



WHITE PAPER

Web-enabled Government: STEPS TO SUCCESS



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TABLE OF CONTENTS

INTRODUCTION	3
THE PROMISE OF WEB-ENABLED GOVERNMENT	3
CHALLENGES AND PITFALLS	5
PLANNING FOR A SUCCESSFUL PUBLIC SECTOR WEB PROJECT	7
STEPS TO SUCCESS	11
ABOUT CGI	12

PUBLIC PERCEPTION

A 2003 survey by the Council for Excellence in Government noted that 75% of users think that e-Government has made it easier to get information, and 67% like doing these transactions online.

Introduction

Public sector organizations are experiencing a rapid rise in demand for Web-enabled business processes and practices. This demand is being driven by e-Government mandates, paperwork elimination initiatives, and additional homeland security measures. Another factor is the increasing desire for online services from an Internet-savvy public.

To meet these needs, public sector organizations and private vendors are developing and deploying Web projects that enable citizens to interact and transact business with government agencies. Besides improving service to the community, Web technologies help public sector agencies conduct business more efficiently with other public sector organizations and private sector businesses.

E-government Web programs vary widely. They include sites for renewing drivers' licenses, for registering to use parks and recreation, for processing building permits, even for providing death certificates. However varied, these sites have one thing in common: they can prove highly valuable to the public and to the agencies in charge of each program.

In fact, a survey released in April 2003 by the Council for Excellence in Government noted that 75 percent of e-Government users think e-Government has made it easier to get information, and 67 percent like doing transactions with government online. Nielsen//NetRatings, the global standard for Internet audience measurement and analysis, reports that more than one-third of all Internet users visited a federal government Website in February 2003 and that about half of all businesses went online to interact with the U.S. government in January 2003.

Not every Web project is successful, however. Stories of failures are common. Yet the success or failure of a public sector Web project has less to do with the technology and more to do with the organization's readiness to adopt change. Success hinges on the ability of IT vendors and public agency IT departments to approach projects with a holistic view – one that incorporates both business practices and IT.

This paper discusses both the common pitfalls and the factors that lead to successful Web sites. Although it is not a comprehensive guide, this paper will benefit the private sector IT vendor or public sector IT director in the early stages of planning a Web project.

The Promise of Web-Enabled Government

We live in a world where people exchange instant text messages across the country, where colleagues all over the globe work together through e-mail, and where citizens shop electronically for everything from craft supplies to homes and cars. Government agencies cannot afford to be islands of manual processes that require personal visits to obscure locations where paper forms must be filled out in triplicate.

Fortunately, the same tools and technologies that automate government processes can be adapted to offer fast, effective and responsive government services over the Internet to customers who have now become accustomed to high levels of service and efficiency.

KEY POINT

If e-Government is to make government more responsive, Websites must be intuitive and more responsive to the needs of citizens.

More accessible and more responsive government.

For anyone with access to the Internet, going online to renew a driver's license, to apply for a building permit, or to request an income tax form is preferable to submitting to telephone "on-hold" music, long lines, or multi-part paperwork.

The tradeoffs will not always be clear, however. Few experiences are as frustrating as logging onto a badly designed, poorly tested, and improperly maintained Web site. If users cannot quickly decipher what they need to click to get the service or answer they're seeking, they will abandon their online search. With dashed expectations of online convenience, they will head to the nearest agency office.

If the intent of e-Government is to make government more responsive, Websites must be intuitive and responsive to the needs of citizens. Citizens should not have to decipher agency names in order to determine where to go for a particular service. They should not have to wonder if driver's licenses issued by the Department of Motor Vehicles or by the Department of Licensing. Nor should they have to guess whether they get food handler's permits from the Department of Health and Human Services or from the Department of Licensing.

If a government function can be automated, or broken down into components that can be even partly automated, it makes sense to find a way to provide that function, or at least some part of it, to the public over the Internet.

Because the online world operates with expectations of 24X7 availability, a properly configured and well designed online service will never need to close for lunch, vacations, holidays, or even a weekend.

