

Electronic service delivery in Government

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Executive summary

The Saskatchewan Government has a plan for increasing its citizens' access to information and services through electronic service delivery (ESD) using the Internet. The benefits of using ESD include lower costs and better quality of service for its citizens.

The Government has set targets for making information and services available. One target is that all government forms will be available online (on the Internet) by 2002. Another target is that 90% of transactions between the Government and its citizens will be available online by 2004.

The delivery of services electronically introduces new risks. They include the risk of disclosure of confidential or private information, the risk of citizens' dissatisfaction with government services, and the risk of financial losses to citizens or to the Government.

This chapter sets out the practices that agencies should use to successfully implement ESD and increase public confidence in ESD. Government agencies should ensure that they have adequate processes and strong policies for the following practices:

- ◆ processes that promote accountability for success,
- ◆ human resource planning,
- ◆ information technology infrastructure,
- ◆ information management policies, and
- ◆ security and privacy policies.

Our office plans to examine certain policies and processes that agencies use in their projects to deliver their services electronically. We will use practices set out above to make our assessments. We will report the results of our work in a future report.

Introduction

The Saskatchewan Government has outlined a plan for increasing its citizens' access to information and services through electronic service delivery (ESD). Its plan is to have some of its programs and services available online. Online means delivering services over the Internet. This can potentially have benefits for the Government and its citizens¹, but it also introduces new risks.

In this chapter, we look at the potential benefits and risks of the Government providing services using ESD. We also outline five good practices that the government and its agencies should follow when carrying out a project to deliver their services electronically. These practices are not unique to ESD, however, they help manage the specific risks of an ESD project. We will also use these practices to help evaluate future government ESD projects.

The benefits that the Government may realize from using ESD include lower costs and a better quality of service to its citizens. Delivering services electronically may be less costly than other methods. One example is providing an application form online. This could eliminate the need for distributing printed copies of the form and the assistance of a government employee. This allows employees to do other tasks.

Citizens may also find it more convenient to obtain information or services online rather than by visiting the agency's offices. With online services, citizens can obtain information faster. If agencies make the services available online, the services can be offered 24 hours a day, seven days a week as a convenience for citizens.

The delivery of services electronically introduces new risks, including the risk of:

- ◆ disclosure of confidential information;
- ◆ disclosure of private or personal information;
- ◆ citizen dissatisfaction or frustration with the electronic delivery of government services;
- ◆ financial losses to citizens or to the Government;

¹ Citizens can be members of the public, businesses, municipalities, school boards, or other agencies external to the provincial Government.

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- ◆ projects being late, over budget or incomplete; and
- ◆ legal liability.

The Internet is widely available. Over 40% of Canadian households report that they have the Internet at home or at work. In Saskatchewan, the percentage is somewhat lower. There are also other ways to access the Internet. Most public libraries allow free access to the Internet. Many educational institutions such as schools, colleges, and universities have Internet access available for their students.

The Saskatchewan Government recognizes the importance of the Internet to deliver services to its citizens. “Electronic service delivery is the key to meeting the service needs of Saskatchewan’s widely dispersed population, in a timely and cost-effective manner.”² Given the significant number of citizens that can access the Internet, ESD or e-government is a logical use for the Internet. Also, the Government needs to ensure that its citizens have access to Internet training to help them access government programs and services.

The Government has set targets for making information and services available. Two of the targets are:

- ◆ having all government forms available online by 2002, and
- ◆ having 90% of transactions between the Government and its citizens available online by 2004³.

The Government envisions its citizens having access to e-government (ESD) through a single website or window. Further efficiencies can be gained with co-operation from all levels of government and various government agencies. This co-operation could make it easier for citizens to access programs and services over the Internet without needing to know what level of government or which government agency they need to contact.

The Saskatchewan Government has recognized that it can gain efficiencies through e-government. Over the last few years, it has started to offer services over the Internet including:

² Saskatchewan Economic and Co-operative Development, Information Technology Office (March 2001). *E-government in Saskatchewan*. page 1.

³ *Ibid.*, page 6.

- ◆ Most agencies (departments, Crown corporations, boards and commissions) have developed websites that allow the public to learn more about their agency.
- ◆ The Government has developed a website that is the ‘front door’ to most agencies⁴. The Government recently added a central phone directory, which includes e-mail addresses for government employees.
- ◆ Some agencies have started to offer their services over the Internet. Many forms and documents are available online, including the Saskatchewan statutes. Saskatchewan Finance allows businesses to file and pay their provincial taxes online with their Saskatchewan Electronic Tax Services (SETS). Also, citizens can purchase products and services online, using credit cards, such as:
 - Saskatchewan Pension Plan contributions;
 - fishing and hunting licenses from Saskatchewan Environment and Resource Management; and
 - educational materials from Saskatchewan Education.

