

Oakland County Michigan eGovernment Strategic Plan

1.0 INTRODUCTION

The Oakland County eGovernment Strategic Plan responds to the issues affecting the delivery of electronic services for county agencies and local governments within Oakland County. The mission, guiding principles, critical success factors, goals and objectives in this plan are designed to improve the coordination, planning and implementation of eGovernment services.

This plan should also assist county and local agencies in achieving more Internet-enabled and customer-centric delivery of services. As the County becomes more immersed in eGovernment, this plan will be supplemented with project-specific implementation plans that guide the provision of eGovernment services.

1.1 What is eGovernment?

eGovernment uses Internet-enabled operations, information technology, and communications to optimize government service delivery, constituent participation and governance. Service delivery remains the focus of eGovernment; the delivery of services internally to the organization and externally to partner organizations and citizens is the essence of governance. eGovernment describes the use of specific information technologies to facilitate the interactions required to deliver service. eGovernment assumes that Oakland County government is becoming one component of a digital community that is well advanced in the adoption and integration of technology into daily life at home, work and play. eGovernment is a purposeful response to a new information economy. Figure 1 illustrates the components and factors involved in eGovernment.

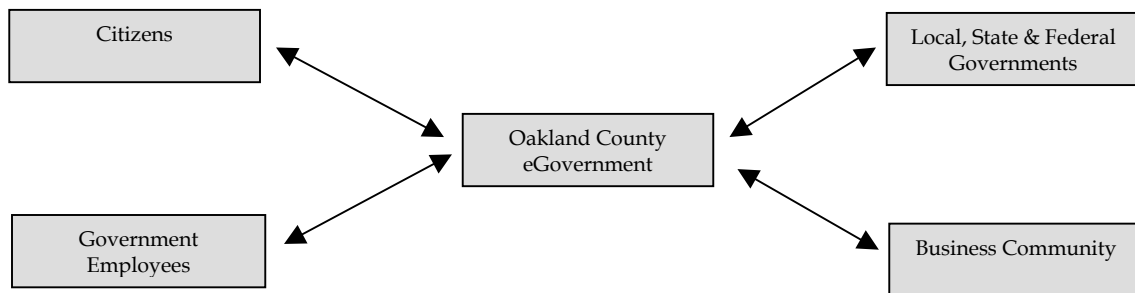


Figure 1: The Digital Community

Every arrow is a potential digital exchange of information. eGovernment assumes that many if not most of the exchanges will be digital, that they will be easier and more efficient for all components, and that these improvements will increase the effectiveness of government. One of the major factors influencing eGovernment is the disparity between the technological capabilities of the various components—the digital divide. Oakland County must be aware of the divide as technologies are adopted because the disparity can have an effect opposite to the one desired—components are excluded from the exchange for lack of appropriate technology.

The relationships between these components of the Digital Community are more complex than their eBusiness equivalents. Furthermore, it is important to work from a clear and concise set of eGovernment goals and objectives to ensure that the needs of each component are met. eGovernment relationships are generally formed within one of the following areas (Gartner, 2000):

Government-to-Citizen (G2C): Unlike the B2C relationship, a citizen cannot shop around for an alternative government. Further, in many cases (e.g., revenue collection), the citizen is compelled to accept the government services. This is balanced through citizen involvement in the internal affairs of government. The G2C relationship requires a distinctly collaborative approach in contrast to the transaction-focused e-business customer relationship where the customer has no direct interest in the governance of the business.

Government-to-Employee (G2E): In the transition to a knowledge workplace, government agencies and their employees are faced with much the same issues of work style and management practices as the private sector. However, most government agencies lack the infrastructure (e.g., intranets, ubiquitous PCs and supporting software) to support this transition and face workforce crises.

Government-to-Business (G2B): Like the G2C sector, there is a political governance issue in G2B that overrides the similarity to B2B. Legal requirements for competitive bidding, as well as the competition among businesses for political support, have created an unwieldy set of procurement regulations that pose a major challenge to the full implementation of e-business practices in government. To the extent that these regulations can be eliminated and government contractors can learn to operate more like their commercial counterparts, e-business strategies can significantly increase the efficiency and effectiveness of government operations and procurement.

Government-to-Government (G2G): The development of business applications that can share knowledge bases across agencies, their contractors and even between governments can improve operations and services. Unlike business, though, collaboration between agencies can be mission-critical. This collaboration can extend to contractors and

nongovernmental organizations, and even to governmental oversight bodies. This type of peer-to-peer inter-institutional collaboration at working levels is inherent in government operations, and while examples may be found in the private sector, it is not the norm.

There are four distinct phases of eGovernment development (Figure 2) outlined as follows:

Phase One – Presence: This first stage of eGovernment development is characterized by the existence of a presence on the Internet. During this first phase, the Internet sites are rather static in nature and are only meant to provide general information.

Phase Two – Interaction: This second stage of eGovernment development is characterized by Internet sites that provide search capabilities, host forms to download and linkages with other relevant sites. In most instances, this stage enables the public to access critical information online, but requires a visit to a government office in order to complete the task.

Phase Three – Transaction: This third stage of eGovernment development is characterized by empowering the public to conduct and complete entire tasks online. The focus of this stage is to build self-service applications for the public to access online.

