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## GOVERNMENT SYSTEMS AND CONTROLS

### BACKGROUND

- 3.1** Government financial, program and other management activities are facilitated or supported by a variety of systems and control processes. These include a number of corporate or government-wide systems. There are also numerous entity or program-level systems and processes.
- 3.2** Government's business systems and technology initiatives are subject to oversight review by the Business Technology Advisory Committee (BTAC), which is a committee of deputy ministers reporting to Treasury and Policy Board (TPB). Initiatives within crown entities are to be governed by their respective governing board or other appropriate body.
- 3.3** Government's Management Manuals and other policy directives are coordinated through Treasury and Policy Board or the Public Service Commission.
- 3.4** Although not specifically quantified, the costs of acquiring, implementing, operating and maintaining systems and control processes within the Provincial public sector are significant. Further, it is also important to consider the quality and cost-effectiveness of the systems and control processes in mitigating financial and other risks of managing government programs and services.

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### RESULTS IN BRIEF

- 3.5** The following are our principal observations presented in this chapter.
- The government has a number of significant systems and control initiatives in process at this time. The capacity of existing resources assigned to such initiatives needs to be monitored effectively in order to achieve successful results and outcomes.
  - The first independent service audit of the SAP Customer Competency Centre of the Department of Finance, reported in January 2005, contained a reservation of opinion.
  - The results of the annual independent service audit of control procedures in place for processing on government's large mainframe computer systems provide reasonable, but not absolute, assurance on the adequacy of controls. The audit deals with control procedures at a specific point in time, and only those that are the responsibility of the contracted service organization. There are significant matters not covered by the audit which are government's specific and direct responsibility.

- Better reporting to the House of Assembly in regards to annual business planning information and accountability reporting on the Industrial Expansion Fund is required.
- We reviewed the second edition of the *Business Climate Index (Index)*, published for 2003, in which Nova Scotia ranked fourth. We selected a sample of the indicators, to determine whether the Index reflected the underlying Statistics Canada data. We noted no issues with the sample indicators.
- The information on tangible capital assets in government's corporate financial management system (CFMS) is not always updated in a timely manner for asset transfers from one department to another or for disposal of an asset.

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## SCOPE

- 3.6** The Auditor General Act provides broad mandates for the Office to examine and report on the use and control of public funds or resources by government, its entities, and recipients of financial assistance. For example, Section 8 of that Act indicates that we may examine whether:
- accounts have been faithfully and properly kept;
  - all public money has been fully accounted for, and the rules and procedures applied are sufficient to secure an effective check on the assessment, collection and proper allocation of the capital and revenue receipts;
  - money which is authorized to be expended by the Legislature has been expended without due regard to economy or efficiency;
  - money has been expended for the purposes for which it was appropriated by the Legislature and the expenditures have been made as authorized; and
  - essential records are maintained and the rules and procedures applied are sufficient to safeguard and control public property.
- 3.7** The purpose of this chapter is to provide summary observations and information on the government's systems and control processes in order to assist the House of Assembly, and its Public Accounts Committee, to hold government accountable for the adequacy of systems and controls over the use of public funds or resources. Other chapters of this Report may also include related observations as a result of audit examinations in specific areas or entities.
- 3.8** Comments in this chapter are not the result of formal, completed audits but rather the result of ongoing review and enquiry procedures, and are provided herein for information purposes only.

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## PRINCIPAL FINDINGS

- 3.9** The government has a number of significant systems and control initiatives in process at this time. The capacity of existing resources assigned to such initiatives needs to be monitored effectively in order to achieve successful results and outcomes.
- 3.10** The following are some examples of the system and control-related initiatives in process or planned across government.
- The Office of Economic Development plans to develop a corporate information management strategy and framework for government-held information which includes corporate information management policies, standards and guidelines.
  - The Office of Economic Development in collaboration with the Department of Transportation and Public Works has initiated a three-year project to examine all areas of government information technology operations to identify areas to improve efficiency, reduce cost, and meet the changing demands for technology services in the public sector.
  - Implementation of SAP's human resource module for core government and regional school boards.
  - Implementation of SAP's loan portfolio module for both the Nova Scotia Fisheries Loan Board and the Nova Scotia Farm Loan Board.
  - Continued implementation of SAP's utilities and tax module for the municipal sector.
  - Implementation of SAP portals in support of e-government services.
  - Continued consideration and planning for implementation of SAP for the District Health Authorities.
  - Implementation of the Nova Scotia hospital Information System (see chapter 6 of this Report).
  - Implementation and additional leveraging of the Justice enterprise information network.
  - Planning for the implementation of a single Province-wide standardized student information system.
  - Implementation of improved integration of on-line services for Nova Scotians by Service Nova Scotia and Municipal Relations. This is to include the implementation of French language website content.

