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Electronic Commerce Business Plan Application Workbook

June 1998

Electronic Commerce

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Electronic Commerce Business Plan
Application Workbook

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Introduction

The purpose of this **Electronic Commerce Business Plan Application Workbook** is to guide the reader through a standard process in evaluating Electronic Commerce Systems Application Opportunities within Iowa.

The intended audience for this workbook is management and business planners. These people may be in government (state, municipal or federal), private industry or other groups. The level of detail presented here is targeted to this audience, and is not the thorough review that technical planners would require for a more rigorous technical application analysis. This document is intended to be a framework to present potential application information in a consistent format, to improve communication between business and IT planners, and leveraging the time of persons involved in information gathering.

Reference will be made throughout this workbook to the **Electronic Commerce Business Plan** and the **Electronic Commerce Business Plan Reference Document**. These documents are available from the Information Technology Services (ITS) Division of Planning and Standards.

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The **Electronic Commerce Business Plan** is the framework for identifying, evaluating and creating Electronic Commerce (**EC**) opportunities within the State of Iowa. The process described in the 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.

The **Electronic Commerce Business Plan Reference Document**, companion document to the plan, goes into further technical detail on many of the issues affecting Electronic Commerce in Iowa.

By using this workbook, the user can do a quick analysis of potential EC business application opportunities available to their business entity. The results of such an analysis will allow others to offer more accurate and specific assistance in exploring an opportunity, better leveraging available time.

Iowa EC Process Overview

The **EC Business Plan** puts in place a process for assisting customer groups in pursuing EC opportunities. The ITS Division of Planning and Standards is charged with offering assistance and guidance for those interested in EC opportunities. The management of various EC Standards documents is one of their tasks. Collection and distribution of EC related activities within the state is another. Bringing those interested in the same activities together along with those having experience in applications serves to leverage time and experience to the users of that plan, thus delivering the EC application to users in less time at lower cost.

The process of conceiving, planning, designing, developing, testing, and implementing EC applications begins with the user collecting and organizing standard project-related data and presenting it using the forms contained in this **Application Workbook**. Subsequently:

- The user submits the completed set of documents to the ITS Department of Planning and Standards for review.
- The ITS Department of Planning and Standards will respond with specific recommendations, which could include:
  - Identification of potential collaboration opportunities
  - Guidance on technology standards
  - References to potential resources that could facilitate the implementation of the proposed application. These include similar projects and relevant technical and/or functional subject matter expertise.
- The user obtains necessary budget allocation and approval. The information collected in advance will also be used in preparing the business case justification for the budget process.
- The user proceeds with the project delivery using some suitable systems development lifecycle methodology such as Rapid Application Development. Depending on funding allocation, projects may be staffed internally or with collaborative work teams to leverage prior experience.

Application Workbook Forms

The **Application Workbook** contains forms to assist the user in collecting and organizing EC opportunity data. The forms collect information which:

- Identifies the business goals the planned EC application will address in order to document why this project should be undertaken
- Describes the planned application in summary to provide a brief overview of the project in a standardized format

- Lists what must be in place to support the operation of this proposed solution
- Lists high level operational concepts to be considered, assessing levels of confidentiality, performance, customization capabilities and other requirements
- Lists required data information to provide direction on where the data is created and how it can be supplied to the solution
- Lists required hardware information to describe essential components required which must be provided to operate the application
- Lists required software information to describe essential components required which must be provided to operate the application
- Lists required human resource information to describe essential skills which will be needed to implement the application
- Documents contacts made during the collection of this data or afterwards to make future follow-up gathering and contact more efficient
- Performs a quick Return on Investment (ROI) analysis to measure the value of investing needed funds in this proposed application solution for comparative purposes
- Performs a brief Total Cost of Ownership (TCO) analysis to measure sustainability of the proposed application solution

During this information gathering phase, the ITS Division of Planning and Standards can be called upon to supply information related to contacts who have experience in similar applications or mutual interests in this type of EC solution. These contacts can be very helpful in guiding the user through analysis of their project.

At the end of this information-gathering phase, the user has a document describing their potential application in a standard format. This information will be of assistance in matching the user's needs with potential partners or collaborators. The advance collection of basic information in a standardized format speeds the project analysis by professional staff responsible for facilitating EC delivery. Having this information should aid in the decision to proceed.