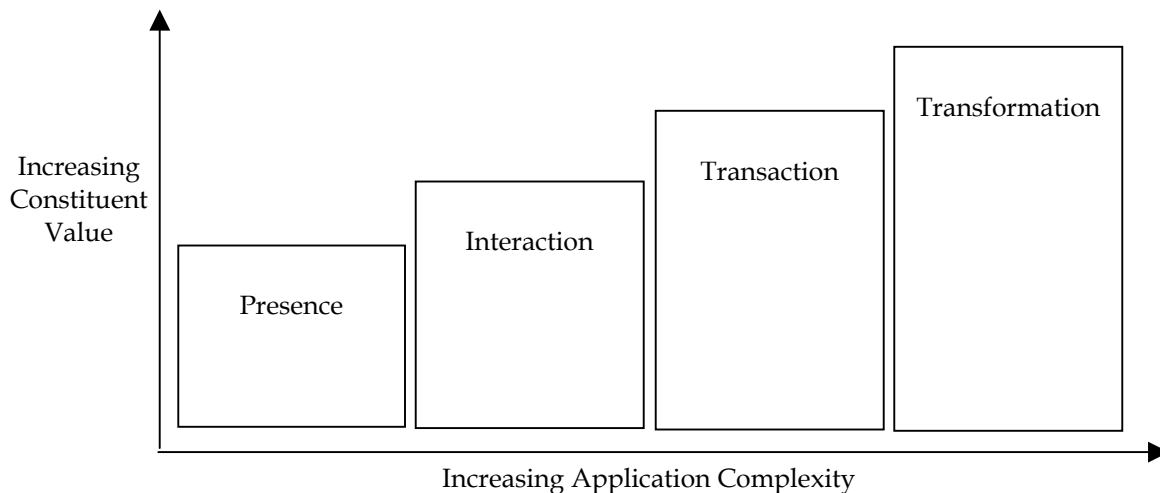


Figure 2: Four Phases of eGovernment

Phase Four - Transformation: The fourth stage of eGovernment development is characterized by redefining the delivery of government information and services. This phase relies on robust customer relationship management (CRM) tools, wireless access devices and new methods of alternative service delivery capabilities that reshape relationships between citizens, businesses, employees and governments.

Although the primary means to deliver government information and services will be through the Internet, provisions must be made for individuals without ready access to the Internet. In addition, those with access to the Internet, but with some other personal circumstance (e.g. disabled, different languages, lack of equipment) must still be enabled through the Internet site. Those that do not have, or cannot, access the Internet will be provided access to eGovernment information and services through the County's One Stop Shop-Decision Support Center (OSS-DSC), distributed information kiosks, or via the phone. Specifically, the OSS-DSC will provide the following capabilities:

- Personal support for those using facilities at the OSS-DSC.
- Consolidated phone support for those accessing Oakland County information and services through a home or business computer.
- Phone support for those without access to web technology.
- Face to face support for walk in access to services and information.
- Support for mail in requests for access to services and information.
- Self service OSS-DSC kiosks for direct access to services and information.

eGovernment will increasingly be supported by a service architecture that is customer-centric. Customer expectations, driven by eBusiness experiences and the Internet, will force government organizations to service citizens and business, as businesses do now. Constituents expect service anytime and, increasingly, anywhere. Multiple access channels will be required, due to convenience, accessibility and "digital divide" concerns. Constituents expect access to services by events, such as obtaining a permit, paying taxes or renewing a license, and they will increasingly rely on different channels to begin, continue and complete transactions, while expecting workflows and data to be coordinated behind the portal. They will expect an efficient government that maintains security and protects the privacy of their personal information.

1.2 eGovernment: An Enterprise Approach

Oakland County has adopted a cost-effective enterprise approach for meeting the challenges of eGovernment. Wherever possible, individual county or local agency and program needs will be met by technology investments and resources that can be used by all. As a result, aggregation of demand lowers purchase prices and economies of scale reduce unit costs. In addition, specialized, scarce, and expensive resources that are not

affordable by individual agencies or initiatives can be made available by combining funding sources and sharing resources. The aggregating of similar eGovernment transactions from all agencies through common technical resources spreads the fixed costs of this infrastructure over high volumes to reduce unit costs. In addition, reusable technical components will be used in all eGovernment applications to reduce redundancy and increase reliability of processing. Common business and technical models, best practices, and best procedures will be shared to the extent possible to leverage past experiences and statewide knowledge.

This enterprise eGovernment approach emphasizes a countywide view (versus a parochial agency or application specific view) and has three dimensions. First, this philosophy is governed by the following:

- Technology investments must be identified, evaluated, and selected so expenditures are made on the right purchases. Investments must maximize the services to customers while the integrity of the County's technology asset portfolio is maintained, duplications must be avoided, and sharing must be encouraged. Cost/benefit analysis must consider not only expenditures and impacts on individual agencies and programs, but also the results of investments on countywide objectives and needs.
- Technology investments must be implemented and operated efficiently and economically. Projects must be managed and monitored to ensure they are completed on time, within budget, and deliver the expected results. Computing and communications infrastructures must be self-monitoring and able to be operated and supported in a non-labor intensive (cost-effective) manner.
- Technology investments must be employed in ways that support county agency missions and the goals and objectives of the County's programs. Investments must enable the reengineering of business processes, the streamlining of communications within county and local government, and the creation of new and better methods of serving the public.

Secondly, this enterprise philosophy embraces the belief that solid technical and business foundations of shared technology infrastructure services and common business models are necessary to implement the eGovernment objectives listed below:

- Develop and install applications in as short a timeframe as possible to receive benefits in the near term, satisfy the public's expectations for offering improved services now (not later), and reduce implementation costs. In other words, enable applications to be designed and implemented in a production-like manner, so that it is easier to meet time, cost, and performance expectations.

- Provide facilities and assets that offer reliability of operations, are able to grow (scalable), provide for security and protect privacy, facilitate communications with other applications within and outside of state government, are economical to maintain and enhance, and enable 24 x 7 processing to a large user base.
- Take advantage of cost savings through economies of scale from the aggregating of transactions through common, shared hardware and software resources (fixed-cost items) to reduce unit costs.

Thirdly, the enterprise approach is an implementation strategy that emphasizes the following:

- Standards, so that parts developed by different groups and disparate organizations will work together and allow for replacement (without impacting the whole) as new technology becomes available.
- Reuse, so that components and models may be employed many times to reduce development costs, shorten implementation timetables, and provide increased reliability (proven in other applications and situations).

1.3 Information Technology Trends

Prior to embarking on an eGovernment initiative, it is necessary to review recent trends within the technology sector and to forecast what lies ahead for technology. While this process is risky, using existing advances in technology and then extrapolating over a 12-18 month period, gives a reasonable model for how technology will advance.

Trend #1 - The Internet and its web-based infrastructure will continue to grow and expand; newly developed applications will target this web infrastructure; Internet technologies will be used in organizations as the primary application service mechanism.

Trend #2 - Service and information will be the primary focus for users; the perception of an organization will be measured on their ability to deliver service.

Trend #3 - Mobile computing will accelerate dramatically through the use of integrated computing devices; web technology is the primary delivery mechanism for mobile devices.

Trend #4 - The costs of computing resources will continue to decline; human resources will continue to increase in cost.

Trend #5 - Portals will provide the aggregated view to content, regardless of customer type.