- To support the wide area network security policy, Transportation and Public Works will be actively implementing a program of cyber security practices and measures.
- Implementation of a winter road conditions monitoring and information system to support the snow and ice control program.
- Department of Community Services has launched a multi-year integrated case management project to modernize systems and improve delivery to clients.

**3.11** The listing provided above is not complete. It emphasizes the variety of initiatives that government management is dealing with in addition to the planning and provision of on-going government services.

### **CFMS and SAP Control Initiatives**

**3.12** The 2003 Report of the Auditor General (Chapter 3) included the results of our examination of selected aspects of the government's SAP corporate financial management system (CFMS). We identified a number of significant control concerns and provided 20 specific recommendations for consideration by Department of Finance management. Certain of those recommendations required consideration on a government-wide basis, not just by Finance.

**3.13** Finance management had committed to addressing the control concerns we reported, and undertook to develop an action plan to identify and assess alternatives for each of our recommendations. A steering committee was established in April 2004 to oversee this process.

**3.14** An updated status report was provided to the steering committee in February 2005. Although we have not yet assessed the actions taken or planned, that report indicated that several of the recommendations were either in process of being addressed, or had been completed.

**3.15** One recommendation has been addressed. Government contracted for an annual service auditor review of Finance's SAP Customer Competency Centre (CCC) formerly referred to as the Corporate Information Systems Division. This included a service auditor report on controls for the centralized SAP infrastructure and support functions performed by the CCC for government and for a number of public sector entities. The initial audit work was planned for completion in November 2004. A report dated January 7, 2005 was released in April 2005. Exhibit 3.1 on page 28 is an extract from the first auditor's report on control procedures of the SAP Customer Competency Centre.

**3.16** The audit examined control procedures in nine areas.

- Management and administration controls
- Physical access controls
- Access controls

- Application software development and maintenance
- Computer operations
- Change management
- Client services
- Backup and recovery
- Technical services

**3.17** The service auditor report contained a reservation of opinion for eight control procedures in five of the nine areas, that did not operate effectively as at November 15, 2004. The control procedures where exceptions were noted follow.

- Staff termination notification
- Physical security
- Audit logging
- Account lockout
- Access to privileged accounts
- Client involvement in the application development lifecycle
- Service level reporting
- Maintenance agreements

**3.18** This first service auditor report provided an opinion as at a specific point in time (November 15, 2004). The contractual arrangement with the service auditor calls for further audits. The next audit was scheduled to cover the period from November 15, 2004 to March 31, 2005. However, we have been informed by management that a decision was made to defer this audit one year. This next audit, therefore, will not result in availability of the related report to those public sector entities or their auditors that need to issue their financial statements by June 30, 2005. In future, the service auditor report should be completed and available to the auditors of public sector entities on a more timely basis (e.g., by early May of each year).

## Provincial Data Centre Services

**3.19** In the 1990s, government entered into contract arrangements to outsource its Provincial data centre processing requirements. Those arrangements require an annual audit by an independent auditor of the contracted service provider's control procedures for the resources used for processing government's mainframe computer systems. This audit is performed in accordance with CICA standards and provides reasonable, but not absolute, assurance to government that the contracted service organization has in place appropriate control procedures for those matters that are its responsibility as at the date of the audit.

