Motion 11484

Proposed No. 2002-0305.1   **Sponsors** Hague and Constantine

1   A MOTION approving the E-Commerce Management

2   Plan.

3

4

5   WHEREAS, in the 2001 budget, the county council requested that the executive

6 develop an e-commerce management plan to describe the proposed roll-out of e-

7 commerce services, including a description of pilot operations, objectives, and

8 preparations for extending e-commerce beyond the pilot phase, and

9   WHEREAS, the executive has determined that the county is able to use the state

10 of Washington's digital government infrastructure to support its e-commerce activities

11 and thereby avoid the time and costs of developing, procuring and staffing a redundant

12 infrastructure, and

13   WHEREAS, the executive has determined that it is important to continue work to

14 lay the foundation for providing standardized e-commerce services to the public to enable

15 the county and the public to obtain future efficiencies, to avoid risks that follow from

16 agencies using different methods, and to take advantage of opportunities to use

17 technology to improve service delivery, and

18   WHEREAS, the council has reviewed the E-Commerce Management Plan, and

19   WHEREAS, the council understands that the proposed pilot program will be used

20 to develop a deeper and broader knowledge of the best ways the county could use to

21 implement standardized e-commerce services, and

22   WHEREAS, the council understands that, before the roll-out of production

23 applications, both an updated e-commerce management plan, which will detail the

24 resources required for roll-out and deployment, and a set of e-commerce policies and

25 guidelines will be published to establish a uniform countywide approach that ensures

26 security and privacy issues are addressed appropriately;

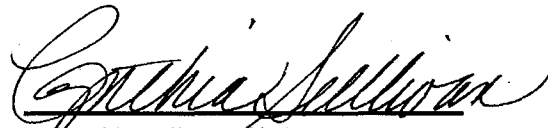27   NOW, THEREFORE, BE IT MOVED by the Council of King County:

28   The report, E-Commerce Management Plan, Attachment A to this motion, is
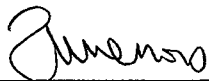
29   hereby approved and adopted.

30

Motion 11484 was introduced on 7/8/2002 and passed by the Metropolitan King County
Council on 7/29/2002, by the following vote:

> Yes: 11 - Ms. Sullivan, Ms. Edmonds, Mr. von Reichbauer, Ms. Lambert, Mr.
> Phillips, Mr. Pelz, Mr. Constantine, Mr. Pullen, Mr. Gossett, Ms. Hague and
> Ms. Patterson
> No: 0
> Excused: 2 - Mr. McKenna and Mr. Irons

KING COUNTY COUNCIL
KING COUNTY, WASHINGTON

Cynthia Sullivan, Chair

ATTEST:

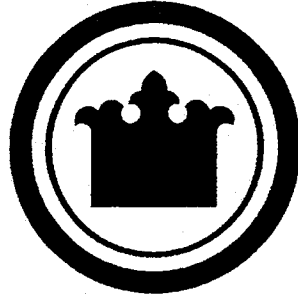Anne Noris, Clerk of the Council

Attachments   A. King County E-Commerce Management Plan

King County

E-Commerce Management Plan

Developed by Office of Information Resource Management

Version 1.0
May 20, 2002

Table of Contents

Context for this Plan

This plan is a response to the King County Council's request for a county-wide e-commerce management plan. It discusses the approach King County is taking to lay the foundation for enterprise-wide e-commerce services to the public. Work on this effort has been underway since November 2001.

In 2nd quarter 2003, this management plan will be updated based on information learned during the e-commerce pilot program. Concrete information from the county's pilot experiences with e-commerce will be the basis for planning the deployment of future county e-commerce services.

In May 2001, District Court began offering an online payment service through OfficialPayments.com. During the roll-out deployment phase of this plan, this service will be assessed for its compliance with county-wide e-commerce policies and standards, which will be developed during the pilot phase of this plan.
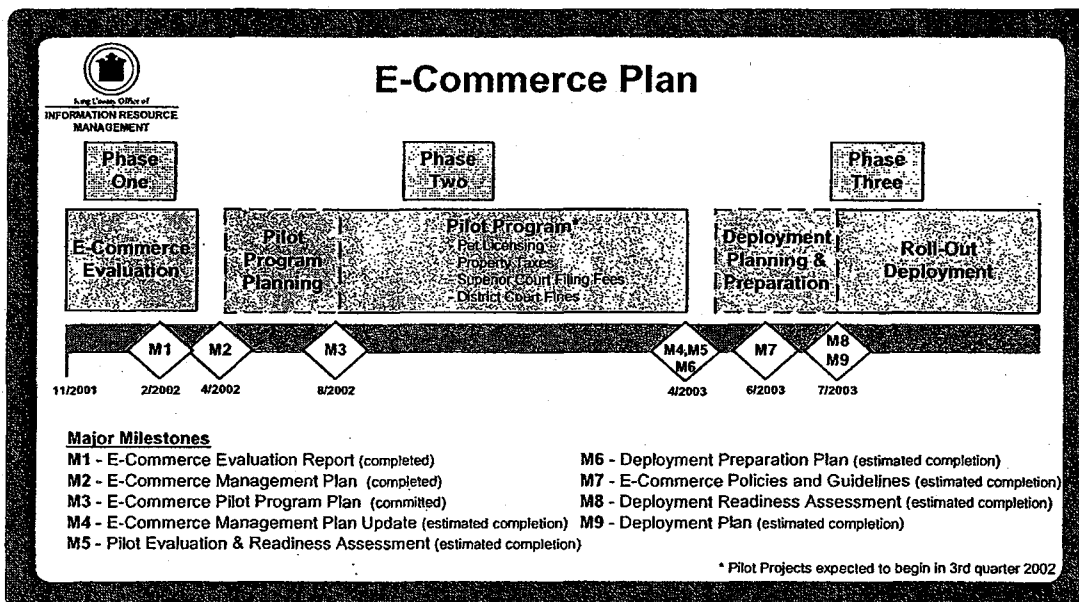
Executive Summary

This plan guides King County in its efforts to deploy e-commerce services to the public in 2003 and provides:

* ❖ A standardized capability for county agencies to use for their e-commerce initiatives

* ❖ Uniform, coherent, and easy-to-use e-commerce services for the public

The plan has three phases with major milestones identified for each phase, as shown in the diagram below:

Phase One **E-Commerce Evaluation**	Completed in January 2002. ☑ Evaluated whether the county could use the state's digital government infrastructure for its e-commerce services ☑ Found no road blocks to pilot projects using the state's infrastructure
Phase Two **Pilot Program**	Expected to begin in 3rd quarter 2002 and be completed in 2003. ☑ Goal is to work out technology and business issues related to establishing e-commerce as a utility for agency use ☑ Begins with planning that leads into pilot projects for pet licensing, property tax payments, court filing fees, and court fine payments ☑ Anticipated costs is $600,000
Phase Three **Roll-Out Deployment**	Expected to begin in 2nd quarter 2003. ☑ Makes final plans and preparations to ready the e-commerce environment and opens it for deployment of e-commerce services

E-Commerce Plan

Major Milestones

M1 - E-Commerce Evaluation Report (completed)
M2 - E-Commerce Management Plan (completed)
M3 - E-Commerce Pilot Program Plan (committed)
M4 - E-Commerce Management Plan Update (estimated completion)
M5 - Pilot Evaluation & Readiness Assessment (estimated completion)