The Government is committed to increasing Internet access for the delivery of its products and services. It has started a Government Online (GOL) initiative to assist government departments in the development of specific Internet projects that will allow the public to access selected government services and conduct transactions online. Also, over the past several years, the Government has approved funding for a number of other initiatives, including:

- ◆ the electronic registration of land titles. A key part of Information Services Corporation’s system is a link from electronic land title registrations to electronic maps (see Chapter 1 – Information Services Corporation – LAND Project);
- ◆ Saskatchewan Health Information Network’s initiatives designed to improve the delivery of health services within the province;
- ◆ access to post-secondary education courses through the Internet. This allows students to take courses that are not normally offered in the student’s community; and
- ◆ the development of the CommunityNet that will expand Internet access to over 350 communities in Saskatchewan.

⁴ The website address is <http://www.gov.sk.ca/>.

The above initiatives will help the Government reach its goal of improving Saskatchewan citizens' access to government information.

Electronic service delivery in other jurisdictions

All levels of government are taking advantage of the Internet to provide information and to improve services to its citizens. In 1998, the Government of Canada developed an electronic commerce strategy document.⁵ It recognized the need to take advantage of the Internet and prepared a plan that would allow government and non-government organizations to make full use of the Internet. As well, a number of federal government agencies sponsored a group to look at the issue of e-government. The group's report notes that e-government could result in a government that is "faster and smarter."⁶ One of the issues raised in the discussion of an e-government is the concept of a single window where people can go to one place as a starting point to access government information and services. Also, this single window concept should make it easier for citizens to interact with government. For example, the single window could allow you to change your address for many government agencies in one visit to a central location.

As well, other provinces have made a commitment to ensuring that their citizens are able to take advantage of the Internet. They are improving access and the way they deliver their services. Their initiatives include improving Internet access to communities and offering their programs and services online.

Good practices

As the Internet and electronic service delivery (ESD) are relatively new topics, the best practices are evolving. Agencies that are planning to undertake ESD should ensure that they have adequate controls in place.

The following practices will assist agencies to implement ESD successfully and increase public confidence in ESD:

- ◆ adequate processes that promote accountability for success,

⁵ Industry Canada (June 1998). *The Canadian electronic commerce strategy*.

⁶ Alcock, Reg and Lenihan, Donald G. (January 2001). *Opening the e-government file: governing in the 21st Century: results of the crossing boundaries cross-country tour*. page 6.

- ◆ adequate human resource planning,
- ◆ strong IT infrastructure,
- ◆ strong information management policies, and
- ◆ strong security and privacy policies.

We consulted with the Information Technology Office on these practices. The remainder of this chapter will explain the above practices. We encourage agencies to use these practices when developing their ESD projects.

Processes that promote accountability for success

To be accountable for successful implementation of ESD, agencies need a plan; they must publicly report on the plan; and they must monitor the results of the plan. We would expect agencies, that plan to make significant use of ESD, to address ESD in their strategic plans. Also, these agencies should:

- ◆ document how they plan to implement ESD;
- ◆ document their overall goals and objectives, measurable targets, communication strategies, funding requirements, and timelines for their ESD plans;
- ◆ set a requirement for reporting their ESD plans and monitoring their progress to ensure that they appropriately carry out their ESD plans; and
- ◆ set overall goals and objectives for ESD consistent with and coordinated with the overall strategic plans for the Government.

For individual ESD projects, we expect that agencies have a strong business case for the project including identification of the full costs of the project and a comparison of those costs to the expected benefits. Procedures should be in place to ensure that the project meets the needs of the users. In ESD projects, the primary users are outside government, which presents unique challenges to ensure government considers their needs. As with any significant project or initiative, agencies need to plan adequately. For individual projects, standard project management processes should be in place to assist in managing the implementation of the projects.

When a number of agencies undertake an ESD project with a common goal, it is important to determine how they are made accountable for the

projects success. Agencies need to put a process in place to co-ordinate cross-agency ESD projects. For more information on processes over cross-government initiatives, see Chapter 8 – Intergovernmental and Aboriginal Affairs: Coordinating action across government.

Agencies need to ensure that they have the information technology (IT) architecture to allow for the efficient use of information technology. A good IT architecture is a plan that links the right computer technology with the right systems and the right operational processes to ensure that all systems work together effectively.