As a result of completing this workbook, the user will have organized supporting material for an executive summary of the project. The user will also be in a more informed position to decide on proceeding with the proposed project. If the project is to go forward, the user knows where assistance will likely be needed, sources from which it may be available, and information to bring others quickly up to speed on the project.

Application Business Purpose

Every application must have a business purpose. The objective identification of why an application is to be undertaken is important to obtaining sponsorship. The sponsorship will affect the ability to obtain funds and the cooperation needed to successfully implement an integrated EC solution in an organization.

Use the following form to identify and describe the key objectives of this proposed application. These objectives may later be assigned dollar values, which can be used for comparison with other projects competing for resources and sponsorship. Objectives may include:

- Goals – an articulation of the value enhancement, whether this be new products or services, new or expanded distribution channels, operational cost and efficiency improvements, etc
- Competitive Positioning -- how this project leverages strengths and opportunities, and addresses or mitigates threats and weaknesses
- Opportunities to Improve Business Relationships – to link and integrate with customers and suppliers leading to improved joint operations and increase dependency on continued business

Application Business Purpose

What is/are the business goal(s) of the proposed application?

- ☐ Delivery of a new product/service
- ☐ New or improved delivery channels for current product
- ☐ Obtain efficiency/productivity gains
- ☐ Reach new customers
- ☐ Provide faster or more accurate business information
- ☐ Replacement of current process/system
- ☐ Other - please describe:

_____
_____
_____

This application is considered a "best practice" because:

- ☐ It increases performance/efficiency by 25% or more
- ☐ It is an innovative use of new technology or manpower
- ☐ It reduces the number of steps in current process(es)
- ☐ It is deemed so by customers or an outside authority
- ☐ Other reasons - please describe:

_____
_____
_____

Does this application address the competitive environment?

- ☐ It pre-empts possible competition
- ☐ It matches competitors (other states, private enterprise,etc...)
- ☐ It leverages strengths in one area to enhance another product or service
- ☐ It reduces a perceived weakness in an existing product or service
- ☐ Other - please describe:

_____
_____
_____

Does this application strengthen existing business relationships?

- ☐ Leverages increased quantities with preferred vendors
- ☐ Leverages increased client purchasing quantities
- ☐ Leverages data or process interaction/automation with business partners
- ☐ Other - please describe:

_____
_____
_____

Application Description

The diagram following on page 9 illustrates the broad range of possible Electronic Commerce solutions that are prevalent today. It gives the user a better sense of the opportunity space that EC can help enable.

In viewing the overall EC solution spectrum, it offers insight by solution area (6) as to representative applications. The table below outlines some of these potential opportunities, and gives some examples of government applications.

EC Solution Areas	Sample Governmental Applications
Electronic Financial Services • On-line Banking • Payment Systems • Cash Management Systems	• Enterprise-wide Financial Systems • Centralized or Distributed Payroll Systems • Tax and Other Revenue Collection Systems
Electronic Transaction Processing • Electronic Funds Transfer (EFT) • Electronic Data Interchange (EDI) • Forms Processing • On-line Transaction Processing	• Electronic Payments/Disbursements Infrastructure • Fund Transfer Systems • Electronic Benefits Transfers (EBT) -- Welfare, Food Stamps • Government Procurement • Health Care/Insurance Transactions
On-line Services and Information Publishing • Knowledge Management • Content Design	• Distribution of Government Publications and Forms • Sharing of Standards and Conventions • Sharing of Facts and Statistics (Census, Labor, Sector-Specific Metrics) • Virtual Libraries
Electronic Storefronts • Catalog Shopping • Retail and Wholesale Merchandising • Distribution • On-line Catalogs • Kiosks	• On-line Permit and Licensing (Professional, Business, Leisure/Recreational) • On-line Public Auctions/Bids • Job Opportunity Postings • Training Opportunity Postings • Tourism-related Sales (Tickets and Permits) • Common Access to Supplier Catalogs
Entertainment and Education • Distance Learning • Content On Demand • Interactive, On-line Gaming • Programming Systems	• Distance Learning • Virtual Classrooms • School Records Transfers and Queries • School and PTA Communications • Auctioning and Bidding • On-line Gaming and/or Wagering
Extended Enterprises • Customer Relationship Management • Virtual Supply Chain • Collaborative Workgroups • Alternative Distribution Channels • Sales Force Automation • Information Delivery	• Electronic Procurement • On-line Bid/Quote Processing • Self-Serve Government • Virtual Town Hall • Cross Agency Collaboration (Corrections, Licensing and Permits)