Using the Web to make government more accessible and responsive to citizens is a promising prospect with a wide range of possibilities.

Self service

In the private sector, self-service business models help reduce the cost of running a distribution center and offer an alternative to crowded retail shopping lines. As consumers grow more comfortable buying retail items or booking travel online, they will increasingly expect at least some government services to be available at a time and place of their choosing. In the public sector, the Web-enabled self-service model allows citizens to answer their own questions and literally help themselves, without the additional labor costs, overhead or challenges of a direct service model.

SELF SERVICE

Web-enabled self-service in the public sector allows citizens to answer their own questions and literally help themselves, without the additional labor, overhead, or challenges of a direct service model.

Efficiencies and cost reductions

Just as self-service checkout counters at grocery stores reduce the need for cashiers, Web-enabling government operations can increase and improve service to citizens without increasing staff. Agencies or departments looking for time and cost savings along with improvements in efficiency might be tempted to automate particular steps or tasks in an existing business process without regard for the larger context of the department. This approach can result in yet another disparate system or “silo” of data that must be handled and maintained manually.

The preferred approach – the one that can result in the greatest benefits – is to evaluate all business processes and information flows related to a particular subset of services, then take advantage of the technology to better align the processes with customer needs.

Catalyst for economic development

In the competition for economic development that creates jobs and generates tax revenue, large companies have executed highly publicized and visible site selection processes to move their operations or headquarters. But there are other, smaller prospective employers whose evaluation processes are largely unseen by staff in economic development offices and chambers of commerce.

These smaller prospects are emerging businesses. Searching online, owners of these companies can perform their site selection process out of the view of city economic development staff. What these business people find – or don't find – online can determine whether or not they choose your city or region for their base of operations. Their search-and-evaluation process can be significantly influenced by the ease with which they can gather information about a community or complete a business license application.

The presence of a strong local or regional government Web portal tells visitors a great deal about a community's willingness to embrace change, anticipate opportunities, and welcome new businesses. Even online advertisements for requests for proposal (RFPs) or help wanted can help boost an area's attractiveness to outsiders or provide new avenues opportunities for locals.

Online services allow economic or community development staff to leverage state-of-the-art communication tools such as targeted e-mail newsletters or Really Simple Syndication (RSS) distributed procurement notices.

Challenges and Pitfalls

Up to 25 percent of public sector IT projects are reported as outright failures. According to studies of state-funded development projects, only 25 percent were deemed successes, leaving fully half of all projects falling short in some way. They became partial successes (or partial failures) that failed to meet expectations for budget, schedule, or functionality.^{1,2}

The more colossal failures are well known and widely publicized. One example is the FBI's Virtual Case File System, which grabbed numerous headlines as it sought to recover from a fiasco that cost taxpayers more than \$100 million. Every agency, perhaps every office, has its own examples of projects gone wrong – whether or not they've garnered national media attention.

Although the publicity surrounding IT debacles may be attributed partly to sensationalism, it is also indicative of how visible and vulnerable these projects are, especially when tax dollars are being spent and the consequences of failure are significant.

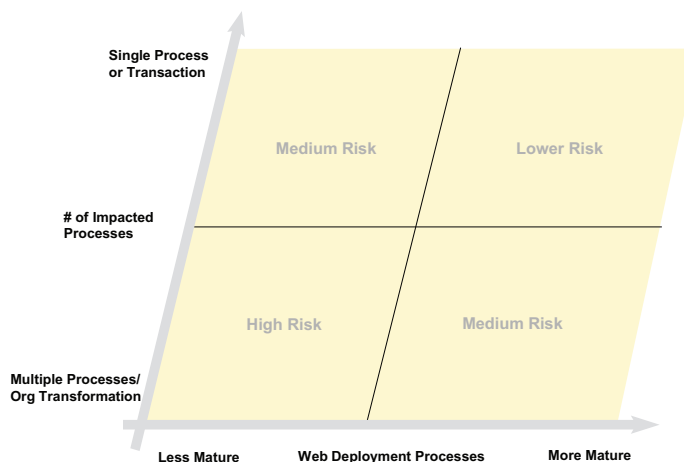
In the classic Standish Group study of project failure, they identified 10 common reasons why projects are not successful. The list of common reasons for failure underscores the importance of establishing project fundamentals as early as possible. The factors contributing to project failures include:

