MANAGEMENT BOARD SECRETARIAT

4.05–Electronic Service Delivery

(Follow-up to VFM Section 3.05, *2002 Annual Report*)

BACKGROUND

Many governments, including Ontario, are increasingly using electronic means both to provide information about government services to individuals and businesses and to deliver some of those services. This method of providing services is known as electronic service delivery (ESD). Through ESD, the government is organizing and integrating services by such electronic means as call centres, interactive voice-response systems, Web sites, e-mails, faxes, CD-ROMs, public access terminals and kiosks, and electronic payment systems.

In June 2000, the Management Board of Cabinet approved a government-wide ESD strategy aimed at improving the quality of service to Ontarians and businesses by providing client-focused, integrated, accessible, and cost-effective government services electronically. The government committed to increasing Ontarians' satisfaction by becoming a world leader in delivering services on-line by 2003. Management Board Secretariat (MBS) is responsible for the implementation of the government's ESD strategy.

In our *2002 Annual Report,* we noted that significant strides had been made in implementing ESD; however, we concluded that the government would likely fall short of meeting its ESD targets if it did not accelerate the pace of ESD implementation. As well, a more proactive and hands-on central management of the ESD initiative was needed. Specifically:

- Ministry quarterly reports on the delivery of ESD projects showed that 52% of ministries' ESD projects were behind target in June 2001, in that they had not yet been initiated as planned or had been delayed or deferred in some manner. By December 2001 even more ESD projects were not on target.
- The ability of the E-government Branch (Branch) to conduct meaningful analysis of the current status of projects vis-à-vis those originally planned was impaired. Projects had been dropped, delayed, deferred, redefined, or combined in a myriad of ways. Although this can happen for valid reasons, the Branch did not have sufficient documentation of the reasons for many of these changes. In addition, ministry quarterly reports were being provided six months behind schedule.
- The Branch was responsible for the government-wide ESD plan, but its authority to deliver on this plan was limited, and its reporting to senior management had not been timely and was lacking in recommendations for future action.

- The funding needed to deliver ESD projects was not addressed when the ESD strategy was approved. Lack of resources was the reason cited most often by ministries for their inability to deliver on planned projects.
- The Branch had set 2001/02 and 2003 performance targets for customer satisfaction, world leadership, and ESD project leveraging. Although a survey of current ESD services indicated that the 2001/02 customer satisfaction targets were achieved, the Branch had no conclusive evidence that it was meeting its goal of Ontario being among the world's 10 best jurisdictions in delivering electronic services, nor was there evidence that ESD projects were integrated, that they leveraged a common I&IT infrastructure, or that they incorporated common components.

  In addition, ESD performance measurement efforts to date had been poorly co-ordinated between the Branch and the ministries delivering ESD programs, and operational or efficiency improvement measures, or assessments of the economic costs and benefits of ESD projects, had not yet been developed.
- Communications efforts to promote ESD had been insufficient to increase public awareness and usage of the services delivered electronically. Usage of some ESD services was significantly below target levels.

We reviewed four high-impact service-delivery projects at the ministries visited and noted that, while the ministries had implemented a number of good project management practices on these priority projects, with respect to security practices and service availability, there was some room for improvement.

We made recommendations for improvements in each of these areas and received commitments from MBS and the ministries that the necessary corrective actions would be taken.

CURRENT STATUS OF RECOMMENDATIONS

In March 2004, MBS advised us of the current status of the actions taken to address each of our recommendations. We are pleased to note that substantial progress appears to have been made in addressing most of the recommendations in our *2002 Annual Report*, as detailed in each of the following sections.

PROGRESS REPORTING

Recommendation

To ensure that ministry progress in completing improvement projects for electronic service delivery (ESD) is adequately assessed and timely corrective action is initiated where appropriate, Management Board Secretariat should:

- *require that all ministries submit their required reports on time and formally follow up when they fail to do so;*
- *track the service improvements identified in the original ministry ESD plans and compare them to expected and actual results so that a complete assessment of ESD accomplishments vis-à-vis original targets can be made;*
- *consider initiating formal follow-up procedures and asking ministries who are significantly behind target to develop corrective action plans; and*
- *analyze all submitted reports and provide a summary analysis with recommendations on a timely basis to the Chair of Management Board of Cabinet and appropriate ESD advisory committees.*

Current Status

To better co-ordinate and streamline the reporting process, MBS now has an on-line ESD progress-reporting and performance measurement tool for submitting required ministry reports. They further advised us that they had followed up with all ministries to ensure completion of outstanding reports and that all required reports had been received by the end of December 2003. With respect to the tracking of planned service improvements, MBS advised us that the original ESD plans have now been fully tracked by comparing original data with the information provided by the ministries in three sets of progress reports: the 2002/03 and 2003/04 business-planning progress reports, and the June 2003 progress reports. Analysis work on all reports was completed in March 2004 and a summary report was submitted to the Chair of Management Board detailing the extent to which the Ontario Public Service (OPS) met its 2003 ESD goals.