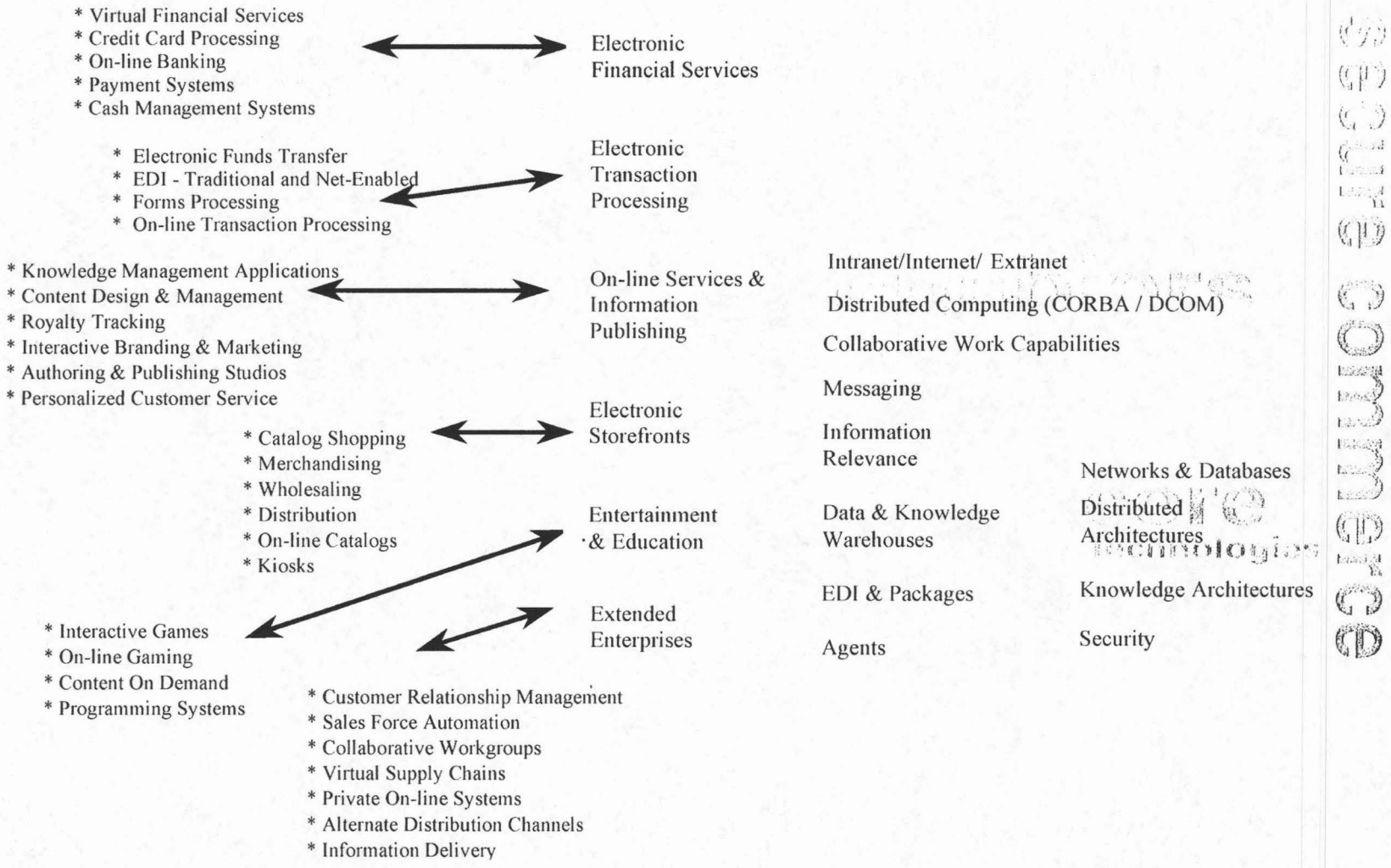
Each of these solutions and solution areas involves one or more core and enabling technologies. These collectively create the distributed networked computing environment that Electronic Commerce solutions operate in. This illustrates some of the technological dependencies that might drive project prioritization. For example, to implement an on-line permit system (essentially a catalog shopping type application), it may require various core and enabling infrastructure such as Data & Knowledge Warehouses, Messaging, and Secure networked access to data.