1. Monitor service-level performance
2. Lack of user involvement
3. Lack of resources
4. Unrealistic expectations
5. Lack of executive support
6. Changing requirements and specifications
7. Lack of planning
8. Discontinued need
9. Lack of IT management
10. Technology illiteracy

Risk management

Web projects vary in the amount of inherent risk, as shown in the graphic that follows. There is a direct trade off between the number of business processes, the application impacts, and the maturity of the organization to absorb the change and deploy the new application. As organizations become more mature in adopting change, they typically become more successful at taking on larger Web initiatives that have the ability to transform the organization.

Risk Matrix



PLANNING FOR SUCCESS

By understanding some of the challenges unique to the public sector and by developing a comprehensive plan to address these challenges, the chances for success are dramatically improved.

Planning for a Successful Public Sector Web Project

The following section highlights a number of areas where there are differences in deploying a Web application within a public sector agency. By understanding some of the challenges that are unique to the public sector and by developing a comprehensive plan that addresses these challenges, the chances for success are dramatically improved.

Fundamentals of the business case

One of the challenges within the public sector is defining a business case. The business case for e-Government may be driven by factors that are more difficult to measure than typical return on investment (ROI) metrics for bottom-line financial impacts.

We must adjust our thinking regarding the concept of “customer” in situations where people or businesses are not seeking a particular service by choice. Driver’s licenses, immunization certificates, building permits, and tax receipts are not discretionary purchases. Web-enabling these services might not increase the demand; and lowering the cost of developing and deploying the service might not create any tangible benefits for the person or business requesting the assistance.

However, the effort to automate a particular payment or the process to retrieve information often lays the groundwork for efforts that will have a measurable ROI. An online query system might increase the number of outstanding traffic warrants that can be served, or might improve a revenue department’s ability to collect past due taxes. A system that integrates criminal data from multiple courts and law enforcement agencies to deliver to patrolling officers might even save lives.

But, even if measurable productivity gains can be achieved, it is sometimes difficult to translate those productivity gains into better economic performance. Private sector methods of capitalizing on productivity gains – such as reducing staff through attrition or layoffs – might not be appropriate for public sector executives, either because of union contracts or because of the political ramifications associated with layoffs.

If public-private partnerships are not an option, partnering with public sector agencies can spread costs or some of the risks of complex projects over a broader base. These cost- and risk-sharing efforts are quite different from, and more difficult to quantify than the comparatively simple cost-benefit calculations that private companies make when they ask: “Can we make money at this? How long will it take to recover our costs or make a profit?”

What is clear is that a business case, whether in measurable financial benefits or in less quantifiable (but maybe more significant) impacts to the “public good,” is necessary to justify and support the appropriate sponsorship for project success.

SECURITY AND PRIVACY

Allocating time and budget for security assessments and payment processing audits – and having the resources to address any issues is critical to project success.

Security and privacy

With reports of identity theft and computer hacking appearing in the news regularly, the public's concern about privacy and security of personal information is understandable. It is important to make security and privacy a top priority in planning for and executing Web projects that allow citizens to interact and transact business with a public agency.

Security breaches can shatter public trust in e-Government and ultimately defeat the purpose for which e-Government services were created. Privacy and security must be addressed in the planning and design of e-Government systems because it is much harder to add protections after a system has been built.

Privacy concerns increase any time information is collected in one place. For example, if a city Parks & Recreation Department accepts online registration for childcare, the department may collect multiple pieces of personal information including birthday, phone number, address, and so on. That information is collected in a single database, which could make it vulnerable.

Moreover, the fact that these bits of personal information are linked to a particular individual or family increases the threat of a breach of personal privacy should the information be hacked or inadvertently shared publicly. Such a breach could put the individual's safety and security at risk, and the agency could face litigation.

