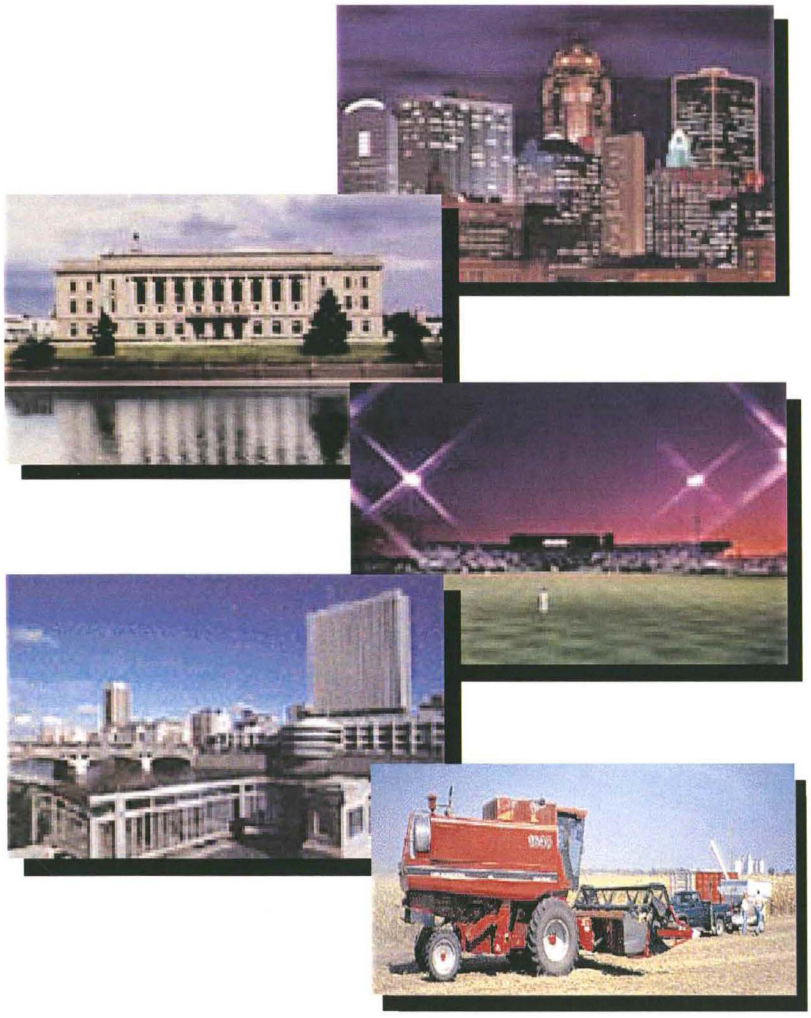
KPMG

IOWAccess **Project 10**

Electronic Commerce Business Plan



June 1998

Electronic Commerce

KPMG

IOWACCESS

ELECTRONIC COMMERCE BUSINESS PLAN

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Introduction

This **Electronic Commerce Business Plan (this Plan)** is the framework for identifying, evaluating and creating Electronic Commerce **(EC)** opportunities within Iowa. The process described in this Plan will be applied to business application projects to assure that solutions created will advance the seamless delivery of government goods, information and services to customers.

This Plan supports the mission, vision and goals of the IOWAccess. The Vision is to enable delivery of electronic goods, information and services through a seamless Electronic Commerce (EC) process. To support this vision, it is the Mission of this project to provide this plan, which establishes and documents the baseline EC opportunity framework.

Electronic Commerce is defined as "the exchange of information, goods and services over networks and the use of networks to supply and retrieve the information necessary to support these transactions". These value exchanges can be accomplished through the use of several enabling technologies such as e-mail, electronic data interchange (EDI), SmartCards, automated teller machines (ATMs), digital checks, web client interfaces, and so on. The summary principles for Electronic Commerce in Iowa are as follows:

- All senior government policy makers and executives should be educated to fully recognize the relationship between electronic commerce deployments and success in the 21st century economy.
- State government should pro-actively review its laws, regulations and policies to ensure support for electronic commerce. This includes tax and regulatory considerations that foster electronic commerce.
- State government should recognize its critical role in implementing electronic commerce in Iowa, particularly with small and medium sized businesses. Agencies and entities must work together to ensure a simple, clear, universal and consistent electronic commerce infrastructure.
- State government should plan for, and enable, universal access to the Internet and Intranet applications for all staff as a foundation for electronic commerce. They should publish security and authentication guidelines to help manage and mitigate risk.
- Electronic commerce in government should ensure the privacy of individuals, and that public information remains in the public domain.
- Business solutions and applications being converted to enable electronic commerce should establish the value of process reengineering as part of the conversion effort. These applications should be driven by business benefits – i.e., improvements in process, work environment, information sharing , and quality of overall service delivered.

Plan Ownership

This **Electronic Commerce Business Plan** ultimately belongs to the citizens of Iowa, and is administered and executed by the State of Iowa as part of its fiduciary relationship.

The **IOWAccess Advisory Council (the Council)** serves as the representative body of users, and includes participation from federal, state, and local government sectors as well as private industry and the citizenry at-large. The Council shares responsibility for Plan administration with the **Division of Planning and Standards (DP&S)** of the **Office of Information Technology Services (ITS).** This unit is well positioned to provide the leadership and facilitation functions needed to lead a group of diverse organizations through the technical discussions needed to implement the Plan. The Council was instituted and launched in FY 1998 with Executive Order 66.