M6 - Deployment Preparation Plan (estimated completion)
M7 - E-Commerce Policies and Guidelines (estimated completion)
M8 - Deployment Readiness Assessment (estimated completion)
M9 - Deployment Plan (estimated completion)

* Pilot Projects expected to begin in 3rd quarter 2002

1. Background

1.1 E-Government Phases

In August 2000, Gartner[1] defined four phases of e-government development, indicating that most e-government development at that time was occurring in the third phase, called Transaction:

Presence	Web page on the Internet providing static information
Interaction	Search capabilities, downloads, and linkages to Web sites
Transaction	Online self-service applications
Transformation	Redefinition of government service delivery
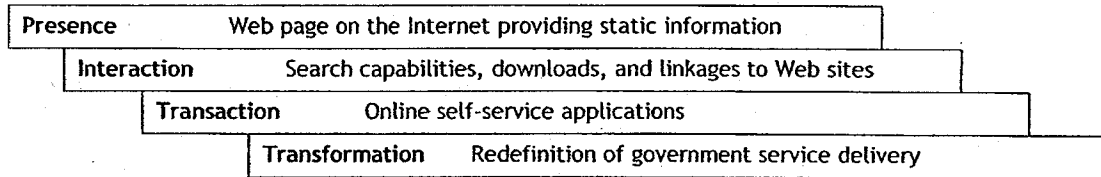
King County's e-government initiative has evolved in a somewhat similar manner:

- In 1994 the King County web site was established (presence).

- In 1995 the county began to offer online purchase of Public Health Vital Statistics birth and death records through an external vendor solution (transaction).

- By 1997 the web site began to evolve as a portal that is continuing today (interaction).

- In 2000 the county added Transit bus pass sales through another vendor solution external to the King County web (transaction).

- In 2001 Licensing began offering online vehicle registration renewals (car tabs) through a standard statewide system developed and supported by the State of Washington's Department of Licensing (transaction).

1.2 E-Commerce – A Component of E-Government

To move fully into the transaction phase of e-government and build the foundation for a transformation of government service delivery, e-commerce is required. Simply stated, e-commerce is the technology behind the Internet payment button that enables one to pay online and in real time. According to the Center for Digital Government in April 2000[2], "citizens no longer want to stand 'in line' when they can do business 'online'."

- ☑ E-commerce is accepted and expected by the public

- ☑ E-commerce technology and business processes are well-understood

- ☑ E-commerce is a common service readily available through commercial Internet sites

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[1] "The Four Phases of E-Government in the State and Local Government Market," Gartner Group, August 28, 2000.
[2] "Building the Foundation for Digital Government," Center for Digital Government, April 2000.

1.3 Demand for E-Commerce

The public is demanding e-commerce capabilities.

❖ In a July 2000 national survey for NIC[3], an e-government solutions provider, the public said they want to apply for permits and business licenses online (39%), file state taxes online (34%), make park reservations online (31%), pay parking tickets and violations online (28%), and pay other taxes online (27%).

❖ According to a survey conducted by the City of Seattle in November 2000[4], respondents who visited cityofseattle.net said they want to apply for permits and licenses online (76%), reserve a park facility online (73%), and pay fees and taxes online (63%).

❖ During the summer of 2001, the Washington State Department of Licensing (DOL)[5] surveyed Washington residents and found that almost one-quarter of all respondents (23.5%) would <u>most</u> prefer to use the Internet to do their business with DOL. This rate was slightly higher for Western Washington urban residents (27%). Of the services that DOL currently offers or could offer on the Internet, respondents were most interested in renewing car and boat tabs online (68.8%) which is currently available, and least interested in online licensing of a commercial transport vehicle (34.8%).

The perception is that:

▪ The public can gain efficiencies by using the Internet for their government business any time during the day or night, from home, work, or some place else.

▪ Government can gain efficiencies when routine business occurs online, not in line, allowing staff to focus on those things requiring individual attention.

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[3] "Benchmarking the eGovernment Revolution: Year 2000 Report on Citizen and Business Demand," NIC Report prepared by the Momentum Research Group of Cunningham Communication, July 26, 2000.
[4] "Residential Technology Survey: Summary of Results," City of Seattle Information Technology Indicators Project, April 2001.
[5] "Department of Licensing Customer Satisfaction 2001 Survey," State of Washington Department of Licensing, summer 2001.

2. Overview

2.1 E-Commerce Vision

The public has the option, through secure and efficient means using the Internet, to conduct routine business with King County for the purchase of products and services.

2.2 E-Commerce Goals

To achieve the county's e-commerce vision, several business goals have been identified:

- Make routine county services and products available to the public at all times and from any place through the Internet

- Change the way the county does business internally and with the public
    - ☑ Improve customer service
    - ☑ Improve internal operating efficiencies

- Provide agencies with a standard, county-wide approach for their e-commerce activities

- Use resources wisely to maximize the county's investment in e-commerce

2.3 Guiding Principles

A number of principles are guiding the county's e-commerce effort:

- Leverage work others have already done
    - ☑ Utilize the thinking and experience of other government agencies and private sector businesses with regards to e-commerce
    - ☑ Adopt tools and best practices that make sense for King County
    - ☑ Be collaborative

- Focus enterprise-wide

- Learn, do, and refine
    - ☑ Experiment with new technologies and business processes
    - ☑ Gain experience with pilot applications before fully rolling-out e-commerce to the public
    - ☑ Be innovative and results oriented

- Present management with clear decision points

- Ensure cost-effective solutions
    - ☑ Make e-commerce simple and efficient to use

- ☑ Make e-commerce no more costly for the public and the county than conventional means

- ☑ Have e-commerce be available to everyone

- ☑ Safeguard privacy and provide security

- Transform the way the county does business, not just replicate existing processes

3. E-Commerce Plan

King County's approach to e-commerce is broken down into three phases as shown in the diagram below.

- It begins in phase one with an evaluation of e-commerce options, focusing on the infrastructure and tools adopted by the State of Washington.

- In phase two, several pilot projects are planned and then undertaken based on the knowledge and experience gained during the evaluation of e-commerce options.

- Pilot projects lay the technology and business groundwork for phase three, roll-out deployment. Early in this phase preparations are made to ready the environment based on lessons learned from the pilot projects, and deployment plans are made.

