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Key Factors in Establishing Successful E-Government Services[1]

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ABSTRACT

Local, state, and federal governments around the world have realized that the Internet represents a great tool for providing government services that can significantly impact internal operations and external relationships with businesses and citizens. The literature reveals that there are three key success factors in establishing a successful e-government environment: Quality customer service as a focal point, government internal process reengineering to integrate with the front-end interface, and adoption of information technology throughout the whole process. Creating the best fit among these three factors is a basic ingredient for providing successful e-government services.

INTRODUCTION

The advancements of information technology (IT) in the past few years have made many organizations reform their businesses in order to utilize IT for competitive advantage. Furthermore, governments around the world have realized that utilizing the Internet to deliver government services would have a significant impact on internal operations and external relationships with businesses and citizens. Electronic government (e-government) can be defined as "the process of transacting business between the public and government through the use of automated systems and the Internet network," (Brannen, 2001).

Governments around the world have put aside a significant IT budget to implement e-government environment in their countries. For example, the U.S. federal government is expected to put aside 28% of its IT budget for e-government by 2005 (Taft, 2001). Moreover, according to the Gartner Group, by the end of 2005, the public sector total spending is expected to reach a total of $6.5 billion. North of the border, the Canadian federal government's 2000 budget allocated CAN$160 million over two years to design and implement government-online, an initiative that will allow the government to serve more Canadians (Chenery, 2001). Moreover, the federal government is pledging to make all services available electronically by 2004 (Doucet, 2001).

E-government initiatives are not limited to federal governments around the world. Local and state governments are also racing to create an e-government service for residents. According to the Gartner Group, it is expected that state and local government will spend almost CAN$58 billion by 2005, up from CAN$44 billion in 2000 (Taft, 2001). For example, Ontario province government is targeting 2003 to move to e-government (Doucet, 2001). In the U.S., a recent survey reveals that 85.3% of 1,471 surveyed local governments have their own websites and 57.4% have adopted Intranets (Moon, 2002).

This paper is to explore the different evolutionary stages of e-government and to highlight key success factors in implementing a successful e-government environment.

E-GOVERNMENT SUCCESS TRIANGLE

Gartner Group has classified e-government services offered online into four evolutionary phases: publishing (web presence), interacting, transacting, and transforming. These four phases are evolutionary and each phase represent a significant improvement from the previous one.

Publishing is the earliest stage where static information about the agency mission, services, phone numbers and agency address are provided for further communication. *Interacting* goes one step further by enhancing the site's features with search capabilities and intentions-based programs, host forms to download, and linkages with other relevant sites, as well as e-mail addresses of offices or officials. *Transacting* represents a full featured online service that allow users to conduct and complete entire tasks on-line. Typical services that are migrated to this stage of development include tax filing and payment, driver's license renewal, and payment of fines, permits and licenses. Moreover, many government agencies put requests for proposals and bidding regulations online as a precursor to e-procurement. *Transforming* is considered to be the long-term goal of almost all e-government services. It is characterized by redefining the delivery of government services by providing a single point of contact to constituents that makes government organization totally transparent to citizens. It involves re-engineering internal processes in order to create smooth integration between different government agencies for the purpose of providing transparent service to citizens and businesses. Also, this phase relies on robust customer relationship management tools and new methods of alternative service delivery capabilities. Table 1 summarizes the phases, key capabilities, and major challenges.

According to recent research published by the North Carolina Information Resources Management Commission (2001), most of the 50 states in the U.S. are either at the interacting phase or in transition to some degree to the transacting phase. Both the transacting and the transforming phases are difficult because they involve the adoption of new technologies and the development of new business practices. Reaching and maintaining operations at the transforming phase requires a major cultural leap in business practices, organizational structures, and governance processes. To that end, an e-government strategy should be adopted in order facilitate the transition from one phase to another and to develop the goal of reaching the transforming phase.

E-government strategy, or success triangle, revolves around three critical elements: customer service, business processes, and technology. These are key elements in delivering a successful e-government environment.

Customer Service: The first step toward delivering high quality customer service is to realize that the nature of customer needs is different depending upon their primary relationship to government. Three classes of customers for services provided by the government have been identified – government-to-citizen (G2C), government-to-business (G2B), and government-to-government (G2G). The objective of G2C initiatives is to allow citizens to use the web for accessing services such as benefits, loans, recreational sites and educational materials. The objective of G2B initiatives is to reduce the burden on businesses by adopting processes that enable collecting data once for multiple uses and streamlining redundant processes. Online procurement, or e-procurement, with the government is an area that appeals to many solution providers and vendors. In fact, the U.S. government's interest in e-procurement led Washington-based eFederal company last year to start an electronic store for government buyers making micro-purchases up to $2500 (Taft, 2001). The objective of the G2G initiatives is to share and integrate federal, state, and local data. Examples of G2G initiatives are the ones establish by the U.S. government such as E-Grants managed by the Health and Human Services Administration and Disaster Assistance and Crisis Response managed by the Federal Emergency Management Agency.