**3.20** Since the programs, processing and data for significant government systems reside at the data centre (including payroll, drivers' licensing, vehicle registration, property assessment), the results of an independent control audit are relevant to a consideration of the adequacy of government systems and controls. Exhibit 3.2 on page 29 is an extract from the most recent auditor's report on control procedures of the contracted services provided to government on the data centre. This audit addressed five areas of control.

- Security organization
- System access
- System maintenance
- System operations
- System availability

**3.21** The report identifies the control procedures in place at the time of the review to support achievement of each of the five control objectives. The report provided an unqualified opinion on those control objectives as at March 18, 2005. A number of significant matters were also identified that are the specific and direct responsibility of government, which are not covered by the annual review and reporting on the responsibilities of the contracted service provider.

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### **Recommendation 3.1**

**We recommend government assess the adequacy of its own control procedures associated with data processing service provider arrangements.**

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## **Industrial Expansion Fund**

**3.22** **Information availability and reporting** - The Industrial Expansion Fund (IEF) was established many years ago under Section 4(1) of the Industrial Development Act. Industrial financial assistance is provided through the fund in the form of loans, guarantees or other investment vehicles. All financial assistance provided through the IEF is subject to approval by the Minister of the Office of Economic Development and the Governor in Council (i.e., by Order in Council).

**3.23** The fund and its financial assistance accounts are administered through the Office of Economic Development (OED), with accounting support services provided by Nova Scotia Business Inc. As per its March 31, 2004 financial statements, IEF reported net financial assistance outstanding of \$217.6 million

**3.24** The IEF's annual audited financial statements are tabled in the House along with statements of other crown entities in Volume II of the Public Accounts. However, the annual business planning, budgeting and accountability reporting information tabled in the House by government or available from OED on the government's website includes very limited reference to the fund, its plans, activities or performance. For example, there are crown entities which are inactive or have significantly fewer activities (in dollar terms) but have information published in the annual business planning publications tabled in the House. However nothing of substance is included for the IEF.

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### Recommendation 3.2

We recommend that annual business planning information and accountability reporting on the Industrial Expansion Fund be made available to the House of Assembly on at least the same basis as such information is currently available on other crown entities.

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- 3.25 Management of the Office of Economic Development provided a response to our comments on the Industrial Expansion Fund. See page 30.

### Business Climate Index

- 3.26 The Office of Economic Development's 2004-05 Business Plan notes one of its priorities is to "Complete the annual update of the Business Climate Index and analyze the results to identify action opportunities in partnership with ...other departments within the provincial and federal governments."
- 3.27 The Nova Scotia Business Climate Index (Index) is comprised of 53 economic indicators based on the general business climate. The indicators compare Nova Scotia's position relative to other provinces. These indicators are organized in four categories; development of capacity, economic performance, tax and fiscal environment, and business vitality.
- 3.28 We reviewed the second edition of the Index, published for 2003, in which Nova Scotia was ranked fourth. We selected a sample of the indicators, to determine whether the Index reflected the underlying Statistics Canada data. We noted no issues with the sample indicators. Since our review, OED has published a third Index for 2004, in which Nova Scotia ranks third.

### Tangible Capital Assets

- 3.29 Tangible capital assets are a significant investment by government and are essential to the economy and for delivering government services. Through previous audit work on the government's consolidated financial statements, we noted a risk that the list of tangible capital assets maintained in the government's SAP corporate financial management system (CFMS) may not be complete or accurate. Testing of assets under construction had shown that the transfer of assets from under construction to complete (and ready to be amortized) was not always timely. There was also a risk that assets no longer in service were still included on the tangible capital asset listing.
- 3.30 We completed an assignment to verify the existence of a sample of tangible capital assets and determine whether they were still in use. Our test items came from a number of departments and were located in various areas throughout the Province.
- 3.31 We were able to verify the existence of the tangible capital assets we selected. However, we found that the information on tangible capital assets in CFMS is not always updated in a timely manner for asset transfers from one department to

another or for disposal of an asset. We also found that some of the information on the assets, such as license number or description, was not accurate or updated when changes were made to the asset. The capability of CFMS as a means of tangible capital asset management and control is not being utilized to its fullest extent.