Trend #6 - The shift from legacy systems/client servers to eGovernment network-centric computing environment will allow governments to be proactive rather than reactive, service aware instead of environment aware and, most important, customer focused rather than IT focused.

Trend #7 - Network bandwidths will continue to increase thus allowing internet-based services and information to be provided in a timelier manner.

2.0 OAKLAND COUNTY'S CURRENT INTERNET-BASED PROJECTS

Listed below is an overview Oakland County's current internet-based projects. These projects are in varying stages and managed by individual teams within Information Technology.

2.1 eProcurement

The Purchasing Division is expanding its existing internet-based vendor registration system with the implementation of a 24x7 eProcurement system. This system will provide vendors enhanced online capabilities resulting in reduced staff time entering information manually and looking up vendor information, along with potential revenue from listing community bids. Major deliverables include: the capability for a vendor to change their personal information, retrieve a bid history, and track the status of payment owed. Additionally, the County will have the capability to post open bids, accept bids on open items, post the bid summaries, post bids for the local CVTs, and send open and winning bid information to vendors via email.

2.2 eHealth

The Environmental Health Unit of the Oakland County Health Division is implementing the eHealth program to reduce the labor associated with the restaurant, well, on-site sewage and swimming pool field inspection activities, resulting in the elimination of staff through attrition. eHealth will integrate and electronically streamline the business functions by taking advantage of GIS, GPS, imaging, Data Warehousing and internet-based technology.

eHealth will impact over 80 users. Customer service will be transformed by enabling customers with direct access to pertinent information. eHealth will be the first major system implementation utilizing the County's new internet development standard and

will be the catalyst to an improved process that will maximize staff efficiency while serving customers/clients and simultaneously. In the area of restaurant inspections, eHealth will provide a uniform and consistent restaurant inspection report to the establishment owner on-site before the inspector leaves the facility.

2.3 @ccess Oakland

Michigan Enhanced Access Act (P.A. 462 of 1996) has provided Oakland County with the impetus to move rapidly into an internet-based program designed to get County information into the hands of people when they need it, and where they need it, while recovering the costs of providing the enhanced delivery. The initial thrust of the @ccess Oakland Program was to provide a host of fee-based Land/Tax, Delinquent Tax, and Register of Deeds related informational products to title companies, lending institutions, real estate professionals, and the general public. These same products are provided free-of-charge to County and local governments as well. A portion (15%) of the revenue generated from these products is distributed back to the local units of government in Oakland County.

2.4 WebSite Redesign Project

The goal of Oakland County's Website Redesign Project is to create a web site that:

- Is uniform throughout and represents the technological leadership of Oakland County.
- Elicits a positive, comfortable and enthusiastic response to the end user.
- Encourages participation with the site and within the county.
- Offers users tangible benefits.
- Speaks to the unique needs of Oakland County residents and businesses.

Phase I of the project determined the functional requirements of the website. 115 interviews with representatives of IT Leadership Groups, County Departments and Divisions, CVTs, Commissioners and Access Oakland customers were conducted. Phase II of the Website Redesign Project outlined the need for developing a common brand and logo across the entire website and addressed several usability issues with the Website.

The fundamental premise of the redesign strategy provided the County with a Web foundation that transcends the typical deployment of static informational content by allowing the County to provide departmental services directly to the public using the internet as a transactional medium. Furthermore, to accommodate the need for increased access to web, java, and other thin-client technologies, the Department of Information Technology upgraded its internet infrastructure. The updated infrastructure provides

increased availability, improved security, more scalability and better user performance for all clients utilizing the Internet.

2.5 The One Stop Shop-Decision Support Center (OSS-DSC)

In concept, the OSS-DSC is a system that will enable Oakland County's customers to access information about the County by a variety of different methods, including sophisticated inquiries over the County's website. The Planning and Economic Development Services Division (PEDS) considers the OSS-DSC a vital building block in serving more customers, more quickly with better information products.

Today, all of the County's customers must contact PEDS by phone or in person to gain access to information they need to conduct their business or fulfill their research needs. The OSS-DSC, when implemented, will allow customers to call up the County's website and submit their request electronically or even develop their information products on-line. This new feature will supplement the traditional means of accessing information (i.e. over the phone or in-person) and allow remote customers to access information about the County that was previously inaccessible.

3.0 EGOVERNMENT STRATEGY

The eGovernment Strategy provides a high-level mission and vision for Oakland County's eGovernment initiative. Further refinement of the strategy is reflected in Guiding Principles and Critical Success Factors. In addition, supporting goals and objectives have been developed to effectuate this strategy and guide future eGovernment development.

3.1 eGovernment Mission Statement

Oakland County, Michigan is committed to serving its communities through empowered and progressive leadership that is entrusted to embrace innovation in every aspect of government service.

3.2 eGovernment Vision Statement

A technology enabled community in which all residents, businesses, local governments and employees can access relevant government information and value added services at any time and from anywhere.

3.3 eGovernment Guiding Principles

The Guiding Principles for Oakland County's eGovernment initiative are:

1. Oakland County will enable eGovernment accessibility so that all citizens can enjoy the benefits of these additional services.
2. Oakland County will take a "citizen focus", thus improving services to citizens, businesses, employees, and governments.
3. Oakland County will ensure the privacy and security of eGovernment information and transactions while preserving the integrity of participatory local government.
4. Oakland County will develop eGovernment services based on customer requirements and sound business benefits.
5. Oakland County will encourage and forge strategic partnerships across jurisdictional boundaries.

3.4 eGovernment Critical Success Factors

Critical success factors are those attributes, assets, or skills that will be needed for the successful implementation of eGovernment. The critical success factors are:

1. County Executive, Board of Commissioners, and other elected officials support and commitment.
2. Consensus among participants at all levels.
3. A focus on processes through which eGovernment services will be provided.
4. Common, countywide information components required for access to eGovernment information and services.
5. Data standards and models that support ownership, security, access, and unification among participants.
6. Standard web-based application development methodologies.
7. Openness to new technology and improved workflow.

8. Effective and applicable research and development.
9. Continuous education and training of all eGovernment participants.
10. The continued promotion and marketing of a central and coordinated access portal to government information and services.
11. Participating agencies will be treated as equal and important partners.
12. A coordinated governing body that oversees and coordinates eGovernment information and service development.
13. A competitive eGovernment funding model that promotes appropriate automation of government information and services.
14. A dedicated set of IT and county agency resources assigned to implementation of eGovernment information and services.
15. Current services provided to customers must be maintained during the development of eGovernment services.