Every agency needs to identify what information must be shared publicly as a matter of public record. Law and policy often need to be given new interpretation in light of emerging technology, such as Web-based services. There will be questions such as: "If the information is obtained in the act of transacting business with the government, does that make it public record? And if data is public record, does the agency have an obligation to publish it to the general public?" Questions such as these should be asked and answered before embarking on a Web project.

Agencies that process credit cards must ensure that they take proper safeguards and meet security and regulatory requirements. Credit card processing, securing personal information and privacy issues add a level of complexity that needs to be built into the project plan and the budget. Allocating time and budget to conduct the appropriate security assessments and payment processing audits, and having the resources to address any issues that are identified, can be critical to overall project success.

Social and political factors

Despite the benefits of Web-enabled government, including greater access, faster response times and more transparent operations, there are accessibility issues that must be considered. To begin with, not everyone has a computer with access to the Internet.

Planning a Web-enabled service must take into account the needs of people without Web access. Making sure that local libraries have adequate computer resources is one option; other options include making equipment and access available at community centers, senior centers, or local boys' and girls' clubs.

BUSINESS PROCESS

IMPROVEMENT

To gain the greatest benefit, agencies should not only deploy Web applications, but also re-engineer business processes to align with new online services and capabilities.

A less obvious problem is that many government services involve payment systems that are only available to people with credit or debit cards. Some people take such cards for granted; but many others will not be able to take advantage of services that require a credit or debit card.

The solution architects of municipal Web projects must consider and design ways to make alternate payment methods available, including cash, money orders, or other instruments. Many times, business processes must be modified and exception processing provided to accommodate those who may not have internet or credit card access.

Business process integration

In addition to giving citizens one more way to access services, Web-enabled programs often provide a catalyst to revolutionize the way a bureau, department, or an entire agency does business. This may sound optimistic, but consider a building permit department. Prior to the availability of online services, a customer would have to call the department or visit an office in person to check on the status of a permit application. Given a self-service permit application portal, the customer can sign-in and check on the status of a permit application at any given moment. That customer is now able to do the following:

- Check back regularly, because doing so is easier and more convenient than placing a call or driving to an office.
- Tell how quickly the permit application moves from one stage to another.
- Know when a permit application has stalled, and with whom.
- Be unlikely to escalate an issue for resolution.
- Know when the permit has been approved and development can begin.

With reports of identity theft and computer hacking appearing in the news regularly, the public's concern about privacy and security of personal information is understandable. It is important to make security and privacy a top priority in planning for and executing Web projects that allow citizens to interact and transact business with a public agency.

Roles and responsibilities

Public sector employees will likely feel threatened when a public sector organization puts some of its business on the Web. People might fear a loss of power or even the loss of a job. Deploying Web technologies does have an impact on how people do their jobs and organizations are wise to plan and budget for these changes. Areas of concern can include:

- Changing roles and responsibilities, even job re-classification
- Modified service level agreements with other departments
- Skill gaps and a need for training
- Impacts on union agreements
- Organizational changes and funding impacts

24X7 ENVIRONMENT

Web-enabled government is now open for business 7 days a week, 24 hours a day, regardless of the department's published operating hours.

Agencies considering Web projects should engage the human resources department and take other steps to help the organization make the transition smoothly and efficiently. The agency can manage change by establishing a timeline, setting and communicating expectations, and actively involving affected employees in the overall process. Finally, managers play an important role and can create a positive atmosphere for change by ensuring adequate training and rewarding those who support e-Government.

Technical support model changes

Until the age of the Internet dawned, few government organizations were open for business 24 hours a day, 7 days a week. The Internet makes this level of service possible. In fact, it quickly becomes an expectation, and agencies need to consider the ramifications before deploying a Web-based application. The Web-enabled government agency is in effect now open for business 7 days a week, 24 hours a day, regardless of the department's published operating hours.

Providing services online has the potential to change service-level agreements and might require a new support model. These changes have planning and budget implications, including support, maintenance, and operations.

