contracts expired in June 2000. Exhibit 23.3 summarizes the acquisition phase for the two projects and provides selected information on the Year 2000 contracts.

23.42 Developing a business case. The business case is a cornerstone of successful implementation of large, complex IT projects. Developing a strong business case is at the core of the Benefits Driven Procurement (BDP) approach and is a key element of the Enhanced Management Framework (EMF). Both IT projects we looked at developed comprehensive business cases.

23.43 The business case for the Export and Import Controls System (EICS) project identified the desired outcomes and benefits that the project was to deliver. It related those benefits to the mandate of Foreign Affairs and International Trade and to the program direction of the Export and Import Controls Bureau. The business case also contained an analysis of several potential solutions to the business problem, including their long-term costing implications. The rationale for the recommended solution was also documented.

23.44 The Materiel Acquisition and Support Information System (MASIS) project was supported by a business case that described the re-engineering challenge and the benefits of integrating information systems maintained at the time by separate Forces and administrative units. The business case has been reviewed as the project has developed, and adjustments have been made as appropriate. All “off-ramp” decisions, new tasks and changes in scope are governed by the business case. It is also the basis for assessing performance.

23.45 Using a phased approach. By breaking a project down into phases, the

BDP approach provides checkpoints for deciding whether the benefits accruing to end users can no longer justify a further investment of resources. Both projects used a phased approach with successive off-ramps. In addition, both departments used the first phase of the project to develop the strategy for the business solution and to define the development and construction phase of the project. Both projects emphasized the overall benefits to be achieved, rather than defining detailed specifications and requirements at the outset.

23.46 For the EICS project, the Department contracted with a consulting firm to help prepare the request for proposals, including evaluation criteria. The project itself involved a definition phase and a construction phase. The contract for the definition phase ended in January 2000 with the successful completion of formal system requirements. The contract for the construction phase contains many tasks that are used as checkpoints, providing additional opportunities for either party to exit the contract if desired. Full deployment of the project is expected in April 2001.

23.47 For the MASIS project, National Defence began the formal acquisition process by releasing a draft request for proposal. The final request for proposal contained minimal functional specifications and it was expected that the IT industry would provide the solution. The contract for the first phase involved not only developing an overall system design and implementation plan but also replacing an obsolete system at the Department’s workshop depot in Montreal with at least 30 percent of the functionality planned for the new system. The contract for the second phase deals with the construction and delivery of the full system. Deployment of the overall system involves incremental rollouts with off-ramps, and is expected to be completed by June 2004.

Acquisition Phase of Two Large Information Technology Projects and the Year 2000 Supply Arrangement – Summary

Milestone Activity	Materiel Acquisition and Support Information System	Export/Import Controls System	Year 2000 Supply Arrangement
	<ul style="list-style-type: none"> • Integrated information system designed to enable the Navy, Army and Air Force to maintain and support their equipment and weapon systems more effectively • Based on commercial software and industry's best business practices in materiel acquisition and support processes • Expected cost \$109.3 million 	<ul style="list-style-type: none"> • Control system to support the control aspects of trade agreements, quota allocation policy and ministerial permit issuance • Interfaces with exporters, importers, Customs brokers, and Canada Customs and Revenue Agency • Expected cost \$6 million 	<ul style="list-style-type: none"> • Professional services contracts made available to departments for the provision of Year 2000 remedial solutions for mission-critical systems • Set up with 7 firms to speed up and facilitate the provision of needed IT professional services • Budgeted for a minimum \$100 million
Recommendation to develop a joint solution for all the Forces	October 24, 1994		
Request for proposal (for pilot project)	March 1996 (bids later rejected)		
Further consultations with industry and other countries	July to December 1996		
Decision to use Benefits Driven Procurement approach	January 19, 1997	Fall 1997	Fall 1997
Letter of interest or draft request for proposal, posted on MERX	March 1998	December 4, 1998	October 3, 1997
Request for proposal Closing date	June 26, 1998 August 4, 1998	January 27, 1999 March 17, 1999	November 7, 1997 January 7, 1998
Supply arrangement contracts awarded to 7 firms First call-ups Completion			Early March 1998 June 1998 June 30, 2000
1st phase contract awarded: Initial solution Definition phase	December 11, 1998	May 25, 1999	
Completion	June 30, 2000	January 18, 2000	
2nd phase contract awarded: Full functionality solution Construction phase	June 30, 2000	December 24, 1999	
(Planned) Incremental rollouts with off-ramps Final deployment	until April 1, 2004	April 1, 2001	

Source: Department of Foreign Affairs and International Trade; National Defence; Public Works and Government Services Canada.

23.48 Establishing governance and getting senior-level sponsorship. Senior sponsorship and appropriate governance are key ingredients in successfully implementing large IT projects. We found aspects of both in the two projects that we reviewed. Moreover, there has been no turnover among the several senior officials who are responsible for the projects.

23.49 The Director General of the Export and Import Controls Bureau has served as the senior sponsor for the EICS project since the beginning. The project is guided by a steering committee, comprising senior departmental officials and a senior representative of the contractor firm. The respective roles and responsibilities of the Department and the contractor are stated in each of the two contracts.

23.50 For MASIS, the sponsor is a senior official of National Defence's Materiel Comptrollership and Business Management Directorate. The project manager is a senior officer of the Materiel Group and has been in that capacity since 1996. Internally, the project team reports to the MASIS Senior Review Board, which consists of senior staff from all three Forces, Defence Information Services, Logistics, and Engineering. An Executive MASIS Steering Committee oversees the project. The Steering Committee includes senior officials of all stakeholders — National Defence, PWGSC and the contractor firm.

23.51 Managing the project and related risks. Although it has not been identified as a key element of the BDP approach and the Enhanced Management Framework, an integrated team has been used to manage each of the two projects we reviewed. Integrated project management teams comprise staff of the department and consultants from the contractor firm. Use of the teams provides for flexibility and speed in making changes to advance the project or to mitigate risks.

23.52 The Integrated Project Management Office for EICS involves departmental officials with participants from the contractor firm. It is chaired by the project authority from the Export and Import Controls Bureau, and a senior official in the Department's Information Management and Technology Bureau is also a member. Each month, the Office updates a detailed risk analysis of the project and reviews the updated analysis to determine whether changes or additional actions are warranted. The contractor firm receives payment upon the successful completion of authorized tasks by the target dates. The contract also contains provisions for avoiding or resolving disputes.