- This leads the way for county agencies to deploy e-commerce services to the public using a standard e-commerce infrastructure, policy framework, and set of tools.
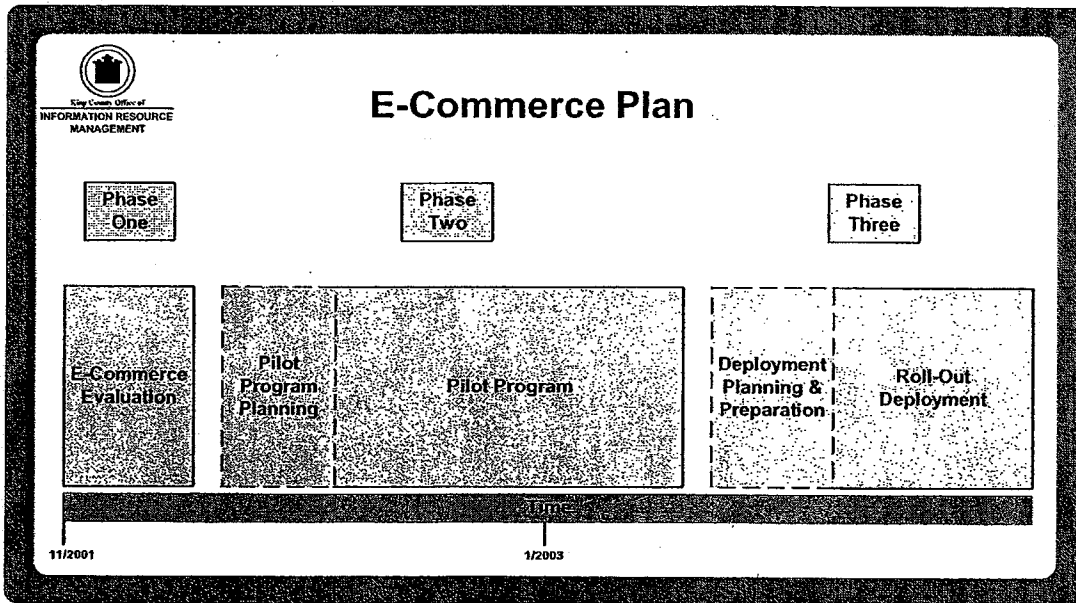
3.1 The E-Commerce Roadmap

King County has a plan for implementing e-commerce services that will steadily move the county towards its e-commerce vision of providing the public an option to use online services for routine business with the county.

Past

Public Health Vital Record Sales e-commerce service begun
Transit Bus Pass Sales e-commerce service begun
Licensing Vehicle Registration Renewals e-commerce service begun

2002

E-Commerce Evaluation Report - completed
E-Commerce Management Plan - completed
E-Commerce Pilot Program Plan
E-Commerce Pilot Projects

2003

E-Commerce Pilot Projects (continue)
E-Commerce Management Plan Update
Pilot Evaluation and Readiness Assessment
E-Commerce Deployment Preparation Plan
E-Commerce Policies and Guidelines
E-Commerce Deployment Readiness Assessment
E-Commerce Deployment Plan
Deploy E-Commerce Services from Pilot Program
Assess Proposed E-Commerce Services
Bring Existing E-Commerce Services into Compliance
E-Commerce Pilot Project Planning for Government-to-
   Business Services & Government-to-Government
   Services

2004

E-Commerce Roll-Outs for Government-
   to-Citizen Services
E-Commerce Pilot Projects for
   Government-to-Business Services &
   Government-to-Government
   Services
E-Commerce Roll-Outs for Government-
   to-Business Services &
   Government-to-Government
   Services

3.2 Critical Success Factors

For this e-commerce plan to succeed at King County, there must be:

- Executive level commitment and agency management support for a unified approach to e-commerce
    - ☑ Willingness to innovate with business processes
    - ☑ Willingness to experiment with new technologies and learn by doing
    - ☑ Allocation of financial and staff resources for e-commerce efforts
- Availability of the technology infrastructure and support services at a reasonable cost
- Communication and collaboration among county agencies, other government agencies, and private business partners actively involved in e-commerce efforts

- Identification and resolution of problems prior to roll-out of e-commerce services to the public

- Reliance on the work of others and the quality of their processes and outcomes for solutions selected for e-commerce

- Correct sequencing, priorities, and oversight for the work to be done

- Active management of situations that could adversely affect the deployment of e-commerce services

3.3 Objectives of the E-Commerce Plan

The expected accomplishments of the e-commerce plan can be broken down into four areas:

1. Investigate the State of Washington's digital government infrastructure

   ☑ Evaluate using the State of Washington's technology infrastructure for e-commerce at the county

   ☑ Evaluate the e-commerce tools that the State of Washington has implemented for their usefulness to the county

   ☑ Investigate the State of Washington's Digital Academy for e-commerce courses, techniques, and templates

   ☑ Research statutes, policies, standards, and guidelines supporting e-commerce at the State of Washington

2. Develop an e-commerce foundation

   ☑ Establish the infrastructure for e-commerce

   ☑ Adopt the State of Washington's e-commerce tools, policies, and standards that would be useful to the county

   ☑ Implement a policy and management framework to facilitate e-commerce

   ☑ Provide a suite of e-commerce tools and standards

3. Manage risks

   ☑ Lay the foundation with a series of pilot projects to gain hands-on experience with the technology and business processes in a small-scale, controlled environment

   ☑ Use best practices and strategic partnerships with other public agencies and private businesses

4. Deliver e-commerce services

   ☑ Create an environment where e-commerce services are deployed using a standard methodology

   ☑ Ensure e-commerce transactions are secure and private

   ☑ Protect personal financial data from public disclosure

   ☑ Build accessible, fast, reliable, and cost-effective e-commerce services

4. E-Commerce Evaluation

Work on the e-commerce evaluation began in November 2001. During this first phase of the e-commerce plan, use of the state's digital government infrastructure was evaluated. The evaluation report, completed in February 2002, is available at http://www.metrokc.gov/oirm/projects/ecommerce.htm. The other major deliverable of this phase is this report, the E-Commerce Management Plan.
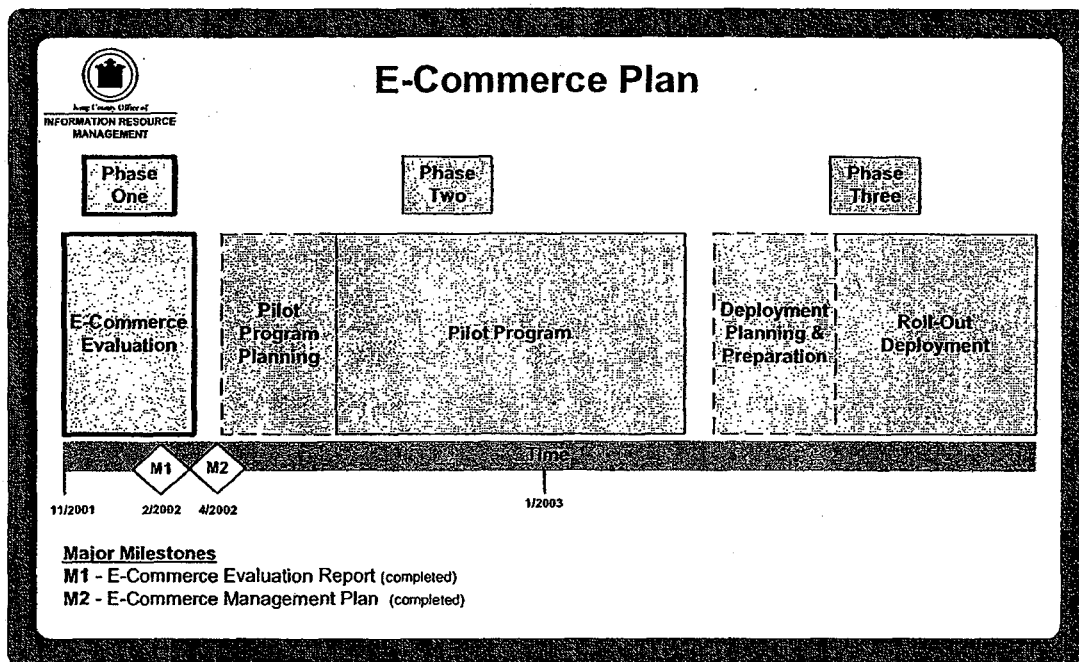
4.1 Background

Several years ago the State of Washington recognized digital government as a core competence of public service. With support from the Governor and the State Legislature, the state began building a digital government community they call Digital Washington. Since then, the state has won several national awards for their efforts and has become a recognized national leader for digital government.