Stakeholders and Users

The following groups will benefit through adherence to the plan:

- Agencies and Branches of Iowa State Government
- County and Municipal Governments
- Educational Institutions
- Federal Government Agencies and Departments
- Private Associations
- Private Businesses
- Private Citizens

Future Processes

In later sections of this document, processes are defined for:

- Administering implementation of the plan
- Establishing work groups to set standards, review project applications, etc…
- Updating the plan as work proceeds and technology advances

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Plan Benefits

A wide variety of benefits are available to those users who comply with this Plan. For example, projects certified as compliant with the Plan's standards indicated by a *seal of approval* might enjoy funding advantages due to the funding agencies appreciation of the long-term value and viability of the planned solution. Other benefits include:

- Improved application solutions delivery as a result of leveraged knowledge on specific applications experience
- More reliable project delivery as a result of the shared exchange of proven successful work plans and implementation procedures
- Enhanced opportunities for collaboration and joint development as the result of increased information sharing
- Improved vendor relations as a result of adopting performance requirements and planning methods
- Potential for improved funding as a result of adopting common methodologies and approaches
- Refined focus of solution efforts on capabilities not platform specifics; a result of adopting standards and best practices
- Increased longevity of application investments as a result of standards and connectivity compliance
- Simplified systems integration and interoperability as a result of adopting common protocols
- Simplified access to new and legacy data due to adopting standard, well-defined interfaces
- Simplified user access to data from multiple sources due to current technologies, which support interfaces to multiple back-end applications

All of these benefits relate directly to the long-term advancement of service improvement to State customers.

The IOWAccess *Seal of Approval* program will be developed by the Advisory Council and DP&S to recognize projects complying with this Plan. The certification process, criteria and administration will be defined and published by the Council.

In addition, many projects can also realize the benefits of collaborative information-sharing without going through the formal "Seal of Approval" program. For example, federal agency projects can leverage standards, project guidelines and specific domain competencies.

Plan Administration

Successful EC applications are built upon strong foundations consisting of public policy, legal and privacy issues and technical standards. Plans should be made with an awareness of possible changes in these elements. Business applications can proceed with reduced risk with such awareness.

The IOWAccess Advisory Council will address these issues and coordinate taking advantage of available experience. Among its other duties, the Council will review the inventory of potential EC projects to:

- Identify agencies where similar projects are underway or completed
- Obtain representation from these groups where possible
- Invite participation from those indicating plans or interests in such activities
- Obtain materials from active groups for reuse including work plans, funding documents, vendor information and other relative data

Activity in the following areas are planned:

A **Platform and Software Standards** group will be formed to review the various industry standards and adopt standards particular to Iowa EC. The **Electronic Commerce Business Plan Reference Document** provides a compendium of current applicable industry standards. The group will produce a list of minimum needs in the utility infrastructure area. Their responsibility will cover:

- Phone lines
- Cable connections and access
- Voice networks
- Data networks
- Mail systems
- Utility requirements for buildings and offices

It will also be their responsibility to periodically review and update the adopted standards.

A **Communications and Connectivity** group will provide needed focus on linking existing and envisioned systems. The group will work with participants to develop requirement lists for standardized systems. The format of this work can then be used by participants in their review of existing systems and future planning to bring operations into compliance.

Project-specific **Rapid Application Development (RAD) Teams** will be formed to address major business application needs. These teams are generally sponsored and formed at the "user agency" level. Functional "subject matter experts" from the user agency typically play a key role in the RAD methodology as do agency technical development staff. As opportunities arise, RAD teams may also be "seeded" with ITS technical experts and/or technical subject matter experts from other agencies, thus leveraging prior project experiences.

Organized along the lines of major EC application categories, these teams will work on selected applications to develop reusable solutions in a shortened time frame to achieve success and minimize duplicated/redundant efforts. The number of teams can vary with funding and availability of technical staff. Some might be on loan from multiple participant groups. Areas to concentrate on would be those indicated as major need areas, which would not be held back by legal issues. Areas to consider include:

- Web-site development
- Data warehousing
- Imaging and document management
- Connectivity (E-mail, LAN integration, ...)
- Information publishing

The concept here is to enable a shared pool of expertise in specific technologies that can be leveraged across multiple electronic commerce projects on a prioritized basis. It should be noted that RAD approaches are not required; other approaches to solutions delivery may be applicable as well.

Opportunity Registration

To obtain the full benefits of this Plan, users must have access to information about EC opportunities and activities throughout the state. The Division of Planning and Standards of ITS will serve as the centralized source of this information for the users. Information to be kept on projects include:

- Project name
- Application type
- Sponsoring agency
- Contact name and information (phone number, address, e-mail, fax)
- Project status
- Funding
- Vendor information
- Summary description of project

There is an opportunity to put this information on the Internet, so that data is available to planners throughout the state. This availability will reduce interaction demands upon the central contact.

Contact the Division of Planning & Standards of ITS to obtain more information.