23.53 In the case of MASIS, the requirement to use an integrated project team was stipulated in the Statement of Work for each phase of the project. In addition to providing for flexibility and quick action, the integrated team approach is expected to increase efficiency, improve communication and streamline management oversight. Like EICS, the MASIS request for proposal stated that a risk management plan was a requirement. Each phase of the project was broken down into a series of subprojects with defined tasks. Payments are subject to the successful completion of pre-authorized tasks. In addition to remedy clauses, the MASIS contracts provide for incentive conditions to be negotiated for superior performance.

Outcomes are not definitive but results to date are encouraging

23.54 Both EICS and MASIS are currently in the construction phase. Although full implementation and deployment are not assured, both projects have progressed and delivered as planned. At July 2000, they had met expectations on schedule and stayed within budgeted costs.

23.55 The first-phase contracts for the EICS and MASIS projects were

successfully completed and formed the basis for the work under the second-phase contracts. The deployment of EICS is expected in April 2001, as planned. For MASIS, by September 1999 the first-phase contract had provided systems capability for 30 percent of functional requirements at the Department's workshop depot in Montreal. With incremental rollouts, full deployment of the project is expected by June 2004.

23.56 The nature of the Year 2000 contracts differed from that of the two systems development projects. Its purpose was to ensure the availability of skilled technical resources. It did so using a supply arrangement that featured a guaranteed minimum of \$100 million in contract work among the seven successful bidders. Through the supply arrangement, a user department could select directly from the seven prequalified contractor firms and have PWGSC solicit work plans from them. By June 2000, when it ended, the supply arrangement had met expectations in providing skilled contract resources. The full guarantee had been exercised and there had been virtually no system failures. We also noted an important benefit — it provided a streamlined procurement process for contracting technical resources and allowed for their rapid deployment. The application of this supply arrangement was unique. Yet it serves as an example that could be adapted to benefit future procurement activities.

23.57 Our examination of the two large IT projects showed that many essential elements of the Benefits Driven Procurement approach and the Enhanced Management Framework can work and produce results. Analyzing experience from two projects is not sufficiently conclusive, and both projects have yet to be completed to demonstrate full success. However, experience in both EICS and MASIS to date has been encouraging.

23.58 In our view, the emphasis on front-end planning was an essential element in the positive outcome of the two projects to date. Its merit goes beyond serving as guidance and recommended procedure. It ought to be required as a general practice in procuring and developing large IT projects. The front-end planning included:

- focussing on business needs, defined in terms of program mandate and business outcomes, and not on the solution;
- breaking the project down into phases and tasks;
- obtaining the commitment and ongoing involvement of senior management;
- establishing a governance structure; and
- involving PWGSC early in the development of an appropriate procurement strategy.

23.59 **The Treasury Board Secretariat and Public Works and Government Services Canada should analyze the experience of recent acquisitions and specify the practices that they will generally require of user departments and agencies in large information technology projects.**

Government's response: Treasury Board Secretariat and Public Works and Government Services Canada support the recommendation. We will continue to support the application of appropriate Enhanced Management Framework and Benefits Driven Procurement practices to large information technology projects.

Challenges remain in future procurement for large projects

23.60 We have noted some positive aspects of using the new procurement approach and the project management framework. However, there are issues that still need to be addressed.

23.61 Technology advances at a rapid pace. New products with ever-increasing

In our view, the emphasis on front-end planning was an essential element in the positive outcome of the two projects to date.

The longer it takes to acquire, develop and implement technological solutions, the higher is the risk that the business needs will change and the solutions become less beneficial and relevant.

processing speed and capacity are constantly evolving. Moreover, the workplace changes continually, along with program requirements and operational needs. The longer it takes to acquire, develop and implement technological solutions, the higher is the risk that the business needs will change and the solutions become less beneficial and relevant. Long phases of acquisition and implementation also increase the risk that the acquired technology will become obsolete by the time it is deployed. Consequently, acquisition activities that require shorter time spans will add significant value to projects.

23.62 We reviewed the chronology of activities of the two large projects and analyzed the time span of the acquisition activities. We found that they spanned periods exceeding 18 months. The EICS project needs were first analyzed in 1997 and the first phase contract was awarded in late May 1999. Prior to adopting the BDP approach, the need for MASIS had been identified and attempts had been made to develop it as early as 1994. The MASIS project in its current form was initiated in 1996 and its first-phase contract was awarded in December 1998.

23.63 The IT industry claims that processing speed doubles in 18 months, and it defines a Web year as three calendar months. Development and deployment of large IT projects are not expected to match this pace of change. However, the government still needs to find ways to reduce the time span of its acquisition activities in large IT projects.

23.64 In reviewing the procurement strategy for the Year 2000 omnibus contract, we noted that it provided an instrument for rapid deployment of contract resources, and its experience can benefit future procurement. But there are related factors that need to be considered when replicating this method of supply.

23.65 Year 2000 remediation was a unique project. The goal was to ensure that critical functions and operations would continue upon the arrival of 2000 and beyond. There was a degree of commonality in the resource requirements of user departments and agencies. That commonality facilitated the structuring of the supply arrangement. In large IT projects, there is no expectation of a natural tendency toward commonality. The challenge remains to define categories of technical resources for purposes of establishing a supply arrangement.

23.66 Another unique factor in the Year 2000 contracts was the cost. Since the purpose of the contract was to assure availability, successful bidders had to guarantee that they would make technical resources available if and when called upon. To retain staff who were in simultaneous demand worldwide, the rates of compensation and incentives had to reflect the North American marketplace for Year 2000 work. Consequently, contract rates were set at a premium and contractor firms were guaranteed a minimum of \$100 million in work. As the government extends this procurement strategy to other acquisitions, rate negotiation will become an important factor in controlling costs and providing value for money.

23.67 Recent experience with acquisitions for large IT projects has been promising. However, the time entailed in the acquisition phase could become an impediment to the successful implementation of technology solutions that meet business requirements. The government needs to build upon the BDP approach to improve its acquisition activities, using the procurement process to advance and support large IT acquisitions.

23.68 **The government should work with the information technology industry to further develop its procurement approach for large,**

complex technology projects in a way that will improve its acquisition activities, particularly their timeliness.