Just like a real community, in Digital Washington the state has:

- Built the technical infrastructure (similar to roads and underground utilities that provide the groundwork for a community's development)

- Established policies (comparable to laws and building codes that govern a community)

- Selected standard e-commerce tools (analogous to asking businesses to come to a community to provide common services to its residents)

The evaluation looked at the state's infrastructure, policies, and tools to determine whether these could be used by the county in providing e-commerce services to the public. Appendix A identifies the e-commerce services that the state is currently providing to people doing business with the state online.

The focus of the evaluation was to identify any roadblocks in the way of using the state's infrastructure for e-commerce pilot projects. Appendix B has a more detailed discussion of these e-commerce components, called the E-Commerce Foundation.

As a reasonableness check, rough estimates were obtained for (1) buying e-commerce infrastructure services from an external service provider and (2) building the e-commerce infrastructure internally. Both alternatives were considered not viable for the county at this time due to their high costs. Appendix C has a summary discussion of this analysis.

4.2 Objectives

The overriding objective of this evaluation was to quickly, inexpensively, and with limited risk to the county, answer the question: "Could King County use the state's digital government infrastructure for its e-commerce services to the public?"

- Determine if the tools the state uses for e-commerce services could be used by the county, including:
  - ☑ Internet payment processing
  - ☑ User authentication
  - ☑ Electronic forms
  - ☑ User education and application standards
- Use the state as a model to identify the policy framework needed at the county to support e-commerce, including:
  - ☑ Electronic payments
  - ☑ Security and privacy
  - ☑ Digital certificates
  - ☑ Public disclosure of personal financial information
- Understand the hardware, network, and security infrastructure used by the state's e-commerce services

4.3 Approach

The approach used in the evaluation was a combination of learning by doing, observation, and research. The following was accomplished:

- Evaluate e-commerce tools used by the state
  - ☑ Built a demonstration pet licensing application that accepted credit card payments over the Internet using the state's infrastructure
    - ➤ Processed payments through an Internet credit card payment processor

> Worked through business issues of the Electronic Payment ordinance (KCC 4.100) and the state statute on acceptance of credit cards (RCW 36.29.190)

> Documented the state's technical infrastructure and identified concerns

☑ Reviewed the state's approach and contract for user authentication services, including:

> Digital signatures

> Digital certificates

☑ Reviewed the state's contract and use of electronic forms on the Internet

☑ Reviewed the state's user education program and the information repository resulting from these courses

> Digital Academy

> ATOM (Applications Template and Outfitting Model)

- Review the state's statutes, policies, standards, and guidelines that support e-commerce

☑ Aligned the state's policy framework with the county's policies

☑ Identified policies needed by the county for e-commerce

- Identify components of the state's e-commerce computing environment and its security

☑ Created a schematic showing all the elements in this environment

4.4 Findings

The following is a summary of the significant findings for each component of the evaluation. More details about the evaluation and its findings are available at http://www.metrokc.gov/oirm/projects/ecommerce.htm.

E-Commerce Tools

- Electronic Payments

☑ Internet credit card payments worked successfully using the state's digital government infrastructure

- User Authentication

☑ When there is a need to authenticate users through digital certificates, Washington State's certificate policy is available for adoption

☑ County can purchase digital certificates using the state's master contract with Digital Signature Trust Company

- Electronic Forms

☑ County can use the state's master contract with Shana Corporation to purchase licenses for Informed, an electronic forms product

☑   Informed will not work for every computer or network connection the public may use on the Internet

- User Education and Application Standards

    ☑   State's Digital Academy is willing to include the county in its courses or develop similar courses to meet the county's needs

No road blocks to pilot projects for e-commerce tools.

Policy Framework

- County has many policies similar to the state for supporting e-commerce. Administrative policies for pilot projects are needed for electronic payments, and for security and privacy.

No road blocks to pilot projects regarding the policy framework.

Technical Infrastructure

- State provides a secure Windows 2000 environment for e-commerce with 24/7 operations and Help Desk support, and technicians on-call to provide additional support. Applications development and application support are not provided.

- Need to implement a secure access method for automatic retrieval of transaction information from the state.

- Management and reliability issues of the Inter-Governmental Network need to be addressed if it is to be used with e-commerce services.

No road blocks to pilot projects in use of the state's technical infrastructure.

5. E-Commerce Pilot Program

In the second phase, several e-commerce pilot projects will be conducted. The pilot program's primary goal is to work through the technology and business issues related to establishing e-commerce as a utility that county agencies would use when implementing their e-commerce services to the public. The pilot program provides an opportunity to learn from the experience of developing and managing e-commerce services made available to a small segment of the public in a controlled manner to:

- Learn by doing, resolve business and technology issues, and refine the results

- Understand the keys to success in rolling out e-commerce services to the public

- Create a realistic preparation plan prior to deployment of e-commerce
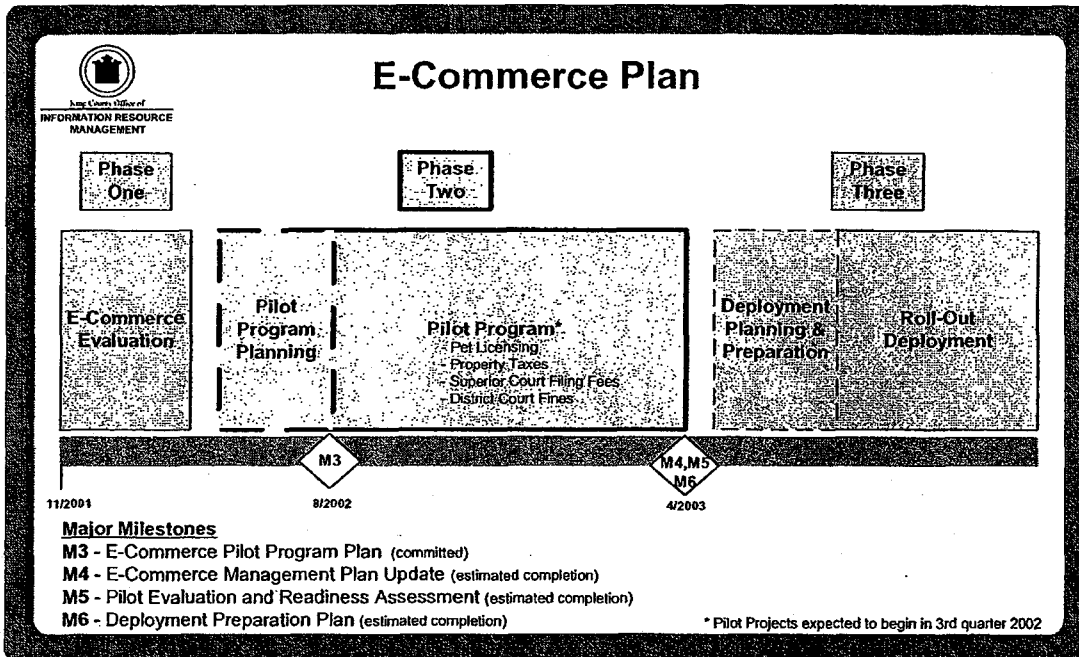
5.1 Major Milestones and Deliverables

As shown in the diagram above, several major milestones have been identified for the pilot phase. Criteria have been established for these milestones and their deliverables:

- Pilot Program Plan

  ☑ Describe in detail how the program will be managed, its scope, schedule, and budget.