Plan Updates/Revisions

The plan will be updated on a regular basis to keep it current and functional in a rapidly changing environment. The plan should be revised at *six-month periods*, or as necessary. Events that could trigger ad hoc revision would include:

- Legal environment/legislative changes
- Significant technology innovations and improvements
- Adoption of new standards by large national/international groups
- Introduction of new projects or initiatives
- User feedback and input

Recommendations, feedback, and suggestions for improvement should be sent to the IOWAccess Advisory Council.

Revisions would cover all areas of the plan, including:

- Member groups
- Meeting frequency
- Standards
- Best practices
- Prioritization of projects

The benefits of regular plan revision include:

- Enhanced user satisfaction and continued cooperation as a result of the recognition of latest developments
- Reduced downtime due to early/proactive notification of connectivity issues
- Knowledgeable customers who can leverage new methods and practices, brought about as a result of information sharing

The IOWAccess Advisory Council will define and publish procedures and guidelines for the submittal, review and approval of plan updates.

Opportunities and Applications

The Division of Planning and Standards (DP&S) of ITS should contact agencies that have indicated plans to do EC-related work in their "One to Five Year" planning. Project leadership should provide updated information to DP&S to populate the Electronic Commerce Project database. This information will be used to prioritize workgroup activities. It will also identify users with common interests and timetables for the purpose of offering collaborative working opportunities.

To effectively participate in developing and rolling out EC opportunities in their organizations, sponsoring units of government should:

- Conduct a review of their data, strategic plans and budget documents
- Identify internal EC opportunities
- Evaluate potential projects for business viability
- Follow guidance of the plan to exchange information with other parties
- Participate in the plan execution related to the opportunity, if viable

To effectively facilitate EC opportunities, ITS Planning & Standards Division should:

- Conduct a review of baseline infrastructure requirements
- Develop standards and recommendations for:
    1. End-user computing – standard PCs, operating systems and productivity suites
    2. Access and connectivity – review and standardize voice and data connectivity
    3. Security – review requirements for using Internet applications
    4. Integration functions – review requirements for function-specific infrastructures that can be leveraged across multiple applications. For example, electronic funds transfer (EFT) or electronic data interchange (EDI) frameworks can be shared components.
    5. Review the project opportunities database and initiate workgroup formation where shared interests can be identified
- Provide assistance in EC opportunity identification, planning and training

More detailed information can be found in the **Electronic Commerce Business Plan Reference Document** in the "Recommended Plan for Action" section.

Potential EC Opportunities

During the EC business planning process, a list of projects with high potential for EC application was tabulated. Many of these projects were identified as highly desirable by multiple sources. While enthusiastic customer demand doesn't guarantee executive management sponsorship and requisite funding, it does indicate fertile ground to exploit current technology.

The following list is a representative sampling of the high-interest opportunities, and is not all-inclusive. These opportunities have not been funded, and will have to complete the necessary budget approval processes to proceed. Electronic Commerce solutions opportunities include:

- Making statewide Back Child Support Owed information available on-line
- Making Driver Record History records available on-line
- Making Uniform Commercial Code (UCC) standards documentation available on-line
- Making Corporate Search information available on-line
- Making Property Assessment and Valuation information available on-line
- Making Lien Search information available on-line
- Making Criminal History information available on-line
- Making Citizens' Vital Statistics information available on-line
- Making Passport Applications available on-line
- Making Geographic Information Systems data available on-line
- Providing standard methods to access and present public information in a suitably secure manner (e.g., birth records)
- Standardizing web-site development tools
- Centralizing licensing and permit processes throughout state (business, professional, recreation/leisure, others)
- Organizing on-demand education
- Selecting a data warehouse/information Management pilot project
- Reviewing opportunities for consolidation of Purchasing and Procurement activities across agencies

Policy Issues

To take full advantage of EC opportunities in Iowa, several policy considerations must be addressed. These considerations may require legislative initiatives to enhance the ability to leverage Electronic Commerce technologies to transact business in Iowa. These include:

- Establishing the ability to rely upon digital signatures
- Establishing a state-wide digital Certification Authority (CA) infrastructure for process, regulation and key management
- Enabling access and delivery of pertinent public information (e.g., birth records)
- Providing the appropriate infrastructure to enable and encourage the adoption of electronic payments and collections, including the ability to assess nominal convenience fees for credit card use
- Establishing the ability to electronically authorize the release of information by the consumer; this could be enabled with digital signature technology
- Formulating and enforcing criminal penalties with regard to computer fraud

Current Projects/Intiatives

The following page contains a chart depicting projects either ongoing or planned at various government agencies. Ongoing current initiatives total 44 major projects as identified. In 1-to-5 years, there are 108 projects identified. The majority of these projects are categorized as: web-site development; internal process improvement; and implementing Information Management systems. The most popular EC solution areas identified were:

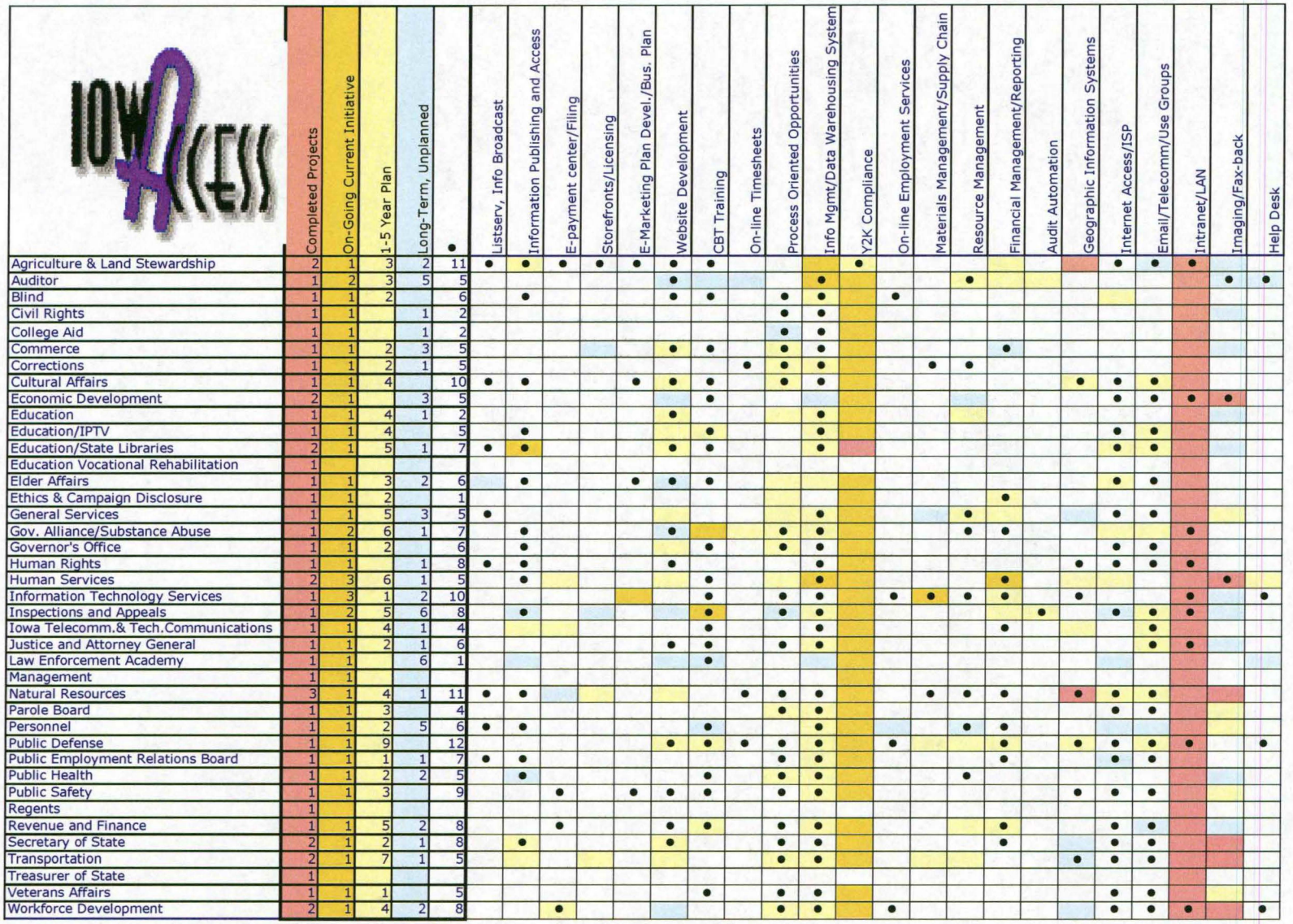
- Installation of IT Systems and data warehouses
- EC-enabling internal process (such as web-based time reporting)
- Installation of e-mail and ListServ processors
- Obtaining Internet Access via ISP's or dedicated lines
- Providing on-line training and help FAQs
- Publishing public information and providing access via web-enabled channels
- Developing agency web-sites – general information, mission, leadership, contact information
- Agency/enterprise electronic procurement

The chart helps identify the "critical needs" areas for staffing and technology skill sets. It lists the agencies on the vertical, and project types on the horizontal. For each agency project, its current timeline/status is color-coded (red: completed; orange: in process; yellow: initiative within 1-5 year plan; blue: longer-term, unplanned initiative). Items that contain bullets (•) are projects expressly stated in the IT Strategic Plan. Finally, the projects are counted and tabulated by timeline/status for each agency. For example, the chart shows that Intranet/LAN infrastructure projects have been completed for all agencies, and that Y2K compliance projects are in process for all but 5 agencies; note that only a small number of agencies expressly stated these projects.

Quick Strikes

Many of the projects identified as being most important to the agencies can be solved with little resource drain by ITS and other dedicated agency resources. A triage process can be used to designate "quick strike" opportunities. Such a process would be conducted to consider all new EC project applications and identify those that might quickly yield "low hanging fruit."

Economies of scale and collaborative development are available, and provide good targets for Rapid Application Development teams. After a pilot solution is installed, repetition and incremental growth can be very cost effective.