Government's response: We support the recommendation and agree that we should work with industry to facilitate timely procurement for large and complex projects. We are currently doing so in pursuit of an optimal procurement strategy for the Government On-Line (GOL) requirements.

Acquiring Software, Microcomputers and Equipment for Local Area Networks

23.69 Standing offers are a procurement instrument used by PWGSC that allows user departments and agencies to order directly from suppliers. They provide a means to acquire goods and services at prenegotiated prices that remain in effect for a specified period of time. Standing offers are the preferred method for routine, low-volume supply of commercial off-the-shelf software, microcomputers and equipment for local area networks (LANs).

23.70 Within the limits of delegated authority, user departments and agencies can issue call-ups against a standing offer with a specific supplier, requesting the exact quantities of goods and services they require. Generally, when a call-up is made against a standing offer, there is no further negotiation of price and the supplier is obliged to meet the call-up requirement. To allow for the rapidly changing environment, a supplier is permitted to substitute listed products with improved or upgraded versions, provided they meet or exceed benchmarking requirements and are offered at the same or lower prices.

23.71 There are several different types of standing offer. The national master standing offer (NMSO) is the most common. The NMSOs are arranged by PWGSC to meet common needs of departments and agencies and to provide

them with routine supplies. The NMSOs are arranged without requisitions from users. Regional standing offers are also used to satisfy needs within a specific geographic area. Furthermore, there are individual standing offers used to meet the needs of a single department or agency.

Method of supply of microcomputers and products related to local area networks has been established to provide value for money

23.72 Public Works and Government Services Canada has arranged national master standing offers for routine, low-volume purchases of microcomputers and LAN-related products, including desktop and notebook computers and servers. The standing offers are awarded competitively to suppliers that meet technical and benchmarking requirements. In order to qualify, the supplier must also offer a product at a price within a defined range of the average price submitted by other suppliers for products in the same category.

23.73 In general, a user department can issue a call-up for desktop and notebook computers directly to a specific NMSO supplier, up to a maximum of \$40,000. The limit for servers is \$100,000 per call-up. Information on existing NMSOs is updated regularly on the PWGSC Web site, under its Computer Acquisition Guide. The site is open to public access to encourage competition among suppliers.

23.74 The NMSOs for desktop computers are the most heavily used. On a biweekly basis, PWGSC assesses products and identifies those that offer the lowest cost in each of the desktop categories, based on a combined evaluation of technical merits and price. The products with the lowest evaluated costs are posted on the Department's Web site. To encourage the use of those products, PWGSC raises their call-up limit from \$40,000 to \$100,000.

23.75 Standing offers are arranged to accommodate routine, low-volume

Standing offers are awarded competitively to suppliers that meet technical and benchmarking requirements.

purchases. To support larger-volume purchases, PWGSC provides user departments and agencies with an option to issue a request for volume discount (RVD) to NMSO suppliers on their listed prices. The RVDs can be used for purchases up to \$10 million. They are processed on a competitive basis and are thus an alternative to the traditional competition that involves issuing requests for proposals.

23.76 In our view, the arrangement of standing offers as a method of supply for microcomputers and LAN-related products has merit, and the technical and benchmarking requirements add value to the acquisition process.

Opportunities exist for more cost savings

23.77 Call-ups on an NMSO are intended for low-volume purchases. In exercising a call-up, a department usually purchases the NMSO product at the specified price. That price has been set within a competitive price range but usually at a premium, because of the low purchase volume anticipated. Although

the RVD process was available for obtaining volume discounts, most microcomputers and LAN-related products purchased in the last two years were acquired through departments' call-ups.

23.78 We reviewed information from Public Works and Government Services Canada on purchases of microcomputers and LAN-related products in 1998–99 and 1999–2000. We noted that on average, RVD procurements accounted for around 25 percent of about \$200 million in total annual acquisitions of those products. The data indicate that call-ups on NMSOs were widely used; they accounted for about 45 percent of purchases of the products. The remaining purchases were made using requests for proposals or through unchallenged advance contract award notices (ACANs). Moreover, about 65 percent of all microcomputer/LAN products that were purchased using standing offers were acquired in the last three months of the fiscal year. An analysis of fourth-quarter data from four sample departments confirmed that low-volume purchases dominate (see Exhibit 23.4). We analyzed a sample of RVD transactions processed by PWGSC in 1999–2000 and found that savings from volume discounts averaged about 17 percent.

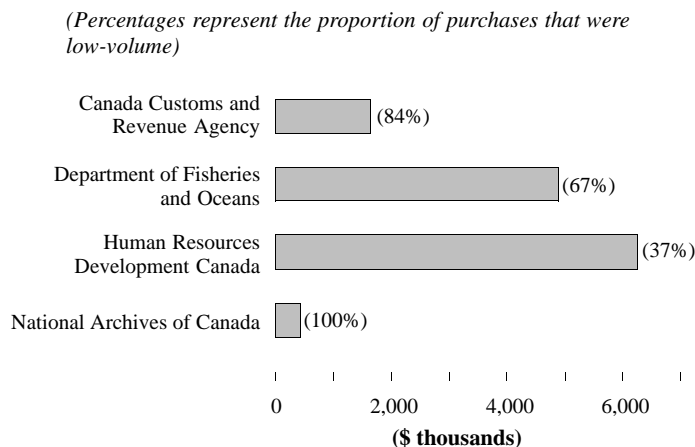
23.79 Some users expressed the concern that RVDs may take a long time. However, in a small sample of RVD acquisitions made in 1999–2000, procurement averaged four weeks — a significant advantage over the traditional competitive process using requests for proposals. Other users who had reservations about using RVDs cited their preference for retaining sole control or their concern that PWGSC might lack flexibility.

23.80 We recognize that RVD procurement may not always be feasible, and there are occasions when simple call-ups are appropriate and provide the best value. However, increasing the use of

Exhibit 23.4

Low-Volume Purchases Dominate

Analysis of fourth quarter data from four sample departments



Source: Departmental data on 1999–2000 acquisitions of microcomputers and local area network products.

RVD procurement could lead to cost savings in the neighbourhood of \$10 million every year.

23.81 For expediency, departments and agencies use acquisition cards and local purchase orders for purchases under \$5,000. The PWGSC data do not include those purchases, and their extent is not known. In smaller or highly decentralized departments, such purchases can represent a significant portion of the department's total procurement. Some of those purchases could represent another source of cost savings.