Policy implications

E-Government has far-reaching policy and legal implications. Policymakers need to update laws to recognize electronic documents and transactions in support of e-Government. In turn, departments and agencies need to interpret that policy and apply it to internal policies and practices related to Web projects. Examples of affected policies and practices give rise to questions such as these:

- Where policy requires a written request, will an e-mail message suffice in place of a signed letter?
- Is a scanned or electronic copy of an original document equivalent to the original?
- What are the record-retention requirements for transactions conducted over the Web?

Because this policy review process can have an impact on the budget and schedule of a Web project budget, it should be accounted for in the planning effort.

Training and user support

Though the technology may work perfectly, the Web project may still be a complete or partial failure if internal and public users don't embrace it.

Providing training for employees and support for constituent users is a crucial part of implementing a successful Web project. Web project managers need to plan and budget for required training and support. Agencies will be wise to involve users in the planning, design, and testing of new Web projects. Involving employees and even the public can reduce risk, result in a better product, instill ownership, and help ensure widespread adoption.

ADOPTION IS KEY

Even if the technology works perfectly, the Web project can still be a complete or partial failure if internal and public users don't embrace it.

Technology maturity

By using the latest technologies, today's organizations can build and deploy Web applications quicker than ever before. But changes in technology often outpace the government agency's ability to acquire the necessary infrastructure and skill sets. With technology skills at a premium, it can be difficult to hire and retain qualified individuals. These agencies can hire an outside vendor to build a Web application, but must consider how to maintain and support the application once it has been deployed. Agencies need to consider the various options and resource capabilities, and budget for them accordingly.

Public-private partnerships

There are several reasons why a local or regional government might want to consider using a public-private partnership to implement a Web-enabled government initiative. Governments and private sector businesses often have different goals, different timeframes, and different incentives to experiment with new ways to do business. A partnership between a public agency and a private business or organization can bridge these gaps. Sometimes an agency can fund a new venture over a timeframe that would be impractical for a private business. An agency also can deliver a customer base either intact or in a larger grouping than can a private operator.

In some ways, public-private partnerships are similar to outsourcing operations that have traditionally supplemented government services. Licensing agencies have frequently delegated the authority to license cars or boats to dealers or licensing offices. These offices can extend convenience for a moderate fee, offering services to customers on weekends or inside shopping malls, for example. Extending this principle to Web-enable government operations is not a huge stretch. Many commercial operations have extensive experience in e-commerce, either over the Internet or through self-service kiosks.

Steps to Success

Technology alone will not guarantee success. Web-enabling government requires that IT vendors and public sector organizations understand the issues and address three critical areas: business process change, organizational change, and IT capabilities/solutions.

In this paper we have reviewed the reasons why projects succeed or fail, and some of the unique characteristics of government Web projects. As Martin Cobb of Canada's Treasury Board says, though we know how to prevent projects from failing, a large number of projects still fail to achieve the desired results. We believe the reason is not lack of effort or abilities, but lack of disciplined execution. This can be improved with a structured approach and a team of experienced professionals to guide the process.

Assess your readiness for a Web project

Using CGI's Web Readiness Assessment approach, we can help a government organization quickly evaluate its readiness for and potential risk related to a Web application development. Requiring only a few hours, a Web Readiness Assessment uncovers gaps and risks early, which can save countless hours and dollars in the long run.

The most highly qualified consultants are those who have been down this road before. CGI has extensive experience working with public sector agencies to plan, develop, deploy, and support Web projects. CGI has the knowledge and experience to optimize your organization's use of IT and to align your technology infrastructure and process changes with your goals and processes.

About CGI

CGI is in the business of satisfying clients. For 30 years, CGI has operated upon the principles of sharing in clients' challenges and delivering quality services to solve them. A leading IT and business process services provider, CGI has approximately 26,500 professionals operating in 100+ offices worldwide.

In the public sector, CGI is a major provider to federal, state, provincial, local and municipal governments in the U.S., Canada, Europe and Australia. CGI helps governments become more accountable, efficient, cost effective, secure and service oriented. With industry know-how and a full breadth of technology and business process services and solutions, CGI has the experience and proven offerings governments need to evolve.

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