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## CONCLUDING REMARKS

- 3.32** Good systems and controls can be costly, while too many or less than optimized controls can also be costly. Government's challenge is to ensure that the risks of loss or misuse are appropriately identified and that decisions made about the level of control to be in place appropriately mitigate risks on a cost-benefit basis. The goal is not more or too many controls, but rather cost-effective optimization of control against risks.
- 3.33** The government has a number of significant systems and control initiatives in process at this time. The capacity of existing resources assigned to such initiatives needs to be monitored effectively in order to achieve successful results and outcomes.
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## Auditor's Report on Control Procedures at the SAP Competency Centre

To the management of Nova Scotia Department of Finance,

We have examined the accompanying description of the controls provided by the SAP Customer Competency Centre (CCC) and have performed tests of the existence of the control procedures described therein as at November 15, 2004. Our examination was conducted in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

As more fully described on pages 10, 11, 12, 14, 15, 16 and 18, certain control procedures did not operate effectively as at November 15, 2004. These related to:

- Staff termination notification;
- Physical security;
- Audit logging;
- Account lockout;
- Access to privileged accounts;
- Client involvement in the application development lifecycle;
- Service level reporting; and
- Maintenance agreements.

In our opinion, except as noted above, the control procedures included in the accompanying description were sufficient to meet the stated control objectives. The described control procedures were suitably designed to provide reasonable, but not absolute assurance that the control objectives described therein were achieved, and the control procedures existed as at November 15, 2004.

As we tested the existence of the control procedures only as at November 15, 2004, we do not express an opinion on whether the control procedures existed at any other time.

Because of inherent limitations in any system of internal control, errors or irregularities may occur and not be detected. Also, projection of any evaluation of the system to future periods is subject to the risk that procedures may become inadequate due to changes in conditions, or that the degree of compliance with the procedures may deteriorate.

Our audit focused on general environment controls and those controls specifically related to the provision of SAP CCC services. We did not test the management controls or detailed user controls exercised by the individual end-user departments in connection with their initial implementation and on-going operation of front end data processing environments. Such controls are the responsibility of the individual end-user organizations.

This report is intended solely for the use of the management of the Nova Scotia Department of Finance.

Halifax, NS, Canada  
January 7, 2005

We have examined the accompanying description of the stated internal control objectives of the Government of Nova Scotia ["GNS"] mainframe partition at the Halifax Service Delivery Center of EDS Canada Inc. ["HSDC"] and the control procedures designed to achieve those objectives and have performed tests of the existence of those control procedures as at March 18, 2005. Our examination was made in accordance with Canadian generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, the control procedures included in the accompanying description were suitably designed to provide reasonable, but not absolute, assurance that the stated internal control objectives described therein were achieved and the control procedures existed as at March 18, 2005.

As we tested the existence of the control procedures only as at March 18, 2005, we do not express an opinion on whether the control procedures existed at any other time.

The description of stated internal control objectives of the GNS mainframe partition at the HSDC, and the control procedures designed to achieve those objectives is as of March 18, 2005. Any projection of that description to the future is subject to the risk that, because of change, the description may no longer portray the control procedures in existence. The potential effectiveness of specific control procedures at the HSDC is subject to inherent limitations and, accordingly, errors or fraud may occur and not be detected. Furthermore, the projection of any conclusions, based on our findings, to future periods is subject to the risk that changes may alter the validity of such conclusions.

Our audit focused on the design and existence of information technology general controls at HSDC. We did not audit any of the controls in place at GNS, and accordingly we express no opinion on the design or existence of such controls. Such controls are the responsibility of GNS.

This report is intended solely for the use of GNS.

Halifax, Canada  
March 30, 2005

## **OFFICE OF ECONOMIC DEVELOPMENT'S RESPONSE**

The Office of Economic Development will ensure that appropriate business planning information on the Industrial Expansion Fund is included in its annual business plan.

An annual report on the results of the use of the Industrial Expansion Fund was prepared and included with the annual report of the Nova Scotia Business Development Corporation up to the year ended March 31, 2001 but was superseded by the annual reporting of Nova Scotia Business Inc. To the extent that the IEF continues to be employed through OED, OED will commit to the redevelopment and release of a separate annual report on the fund.