Finally, the concept of secure commerce is reinforced. Security is itself an enabling component that, properly applied, allows these solutions and their benefits to be realized.

The availability of supporting secure commerce infrastructure is a key consideration in implementing these EC solutions. While some components may be in place, it is necessary to assess the robustness or required service levels of these underlying components. For example, adequate bandwidth might be in place, but the use of shared networks, less-secure segments, dollar amounts of transactions and other factors must be considered for the ability to support a given application's requirements.

Use the Application Description form to compile a description of the planned application.

Electronic Commerce



Listing of Electronic Commerce Application Categories

Application Description

Information for EC Project Registration

Project Name : _____

Application Type : _____

Sponsoring Agency : _____

Contact :

Name : _____

Title : _____

Phone : ( ) - _____ or ( ) - _____

Fax : ( ) - _____ or ( ) - _____

Email : _____ or _____

Project Status : _____

Funding Status : _____

Vendor Information : _____

Project Name/Title : _____

Summary Description of Project :

_____

_____

_____

_____

_____

_____

Application Description

Other Project Information

What is the purpose or business driver of the proposed EC application ?

- ☐ Required by law
- ☐ Required by necessity - (Year 2000, system replacement, etc...)
- ☐ Required by customer - (Contractual obligation,...)
- ☐ Other reasons - please describe:

_____
_____
_____

Is there a *time window* of opportunity related to funding and/or installation ?

- ☐ Specific fiscal year to accomplish
- ☐ Specific funding deadline
- ☐ Collaborative party requirements
- ☐ Specific dependence upon other projects being in place to support
- ☐ Other - please describe:

_____
_____
_____

The time window is : _____ - _____

What type of EC application type is this ?

- ☐ Web site development
- ☐ Data/knowledge warehousing
- ☐ Imaging and document management
- ☐ Connectivity - Email, LAN integration,...
- ☐ Connectivity - internet/intranet access
- ☐ Information publishing
- ☐ Other - please describe:

_____
_____
_____
_____

Application Needs

Business applications require resources to implement. Information about the required resources must be gathered to assess the availability and competitive standing of the project.

Resources required can be found in numerous sources. They can belong to the business, to other partners/collaborators or can be obtained from outside entities. The outside parties would be contractors who would either supply individual resources to work within the client organization, or contractual providers of part or all of the business solution.

Information may be available from others who have investigated or implemented similar solutions. You may choose to contact the ITS Office of Planning and Standards for referral to others at this time, or you may defer that choice until later in the evaluation process.

Using the following forms:

- List application needs for feasibility
- List required data information
- List required hardware information
- List required software information
- List required human resource information
- Document contacts made during the collection of this data or after

Application Needs

Data

Where does the data needed come from ?

- ☐ Paper documents - external
- ☐ Paper documents - internal
- ☐ Internal LAN/WAN
- ☐ External LAN/WAN
- ☐ Magnetic Media
- ☐ Telephone - manual entry
- ☐ Dial-in updates
- ☐ Other - please describe:

_____
_____
_____

Who controls the information flow and timing ?

- ☐ Internal personnel _____
- ☐ Vendors _____
- ☐ Clients _____
- ☐ Other reasons - please describe:

_____
_____
_____

Where is possible redundant data located which might be eliminated through connectivity ?

- ☐ Internal applications - mainframe _____
- ☐ Internal applications - network _____
- ☐ Internal applications - desktop _____
- ☐ External applications - customers _____
- ☐ External applications - vendors _____
- ☐ Other - please describe:

_____
_____
_____

Application Needs

Hardware

What will the application be based upon?

Location - which unit(s)

- ☐ Mainframe _____
- ☐ LAN _____
- ☐ Intranet _____
- ☐ Internet _____
- ☐ Extranet _____
- ☐ Other - please describe:

_____

_____

_____

What is required?

Describe (new or existing ?)

- ☐ PC's _____
- ☐ Dedicated terminals _____
- ☐ Other computers _____
- ☐ Telephones (specific models?) _____
- ☐ Other equipment - please describe:

_____

_____

_____

_____

_____

Application Needs

Software

What application software would be required to run this project ?