THE FUNDING OF INITIATIVES

Recommendation

To ensure appropriate funding of electronic service delivery (ESD) initiatives, Management Board Secretariat should:

- *review the current funding mechanisms for ESD initiatives to determine if alternatives to the current funding model should be considered;*
- *ensure funding provided is directed at the most strategic initiatives from a government-wide perspective; and*
- *consider developing a proposal to centrally fund the delayed ESD projects that are most critical to improving program delivery.*

Current Status

Although MBS has completed a review of various alternative funding models, no changes have yet been made to the approach for funding ESD projects. Projects continue to be funded on an initiative-by-initiative basis through each ministry's annual Results-Based Planning process or by the in-year Management Board Submission process. Other options to secure funding for projects, including ESD projects and initiatives, include making submissions for funding from the Change Fund. This fund finances projects that lever transformation, result in future cost savings or cost avoidance, and demonstrate tangible benefits.

PERFORMANCE MEASUREMENT

Customer Satisfaction and World Leadership Status

Recommendation

To improve the performance of electronic service delivery (ESD), Management Board Secretariat should:

- *expand current benchmarking exercises to include more types of electronic service delivery; and*
- *use and disseminate the results of benchmarking studies to help ministries identify areas needing improvement and develop action plans to implement the required improvements.*

Current Status

In assessing overall progress towards meeting its ESD goals, MBS reported that it is doing so in terms of two approved performance measures: 1) customer satisfaction with electronic services, and 2) Ontario as a world leader in delivering services electronically.

With respect to measuring customer satisfaction, MBS continues to monitor this through the commissioning of third-party surveys. Results from the 2003 survey indicated an overall satisfaction level of 71% by Ontario government ESD service users, exceeding the target of 70% for that year.

For 2004, a satisfaction rate of 75% was set, and once again a survey was conducted in February 2004 to determine if this higher target had been met and to identify areas for further improvement. The results indicated that there had been a small drop in satisfaction, with the overall rate slipping to 69%. On the plus side, users reported higher satisfaction with the quality of information obtained from the government Web sites and with the speed and clarity of responses to e-mail and fax correspondence. They also reported higher levels of confidence in the security of fax and e-mail interactions. However, lower satisfaction was reported with government telephone systems; automated telephone response and routing systems yielded the lowest satisfaction rates,

with Ontario residents and businesses indicating problems navigating and obtaining successful outcomes from these systems. MBS stated that it also plans to use the survey results as part of an effort to establish universal service standards for electronic delivery of services across the OPS.

World leadership continues to be assessed periodically through benchmarking studies, conducted by external organizations, that use a variety of techniques to compare Ontario's on-line services with those of other jurisdictions. We were advised that in two recent benchmarking studies, one ranked Ontario in the top quartile (25%) of 250 organizations studied and the other placed Ontario third among 60 jurisdictions.

Leveraging and Integration

Recommendation

To ensure that electronic service delivery (ESD) is integrated, Management Board Secretariat should:

- *clearly define the meaning of "leveraged" ESD initiatives and benchmark ESD projects against this target;*
- *complete the development of a common information and information technology (I&IT) infrastructure;*
- *complete the "21 common-component project" as soon as possible so that the efficiency gains and effectiveness of these components can be realized wherever feasible in existing and future ESD projects;*
- *develop a strategy for system integration of legacy systems with the newer "front-end" Web server systems; and*
- *develop a strategy to continually standardize ESD interfaces throughout the government to achieve a common "look and feel."*

Current Status

Although no clear definition was developed as to what "leveraging" meant, in essence the goal envisaged using already developed government-wide infrastructure, system resources, and applications wherever possible in project development. By taking advantage of such existing infrastructure and systems, a leveraged project would not have to be developed from scratch, thus saving both time and resources.