23.82 Added savings or faster turnaround times can also be achieved by using other forms of standing offer. Three of the eight user departments that we selected for case review have requisitioned their own standing offers. National individual standing offers (NISOs) are arranged by PWGSC after it receives funded requisitions from a department. That department can then use them throughout Canada.

23.83 The Department of Foreign Affairs and International Trade (DFAIT) used NISOs to address its requirement for maintenance services at missions around the world and to shorten the procurement period. In reviewing its data, we found that by using NISOs, the Department shortened the procurement period for certain acquisitions to two weeks. National Defence achieved up to 39 percent savings with its omnibus NISO, which expired in July 1999. DFAIT had issued six NISOs by August 2000; National Defence was experiencing some delay in replacing the expired omnibus NISO but was continuing its efforts.

23.84 The national master standing offer as a method of supply is well suited to acquiring commodities like desktop and laptop computers. Nevertheless, we believe that additional efforts can be made to ensure value for money.

23.85 Departments and agencies, in co-operation with Public Works and Government Services Canada, should strive to consolidate purchases of microcomputers and LAN-related products to take advantage of opportunities for additional cost savings. Further, Public Works and Government Services Canada and user departments should consider other options to provide enhanced flexibility to meet the government's business needs.

Government's response: We support the recommendation in general.

Standing offer arrangements for commercial software licences and solutions were discontinued as a result of bid challenges

23.86 As well as purchasing microcomputers and LAN-related products, user departments and agencies were using NMSOs to purchase commercial off-the-shelf software products directly from suppliers, subject to the authorized limits. Those limits were \$40,000 for software licences and \$50,000 for software solutions involving services. Purchases above the limits were processed by PWGSC. In addition to using call-ups, departments and agencies made direct purchases using acquisition cards, local purchase orders and sole-source contracts.

23.87 The NMSO method of supply was established to meet ad hoc needs for limited quantities. It was considered an efficient procurement method and was widely used. During 1998–99, PWGSC processed a total of about \$200 million in software purchases, of which about \$120 million involved NMSO transactions. In mid-1999, there were 65 NMSOs in effect with software vendors.

23.88 The NMSOs were awarded to software vendors without competition. The criteria, unlike those of NMSOs for microcomputers and LAN-related products, were based solely on previous

Increasing the use of requests for volume discount in procurement could lead to cost savings in the neighbourhood of \$10 million every year.

volumes of business and did not involve technical specifications or pricing. Using this and other non-competitive methods of supply, over time departments could build up a substantial investment in certain software products acquired piecemeal and on a non-competitive basis. This could become a significant procurement problem if a department needed to extend the use of the software to the entire department, or when it needed to procure department-wide maintenance services and software upgrades.

23.89 In recent years, potential bidders have successfully challenged the government's solicitation to upgrade existing installed bases of software. After those cases, PWGSC limited the use of the software NMSOs in an attempt to better control software acquisitions and guard against establishing other installed bases of software acquired piecemeal. In August 1997, the Department and the Treasury Board Secretariat introduced an interim measure that limited the use of software NMSOs to the purchase of 10 licences or the addition of 10 users per call-up. In June 1999, PWGSC announced that all 65 of the existing NMSOs would be discontinued by 31 August 1999. (More information about those bid challenges and their ramifications can be found in this chapter under Addressing Bid Challenges and Resolving Disputes.)

The procurement instrument for replacing software standing offers experienced delays and did not provide an adequate solution

23.90 In July 1999, PWGSC released a discussion paper to the government user community and vendors on procurement options for software products and solutions. The paper discussed the Department's strategy for procuring software. It included three classes of software procurement: purchases involving sole-source or limited tendering, purchases using request for proposals, and the transfer of Crown-owned software

licences. Within the first class, the Department proposed three options, two of which addressed standing offer arrangements for software. The first was for PWGSC to introduce departmental individual standing offers (DISOs), allowing it to control all software acquisitions. The second option involved negotiating standing offers or supply arrangements, and providing special contracting authorities to user departments and agencies to acquire software, subject to preset terms and conditions that included requirements for reporting.

23.91 PWGSC acknowledged that the second option would be hampered by the difficulty of obtaining appropriate information on all software orders placed by user departments and agencies. In late August 1999, PWGSC began arranging DISOs for software licences as a method to replace the discontinued NMSOs. A framework for procuring software solutions and services would follow. At the time, the Department expected to complete arrangements for software DISOs by the fall of 1999.

23.92 Through open solicitation of vendor interest as well as approaching vendors directly, PWGSC identified 39 software vendors who qualified under criteria that included the value and volume of past sales to the government. It started negotiating with the vendors in September 1999 and awarded the first DISO in December 1999. At June 2000, DISOs had been arranged with 18 of the 39 qualifying vendors. As we concluded the audit in July 2000, the Department had made some progress but some negotiation files were inactive. In late September 2000, PWGSC advised us that 22 DISOs had been established. It indicated that the delays were due in part to the difficulties experienced in negotiating terms and conditions with vendors.

23.93 During the intervening period, especially between August and December 1999, user departments and agencies were left with no replacement for a ready

procurement instrument for routine low-volume purchases, one that had been used for 60 percent of the government's total software acquisitions. A set of draft operating instructions to support a framework for procurement of software solutions and services was developed and released for consultation in March 2000. As we completed our audit, the framework had not been finalized. The Department informed us that the process was stalled due to some unresolved policy issues that extended beyond procurement.

23.94 With the DISO arrangements, it was envisioned that PWGSC would control all software standing offer call-ups in the government. This would allow it to monitor and analyze the overall demand in the government and to guard against the piecemeal, non-competitive acquisition of installed software bases.

23.95 As PWGSC negotiated software DISOs, it realized the extent of the additional resources it would need to control and administer all call-ups. As a result, the Department obtained approval to delegate call-up authority to departments and agencies. Under that delegated authority, they can issue call-ups for up to \$40,000 in software products and \$100,000 in software solution services. Before they receive the authority, departments and agencies must accept the terms and conditions set by PWGSC. Among other conditions, PWGSC requires the user department to be accountable for asset management and for any litigation costs resulting from inappropriate use of DISOs. At July 2000, only 13 departments had requested the delegation of authority and accepted the terms and conditions. The 13 departments accounted for about seven percent of total software acquisitions in 1998–99.