- E-Commerce Management Plan update

  ☑ Include information gained from the pilot projects and more concrete plans for deployment preparation and deployment.

- Pilot Evaluation and Readiness Assessment

  ☑ Identify what was found during the pilot program and analyze the county's readiness to move to the roll-out deployment phase, the next phase in the e-commerce plan.

  ☑ Focus on the infrastructure, security, business processes, policies, standards, vendor relationships, outstanding issues, risks, and lessons learned from the pilot projects.

  ☑ In order to move beyond the pilot phase, there should be no major roadblocks identified.

- Deployment Preparation Plan

  ☑ Address those things that must be done to ready the environment for county agencies to begin using the e-commerce infrastructure, policies, and tools in their development and deployment of e-commerce services.

  ☑ Include a realistic budget for deployment planning and preparation and for deployment of the enterprise-wide e-commerce infrastructure.   )

5.2 Objectives

The pilot program will:

✓ Develop Internet applications to provide e-commerce services that enable a small segment of the public to transact business with the county using the Internet at any time

✓ Follow a standard approach for each pilot application that leverages what the State of Washington has already done for e-commerce, including hardware, software tools, and a common look and feel for the applications

✓ Experiment with sending and receiving information between King County's systems and the county's e-commerce services residing at the state

✓ Change business processes to facilitate and support both online and traditional service delivery methods and gain greater efficiencies

✓ Develop draft policies, standards, and guidelines that support e-commerce ·

✓ Develop a draft business case model for e-commerce services

✓ Identify and begin to establish vendor relationships for services needed for e-commerce services deployed to the public

✓ Understand the public's support requirements and build a realistic support model

✓ Develop a plan to manage the risks inherent in accepting payments for e-commerce services

5.3 Approach

To meet the pilot program's objectives, the following things will be done:

- Establish vendor and support agreements for pilot projects
  - ☑ Finalize agreement with the state for electronic payment hosting services
  - ☑ Establish merchant accounts
  - ☑ Use the state's contract for Internet checks
  - ☑ Identify and establish other vendor contracts and service provider agreements as needed
  - ☑ Work through vendor support issues

- Define technology approach
  - ☑ Periodically and automatically retrieve e-commerce information for entry into King County's existing systems
  - ☑ Find information in King County's systems needed for completing an online purchase
  - ☑ Update King County's systems with e-commerce information when a payment has been completed online
  - ☑ Work through business and technology issues for data transfer

- Document business processes
  - ☑ Document current processes
  - ☑ Develop conceptual model of how e-commerce service could work for a business unit
  - ☑ Define new business processes with key performance indicators for measuring the effectiveness of these processes

- Define requirements
  - ☑ Identify the public's requirements for the e-commerce services to be piloted
  - ☑ Define business requirements
  - ☑ Define technical requirements

- Define draft policies, standards, and guidelines for pilot projects
  - ☑ Align business and technical requirements across pilot projects to find commonalities for standardization
  - ☑ Identify policies, standards, and guidelines needed for e-commerce services deployed to the public
  - ☑ Create a standard application template that reflects best practices and lessons learned, including a common look and feel for e-commerce
  - ☑ Establish policies, standards, and guidelines (including privacy, security, acceptance of electronic payments, credit card processing, and Internet checks) through the Business Management Council, Technology Management Board, Finance, and the Prosecuting Attorney's Office

    ☑   Develop a business case model and working template for e-commerce services

- Design, develop, test, and implement applications, and refine business processes for:

    ☑   E-commerce services with credit card/debit card payment method

    ☑   E-commerce services with Internet check payment method

    ☑   E-commerce services needing information from King County systems

    ☑   E-commerce services needing to update King County systems as payments are completed online

- Manage pilot operations

    ☑   Identify and resolve support issues for e-commerce services

    ☑   Identify e-commerce risks and develop strategies to monitor and mitigate these risks

- Evaluate pilots and assess readiness for deployment of e-commerce services

- Develop a plan for deployment preparation

5.4 Timeline and Schedule

The pilot program is scheduled to begin in August 2002 and end in April 2003.

#	Task Name	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
								2003				
1	Establish vendor and support agreements		■									
2	Define technology approach		■									
3	Document business processes for all pilots		■									
4	Define requirements for all pilots		■									
5	Draft and refine e-commerce policies, standards, & guidelines											
6	District Court Fines pilot											
6.1	Design, develop, test and implement application			■								
6.2	Manage pilot operations											
7	Pet Licenses pilot											
7.1	Design, develop, test and implement application											
7.1.1	Step 1			■								
7.1.2	Step 2 - Integration with LARS											
7.2	Manage pilot operations											
8	Property Taxes pilot											
8.1	Design, develop, test and implement application											
8.1.1	Step 1					■						
8.1.2	Step 2 - Integration with Property Tax system											
8.2	Manage pilot operations											
9	Superior Court Filing Fees pilot											
9.1	Design, develop, test and implement application											
9.1.1	Step 1						■					
9.1.2	Step 2 - Integration with State Courts & Accounting systems											
9.2	Manage pilot operations											
10	Evaluate pilots and assess deployment readiness											
11	Develop deployment preparation plan											

5.5 Pilot Projects

Four projects have been identified for the e-commerce pilot program:

- District Court Fines
- Pet Licensing
- Property Tax Payments
- Superior Court Filing Fees

Each one provides unique business and technical challenges, although there are similarities among the pilot applications. At a minimum, they all will include:

- Credit card payments, including convenience fees to cover transaction costs
- Online confirmation of payment
- Routine retrieval of purchase and/or payment information that can be used by staff to manually update the county's existing systems

Pilot projects will be completed in two steps, enabling simpler functions to be available for use before proceeding to more complex integration with King County's existing systems.

District Court Fines

Step One (only)	➤	Allow the public to enter information about their traffic tickets and criminal citations and pay for them online using a credit card

Pet Licenses

Step One	➤	Allow new pet licenses to be purchased online with a credit card
Step Two	➤	Add the option for customers to find their existing pet licenses online and renew them by paying for these renewals with a credit card
	➤	Add an update to King County's licensing system (LARS) with information about the pet license(s) just purchased online

Property Taxes

Step One	➤	Add an option to King County's existing Internet search for property tax information that enables the taxpayer to pay the amount due with a credit card
	➤	Add Internet checks as another payment method for property taxes
Step Two	➤	Add a nightly update to the county's property system for all taxes paid online that day

<u>Superior Court Filing Fees</u>

Step One	➤	Allow payment for one or more online filings using credit card or Internet check
Step Two	➤	Add an update to the state court system and the county's accounting system to automatically split the payment and record it

5.6   Success Measures

The pilot program will be deemed successful when:

- Technology issues have been resolved

- Pilot e-commerce services worked successfully when a selected group of the public used these online services

- Business processes have been established that efficiently support both online and traditional service delivery modes

5.7   Issues and Risks

There are issues to be resolved and risks to be managed during the pilot program.