	Completed Projects	On-Going Current Initiative	1-5 Year Plan	Long-Term, Unplanned	●	Listserv, Info Broadcast	Information Publishing and Access	E-payment center/Filing	Storefronts/Licensing	E-Marketing Plan Devel./Bus. Plan	Website Development	CBT Training	On-line Timesheets	Process Oriented Opportunities	Info Mgmt/Data Warehousing System	Y2K Compliance	On-line Employment Services	Materials Management/Supply Chain	Resource Management	Financial Management/Reporting	Audit Automation	Geographic Information Systems	Internet Access/ISP	Email/Telecomm/Use Groups	Intranet/LAN	Imaging/Fax-back	Help Desk
Agriculture & Land Stewardship	2	1	3	2	11	●	●	●	●	●	●	●			●	●							●	●	●		
Auditor	1	2	3	5	5						●				●				●							●	●
Blind	1	1	2		6		●				●	●		●	●		●										
Civil Rights	1	1		1	2									●	●												
College Aid	1	1		1	2									●	●												
Commerce	1	1	2	3	5						●	●		●	●					●							
Corrections	1	1	2	1	5								●	●	●			●	●								
Cultural Affairs	1	1	4		10	●	●			●	●	●		●	●							●	●	●			
Economic Development	2	1		3	5							●											●	●	●	●	
Education	1	1	4	1	2						●				●												
Education/IPTV	1	1	4		5		●					●			●								●	●			
Education/State Libraries	2	1	5	1	7	●	●				●	●			●								●	●			
Education Vocational Rehabilitation	1																										
Elder Affairs	1	1	3	2	6		●			●	●	●											●	●			
Ethics & Campaign Disclosure	1	1	2		1															●							
General Services	1	1	5	3	5	●									●				●				●	●			
Gov. Alliance/Substance Abuse	1	2	6	1	7		●				●			●	●				●	●					●		
Governor's Office	1	1	2		6		●					●		●	●								●	●			
Human Rights	1	1		1	8	●	●				●				●						●		●	●	●		
Human Services	2	3	6	1	5		●					●			●					●					●		
Information Technology Services	1	3	1	2	10							●		●	●		●	●	●	●		●			●		●
Inspections and Appeals	1	2	5	6	8		●					●		●	●						●		●	●	●		
Iowa Telecomm.& Tech.Communications	1	1	4	1	4							●			●					●				●			
Justice and Attorney General	1	1	2	1	6						●	●		●	●									●	●		
Law Enforcement Academy	1	1		6	1							●															
Management	1	1																									
Natural Resources	3	1	4	1	11	●	●						●	●	●			●	●	●		●	●	●			
Parole Board	1	1	3		4									●	●								●	●			
Personnel	1	1	2	5	6	●	●					●			●				●	●							
Public Defense	1	1	9		12						●	●	●	●	●	●				●		●	●	●	●		●
Public Employment Relations Board	1	1	1	1	7	●	●							●	●					●			●	●			
Public Health	1	1	2	2	5		●					●		●	●				●								
Public Safety	1	1	3		9			●		●	●	●		●	●							●	●	●			
Regents	1																										
Revenue and Finance	1	1	5	2	8			●			●	●		●	●					●			●	●			
Secretary of State	2	1	2	1	8		●				●			●	●					●			●	●			
Transportation	2	1	7	1	5									●	●							●	●	●			
Treasurer of State	1																										
Veterans Affairs	1	1	1		5							●		●	●								●	●			
Workforce Development	2	1	4	2	8			●						●	●		●						●	●	●		●

Legend:

- ● Expressly stated in the Information Technology Business Plan
- Completed project
- On-going Current Initiative based upon the Information Technology Business Plan
- 1-5 year Initiative based upon the Information Technology Business Plan
- Long-Term, unplanned future Initiative based upon the Information Technology Business Plan

Project Prioritization

Projects will need prioritization within both sponsoring organizations and the external resource of the DP&S and appropriate work groups. Some of the possible criteria for ranking projects include:

- Mandated Project – is this an imperative requirement? Examples of imperatives include legal (e.g., tax or regulatory compliance) and technology (e.g., Y2K, obsolescence) driven requirements.
- Customer Demand – has the value proposition been articulated and validated with the appropriate constituencies?
- Funded Percentage – are funds approved or is additional funding needed?
- Security Impact – have security needs been assessed, and do they meet standards?
- Level of Collaboration – does this foster inter-governmental collaboration and information-sharing?
- Payback Period – what is the planned return on the investment in resources?
- Existing Infrastructure – does this solution utilize current infrastructure resources or adversely impact other applications?
- Resource Availability – are needed resources available, or will undertaking this project delay others?

OTHER CONSIDERATIONS

The top challenges to EC implementation throughout state and local governments are:

- Lack of internal development skills – where can qualified developer resources be readily obtained?
- Lack of standards and consistent application – how can successes on any one project be leveraged into subsequent work?
- Network bandwidth constraints – how quickly will the price/performance ratios for network access allow cost effect service delivery to all users?

Milestones

The current planning process has yielded an action plan defined by the following milestones. Predictably, the near-term milestones are more clearly focused than are those more than six-months in the future. As part of the plan maintenance process, the action plan milestones should be reviewed and updated as well.