Name & licensing information :

- ☐ Packaged _____
- ☐ Customized packaged _____
- ☐ Off the shelf "storeware" _____
- ☐ Other - please describe:

_____

_____

_____

What other software would be required to operate this application ?

Name & licensing information :

- ☐ Operating system(s) _____
- ☐ Vendors _____
- ☐ Clients _____
- ☐ Other - please describe:

_____

_____

_____

Application Needs

Human Resources

What skills are required for this project ?

	Estimated FTE's	Source I-Internal C-Contract P-Partner	Number Month
☐ Project Manager			
☐ Business Analysts			
☐ Systems Engineers			
☐ Data Specialists			
☐ Application Designers			
☐ Application Developers			
☐ Subject Matter Experts			
☐ Trainers			
☐ System/Network Oper. Mgmt			
☐ Other - please describe:			

What would be the effect of assigning these resources to this application project ?

☐ No effect, assign available internal resources
☐ Delay, reassignment of personnel from other work/projects
☐ Monetary, external contracted resources
☐ Other - please describe:

Application Needs

Contacts/Potential Collaborators

Contact :

Name : _____ Date : _____

Title : _____

Agency/Business : _____

Address : _____

City : _____ Zip : _____

Phone : ( ) - _____ or ( ) - _____

Fax : ( ) - _____ or ( ) - _____

Email : _____ or _____

Application/Project Name : _____

Experiences/Comments : _____

_____

_____

_____

_____

Contact :

Name : _____ Date : _____

Title : _____

Agency/Business : _____

Address : _____

City : _____ Zip : _____

Phone : ( ) - _____ or ( ) - _____

Fax : ( ) - _____ or ( ) - _____

Email : _____ or _____

Application/Project Name : _____

Experiences/Comments : _____

_____

_____

_____

_____

Application Needs

Contacts/Potential Collaborators

Contact :

Name : _____ **Date :** _____
Title : _____
Agency/Business : _____
Address : _____
City : _____ **Zip :** _____

Phone : ( ) - _____ **or** ( ) - _____
Fax : ( ) - _____ **or** ( ) - _____
Email : _____ **or** _____

Application/Project Name : _____

Experiences/Comments : _____

Contact :

Name : _____ **Date :** _____
Title : _____
Agency/Business : _____
Address : _____
City : _____ **Zip :** _____

Phone : ( ) - _____ **or** ( ) - _____
Fax : ( ) - _____ **or** ( ) - _____
Email : _____ **or** _____

Application/Project Name : _____

Experiences/Comments : _____

Application Needs

Contacts/Potential Collaborators

Contact :

Name : _____ **Date :** _____

Title : _____

Agency/Business : _____

Address : _____

City : _____ **Zip :** _____

Phone : ( ) - _____ **or** ( ) - _____

Fax : ( ) - _____ **or** ( ) - _____

Email : _____ **or** _____

Application/Project Name : _____

Experiences/Comments : _____

_____

_____

_____

_____

Contact :

Name : _____ **Date :** _____

Title : _____

Agency/Business : _____

Address : _____

City : _____ **Zip :** _____

Phone : ( ) - _____ **or** ( ) - _____

Fax : ( ) - _____ **or** ( ) - _____

Email : _____ **or** _____

Application/Project Name : _____

Experiences/Comments : _____

_____

_____

_____

_____

Return on Investment

Applications and other uses of resources must justify the investment in their implementation. While the many intangibles involved make quantification subjective, other projects under consideration may be viewed under the same light.

There are also qualitative returns, which should be listed as such to give as much information as possible to decision-makers.

Use the following form to perform a basic Return on Investment (ROI) analysis. This information provides an estimate of the value of implementing the application relative to its cost.

Return on Investment

Estimated revenues, fees or cost reductions from application implementation :

	Describe:	Annual
Transaction fees		
Transaction fees		
Contract fees		
Contract fees		
Expense reductions		
Expense reductions		
Personnel savings		
Personnel savings		
Other		

Total Revenues : **(A)** $ _____

Estimated costs to implement :

	Describe:	Annual
Hardware costs		
Application software costs		
Operating software costs		
Communications fees		
Utilities		
Testing		
Training		
Professional services		
Moving		
Security planning		
Consumables		
Other		

Total Implementation Costs : **(B)** $ _____

Implementation ROI (A/B) _____ %

Total Cost of Ownership

Beyond the initial investment to implement an electronic commerce solution, there are many costs incurred to continue ongoing operations. Various categories of expenses are estimated, resulting in a document describing the budgetary and operational commitments called for.