23.96 We noted that PWGSC has no plan to monitor user departments' compliance with the conditions. In two of the departments we selected for case review, we found that asset management

systems were not fully in place for department-wide purchases and it was not evident that the necessary changes would be initiated or completed soon. Without an effective asset management system, the departments will not have control over the ad hoc acquisition of software. Moreover, we noted that DISO call-ups by PWGSC can be handled by two separate divisions or by regional staff, and there is no co-ordination among them. In our view, the Department has not put in place a method of supply that guards adequately against the future accumulation of an installed software base acquired on a piecemeal basis without competition. This was a key reason for abandoning the software NMSO as a method of supply.

23.97 Software acquisitions have been treated like those of any commodity. In reality, software products are much more than typical goods. The products are not interchangeable and they are upgraded continually. The pricing of software is based on the number of users rather than the number of physical goods. The market is extremely competitive and involves many players.

23.98 More significantly, software products often have far-reaching implications for an organization. They must be integrated with other technology products in order to function. Maintenance and upgrade costs are usually substantial. Software products have a direct impact on users, and the costs associated with changes, such as training needs and lost productivity, are high. Software procurements are more akin to acquiring a relationship that includes a life cycle than to purchasing a readily replaceable commodity. In cases where software products form part of the IT infrastructure or an enterprise-wide installed base, consideration could be given to treating them as large IT projects and subjecting their purchase to the same rigour and discipline. In our view, the government needs to consider a strategy for acquiring software as an IT investment.

In our view, the Department has not put in place a method of supply that guards adequately against the future accumulation of an installed software base acquired on a piecemeal basis, without competition.

23.99 The government should develop a new strategy, specifically targeting software products and services, that mitigates the risk of establishing an installed base of software acquired piecemeal and non-competitively. In particular, consideration should be given to long-term, life-cycle management of software products that form part of a department's technology infrastructure or a department-wide installed base.

Government's response: We support the recommendation, with the caveat indicated by several departments that the severity and urgency in addressing software procurement is understated. Software is a strategic investment and needs to be managed as such, regardless of the way it was acquired. We will work with PWGSC and other stakeholders to evolve a framework that addresses software procurement issues and recognizes the differences between realistic business opportunities to replace installed software and other situations in which renewal by means of acquiring additional licences or upgrades is the only feasible option.

Complying With Delegated Authority

23.100 Authority to enter into contracts has been delegated to departments and agencies through Acts and regulations as well as Treasury Board directives. Departmental contracts with values above the delegated limits have to be processed by PWGSC and may require Treasury Board approval. Notwithstanding the delegation of their authority, ministers remain accountable for procurement decisions and the outcomes.

23.101 The delegated limits for goods and for services are different. They also vary with the way the goods or services are acquired. In general, contracts let using MERX, an open electronic bidding system, have a higher delegated limit. The

general limit on authority delegated to departments for acquiring goods is \$5,000. PWGSC, the contracting authority for all goods, delegated this authority to departments and agencies. Under specific methods of supply, other delegated limits apply. The government's contracting policy also provides for special and exceptional limits on contracts, including contracts for emergency situations.

23.102 For this audit, we selected a small sample of acquisitions to assess compliance with the delegated authority and with the requirement to use competitive tenders, where applicable.

23.103 We selected the acquisitions from those made by the eight departments and agencies in our audit sample. They represent a cross-section of government organizations with large, moderate and small IT budgets. Their IT spending averaged about \$1.4 billion or 60 percent of the government's total IT expenditures in the past four years. The sample of about 80 purchased items was selected from the departments' accounting or procurement records and included 1999–2000 acquisitions of services, hardware and software.

23.104 Aside from a few minor deviations, we found no misuse of the authority delegated to the eight departments and agencies. The small sample was designed only as a test to determine if further analysis and review by the government would be warranted. It was not intended to provide a statistical conclusion on government-wide compliance with delegated authority. Our review found no indication of widespread non-compliance with or misuse of delegated authority.

Addressing Bid Challenges and Resolving Disputes

23.105 The government's contracting policy makes direct reference to trade agreements and the requirement to comply with them. In general, under the *North*

Our review found no indication of widespread non-compliance with or misuse of delegated authority.

American Free Trade Agreement and the *World Trade Organization–Agreement on Government Procurement*, suppliers from countries that are signatories to those agreements are to be given an equal opportunity to compete with Canadian suppliers for contracts involving defined classes of goods and services. Similarly, to comply with the *Agreement on Internal Trade*, the government is obligated to grant all Canadian suppliers equal access to contracts for certain goods and services.

23.106 Public Works and Government Services Canada specifies integrity as the governing principle for its supply activities. Its Supply Manual states, “PWGSC supply activities will be open, fair and honest.” The Department facilitates open access to information on the government’s procurement activities through its Contracts Canada initiative. The initiative supports supplier awareness and registration and provides historical information on contracting. It provides an overview of the government’s processes for making purchases and resolving disputes. For example, it describes MERX, the government’s electronic open bidding system, and the Contract Claims Resolution Board, a departmental process to resolve disputes with contractors. Its Contracts History database provides public access to data on contracting back to April 1997. It also provides information on the trade agreements and the Canadian International Trade Tribunal.

Few contracts have been challenged

23.107 The trade agreements require that the government maintain an independent authority to consider complaints from potential suppliers about designated contracts. The Canadian International Trade Tribunal (CITT), an administrative tribunal, has been established as that authority. Potential suppliers can file a complaint with the Tribunal against a contract that is designated under the trade agreements. Exhibit 23.5 shows the key activities in a contract challenge and their

associated timeframe. Suppliers may also take the dispute directly to the Federal Court of Canada for a judicial review.

23.108 We analyzed CITT data on challenges to technology contracts over the five years ended at December 1999. The Tribunal received a total of 43 complaints in that period, 24 of which reached the inquiry stage. Those 24 cases represent less than 0.5 percent of the total value of contracts that the government awarded each year for IT goods and services. Exhibit 23.6 shows the total volume of complaints and those involving IT contracts from 1995 to 1999.

Several key cases involved procurement of software licences

23.109 We reviewed the Tribunal’s determinations of technology-related complaints over the five-year period. We noted that many complaints were dismissed before reaching the inquiry phase because they were outside the jurisdiction of the CITT, since the challenged procurement was not covered by the trade agreements. Most complaints dealt with circumstances that were specific to the contracts being challenged. However, we found that several key cases from 1997 to 1999 involved similar issues, all related to the procurement of software licences.