December 31, 1998

- Approve Electronic Commerce Business Plan and formalize IOWAccess Advisory Council participation
- Create and staff operational personnel within ITS Planning & Standards Division
- Identify funding source(s)
- Create EC opportunity database
- Revise technical standards section
- Publicize EC efforts
- Offer training in EC opportunity recognition and planning
- Create standardized data mapping documents to identify information by components and location, and distribute to interested parties
- Provide initial recommendations for any legislation required to support EC activity
- Identify training needs statewide related to EC, and create a plan to deliver such training to internal and external customers

June 30, 1999

- Catalog project successes and savings
- Status of EC database reviewed for proactive opportunity targeting
- Review future staffing needs relative to experience gained & projects underway
- Recommend staffing & organizational needs, and obtain funding for fiscal year
- Document initial infrastructure needs vision
- Create work group to investigate statewide data plan to be used as foundation for possible workflow/process realignment
- Select target agencies to assist with existing data integration, interfaces and populating databases with historical data

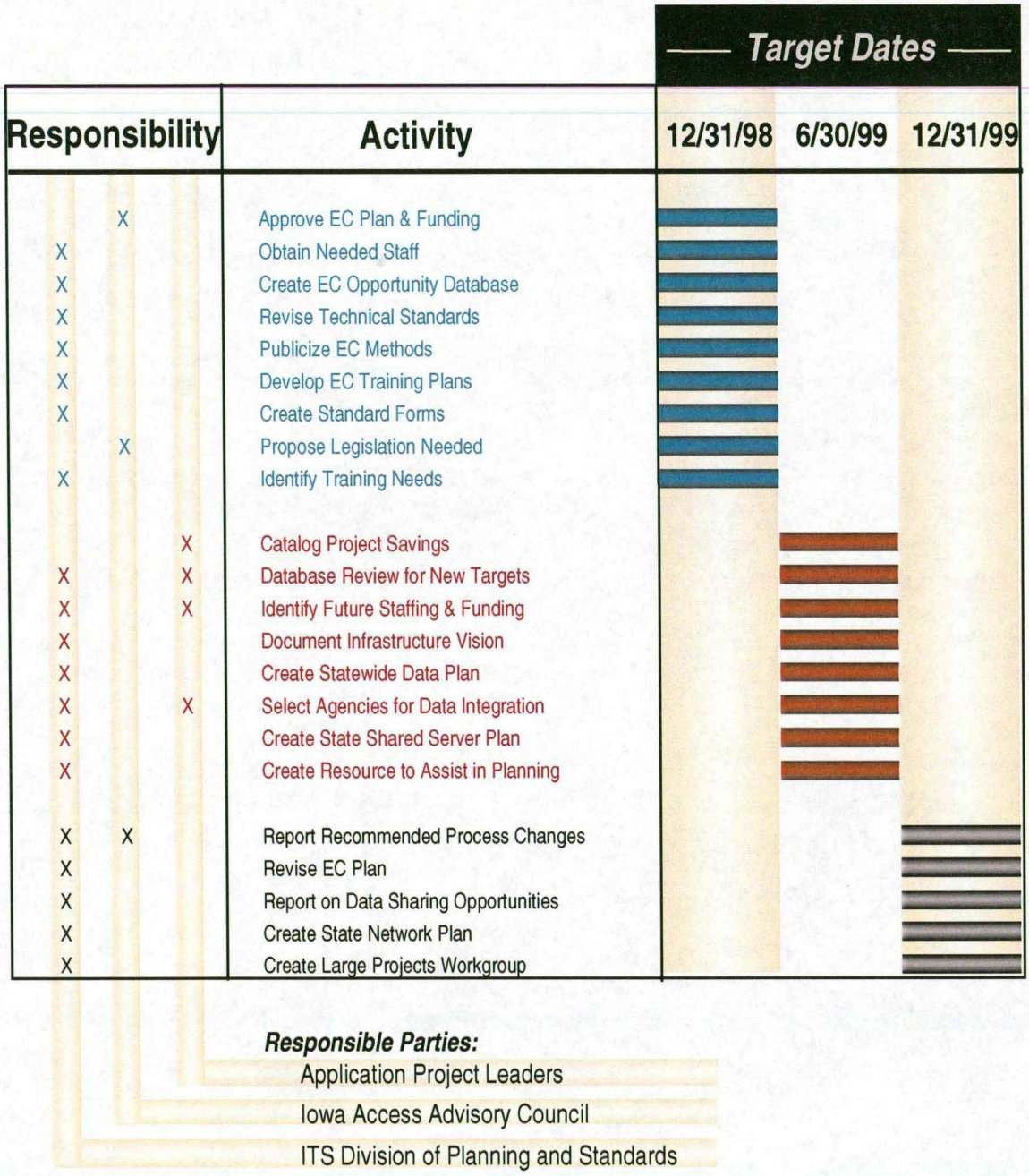
- Identify state servers that can be shared for similar applications within security needs and limitations, to reduce operational redundancies
- Create resource to assist participating entities in budget planning and business case justification development
- Review current plan and milestones and refine/adjust as necessary

December 31, 1999

- Create report with recommended changes to Iowa Government operations and processes based upon input from statewide data plan
- Revise EC Plan to reflect changes in needed systems planning and funding affected by proposed changes in Iowa Government operations
- Create a report explaining new data sharing opportunities based upon successful interfaces with existing data
- Create a state network plan identifying how to navigate and interact with state applications. Encourage increased interaction among other local governments and private enterprises by assisting in planning efforts through knowledge of state data locations
- Create workgroup to address large scale projects with large cost and payback, such as integrated supply chain management
- Review current plan and milestones and refine/adjust as necessary

Beyond 1999...