Human resource planning

The use of ESD introduces new human resource issues. ESD is a new and rapidly growing area. Employees involved with ESD need to be appropriately trained. Agencies will need to ensure that there are sufficient human resources to meet the expected demand. As well, ESD and especially electronic commerce initiatives may require human resources 24 hours a day and seven days a week. To address these issues, we expect agencies using ESD to have appropriate human resource plans to ensure that there are a sufficient number of personnel with the knowledge, skills, and abilities to effectively implement and operate the planned ESD initiatives.

Agencies will need to ensure that they can sustain the ESD. Once the product or service is available electronically, citizens will expect the service to be available and the information to be up to date. To ensure this, agencies should document their systems and have a plan to manage staff turnover.

Information technology infrastructure

A strong information technology (IT) infrastructure, including computer hardware, networks, and software, will help citizens obtain easy and reliable electronic access to government. We expect agencies that deliver services electronically will have the appropriate and sufficient IT infrastructure to ensure that systems operate cost effectively and securely.

Agencies are continually offering new services online and it is difficult to anticipate the demand for these services. If the IT infrastructure cannot adequately handle the increased volume, the service may become slow or unreliable. We would expect agencies to have policies and procedures related to IT infrastructure including hardware and software guidelines, capacity planning, and strategies for dealing with technology changes. An agency could also develop policies to encourage sharing and the use of common IT Infrastructure where possible. This co-operation would also help to ensure that there is sufficient IT infrastructure to meet the demands of the users.

Information management policies

Successful implementation of ESD will require information to be well organized and easily accessible. With the advancement of technology, more and more information is, or will be, available in an electronic format. The Internet has a vast amount of information that is sometimes difficult to sort through. Agencies will need policies for the displaying, storing, retrieving, and disposing of electronic information. As agencies make more services available to citizens, they will expect government websites to have a consistent look and feel. Citizens will also expect agencies to collect and display information in a consistent way.

Agencies could gain efficiencies by sharing key information. For example, agencies could store certain key information in one location rather than having to maintain it in several locations. Also, if agencies share common information, they could update it in one step for all agencies. Communication among agencies is essential to help move to systems that are more common and have a more consistent format for data storage. Common systems and data formats enable agencies to easily share common information. Citizens need to be assured of the availability of electronic services and the protection of their privacy.

Security and privacy policies

When conducting business over the Internet, citizens are concerned with the security and privacy of their personal information, and reliability of the

service⁷. Agencies will need to ensure that there are policies and procedures to address these concerns.

To establish citizens' confidence in ESD, agencies need to have strong security and privacy policies. Security policies should balance the value of the access to information against the most likely threats and the cost of each form of protection. We expect agencies would set policies and procedures to ensure the confidentiality, integrity, privacy, and availability of their systems. The policies and procedures should be consistent with the security policies set out by the Government. Policies and procedures specifically related to ESD would include areas such as physical controls, logical controls, encryption, and the protection of privacy.

To give consumers assurance on the reliability (availability, security, integrity, and maintainability) of Internet sites, new assurance services are being offered. The Canadian Institute of Chartered Accountants (CICA) and the American Institute of Certified Public Accountants (AICPA) have introduced an assurance service product called Web Trust seal. The seals assure consumers that the organization's systems meet a set of security principles and criteria. To obtain a security seal, the organization must have its systems examined by a licensed public accountant and meet the security principles and criteria. Other companies offer services to certify the name and web address of the site.

Our plans

Our office plans to examine certain policies and processes that agencies use in their projects to deliver their services electronically. We will look at these projects to see if they follow the good practices listed above. Our work will include the review of key documents, review of information available on the Saskatchewan Government's website and interviewing selected key personnel.

We will report the results of our work in a future report.

⁷ Industry Canada (June 1998). *The Canadian electronic commerce strategy*. page 13.

Glossary

Electronic commerce – The buying and selling of products and services over an electronic medium such as the Internet. A key component of electronic commerce is the payment for the goods or services through electronic means such as the transfer of credit card information electronically or the transfer of funds directly through a bank.

Electronic government (E-government) – The use of technology, particularly Web-based Internet applications, to enhance the access to and delivery of government information and service to citizens, business partners, employees, other agencies, and entities.⁸

Electronic service delivery (ESD) – The delivery of services electronically such as through the Internet. Examples include having information available on your website that your customers can access or having forms available online that customers can complete and send in electronically. ESD includes electronic commerce. ESD in government is also known as e-government.

IT architecture – The overall design or structure of the infrastructure of a computer system.

IT infrastructure – The underlying base of hardware and software needed for a computer system including but not limited to communication equipment, system servers, and operating system software.

⁸ McLure, David L., The United States General Accounting Office (July 2001) *Electronic government* (GAO-01-959T), page 1.

Selected resources

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