23.110 We examined the CITT’s determinations in four such cases. In each case, the user department was acquiring additional licences or upgrades for software already implemented in its information systems. Three were sole-source contracts under the international trade agreements provisions on limited tendering; the fourth contract used open competition.

23.111 The international trade agreements place a restriction on limited tendering to prevent it from being used to avoid the maximum possible competition, to discriminate among suppliers, or to protect domestic suppliers. Limited

Tribunal cases that reached the inquiry stage over the past five years represent less than 0.5 percent of the total value of contracts that the government awarded each year for information technology goods and services.

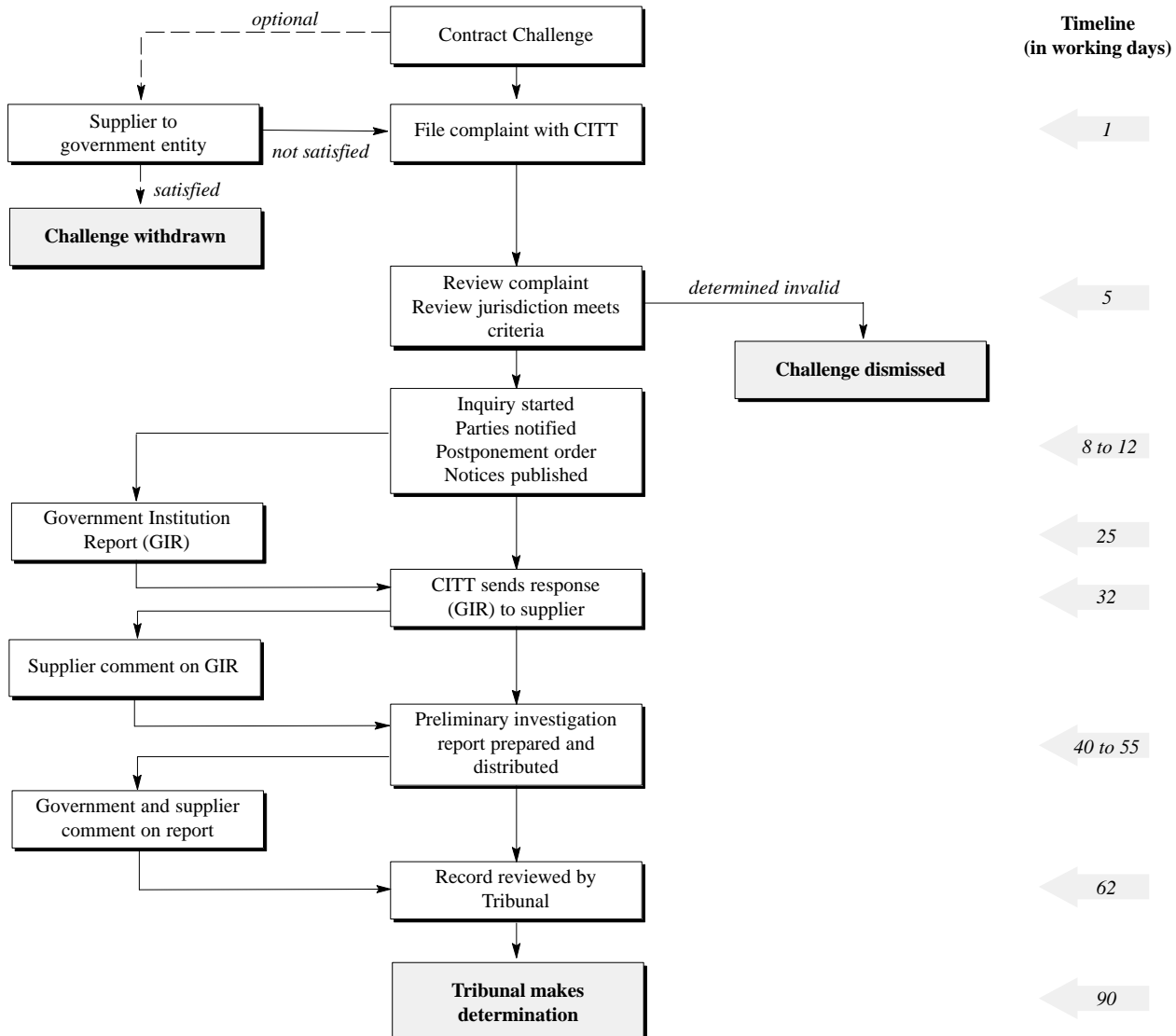
tendering can be used only under certain circumstances and conditions, as defined by the trade agreements. The Tribunal has determined that if a sole-source contract is challenged, the onus is on the government to prove that limited tendering was justified.

the government could not prove it had met the conditions for limited tendering. Consequently, the Tribunal determined that an open, competitive procurement process should have been used. Moreover, in one of the three cases, the Tribunal determined that PWGSC could not impute the cost of converting the installed software as a basis for awarding a sole-source contract. The Tribunal stated

23.112 In the three cases involving sole-source contracts, the CITT found that

Exhibit 23.5

The Contract Challenge Process at the Canadian International Trade Tribunal



Source: Canadian International Trade Tribunal (CITT)

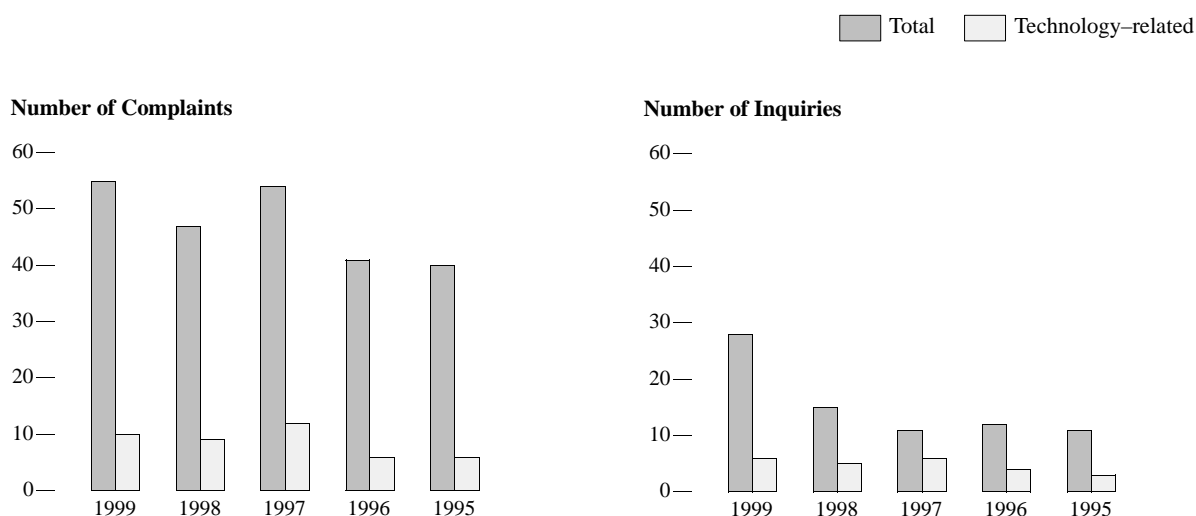
that conversion and training costs ought to be determined through an open competition.