- Review current plan and milestones and refine/adjust, as necessary
- Assess EC program status to-date, and review solution focus areas, as necessary
- Focus EC efforts on new value opportunities, once the necessary technology imperatives (e.g., Year 2000 compliance) have been addressed



Responsible Parties:

Application Project Leaders

Iowa Access Advisory Council

ITS Division of Planning and Standards

Electronic Commerce Plan Components

Data Ownership

Agencies will retain ownership of all data supplied to or made available for external access through this plan. This includes the responsibility for assuring **Data Accuracy** and **Data Privacy** related to legal obligations. Security matters remain the responsibility of the agency providing the information, regardless of where it resides.

The project leaders and participating agencies should undertake an internal survey regarding their public data and its status as a public record. The results of this survey may be shared with others. Benefits of such a survey include understanding:

- Where is data stored?
- In what format is it kept?
- How is it collected?
- Who currently has access to it?
- Who needs access to it?
- What is the liability if this data is obtained or distributed to the wrong parties?

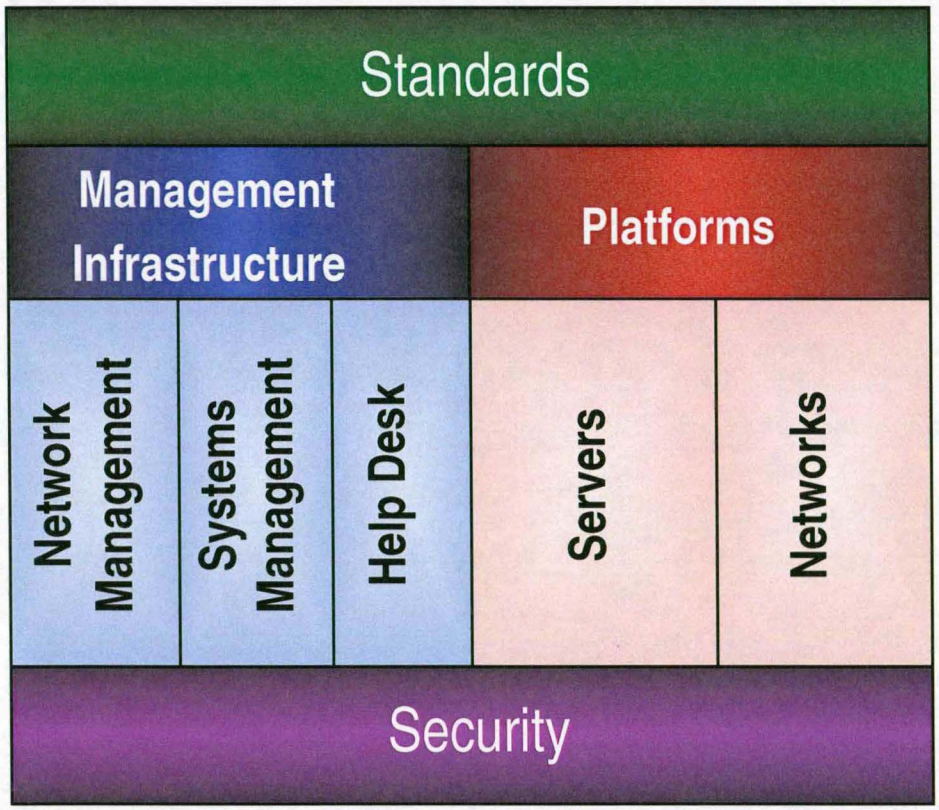
This information should be reviewed and refined on a regular basis. The survey information will be used to drive the formulation of the appropriate access controls and security measures to meet the requirements.

Such a survey will not impose undue hardship. Over 75% of the agencies surveyed had expressly stated interest in Information Management and/or Data Warehouse applications. This information is required for such applications.

EC Standards

A standards-based architecture will facilitate systems interoperability and help leverage shared resources. The architecture elements defined here include; Standards, Infrastructure Management, Technology Platforms and Security.

These elements are depicted in the diagram below.



Standards

In addition to the requirements outlined below, there are several external standards to be referenced. Additional discussion on these can be found in the **Electronic Commerce Business Plan Reference Document** Appendix ("Technology Guidelines") and include:

- Year 2000 compliance
- FIPS (Federal Information Processing Standards)
- NASIRE (National Association of State Information Resource Executives)
- ITAA (Information Technology Association of America)
- IEEE (Institute of Electrical and Electronics Engineers, Inc.)

In addition to these standards, several specific requirements and guidelines are outlined in this plan. These include:

- Infrastructure Management Guidelines – tools and processes required to manage an enterprise Electronic Commerce infrastructure. These include network management, systems management and helpdesk applications.
- Technology Platforms – core technology components, with focus on servers (hardware, systems software and application infrastructure), networks and Internet/EC specific components including web servers, Application Development and Systems Integration
- Security – components include encryption, access control and authentication

These guidelines are summarized below, with additional detail from the Reference Document indicated where applicable.