5.7.1   Issues

- King County Code and state law have imposed restrictions on the county's acceptance of credit cards for e-commerce payments

    This issue will be worked out in a number of ways:

    ☑   Establish the electronic payments acceptance policy

    ☑   Investigate Internet checks as an alternative payment method for services with potentially high transaction fees, such as property taxes

    ☑   Develop a standard template for the analysis of absorbing e-commerce transaction fees

    ☑   Develop an accepted approach for convenience fee calculations

    ☑   Define standard methods for electronic payment processing

    ☑   Establish a method to track transaction costs of e-commerce electronic payments for possible inclusion in the Executive's annual report to Council

    ☑   Define how program costs that are not directly related to a specific e-commerce service will be allocated to the proper fund

- Using the state's digital government infrastructure for pilot projects presents technical and support concerns

    The following things will be done to resolve this issue:

    ☑   Establish mutually agreeable service parameters

☑ Work with the state to achieve a standard approach for passing information between new e-commerce services and existing systems at the county in real time and in periodic updates

- Access to the state's data communications network during pilot projects requires adherence to the state's Information Technology policies, standards, and guidelines, if these are more rigorous than what the county has in place

The pilot program will address this issue by doing the following:

☑ Establish security and privacy policies that are at least as rigorous as the state's policies

☑ Address discrepancies between similar state and county policies when the state policy is more rigorous

5.7.2 Risks

There are a number of risks that could have an adverse effect on the pilot program and need to be actively managed, including:

- Technologies that may not perform as expected causing delays or additional costs

- Fraudulent transactions that could occur resulting in charge-backs to the county

- Reluctance by members of the public selected to participate in the pilot program that diminishes the information to be learned during the program

- Less efficient business operations during the pilots causing delay in other work

5.8 Resource Requirements for Pilot Projects

The pilot program will require technical and business staff resources to accomplish its objectives.

Core Team

☑ Program Manager

☑ Project/Business Lead (one for each pilot)

☑ Business Analyst (one for each pilot)

☑ Programmer (one or more for each pilot)

Additional Resources

☑ Network/Security Analyst

☑ Finance - Cash Management and Accounting

☑ Legacy System Programmer(s)

☑ Prosecuting Attorney's Office

5.9 Anticipated Costs and Funding

5.9.1 Anticipated Costs for Pilot Program

Non-Recurring Costs

Resource Costs	$460,000
One Time Costs	$20,000
Total Non-Recurring Costs	**$480,000**
Cumulative Recurring Costs*	**$20,000**
Contingency (20%)	**$100,000**
Total Estimated Costs for Pilots	**$600,000**

*Assumes 9 month period

5.9.2 Anticipated Costs for Pilot Program by Pilot Project

|	
Pet Licensing	$145,000
Property Taxes	$140,000
Superior Court Filing Fees	$140,000
District Court Fines	$50,000
Program Costs	$125,000
Total Estimated Costs for Pilots	**$600,000**

(includes 20% contingency)

5.9.3 Funding Source

The Project Review Board will review alternative funding sources for the pilot projects and make a recommendation to the Executive.

6. E-Commerce Roll-Out Deployment

The third phase, roll-out deployment, will begin with final preparations being made to ready the e-commerce environment for full deployment. Later in this phase, agencies desiring to provide e-commerce services to the public will develop and deploy these services using the infrastructure, tools, and policies that have been established.

As more information about e-commerce roll-out planning and deployment becomes known in second quarter 2003, this section of the E-Commerce Management Plan will be updated.
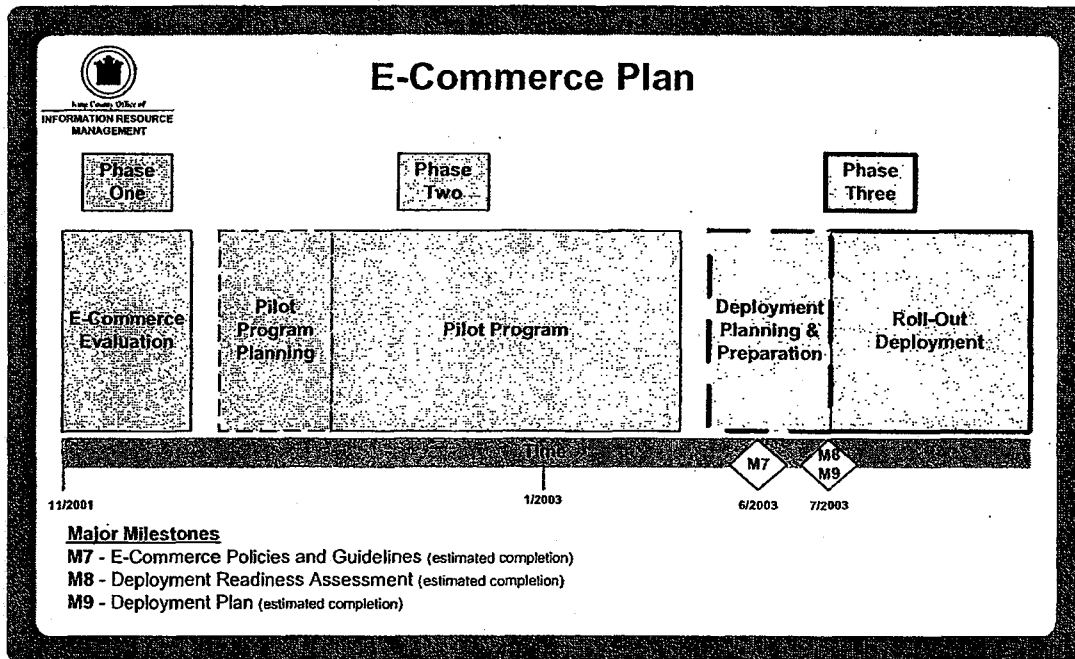
6.1 Major Milestones and Deliverables

Three major milestones and their deliverables are expected to be completed during deployment preparation and planning in the roll-out deployment phase. Some criteria for these have already been identified:

- E-Commerce Policies and Guidelines

  ☑ These business and technical policies and guidelines will include application standards, e-commerce payment methods, security and privacy requirements, merchant services, and agency roles and responsibilities.

- E-Commerce Deployment Readiness Assessment

  ☑ A final assessment of the infrastructure, policies, and e-commerce tools to determine if there are any remaining issues or concerns that need resolution prior to county agencies using the e-commerce environment, including readiness of vendor contracts and agreements.

☑ All outstanding issues would need to be resolved prior to proceeding with deployment of agency e-commerce services to the public.