In addition to this "one pass" total cost of ownership (TCO) analysis, the technique is often useful by doing several iterations involving changes or service levels. Viewing the implications of varying degrees of application complexity, service levels to customers and technology options at this early stage can be used to focus efforts on a solution with reduced risks while meeting stated objectives.

For a more detailed example of an in-depth TCO computation, please refer to the **Electronic Commerce Business Plan Reference Document** appendices. There is also software available from Microsoft® through the ITS Division of Planning and Standards if you are interested in an extensive model.

Total Cost of Ownership (TCO)

Costs:	Current Costs	Estimated New Costs
Capital Expenditures		
Hardware		
Software		
Network		
Desktop		
Server		
Management & Administration		
Security		
Legal		
Policy monitoring		
Audit		
Installation		
Capacity planning		
Upgrades		
Physical moves		
Support		
Help desk		
Training		
Travel		
Maintenance & support		
Operations (labor & fees)		
Installation		
Software distribution		
Development		
Application		
Content		
Testing		
Documentation		
Customization		
Communications		
Leased lines		
Direct server access		
Allocated overhead - access		
Total cost of ownership	**$**	**$**
Estimated Annual Savings		**$**

Next Steps

The next set of considerations would be in the area of readiness assessment – are we ready to proceed with this electronic commerce application? The three areas to consider include: business readiness, user readiness, and IT readiness.

Business readiness has to do with the relationships and processes with your customers, suppliers, other business partners, and other constituencies that this application might impact. Electronic commerce applications afford significant opportunities to improve existing business models, or invent altogether new ones. Assessing your overall strategic, operational and cultural readiness for these changes is a necessary step.

User readiness has to do with your users' ability to effectively use these applications. There are several change management considerations that ought to be considered, and include:

- Process change – are we introducing radical amounts of change into the "process"? For example, introducing new workflows, or altering existing ones? Would we need to mitigate the impact of these changes with the appropriate training programs? Understand how we need to balance our solution objectives of being "easy to use" versus "easy to learn". For example, the use of unattended kiosks might require additional "easy to learn" design features, whereas a higher-output transaction processing application would lend itself more to "ease of use"
- Technology change – are we introducing new technologies, or new tools? This includes any specific platforms (e.g., introducing a new Windows system).

IT readiness has to do with your IT development and support organizations and their ability to implement and operationally deploy and support these solutions. These include their familiarity with building and supporting these applications, which could include the following areas:

- Web-based systems
- Content management
- Financial transactions
- Electronic Payment acceptance and disbursement
- Electronic Data Interchange (EDI)
- Integration with back-end legacy systems

Having completed the above review of the proposed electronic commerce application, you should be in a position to answer the following questions:

	Yes	No
Are we ready to proceed with this application?	____	____
Do we have a committed project sponsor?	____	____
Do we have a limited number of criteria identified to measure the project a success?	____	____
Do we have a reasonable estimate of the cost to implement?	____	____
Do we have a reasonable estimate of the cost of ownership?	____	____

All of these answers should be yes. If not, further review is called for to clarify these answers. Particular attention should be placed upon whether the sponsoring agency is ready and prepared to undertake the project. Do they have personnel with experience in the areas needed, or the knowledge to work with outside resources with such experience? For every area where outside resources are needed, allowance must be made for bi-directional knowledge transfer and project management overhead. This type of time investment is often overlooked or underestimated.

Then the following questions should be answered:

	Yes	No
Do we need a partner or partners for this?	____	____
Do we need outside funding?	____	____
Do we need external resources or cooperation?	____	____

If these answers are all no, then the appropriate internal group(s) should be assembled to proceed with the project. All internal policies and procedures should be followed, as well as the EC Business Plan to promote flexible and open solutions. If there are any Yes answers, then the appropriate contacts need to be made and collaboration with the outside parties and their existing procedures must be considered. Presenting the information collected in this process can be a good stepping-stone to obtaining their cooperation.

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