Infrastructure Management Guidelines

Specific requirements for infrastructure management tools are outlined below. Additional details can be found in the **Electronic Commerce Business Plan Reference Document** Appendix ("Technology Guidelines")

Network Management Platform Requirements

- Capable of managing TCP/IP and SNA networks on multiple platforms
- Capable of managing legacy and future-state networks
- Based on industry-standard protocols (SNMP, RMON)
- Auto-discovery of network, including remote components
- Compatibility with wide range of third-party products
- Base network management functions
- Ease of use

Systems Management Platform Requirements

- Job control
- Asset management
- Software distribution
- Event logging
- Integration with network management tools

Help Desk Requirements

- Ticket handling (Routing & Escalation)
- Ticket notification
- Knowledge management/Q&A repository

Platform Guidelines

Specific requirements for servers and networks are outlined below. Several server categories are reviewed – enterprise servers, data warehouse servers, and workgroup servers. Additional details can be found in the **Electronic Commerce Business Plan Reference Document** Appendix ("Technology Guidelines"), with principles and additional context in Section 1.4 ("Best Practices and Standards"). For each type, server operating systems and hardware platforms are reviewed, with specific requirements for each type, and current "best-of-breed" alternatives.

Enterprise Server Platform Requirements

- Reliability and availability
- Security
- Compatibility
- Scalability and performance
- Proven technology
- Market leading vendors
- Ease of use and administration
- Standards-based

Data Warehouse Server Platform Requirements

- Reliability
- Compatibility
- Scalability and performance
- Proven technology
- Separate from enterprise database host
- Standards-based
- Interoperability

Workgroup Server Platform Requirements

- Reliability and availability
- Security
- Compatibility
- Scalability and performance
- Proven technology
- Market leading vendors
- Ease of use and administration
- Standards-based
- Interoperability

Network Backbone Requirements

- Reliability
- Performance
- Scalability
- Proven technology
- Appropriate for task
- Standards-based
- Interoperability

Security Guidelines

Specific security guidelines are outlined below. More detailed information can be found in Section 1.4 ("Best Practices and Standards") of the **Electronic Commerce Business Plan Reference Document.**

Firewalls

- Virus scanning at the firewall
- Intrusion detection software at the firewall
- Java and ActiveX filtering at the firewall
- Standards-based

Authentication

- Two factor access security method for Iowa Government personnel
- Username and password authentication for public when security requires
- Standards-based

Encryption

- Standards-based system using 128-bit keys for intergovernmental transmissions via public access network
- Adoption of Federal Government standards if appropriate (such as Fortezza)
- SSL (Secure Sockets Layer) for transmission of sensitive information to and from the Public

EC Best Practices

Best practices are practices, methods or processes which can be objectively defined as:

- Those that produce superior results (additional 25% or higher results than normal)
- Those that are clearly a new or innovative use of manpower or technology
- Those that are recognized by at least three difference references as such
- Those that have received an external award for this practice
- Those deemed so by an organization's customers or suppliers
- Those deemed so by an industry expert
- Those which have a patent for the practice
- Those which lead to exceptional performance

The objective for converting to best practices is to maximize return on investment. Gains of 25% should be the minimum threshold, under which the cost of creating and introducing change may not be worth the investment, given alternative projects and uses of resources available.

Electronic Commerce projects can return their cost within 8 to 18 months for service-oriented sites, and within 12 to 24 months for product-oriented sites.

Qualitative benefits may also be realized, including:

- Customer and vendor relationships
- Goodwill
- Brand recognition and marketing in competitive situations like tourism and travel

EC Best Practices take advantage of many factors when planned at the enterprise level. Sharing resources benefits users in a variety of ways.

Hardware – Reducing the number of servers & increasing their power.

- Fewer total personnel are required to monitor activity
- Licensing costs can be shared and reduced
- Security considerations and practices will provide savings
- More regular backup practices

Competencies – Selecting the internal resource skills needed.

- Enterprise level can select skill sets which are reusable and where the quantity of work can let compensation and other factors remain competitive
- Preferred vendors can be selected and negotiated with on larger total base of business, obtaining volume savings

Conclusion

This Electronic Commerce Business Plan lays out the framework for doing business electronically within the State of Iowa. It offers the opportunity to retain operational autonomy within an organization, while allowing the benefits of collaboration and connectivity between partners.

The benefits of the plan will encourage self-compliance. This compliance is based upon the basic need to share information between business partners. By not following the plan, the opportunities to share data, eliminate redundancies and leverage scarce resources are reduced.

The plan described here was developed from a variety of sources. Information used to create this plan is contained in the Electronic Commerce Business Plan Reference Document and its appendices. The user can also use the Electronic Commerce Business Plan Application Workbook to evaluate individual EC opportunities.

The structure for the Electronic Commerce Business Plan Reference Document is as follows:

Executive Summary

The Business Plan
- Introduction
- Environment
- Iowa Electronic Commerce Opportunities
- Best Practices and Standards
- Plan for Action – Organization and Operations
- Plan for Action – Opportunities
- Plan Maintenance Process

EC Opportunity Identification and Evaluation
- Identification
- Electronic Commerce Opportunity Identification
- Methods of Evaluation
- Prioritization
- EC Opportunity Process

Appendices
- Acronyms & Glossary
- Bibliography and Reference Material
- Case Study
- TCO-ROI Example
- Technology Guidelines

For more information, or to obtain copies of these documents, contact the ITS Division of Planning and Standards.

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