3.5 eGovernment Goals and Objectives

The following eGovernment goals and objectives represent broad statements of desired accomplishments:

Goal #1 - To continuously improve the efficiency of, and access to, government information and services.

Objective - eGovernment applications will be designed to interface with a wide variety of computing devices.

Objective - Customers will have access to eGovernment services at times and locations of their choosing, taking into account special needs and social, economic and ethnic considerations.

Objective - Customers will know how to use and participate in the County's eGovernment initiative.

Objective - Oakland County will use eGovernment technology and business process re-engineering to transform the delivery of information and services.

Goal #2 - To use the successful development of the eGovernment initiative to promote Oakland County as an information technology center in the United States.

Objective - Oakland County will participate in regional efforts, professional conferences and other professional opportunities that promote the development of eGovernment services.

Objective - Oakland County will pursue awards recognizing the achievements of Oakland County's eGovernment initiative.

Objective - Oakland County will explore cutting-edge eGovernment applications that provide unique services to its customers.

Goal #3 - To address privacy and security issues related to eGovernment implementation.

Objective - Information supplied by customers will be secure from unlawful access.

Objective - Information access will only be permitted by law and as specified in a privacy policy.

Objective - Customer information will only be collected as needed for eGovernment operations.

Objective - Oakland County entities will manage information in accordance with laws and rules set forth in the State of Michigan Enhanced Access and Freedom of Information Act (FOIA).

Goal #4 - To ensure sufficient revenue streams and funding that enable the development of core eGovernment competencies.

Objective - eGovernment services will be used to reduce the cost of Oakland County government operations.

Objective - Appropriate (traditional and alternative) funding models will be implemented to sustain eGovernment services.

Goal #5 - To establish leadership and partnerships that advance eGovernment services provided to Oakland County constituents.

Objective - Oakland County will partner with the County Executive's Business Roundtable to facilitate the development of eGovernment services.

Objective - Oakland County will explore public-private partnerships that leverage previously developed eGovernment services and provide additional value to customers.

Goal #6 - To develop and maintain a seamless and comprehensive eGovernment interface.

Objective - eGovernment services will be convenient and reliable and provide customers the services most desired from Oakland County.

Objective - Customers will have a common and seamless entry point to eGovernment services.

Objective - Oakland County entities will collaborate to ensure that services are delivered to customers seamlessly.

Objective - Information provided through eGovernment services will be current, accurate and relevant.

Goal #7 - To manage the cost of eGovernment implementation through effective use technology.

Objective - A common technical infrastructure will be used and common processes and standard templates will be adopted wherever possible.

Objective - Common information will be collected once, and shared among Oakland County entities.

Objective - Total cost of ownership will be evaluated when developing eGovernment services.

Goal #8 - To institutionalize the use of eGovernment information and services through the adoption of appropriate organizational models.

Objective - Oakland County will establish a central authority to guide the eGovernment initiative.

Objective - Oakland County will transform its workforce through a comprehensive training and educational outreach program.

Objective – County leadership, executive management and government employees will be educated in the new eGovernment paradigm to accelerate the acceptance of the service transformation.

Objective – Delivery of eGovernment services will be coordinated across levels of government.

4.0 EGOVERNMENT POLICY ISSUES

This section of the plan articulates, in general terms, those areas where policy issues must be reviewed to achieve the County’s vision for enterprise eGovernment implementation.

4.1 Privacy of Online Government

Information privacy and security are the most significant concerns citizens have about doing business online. In Michigan, information is made private through passage of legislation. Security refers to how private information is protected. The practice of selling, or providing access to, information collected by the County to third parties has at times come under public scrutiny since the development of the County’s @ccess Oakland Program. A third party can aggregate public information in new ways and sell it, jeopardizing citizen privacy. Stories in the media on the disintegration of personal privacy may dissuade citizens from using the Internet for government transactions and services. The County will have to continually overcome this potential distrust of online transactions and convince users that Oakland County respects their personal privacy. Many countries around the world have adopted the Code of Fair Information Practices as their information practices system. These practices spell out the rights of data subjects (citizens) and the responsibilities of the data holders (government):

Notice: Customers should be given notice of an entity’s information practices before any personal information is collected from them.

Choice: Customers should be given options as to how any personal information collected from them may be used.

Access: Customers should be able to access data about themselves and to contest that data’s accuracy and completeness.

Security: Data collectors must take reasonable steps to ensure data security and integrity.

Enforcement: A mechanism for enforcement must be in place for the fair information codes to be effective.

Oakland County, through the State of Michigan's Freedom of Information Act (FOIA), provides privacy protection for personal information in certain government records in particular circumstances. However, this legislation offers little privacy protection for the average citizen in Oakland County.

In 1996, Oakland County actively campaigned to revise the FOIA statutes leading to the passage of the Enhanced Access Act (P.A. 462 of 1996). This legislation enabled the governmental unit to recover technology investments under certain circumstances. The costs that could be recovered include:

“...a public body's direct cost of creating, compiling, storing, maintaining, processing, upgrading, or enhancing access, including the cost of computer hardware and software, system development, employee time, and the actual cost of supplying the information or record in the form requested by the purchaser.”

For the first time, the Enhanced Access legislation provided governmental units the ability to recover a portion of its cost while making the information available to the public. This broad recovery of costs is permissive, not required. Some governmental units have chosen to provide this information without any recovery of costs. However, few governments have sufficient discretionary resources to do so.

P.A. 462 of 1996 defines 'enhanced access' as:

“...a public record's immediate availability for public inspection, purchase, or copying by digital means.”

While some have considered the Enhanced Access Act a method of 'selling government information', clearly it is not. Rather, the emphasis of the Enhanced Access legislation is on providing the foundation for improving access that already exists. Citizens may still view government information at governmental facilities. However, they will now have an option to perform this same inspection in their homes or offices, likely saving costly travel and labor to access government 'paper' records. This new service unlocks government records currently stored in paper form by converting this paper to digital and then developing a distribution network for access.

Furthermore, county and local government agencies collect a wealth of information about the public. In most cases, agencies can add elements to county and local databases without substantiating the need for the new information. Although agencies are expected to act

responsibly in collecting information about their clients, there may not be a requirement that staff validate the appropriateness of this collection of information through any process.