In terms of ensuring that ESD projects are integrated, MBS indicated that it has established a standard ESD tool kit that will help ministries integrate, rationalize, and prioritize ESD projects.

MBS advised us that development work on six of the common components has now been completed and these applications are available for use by all ministries. For example, the e-forms common component was recently used to develop a pre-budget

electronic survey, and a search tool has been incorporated as a common component for users of the public sites of several ministries.

We were advised that work continues on the integration of legacy systems with the newer "front-end" Web server system. For example, the Ministry of Transportation (MTO) has now implemented several mid-tier services for vehicle, driver, and carrier inquiries on a common platform. Other mid-tier implementations in place or in progress at MTO include improvements to the driver-medical-record inquiry system and systems used for licence plate renewals, driver address changes, and the provision of used vehicle information.

With respect to the "look and feel" of ESD interfaces, MBS advised us that, following public focus-group testing and internal consultations, a new look for government Web sites has now been developed and is awaiting formal approval. A communications plan is being developed that will incorporate a strategy for training ministry IT staff on the new standards, once implemented, and provide ministries with milestone dates by which compliance with the new standards will be expected. Once the standards are implemented, MBS intends to conduct periodic audits to identify and deal with Web sites that do not conform to the standards.

Other Performance Measures

Recommendation

To ensure accurate and useful performance measurement of the government's ESD initiatives, the Branch should:

- *develop additional approaches to ESD performance measures that include a mix of external and internal targets and improved business case methodologies; and*
- *work with ministries to help them develop performance measurement approaches in an integrated manner across program areas.*

Current Status

In August 2003, MBS provided a customized report to each deputy minister assessing his or her ministry's current ESD performance. These reports advised ministries how they could improve both their performance outcomes and their performance measures.

With the maturing of the ESD Strategy in 2003, MBS has indicated that it is not developing new ESD measures. Instead, a new I&IT performance measurement framework will be used to establish measures for assessing I&IT enterprise performance. Specific performance measures are being developed that fulfill central reporting needs and ministries' needs to measure their own performance.

With respect to business cases, MBS has now developed an on-line ESD tool to improve and standardize business case methodologies across the government. We were

informed that this tool, which includes a performance-measure module, has been successfully piloted with several ministries.

MBS also indicated that it has partnered with the federal government, through the Institute of Citizen Centered Services, to enhance the common measurement tool it uses in its annual customer-satisfaction survey.

PROMOTION AND COMMUNICATIONS

Recommendation

To maximize the public's use of electronic service delivery (ESD), Management Board Secretariat should:

- *develop and deliver an ongoing communication campaign that builds consumer awareness of ESD and promotes its use;*
- *work with ESD ministries to help them ensure consistent messaging and co-ordination of promotional efforts;*
- *where specific penetration targets are set for particular ESD applications, help ministries develop commensurate promotional strategies to achieve those targets; and*
- *consider differential pricing strategies where ESD offers a promise of providing significant long-term cost savings in program delivery.*

Current Status

A communications plan to promote awareness and understanding of the range of e-government services available to the public was approved in January 2003 and shared with ministry communications directors in February. The plan is to be used for all announcements by ministries regarding their ESD initiatives. MBS also provided ministries with additional guidance on consistent corporate messaging and practices for the launch of ESD applications aimed specifically at consumers. These communications strategies cover the period from 2003 through 2007. Ministries are continuing to promote integrated services, including new Web sites for consumers and businesses that will provide one-stop access to information and services, such as the Collaborative Seniors' Portal and HealthyOntario.com.

With respect to pricing strategies, the Ministry of Consumer and Business Services advised us that it is currently developing an Integrated Service Delivery Strategy designed to break down the barriers to ESD acceptance, including a pricing component that will encourage ESD use.

MBS has also advised us that it has collected data and developed plans with respect to fee structures and revenues across the OPS, and that there is now a process in place to ensure that all new service fees are applied on a consistent basis.