23.113 The fourth case involved an open competition for a department-wide software licence to upgrade or replace the software installed in that department — software that had been acquired without competition. As part of the process, the government had provided information to potential bidders so they could estimate the level of effort and the costs involved in converting the existing installed base to the use of their products. The CITT

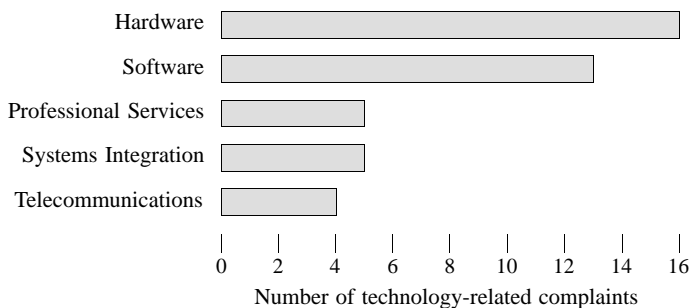
determined that the government had provided insufficient information for potential suppliers to be able to include a proper estimate of conversion costs in their proposals and had thereby biased the procurement in favour of the incumbent supplier. In evaluating the bids, the government had also allowed for discounting conversion costs to help restore competition. However, the Tribunal was not convinced that this was adequate to restore competition when the installed base had not been acquired in accordance with the trade agreements.

Exhibit 23.6

Complaints Filed With the Canadian International Trade Tribunal, 1995 to 1999



Over a five-year period, 43 technology complaints



Source: Canadian International Trade Tribunal

We found that the purchases in 1999–2000 were almost exclusively non-competitive.

Although we did not specifically verify the information, representatives of user departments and the IT community expressed concern that the preoccupation with avoiding complaints to the Tribunal has led to excessive caution in the procurement process.

The cases have significant implications for the government

23.114 In the one case we examined that used a competitive process, the existing software in the department had been acquired using a series of call-ups against the national master standing offer with the same supplier over several years.

23.115 As noted in paragraph 23.89, PWGSC modified the call-up limits and subsequently discontinued all NMSOs for software licences to avoid the future development of an installed base of software products acquired piecemeal and non-competitively. However, this type of installed software base potentially exists in other departments.

23.116 We analyzed data in the Contracts Canada database for the past three fiscal years to assess the extent to which software licences had been acquired piecemeal and non-competitively. Our analysis of nine major software vendors showed that a large majority of software purchases from April 1997 to March 2000 were non-competitive. We found that the purchases in 1999–2000 were almost exclusively non-competitive; this represents well over 95 percent of the total purchases from those nine vendors. Moreover we found that since April 1997, only one user department has acquired its installed base of enterprise-wide office automation software on a competitive basis.

23.117 The trade agreements permit the use of limited tendering to upgrade software or purchase additional licences only if certain narrowly defined conditions are met. Those conditions cover software products that were initially procured under the provisions of the trade agreements. Thus, the use of sole-source contracts for a department-wide upgrade of a software product, or for acquiring additional licences to extend the use of a software product to the entire department, can be vulnerable to CITT complaints from potential bidders. A competitive process

for that type of software procurement is complex and involves many issues, including defining and evaluating conversion costs. In our view, acquiring additional licences or upgrading software for use across a department continues to be a challenge for the government.

23.118 **The government should develop a strategy to address the implications of installed bases of software acquired piecemeal and non-competitively and, in particular, address the issue of conversion costs for infrastructure and enterprise-wide software products.**

Government's response: We support the recommendation, with the caveat indicated by several departments that the severity and urgency in addressing software procurement is understated. We will work with PWGSC and other stakeholders to evolve a framework that addresses software procurement issues.

23.119 The recent CITT cases are well known within the government IT procurement community. Many government officials we interviewed regard the Tribunal determinations and the prospect of facing CITT complaints with apprehension. Once the Tribunal accepts a challenge to a contract, the government is required to furnish a Government Institution Report within 25 days (see Exhibit 23.5). This involves both PWGSC and the user department, and the level of effort required to prepare the Report is viewed by them as intensive and laborious. Although not specifically verified by us, representatives of user departments and the IT community expressed concern that the preoccupation with avoiding complaints to the CITT has led to excessive caution in the procurement process, adding to an already long and complex acquisition phase.

23.120 The Tribunal is the Canadian mechanism for meeting obligations under the trade agreements. It fosters open competition in government procurement. As an appeal mechanism, it ought to be viewed as an essential part of the overall

framework of government procurement and not as something to be avoided at all costs.

23.121 Under the Government Contracts Regulations and the trade agreements, open competition subject to exclusions is the norm for government contracting. Where exclusions are used, contracting ought to be subject to appropriate scrutiny to ensure compliance with legislation. It is important that user departments and agencies guard against the possibility of favouring a particular vendor and the solution it offers. Experience shows that a bias can arise from early experimentation with specific sets of tools or from premature determination of department-wide standards. Involving PWGSC early in the procurement cycle could help to ensure and support open competition.