4.2 Providing Secure eGovernment Services

Security and trust in conducting transactions over the Internet are the critical factors in ensuring the success of eGovernment, as it deals with citizen's financial and personal information. Security refers to the means by which private information is protected. Studies continue to reflect that security and privacy are the citizen's main concern regarding county and local governments providing services over the Internet. While reduced transaction time, round-the-clock availability, and convenience are all benefits that attract the citizen to access government services over the Internet, assurance that these transactions are secure is what greatly facilitates the use of these eGovernment services. The main security issues regarding secure eGovernment services include:

- Establishing accountability roles detailing the responsibilities for providing and maintaining secure services, whether it is an agency, a board, or a governing entity.
- Establishing security standards for current and future eGovernment services that include minimum security requirements and redundancy protocols to conduct the current and future eGovernment services.
- Establishing security-reporting procedures to detect intrusions and attacks as well as provide regular monitoring reports. These reports should then be used to determine the effectiveness of the security measures in place.
- Standardizing authentication techniques through the implementation of technologies for secure electronic authentication to encrypt information and implement digital signatures.
- Implementing appropriate virus protection plans that minimize opportunities for attack.

The greatest challenge of providing secure eGovernment services is successfully providing the adequate level of security for a wide array of services – from online database searches to online license renewals using a credit card. The security measures that are in place to protect the eGovernment services currently being provided need to be flexible and scalable to adjust to the needs of future services. Trained staff that keep abreast of the latest security advances contribute to maintaining a high level of security. Securing eGovernment services is an enterprise-wide task. Therefore, the continuance of a coordinated governance body is necessary to oversee eGovernment initiatives in Oakland County. Accomplishing tasks such as establishing countywide security policies for conducting eGovernment services over the Internet, as well as implementing a secure countywide infrastructure, require a

Countywide, coordinated effort. It would be the role of this body to address the issues stated above to determine the best enterprise-wide solutions possible.

4.3 Providing All County Residents with Access to eGovernment Services

The success of electronic government will be determined by the extent of its use by the citizens of Oakland County. One barrier to that use is the digital divide – the disparity in household access to computers and the Internet. The U.S. Department of Commerce identified the digital divide as a public policy issue in 1995. Unequal access to information and communications technology was found to correlate with social and economic factors such as race, ethnicity, income, education level, gender, age, and geography. Market research studies that benchmark computer and Internet usage patterns show that the divide is disappearing because computers are becoming cheaper and opportunities for free Internet access are more available. In addition, computing is becoming ever more pervasive in modern society. Computers are being converged with a wide range of devices such as cell phones, televisions, and automobiles. As computers continue to be used in such a wide variety of devices, the digital divide will continue to decrease. Other research focuses more on the continuing barriers to computer and Internet access and use. These barriers include varying literacy levels, relevant online content, and institutional constraints on computer access and use.

Technical barriers that previously prohibited county and local agencies from providing access to information are now being removed with the implementation of the County's OAKNet project. OAKNet is a fiber optic network that will connect all county and local agencies to the County's local area network and the Information Technology Building. OAKNet will be used to transmit data, video and potentially voice communications. This project is being constructed in cooperation with an Oakland Schools project entitled 2000ONE. The Schools' project will connect its central offices with 28 school districts.

Once functional, the County will provide Internet Service Provider (ISP) services to the local governmental agencies. Presently, only half of the local agencies in Oakland County have access to the Internet, many only having simple dial-up connections.

The installation of OAKNet and the 2000ONE project will also increase networking and Internet alternatives for businesses and citizens of the County. Furthermore, these projects will increase the overall network capacity of the County and thus support widespread access and use of eGovernment services and information.

4.4 Achieving Seamless Government

The goal of seamless government is to make government information and services readily available to all citizens at all times in a way that emphasizes government as an "enterprise," not a bureaucracy. Government as an "enterprise" (County-wide services across all governmental entities) removes the barriers and delays associated with the need

to work with different agencies at different levels. Government is seen as a service provider that is centered on the needs of citizens and businesses, not the political and organizational infrastructure. Historically, county and local governments have developed user services in separate environments with little or no communication between them. Seamless government in Oakland County will require a new level of communication and cooperative planning among county and local governmental agencies. Horizontal integration and planning among county agencies or among agencies with common goals and functions, is essential to realizing economies of scale, avoiding the “re-invention of the wheel,” and reducing redundancy of effort. Likewise, vertical planning among county and local governmental agencies is essential to creating “seamless” governmental services. The results of horizontal and vertical planning are Internet sites that are function-driven, and easy to use.

Seamless government will present a single, function-driven interface to the public. To present this single interface implies the integration of “Internet services” with “front counter” services. This integration is sometimes called “One-Stop-Shopping”. In support of this effort, countywide public relations/marketing campaign to educate customers on the benefits of eGovernment should be instructed. In addition, eGovernment services should also have a single look and feel. Furthermore, a county Internet “portal” that provides common customer-facing services (G2E, G2B, G2C, G2G) will serve as the basis for better management of information and service delivery systems, reducing deployment and administrative costs. This portal can leverage county and local resources, thus reducing individual and/or redundant government agency efforts. The creation of a seamless government cannot be limited to Internet technologies. Attention must be paid to “front counter” service delivery areas in county and local agencies to ensure that consistent and comprehensive eGovernment services are provided. The role of the County’s current “One Stop Shop” as the central dissemination point for government information should be reviewed as part of the eGovernment initiative.

4.5 Managing and Coordinating Electronic eGovernment Projects

As Internet use increases worldwide, more citizens and businesses come to rely on it to conduct their daily business. The Internet has allowed Customers to conduct their business from the convenience of their homes at times convenient to their schedules. Citizens and businesses alike will come to expect that their governments will also bring services to them via the Internet.

To effectively coordinate eGovernment projects within Oakland County and to bring services to the citizens, it is critical that a separate governing and coordinating body be created to oversee the development and implementation of these services. While eGovernment brings a shift in the way governments conduct business and citizens want services delivered, Oakland County must shift its focus from a decentralized nature to a more customer-centric perspective. This will require significant cooperation and planning among and between county and local agencies.

4.6 eGovernment Funding Models

County and local budgets are generally planned and implemented at the departmental level. eGovernment initiatives, however, are often of a cross-agency nature (e.g. virtual agencies, government-information-system-related projects and other initiatives that require shared infrastructure). New funding models will have to be developed to support these efforts.