DEVELOPMENT AND DELIVERY OF ELECTRONIC SERVICES

Security

Recommendation

To ensure that confidential data is better protected against unauthorized access and potential tampering, Management Board Secretariat and the ministries should:

- *centrally establish an intrusion detection service providing coverage 24 hours a day, seven days a week, to ensure continuous monitoring of the Ontario government network;*
- *explore the possibility of using more secure mechanisms, such as personal digital certificates, to authenticate the identity of individuals transacting with the government through the Internet;*
- *consider completing threat risk assessments for all major existing services delivered electronically to ensure data is adequately protected;*
- *consider cryptography or other controls to secure data transmitted over the government's internal and external networks until alternative arrangements, such as a centrally administered public key infrastructure system, are in place to ensure data confidentiality and integrity;*
- *segregate system duties such that individuals are not assigned incompatible system rights; and*
- *implement more rigorous controls over system passwords and user accounts to protect system resources and user accounts.*

Current Status

MBS advised us that the government's Information Protection Centre is now operational 24 hours a day, seven days a week; further, this enhancement has improved network security and responses to recent virus attacks. A number of security officers are now in place to ensure adherence to security policies and to take appropriate action in security-threat situations; as well, many new security procedures have been developed, approved, and disseminated.

MBS also informed us that a security intranet was launched in September 2003, a security program for managers was introduced in fall 2003, security computer-based training for employees is under development, and 19 sessions covering security issues have been held with ministry senior management teams.

Work is also underway on an Integrated Security Interface (ISI) to control access to government programs and services and ensure that security and privacy are consistently

enforced within the government network. A request for information was released in December 2003. A request for proposals for this project is expected to be released by March 2005.

The Ministry of Consumer and Business Services has advised us that additional internal safeguards have been put in place at Ontario Business Connects to address all the security concerns raised in our report. For example, in July 2002 enhanced security protocols were put into place at its systems facility, including more frequent password changes and the addition of new hardware to physically secure servers. Staff training was provided to ensure the new protocols are adhered to. In September 2002 duties related to administration and operations were segregated, and in March 2003 the system was updated so that all data transmitted are now encrypted.

MBS also informed us that Threat Risk Assessments (TRAs) are being done for all critical services, with TRAs completed on 11 systems in 2002/03. The Ministry of Transportation (MTO) advised us that TRAs have been completed for four new systems projects, and that it is now conducting TRAs for all new initiatives. In addition, all organizations authorized to access MTO data via the Internet must now do so through a virtual private network (VPN) security system, and the Ministry has begun to use and issue public key infrastructure (PKI) certificates for access to driver medical updates and for wireless inquiry services.

The Ministry of Training, Colleges and Universities has advised us that it completed its outstanding TRAs in August 2002 and is now conducting them for all new initiatives. Segregation of duties for operations is still in progress, but access to sensitive commands has been removed from operations.

Service Availability

Recommendation

To ensure a high availability of electronic services and that all collected client data remains complete and accurate:

- *Management Board Secretariat should develop standards and policies to address systems availability;*
- *the Ministry of Transportation should review its hardware performance and capacity needs to ensure its systems can provide appropriate service levels to the public; and*
- *the Ministry of Training, Colleges and Universities should consider instituting a process of real-time backup for the application data relating to the Ontario Student Assistance Program.*

Current Status

MBS acknowledges its responsibility to provide Local Area Network (LAN) infrastructure that can meet customer demands for high availability. In this regard, it advised us that it has completed a design plan scaled to support different levels of availability, including high availability, and that the infrastructure has been upgraded over the past three years to provide these service levels. Many network services are available, through the government's agreement with its third-party provider, to meet ministry business requirements.

MBS also developed and disseminated a number of IT standards, procedures, and best practices to ensure systems are designed to enable high availability. These standards were supplemented in January 2003 with a new set of IT security standards that define operational principles, requirements, and best practices for the protection of the integrity, confidentiality, and availability of the Ontario government's networks and networked computer systems.

MBS also advised us that a corporate change advisory board was established in 2003/04 to manage the approval and scheduling of changes to the I&IT infrastructure that affect more than one cluster of grouped ministries. This ensures the availability and integrity of the OPS production infrastructure. New transactional systems will be designed to promote high availability, particularly for critical transactions. A legacy renewal strategy has also been established to ensure that critical e-systems can be delivered in accordance with high-availability best practices.

The Ministry of Transportation advised us that it has completed a replacement program for obsolete and overloaded servers. The Ministry of Training, Colleges and Universities believes its risk of data loss is extremely low with its current system. A disk-protection system ensures steady, ongoing processing of information in the case of a drive failure; essential data from students is archived between the twice-daily backups to ensure data recovery in the case of a catastrophic loss of application data.