23.122 Determinations rendered by the CITT provide an interpretation of provisions contained in the trade agreements. In some instances, the circumstances surrounding a case and the resulting determination are complex and are subject to varying interpretations, particularly by those not accustomed to reading them. In light of recent CITT determinations, PWGSC has been developing a software procurement strategy to address the issues (see paragraph 23.90). However, there has been no explicit guidance to its procurement staff on the effect of those cases in applying day-to-day operating procedures. If intense scrutiny were to be applied indiscriminately at a detailed procedural level, it could become unmanageable and counterproductive, especially given the rapid pace of technological change, the aggressiveness of the marketplace, and evolving business needs. During the audit, representatives from user departments indicated that since the promulgation of recent CITT determinations, PWGSC supply activities have generally become lengthier and less

flexible and have not adequately respected their operational needs.

23.123 Compliance with government regulations and trade agreements ought to be observed at all times. Meeting operational requirements and respecting competition are both important and ought to be given due consideration in all acquisition activities. Meeting operational requirements is the *raison d'être* of acquisition activities. Once the business needs have been identified, the principle of open competition needs to be respected. Fostering competition through operational and control procedures and meeting operational requirements are not mutually exclusive. It is important to meet operational requirements in a timely fashion with due regard to value for money while also respecting the principle of open competition.

23.124 In acquiring information technology goods and services, departments and agencies should place greater emphasis on open competition as soon as is practical after identifying their business needs. They should seek the advice of Public Works and Government Services Canada as early as possible to develop an appropriate procurement strategy. Public Works and Government Services Canada should work with user departments and agencies to improve its supply activities, in order to ensure the pre-eminence of operational requirements with due regard to value for money, and to ensure adherence to the principle of open competition by complying with regulations and the trade agreements.

Government's response: We support the recommendation. We agree that a procurement strategy should be an integral part of any business and operational strategy and that operational imperatives, as a matter of contracting policy, need to be reinforced as a fundamental underlying objective of procurement.

The Government On-Line initiative underscores the importance and the urgency of resolving the issues.

Looking Ahead to Government On-Line

23.125 The 1997 Speech from the Throne noted the need to connect Canadians in order to support a knowledge economy. The Speech from the Throne in fall 1999 went further, setting the goal of being known around the world by 2004 as the government most connected to its citizens. In early 2000, the government laid out its strategy for Government On-Line (GOL), an initiative to make the government a model user of Internet technology by 2004.

23.126 The GOL initiative is unprecedented in its scope. Like the Year 2000 computer problem, GOL imposes a common deadline on all major departments and agencies and affects all programs and operations. But it is much more far-reaching, because it deals with business re-engineering and may involve the integration of services within and outside the government.

23.127 To meet this challenge, government procurement activities need to work on acquiring the necessary IT goods and services on a timely basis to support on-line access by the public and interaction with it by 2004. The GOL initiative underscores the importance and the urgency of resolving the issues we have identified in this chapter.

Conclusion

23.128 Our data analysis showed that the government has made significant acquisitions of information technology (IT) goods and services. Over time, IT expenditures have increased both in total and as a proportion of the government's operating expenditures. Spending on IT will increase as large development projects that were deferred because of Year 2000 remediation are continued and the new Government On-Line (GOL) initiative is carried out.

23.129 We found that recent acquisitions for large IT projects followed some essential elements of the new procurement approach and project management framework. Although the new systems have yet to be fully developed and deployed, results to date are encouraging. We noted, however, that the time span of procurement activities is still long.

23.130 The GOL target date is just three years away. If procurement activities for large projects continue to take 18 months or more, user departments and vendors will be left with less than 18 months to develop and implement IT solutions to support GOL. Aspects of the Year 2000 omnibus contract could benefit future IT acquisitions, but certain issues would need to be addressed to ensure that the resulting procurement instrument would obtain the best value for money spent.

23.131 We noted that several recent determinations by the Canadian International Trade Tribunal (CITT) have had a profound effect on government procurement activities. A long-standing method of supply for software licences and software solution services was modified and then discontinued, and a replacement method is still being developed. There are also unresolved issues concerning installed bases of software that exist in many departments. Furthermore, representatives from user departments indicated that the government has subjected all procurement activities to intense scrutiny to avoid the filing of possible complaints with the CITT, resulting in additional time and effort for an already long and complex procurement process.

23.132 These issues need to be resolved as soon as possible to adequately meet government contracting objectives and to pave the way for developing and implementing the information systems and technology infrastructure needed to put the government on-line by 2004.



About the Audit

Objective and Scope

The objective of this audit was to assess the extent to which information technology (IT) acquisitions in government meet policy objectives while paying due regard to efficiency and economy.

The audit covered procurement activities for large IT projects and routine supply of microcomputers, equipment for local area networks, and software, starting with the needs identification phase and ending with the contract award and any related challenges. We did not include activities such as accepting delivery of the goods and services and developing and implementing the IT solutions.

We analyzed IT expenditures since 1995–96, and interviewed officials and staff of the Treasury Board Secretariat, Public Works and Government Services Canada, the Canadian International Trade Tribunal and a cross-section of user departments and agencies. We met officials in the Secretariat to discuss its policy role and its initiative to reform procurement activities and make them more responsive to the government's business needs. We also reviewed a number of acquisition cases in the eight user departments selected for our audit.

The selection of user departments and agencies provided a portfolio of entities with varying levels of IT expenditures. They are as follows:

- National Defence;
- Canada Customs and Revenue Agency;
- Human Resources Development Canada;
- Department of Foreign Affairs and International Trade;
- Fisheries and Oceans;
- Correctional Service Canada;
- Registry of the Federal Court of Canada; and
- National Archives of Canada.

Criteria

The following general criteria were used in the audit:

- The acquisition of IT goods and services in the federal government should be responsive to the government's business needs while paying due regard to efficiency and economy. Acquisitions should meet other contracting policy objectives such as respecting the principles of competitiveness, fairness and transparency.
- Large and complex IT solutions should be acquired to achieve best value by using procurement methods that encompass essential elements of established frameworks such as Benefits Driven Procurement and the Enhanced Management Framework.

- Procurement methods and tools should be developed and used to ensure best value in the routine supply of microcomputers, network components, commercial off-the-shelf software and IT services.
- Government-wide licences should be acquired to provide common IT solutions at best value while supporting competitiveness.
- The government should have initiatives in place to heighten awareness of IT purchasing opportunities and available procurement vehicles for providing best value and promoting accessibility.
- The delegation of authority to departments and agencies to acquire IT goods and services should be appropriate and documented, and properly complied with.
- IT goods and services should be acquired in accordance with trade agreements, and challenges should be properly addressed.

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