Business Processes: While G2C, G2B, G2G applications may be different, all enterprise-based e-government initiatives generally have a common vision – a single entry point to government services that allows constituents to get everything they need without the cyber equivalent of long lines and bureaucratic red tape. Such an entry point, or portal, should be "intentions-based",

Table 1: E-government Phase

Phase	Key Capabilities	Major Challenges
Web presence for offering information	▪ Online content ▪ Information presentation and retrieval	▪ Content management ▪ Presentation hierarchy ▪ Roles and responsibilities
Interactions with the public for exchanging information	▪ Search engines ▪ Form/document transmission ▪ Simple data collection	▪ Content management ▪ Support staff ▪ Public records management
Online transactions for providing public services	▪ Technical infrastructure for licenses, permits, filings, reservations, etc. ▪ Integration with legacy systems ▪ 24 x 7 operations support	▪ Privacy and security ▪ Backup and recovery ▪ Funding sources ▪ Transaction fees ▪ Business process reengineering ▪ Staffing skills ▪ Interagency cooperation
Transformation of government – new processes as well as movement to e-democracy for citizen-participation in the democratic process	▪ Telecommuting ▪ Data sharing ▪ Integration of applications ▪ Mobile computing ▪ Wireless technology ▪ Video conferencing ▪ Broadband networks	▪ Ongoing funding stream ▪ Intergovernmental cooperation ▪ Program performance and accountability

Source: Baum and DiMaio (2001)

that is the portal is service driven and customized based on customer class. So instead of being presented with a list of agencies and having to guess their way through the list to determine where and how to obtain the services they are interested in, users simply have to know which service they require. A well-designed enterprise portal offers value in two basic ways. One is by taking away the need for citizens to understand the complexity of government. The other is by enabling users to save time (example: the U.S. Federal e-government system is through the FirstGov portal that was launched in September 2000)

Technology: As is the case for any implementation of technology, the application of even the best IT to poorly designed processes will only make matters worse. Therefore it is important to ensure that all processes are reviewed and reengineered where necessary to support a new way of doing business. Any IT solution should be designed as part of the improved process. A broad government-wide perspective on business processes may lead to aggregation in many cases. Aggregation of like transactions from all agencies can lead to increased efficiency and cost-effectiveness for e-government initiatives. Aggregation of demand can lead to lower purchase prices and economies of scale that can reduce unit costs.

E-government initiatives must be supported by a shared integrated technology infrastructure across agencies and applications. This infrastructure should include reusable technical components, which will reduce redundancy and increase the reliability of processing. As part of the design process an analysis of the existing infrastructure and legacy systems must be conducted with an eye towards their improvement and integration into the new-shared e-business architecture. The e-business architecture must adhere to widely accepted standards to allow for compatibility of systems and ease of expansion.

MANAGEMENT ISSUES

Establishing a working e-government environment presents several challenges to governments. Regulatory and privacy issues that are more easily overcome by commercial businesses represent major challenges for governments (Taft, 2001). Unlike commercial businesses that can choose their customers, government agencies have to provide services to all citizens. To that end, in today's environment, governments are more concerned than ever with the question of who is using the services. Proof of ownership and data security concerns are magnified as governments are moving toward interacting and transacting e-government services (Soliman and Affisco, 2002). On the other hand, citizens are concerned about how well protected is their private information. According to a recent study, 56% of Canadians feel that the information highway is decreasing the privacy level in Canada (Chenery, 2001). Another challenge to e-government implementation is unifying data and systems that operate differently in each agency (Barr, 2001). Over the years, federal, state or local government agencies have developed information systems in isolation. The main factor for successful Internet-based government services is establishing a standardization of data definition and procedures.

CONCLUSION

E-government initiatives are all about serving citizens electronically. Governments around the world are taking advantage of the rapid growth of Internet usage. However, in order to establish a successful e-government environment, governments need to develop strategies that revolve around the three key factors. First, provide high-quality, added-value service. Second, reengineer internal processes with a new vision. Finally, adopt emerging technologies to ensure seamless integration between front-end interface with customers and back-end operations.

ENDNOTE

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