Funding for eGovernment has reached an important crossroads. Although eGovernment remains an important issue, funding for these projects remains elusive. In many respects, the early self-funded models of eGovernment enabled many county and local agencies to embark on eGovernment projects without sacrificing significant resources to support the development.

Early eGovernment projects, like the County's @ccess Oakland Program, have provided government information and services using transaction and convenience based funding models. However, the transaction-based funding model has been a double-edged sword. The model increased the rate of adoption but has become an unproven source to finance sustainable eGovernment initiatives. Consequently, many second-generation eGovernment projects are slowly moving away from the transaction-only approach and are attempting to incorporate other funding mechanisms.

There have been four major funding models for eGovernment implementation: convenience fees, transaction fees, hybrid funding and innovative funding. Both convenience and transaction fee models have been described as "self-funded" models, since the cost of implementation is transferred to ongoing operational fees. Hybrid and innovative funding models represent a new stage of evolution for eGovernment initiatives. Descriptions of each model are as follows (Gartner, 2001):

Convenience Model: Early in the development of first-generation eGovernment initiatives, a variety of dot-com vendors touted services directly to citizens and businesses. These vendors attempted to disengage county and local agencies and fund these online solutions through extra convenience fees charged to the customer. In the short term, this funding model was quickly discarded by the marketplace. Convenience fees may only be viable in select areas of G2B transactions in which increased efficiency in county and local agency interactions may have a premium.

Transaction Model: With the growing focus on self-service transaction solutions, the next generation of eGovernment projects centered on transaction-based fees. A variety of government agencies have adopted these funding models for procurement, tax filing, motor vehicle, permitting and licensing applications. Unfortunately, these models can quickly disintegrate as transaction volumes are suppressed and have significant consequences to the financial health of eGovernment initiatives. The fate of this model will

likely evolve to the hybrid approach as agencies work to determine a guaranteed level of transactions through a given system and meet this goal.

Hybrid Model: Moving forward, county and local governments must focus on a more even-handed approach to eGovernment implementation. Hybrid fees are based on partial fixed payments and partial transaction-based payments. This combination will enable the agencies to work together on key consulting and integration areas while subsidizing part of the development with a transaction-based approach. This dual approach will provide stability to the eGovernment initiative and still reduce upfront fees. Moreover, in a growing number of cases, agencies will determine a guaranteed level of transactions to avoid the problems encountered in previous transaction-only centered models.

Innovative Model: Over the next five years, a variety of funding sources under the umbrella of innovation will begin to take center stage. This funding model is based on the necessary changes ahead in eGovernment, as agencies move from the development of tactical, agency-specific transactions to the more transformative nature of future cross-agency, enterprise eGovernment initiatives. There are five main sources of the innovative funding model.

Shared services: Often, county and local agencies use similar business processes for a variety of different services. The multiplicity of agencies that provide permits, licenses, payments, revenue collection and more can maximize available resources for online development through the sharing of these eGovernment tools. Moreover, singular agencies such as courts across different jurisdictions (for example, all courts in Oakland County) may band together to provide a pooled resource for eGovernment programs.

Innovation funds: Increasingly, county and local governments are setting aside seed money to help agencies develop eGovernment solutions. These resources may provide the additional boost to move projects from conception to reality or provide the impetus to examine pilot projects.

Enterprise funding: In many respects, the stove-piped nature of traditional public-sector information technology development has been caused by the rigid funding sources for these initiatives. As technology development is integrated with common business processes (such as GIS, CLEMIS, etc.) and online development becomes more transformative (for example, enterprise centers for new business creation), new legislation will be required to support funding cross-agency initiatives. Enterprise funding represents the alternative for county and local government agencies to finance customer-centric solutions and advance the impact of eGovernment solutions.

Performance-based funding: In many areas, eGovernment brings tangible benefits that can be benchmarked and measured over time. County and local agencies can

develop performance-sharing agreements that enable the agency and a service provider to share in the upside of eGovernment development. This may include increased permit collections based on the ease of ePermitting applications. These projects are also referred to as gain-sharing or cost-avoidance projects.

Fixed funds: The traditional funding model for technology implementation comes full circle. Clearly, there are aspects of eGovernment development that may be best funded through a fixed payment: business process re-engineering to align with new online channel, systems integration to connect with legacy applications, and infrastructure modernization to support enterprise technology development.

Funding models, beyond those already in place as part of the County’s @ccess Oakland Program, will be explored by Oakland County. In doing so, the County must protect itself from more financially unstable self-funded models (convenience and transaction fees). Focusing on the hybrid and innovative models, state and local governments are placing an importance on business re-engineering, back-end integration and the value of eGovernment services.

5.0 EGOVERNMENT MANAGEMENT STRUCTURE

The successful implementation of a new eGovernment management structure (Figure 3) will be vital to the provision of eGovernment information and services. Development of the new management structure will make it easier for governments to assess and eliminate major eGovernment inhibitors (Gartner, 2000). In particular, an enterprise-wide management structure will be more successful dealing with the following inhibitors: funding models, data heterogeneity, infrastructure, human resource/labor practices, public procurement practices, and the shortage of skilled staff.

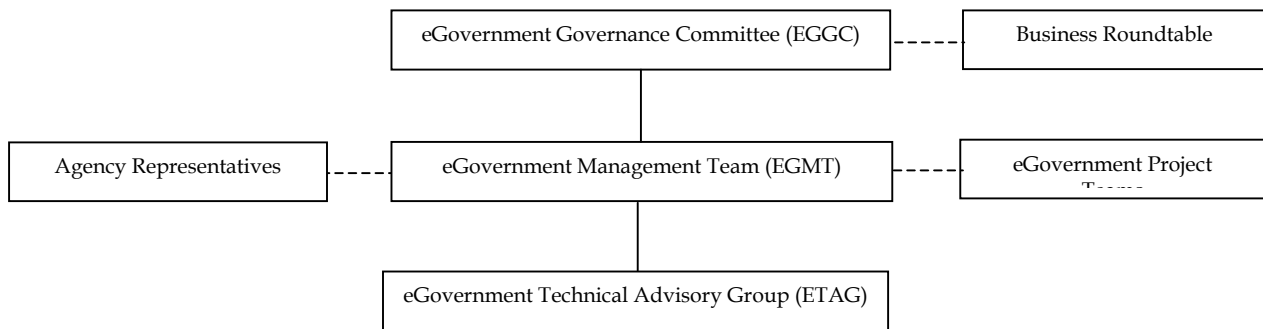


Figure 3: eGovernment Management Structure

Although it may be possible for county and local agencies to develop an Internet presence without this new structure, each successive eGovernment phase will become more difficult, if not impossible. This is true whether the eGovernment initiatives are planned at the enterprise level or within a large agency or department. First, the new management

structure must demonstrate strong executive sponsorship for eGovernment. The new structure will allow for:

- Enterprise-wide implementation of eGovernment projects.
- Short and long term funding commitments.
- Expedited procurements.
- Implementation of technology-specific recruitment, retention and training initiatives.
- Effective project management standards and procedures.
- Standardized technical and style specifications.
- A targeted public education and promotion campaign on the benefits of eGovernment.
- Joint planning and implementation of eGovernment projects with other county and local agencies.
- Appropriate use of consultants and external services providers/ government service providers to offset recruitment issues.
- Resolution of conflicts among eGovernment participants.

To begin the effort, the County Executive and the Information Technology Director will issue a statement that clearly establishes eGovernment as a top priority.

5.1 eGovernment Governance Committee (EGGC)

The successful implementation of eGovernment will require input and cooperation of all major government functions. Consequently, an eGovernment governance committee (EGGC) should be created. Membership on this committee will include representation from county policy makers in: County Executive's Office, Information Technology, Management & Budget, Corporation Counsel, Media & Communications, and other county agencies participating in eGovernment implementation. It is important to note that because the EGGC will be a working committee, the representatives, or their senior staff, must be prepared to devote considerable time to this effort. Some of the duties of the governance committee will include:

- Information policy review and adoption.
- Approval of county and local government eGovernment service initiatives.
- Education and outreach activities for eGovernment service initiatives.

- Oversight of funds generated by eGovernment initiatives.
- Evaluation of efficiencies gained by eGovernment initiatives.
- Web page content policies.
- Interaction with constituency through the Business Roundtable.

The Information Technology Director will serve as the Chairperson of the EGGC to ensure that the transformation of government operations and policies is understood to be the paramount goal of the eGovernment initiative. It is also important that the EGGC membership represents the Information Technology and financial leadership of the county to ensure that the full potential for government transformation is considered and successfully implemented.

5.2 eGovernment Management Team (EGMT)

Upon establishment of the eGovernment Governance Committee (EGGC), the Information Technology Director will create and staff an eGovernment Management Team reporting to the EGGC. The Management Team will be responsible for developing, overseeing and implementing the eGovernment strategy and the projects contained within. It will be headed by a Manager of eGovernment, who must have an excellent rapport with the agencies as well as the ability to build consensus and manage conflict. Once appointed, the Manager of eGovernment will also sit on the eGovernment Governance Committee and provide direct communication from the EGGC to the Management Team.

The primary goal of the eGovernment Management Team is to serve as an entrepreneurial unit within Oakland County that is capable of planning and implementing enterprise-wide innovation. In addition, responsibilities of the EGMT will include:

- Policy development, research and referral to EGGC.
- Implementation of policies, rules, and procedures adopted for eGovernment initiatives.
- Day-to-day contract management and performance monitoring of business partners providing eGovernment services to the county and local agencies.
- Day-to-day management and performance monitoring of eGovernment Management Team.
- Assisting county and local agencies with the implementation of their eGovernment initiatives.

- Coordination of operations between county and local government agencies to achieve integrated planning for eGovernment initiatives.
- eGovernment knowledge management, training and education.
- eGovernment research and development.
- Coordination, management and implementation of the eGovernment technical architecture, including the “standardized components” that will be used by individual eGovernment applications throughout the County.
- eGovernment application development and implementation.
- Coordination with Corporation Counsel and Media & Communications to ensure eGovernment services are implemented consistent with state statutes and County policy.
- Web page content management.

In addition, the eGovernment Management Team will be responsible for developing and implementing project plans to track resource and budget allocations for the eGovernment initiative. These project plans will be monitored by the Information Technology Department’s Project Management Office (PMO) and progress reported directly to the eGovernment Governance Committee and the County’s Leadership Groups.

The eGovernment Management Team will also be responsible for developing an education and training program for Management Team participants and representatives in county and local agencies. This program will include a training curriculum that is tailored around standard eGovernment technologies and processes within Oakland County. In addition, the education and training program will promote the transformation of county agencies into technology savvy organizations.

To institutionalize the development of eGovernment information and services, Management Team will need a core group of technical experts dedicated to eGovernment development within the County. Within the Team are seven organizational roles. Each of these roles have been identified to provide a consistent level of service to those availing themselves to the County’s eGovernment applications and services. Individual roles will include:

eGovernment Program Management - The eGovernment Program Management role manages the central eGovernment Team and is responsible for the implementation of the County’s eGovernment initiative. During start-up phases, this role will develop eGovernment policies and education plans to forward to the Governance Committee for adoption; create open lines of communication; document project plans, standards, and budgets; and facilitate consensus among

those participating in the County's eGovernment initiative. This role will interact

directly with Corporation Counsel to ensure eGovernment services are provided consistent with state statutes. In addition, the Program Management role ensures effective communication and relationships between appropriate customers and team members are maintained.

eGovernment Project Management – The eGovernment Project Management role is responsible for the overall planning, management, implementation, completion, maintenance and success of “standardized component” projects. This role works with the appropriate customers and IT Project Teams to develop project scopes, project plans and uses project management skills to identify and manage project participants, resource requirements, training requirements, project deliverables, customer satisfaction, project quality and reporting structures. The Project Management role also documents opportunities to integrate eGovernment systems and identifies resources to fulfill project requirements.

eGovernment Application Development – The eGovernment Application Development role is responsible for application requirements gathering, existing application research and identification, and “standardized component” library implementation. In addition, the Web Application Development role is also responsible for assisting other eGovernment Application Developers, assigned to specific Project Teams, with the development and implementation of eGovernment applications and services. This role is very active assisting other Project Teams and County agencies with eGovernment application development and implementation.

eGovernment Presentation Designer – The eGovernment Presentation Designer role is responsible for the development and management of Internet “style sheets”, consistent “look-n-feel”, and other graphics/multimedia that are included in eGovernment applications and services.

eGovernment Content Manager – The eGovernment Content Manager role is responsible for the development and management of Internet content that is included in eGovernment applications and services. This role interacts directly with the eGovernment Presentation Designer, Agency Representatives and Media & Communications to ensure web page content is consistent with County policies.

eGovernment System Administration – The eGovernment System Administration role manages and administers the servers, workstations, operating systems, Internet and intranet operations and software necessary to support eGovernment implementation. This role maintains an open line of communication and promotes coordination with other Information Technology initiatives and Teams to ensure compatibility throughout all systems.

eGovernment Database Administration – The eGovernment Database Administration manages and administers the eGovernment databases and their associated standards. The standards are developed with input from Information Technology’s DBA Team and other agencies participating in the development of eGovernment information and services.

eGovernment Product Support and Training – The eGovernment Product Support and Training role provides software support and training for those products used by Internet Application Developers and web page content authors. The Product Training and Support role is responsible for testing new software prior to installation, the management of an eGovernment Application Develop Tools User Help Desk, and the operational support of numerous software modules that are installed to assist in the development of eGovernment applications and services. This role does not provide support and training to those who are using custom eGovernment applications designed by individual Project Teams. This support is provided by Product Support and Training roles on the individual teams.

To assist in the establishment, communication and enforcement of enterprise-wide technical standards, data models, application standards, development environments, and presentation standards, the will create an eGovernment Technical Advisory Group (ETAG). The eGovernment Management Team will ensure that the ETAG meets regularly and that they succeed in developing a cost effective, scalable and standardized eGovernment technical architecture.

5.3 eGovernment Application Project Teams

In addition to the eGovernment Management Team, individual eGovernment Application Project Teams will be needed to develop eGovernment applications and services for County agencies. These individual Project Teams will be responsible for working with County agencies on a day-to-day basis to develop and support eGovernment applications. These applications will be developed within the enterprise architecture and standards established and managed by the eGovernment Management Team. Interaction with the eGovernment Management Team will occur on a daily basis as well.

If the OSS-DSC is going to become the consolidated support location for the County’s eGovernment services, the development of these roles will also be vital. Future discussions must be had on the impact of this effort.

Depending on the size of the eGovernment application, roles within these individual eGovernment Application Project Teams could include:

eGovernment Project Management – The eGovernment Project Management role is responsible for the overall planning, management, implementation, completion, maintenance and success of individual eGovernment projects. This role works with

the appropriate customers and the EGMT to develop project scopes, project plans and uses project management skills to identify and manage project participants, resource requirements, training requirements, project deliverables, customer satisfaction, project quality and reporting structures. The Project Management role also identifies the technical approach to be used on a given eGovernment project and manages outsourcing efforts associated with eGovernment system startups.

eGovernment Application Development – The eGovernment Application Development role, assigned to an individual Project Team, is responsible for application requirements gathering, existing application research and identification, and eGovernment application implementation on behalf of a given County agency or program. This role works very actively with County agencies and the eGovernment Management Team. In addition, this eGovernment Application Development role is responsible for the development and management of the “look-n-feel” and other graphics/multimedia that are included in specific eGovernment applications and services.

eGovernment Product Support and Training – The eGovernment Product Support and Training role, assigned to an individual Project Team, provides support and training on behalf of individual County agency eGovernment applications. The Product Training and Support role is also responsible for testing and evaluating new eGovernment applications prior to installation.

5.4 Agency Representatives

The County agencies will drive the full development of eGovernment services in Oakland County. They will outline application development priorities, develop additional services and promote the use of these services to their constituents. The development of eGovernment expertise within County agencies is essential to long-term institutional success. To promote this development, organizational relationships will be formed and the following roles will be developed: eGovernment Service Project Sponsor and eGovernment Service Expert.

eGovernment Service Project Sponsor - The eGovernment Service Project Sponsor is an agency advocate that will continually push for the development of eGovernment services within their organization. This role is also responsible for authorizing the web page content authored by a given agency. Representation on the eGovernment Governance Committee is required.

eGovernment Service Expert - The eGovernment Service Expert is responsible for identifying and coordinating the functional and business requirements of an eGovernment service within a given agency. They have a broad knowledge of each developing eGovernment service or application and the requirements for implementation of an eGovernment service. The eGovernment Service Expert is also

responsible for authoring web page content and forwarding it to the eGovernment Service Champion for review and authorization. The eGovernment Service Expert has a strong relationship with the eGovernment Management Team and ensures that standards and policies necessary for successful enterprise implementation of eGovernment services are adhered to in the specific agency.

Without implementation of an eGovernment management structure, eGovernment initiatives are destined to languish as new Internet sites for the publication of government information. The potential for transformation of government will not be realized. An appropriate eGovernment management will allow for application development standards and implementation of online services so that basic infrastructure can be shared, thus reducing capital and labor costs.

The new structure will be empowered, by the County Executive and the Information Technology Director, to develop and implement new policies and procedures designed to make eGovernment a success.

6.0 EGOVERNMENT BUDGET

A budget must be allocated so that the eGovernment initiative can be adequately staffed with a core team of skilled innovators. In addition, top management and other technological, financial and administrative support should be drawn from Information Technology and existing county and local agencies to support this initiative.

An eGovernment project budget shall be provided to the EGGC to pay for the eGovernment initiative. Agencies will be expected to come to the EGGC to seek funding for their eGovernment projects. The eGovernment fund will also be used to pay for multi-agency initiatives. The eGovernment project budget will also include a professional service budget allocation to allow the eGovernment Management Team to fill critical and unique technical staff positions on an expeditious basis.

A central eGovernment budget will also allow the EGGC to track all projects to ensure that economies of scale can be achieved through the development of cooperative architectures. The information received through the budget process will also provide critical information to ensure that best practices are spread throughout the eGovernment effort. If appropriate, performance metrics and customer satisfaction indicators can also be developed and tracked for the most critical eGovernment initiatives.

7.0 SUMMARY

The Oakland County eGovernment Strategic Plan responds to the issues affecting the delivery of electronic services for county agencies and local governments within Oakland County. The Plan is a high-level; business plan that guides the provision of eGovernment services and institutionalizes their use throughout the County. As the County becomes

more immersed in eGovernment, this plan will be supplemented with project-specific implementation plans that guide the provision of eGovernment services.