- E-Commerce Deployment Plan

  ☑ Plan components include:

  ➤ Coordination of e-commerce efforts for the county

  ➤ Education for agency staff on building and providing e-commerce services, including e-commerce policies, standards, and guidelines

  ➤ An approach for agencies to begin accessing the established e-commerce tools and infrastructure

  ➤ A plan for assessing whether the county's existing e-commerce services meet the new e-commerce policies and standards

  ➤ Budget for enterprise-wide e-commerce tools and infrastructure

6.2 Objectives

Deployment preparation and planning will accomplish several things:

- Resolve issues identified in the Pilot Evaluation and Readiness Assessment

- Develop a plan for coordinating the deployment of e-commerce services to the public by county agencies

- Finalize the business case model for e-commerce services

- Establish an e-commerce education program for county agencies

- Develop e-commerce marketing plans and strategies that agencies could use

Thereafter during deployment, the objective will be for county agencies to develop and deploy e-commerce services that:

- Fulfill the public's needs for online services

- Transform internal business processes

- Are a sound business investment

6.3 Success Measures

E-commerce roll-out deployment will be deemed successful when:

- The county has a uniform and coherent way of providing e-commerce services to the public

- Agencies develop and deploy e-commerce services using the established e-commerce infrastructure, tools, and policies

- The public is able to successfully purchase county products and services using the Internet

- County business processes facilitate the efficient delivery of online services

6.4 Plans for Roll-Out Deployment in 2003

After completion of the work to prepare the e-commerce environment for deployment, responsibility for e-commerce will shift to county agencies. Plans will be put together for the 2003 budget process to enable agencies to do the following:

6.4.1 Deploy E-Commerce Services from Pilot Program

☑ A business case will be developed for each pilot application found to be viable as part of the e-commerce pilot program. At most, this would include:

> ➤ Pet licenses

> ➤ Property taxes

> ➤ Superior Court filing fees

> ➤ District Court fines

☑ If approved, the pilot application will be readied for 24/7 public access, making the necessary changes to move the application from the pilot stage to a full-scale business process

6.4.2 Assess Proposed E-Commerce Services

In addition to the pilot applications, several other county functions have been identified as potential e-commerce services in the future. Among these are:

- DDES business licenses
- DDES permits
- District Court filings
- Title company recording fees
- Restaurant permit fees
- Parks event scheduling/registration
- DNR wastewater capacity charge

For each proposed new e-commerce service that agencies would like to deploy:

☑ A business case will be developed

☑ If funding is approved during the 2004 budget process, the new e-commerce service would be fully defined, developed, and deployed in 2004

6.4.3 Bring Existing E-Commerce Service Capabilities into Compliance

Some existing e-commerce services may need changes to meet the county's new e-commerce policies and standards that will be developed as part of the e-commerce pilot program based on standard industry practices.

Public Health Vital Statistics E-Commerce Service

Today: Vitalchek.com, a commercial web site, is used by the public to purchase vital records (birth and death) with expedited handling by the King County Vital Statistics Office.

Transition: Vitalchek.com e-commerce service will be evaluated for its adherence to King County's e-commerce policies and standards. A plan will be developed to bring this service into compliance as needed.

Transit Bus Pass Sales E-Commerce Service

Today: A custom web site hosted by an external service provider is used by the public to purchase a variety of transit passes.

Transition: Credit card transactions will be transitioned to a secure, real time authorizing environment consistent with King County's e-commerce policies and standards.

For each existing e-commerce service that needs to be brought into compliance with the e-commerce policies and standards, the responsible agency will need to:

☑ Identify compliance requirements

☑ Develop a migration plan, including scope, schedule, and budget, to move the existing e-commerce service into compliance with the county's e-commerce policies and standards

☑ Present the migration plan to the Project Review Board, as part of technology governance, for their review and approval

7. Appendix A: E-Commerce Profile of the State of Washington

The State of Washington began planning for its digital government infrastructure in the late 1990's. At different times over a five year period, the state's Department of Information Services (DIS) planned various pieces of the infrastructure. Their last significant planning effort was in 1999, when DIS spent nine months working with a consultant to develop their Security Roadmap.

In establishing its digital government infrastructure, the State of Washington saw e-commerce as a core component of its "digital marketplace." To support this effort, the state did several things:

- First, the State of Washington established a web portal site, *Access Washington*, where citizens and businesses can use one web address to find the services of their government on the Internet

- Second, the State Treasurer signed a Statewide Merchant Banking Contract that specifies the firms that state agencies may use for processing Internet credit card transactions. (This not a master contract available to the county.)

- Third, DIS built and now manages an e-commerce hosting environment available to state agencies for their applications requiring payments by credit cards.

- Fourth, the Digital Academy, within DIS, developed a standard template for e-commerce applications that is widely available as a guide to web developers.

- Fifth, DIS built ATOM (Applications Template and Outfitting Model) as a standard approach for e-commerce projects that is available for use on the Internet.

- Sixth, for e-commerce applications requiring user authentication, DIS offers a secure environment, called Transact Washington, that only users with digital certificates can access.

- Seventh, for e-commerce applications needing a digital signature, DIS has instituted a certificate policy that covers the identification and authentication of digital signatures, and the State Legislature has passed a law making it a class C felony to misrepresent one's identify with a digital signature.

Currently, the state is investigating Internet checks, also known as electronic checks, and will offer these as another e-commerce payment method.

During the past two years while building its digital government infrastructure, the state has implemented numerous e-commerce applications. Among them are:

- ☑ Purchase boat moorage permit
- ☑ Buy watercraft launch permit
- ☑ Purchase Sno-Park Daily permit
- ☑ Reserve and pay for a campsite (external)
- ☑ File and pay excise taxes

☑ File and pay industrial insurance premiums

☑ Purchase a master business license

☑ Renew a license for profit corporation or limited liability company

☑ Search or file Uniform Commercial Code financing statement

☑ Renew boat and vehicle licenses

☑ Make child support payment

☑ Order birth, death, marriage and divorce certificates (external)

☑ Buy fishing and hunting licenses (external)

☑ Access criminal histories for a fee

☑ Purchase a driver's infraction record

☑ Purchase government publications

☑ Purchase L&I electrical permit

☑ File L&I prevailing wage report and pay fees

Many other applications are currently under development and will be made available in the coming months on *Access Washington*, the state's digital government portal on the Internet (www.access.wa.gov).

8. Appendix B: E-Commerce Foundation

The foundation for e-commerce has three components, as shown in the diagram below. These form the structural underpinnings for e-commerce services provided to the public through the Internet.
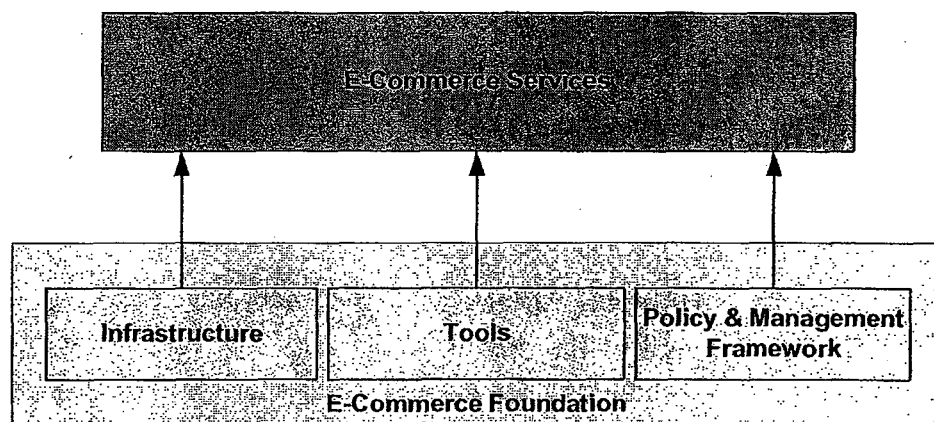
The components of the e-commerce foundation are:

1. Enterprise-wide Internet Infrastructure	The technical piece of the e-commerce foundation that supports e-commerce services. It includes data networks, applications and database servers, and security.
2. Policy and Management Framework	The necessary laws, policies, standards, and guidelines that must be in place to support e-commerce. This framework must meet the needs of e-commerce today and in the future as new technologies are incorporated into the e-commerce infrastructure.
3. E-Commerce Tools	Four types of e-commerce tools: a. E-payments (electronic payments) b. User authentication c. E-forms (electronic forms) d. User education and e-commerce application standards
a. E-Payments	The way services are paid for online at the time of purchase. There are several online payment methods, including debit cards, credit cards, and Internet checks. For each payment method, there is a service provider who processes the financial payment transactions through the banking system.

b.	**User Authentication**	The way an application knows who is on the other end of the transaction. A digital certificate is one tool that can be used for user authentication. Digital certificates typically provide encryption and digital signature capabilities. Some provide reliance limits in the case of a loss resulting from the use of a false or forged certificate.
c.	**E-Forms**	Analogous to paper forms except the data can be automatically retrieved for use by other applications. An e-form has the capacity to be signed by a user with their digital signature, thereby locking all or a selected portion of the form's data.
d.	**User Education and E-Commerce Application Standards**	Uniform approach to e-commerce services result from collaborative education and standards development. Standardization among agencies can be encouraged by providing useful educational opportunities, tools, and templates.

E-Commerce Services

As shown in the diagram above, e-commerce services are built upon and supported by the e-commerce foundation. These services are the Internet applications that the public uses for their online purchases. E-commerce services at the county could include licensing, tax payments, court fine payments, permitting, and court filings, given a sound business justification for each one.

☑ In the e-commerce environment, the public's primary contact with a county agency would be through its web-enabled e-commerce applications.

☑ E-commerce services must focus on enabling the public to easily complete their online transactions while providing county staff with enough information to ensure that the public's business has been transacted successfully. This is a paradigm shift from the county's non-web applications that focus only on the needs of county staff to do their jobs.

☑ E-commerce services must be easy to use and accurate, with a common look and feel across all e-commerce applications. This will help the public do their online business quickly and increase the odds of a successful outcome.

☑ Standard business processes for payment processing should be used, thereby minimizing the complexity for county staff who manage online transactions.

9. Appendix C: Alternatives to Use of the State's Infrastructure

During the Evaluation phase, two alternatives to use of the state's infrastructure for e-commerce were considered:

- Buy services from an e-commerce hosting provider
- Build the e-commerce infrastructure at King County and operate it internally

Buy Services

EzGov and IBM were each asked to provide a rough cost estimate for their e-commerce hosting service capabilities. The estimate for recurring costs ranged from $150,000 – $210,000 annually.

Pros:	☑	Vendors experienced with e-commerce operations
	☑	Operating environment would be highly secure, available, and stable
Cons:	☑	A significant on-going investment for e-commerce infrastructure service would be required
	☑	Would not provide the county flexibility to respond to changes in its business model for e-commerce and e-government
	☑	Real-time integration of e-commerce with the county's existing systems would be more difficult outside the county's firewalls

Build the Infrastructure

IBM and Washington State's Department of Information Services (DIS) were asked to provide a rough estimate of what it would cost to build a digital government infrastructure that would be equivalent to what DIS operates.   IBM estimated the initial investment would be from $1.2 million - $2.35 million, excluding public key infrastructure for digital certificates. DIS estimated that they spent $3 million - $5 million over a five year period to build the state's digital government infrastructure, including public key infrastructure for digital certificates.

Pros:	☑	Allows county the flexibility to respond as needed to changes in its business model
	☑	Real-time integration of e-commerce with the county's existing systems would be less difficult behind the county's firewalls
Cons:	☑	High initial investment to build the infrastructure and additional on-going operation and maintenance costs
	☑	County lacks experience in e-commerce security and the operational support of e-commerce infrastructure

Use of the State's Infrastructure

For pilot projects, DIS developed a cost model of $300 a month that would allow the county to use DIS's e-payments infrastructure for up to 250 e-commerce applications regardless of transaction volume. This does not include costs associated with an e-commerce service looking up information in King County's existing systems or updating existing systems when online payments are completed.

Pros: ☑   Low cost, readily available, secure solution used by state agencies

           ☑   Leverages investment that state taxpayers have made in technology

Cons: ☑   Real-time integration of e-commerce with the county's existing systems would be more difficult outside the county's firewalls

           ☑   DIS, as a discretionary internal service provider for state agencies, does not have guaranteed funding to support its operation

The advantages provided by buying or building e-commerce infrastructure services does not appear to offset the high cost of each of these alternatives. As a result, these alternatives were considered not viable for the county at this time. The E-Commerce Evaluation focused its efforts on use of the state's digital government infrastructure (see Section 4 of the E-Commerce Management Plan), since this provides the county an opportunity to get into e-commerce without the high expense of the other two alternatives. Using the state's infrastructure allows the county to build and grow its experience and expertise in e-commerce before making a significant financial investment in the underlying technical infrastructure.

10. Appendix D: Glossary

Access Washington™
The World Wide Web portal that provides citizens and businesses access to state government services on Washington state agency Web sites (www.access.wa.gov)

agency
A state or local governmental unit or group.

Applications Template and Outfitting Model™
Master template for IT project management and application development used by state agencies. Using the Applications Template and Outfitting Model (ATOM™), agencies find the required policies, necessary infrastructure components and useful technologies in one place, ordered into a start-to-finish task list.

architecture
A high level design that specifies in general terms the components of a system and its internal and external interactions

ATOM™
See **Applications Template and Outfitting Model.**

authenticate
A process to assure that access to computer programs and data is provided *only* to the person or entity requesting this access, not an imposter.

browser
Software used by PCs, workstations, and terminals that allows users to access information on the World Wide Web.

business application
A computerized system that performs a business function.

Business Management Council
Established by KCC 2.16.07583 to "act in an advisory capacity to the county's chief information officer in developing short-term, mid-term, and strategic business objectives for information technology at the agency level and for recommending business application proposals for funding."

centralized infrastructure
The proprietary physical hardware used to interconnect computers and users on the Internet. Infrastructure can also include telephone lines, cable television lines, satellites and software applications that run on hardware platforms.

common look and feel
Occurs when Internet applications are designed with similar visual components and screen navigation characteristics.

database
A collection of related pieces of digital information that can be stored or retrieved.

desktop application
A computer program used to accomplish a business task such as word processing or spreadsheets.

digital certificate
An electronic means of confirming someone's identity online. The transmitted information is encrypted so that only the intended recipient can view it. Digital certificates are issued within a legal policy and technical framework known as Public Key Infrastructure (PKI).

digital government
The means by which government provides computer access to information and services on the Internet, usually on a public portal.

Digital Government Applications Academy
A classroom where state agencies build digital government applications. The Academy helps state agencies and other government entities to develop secure and replicable Internet applications quickly and economically.

digital government infrastructure
The basic framework supporting digital government, including hardware, software, networks, and the resources to support it. Same as **infrastructure.**

digital signature
Similar to a paper signature, except it is fully electronic as a calculated value based a mathematical algorithm, and it is never the same from one signing to the next or among signatories. It is impossible to forge and provides verification to the recipient that the signed information came from the person who sent it and that it was not altered after the time it was signed.

Digital Washington
Term that describes all the agency services grouped behind the state's public Internet portal, *Access Washington*[TM].

downloading
Connecting to another computer and copying a program or file from that system.

e-commerce (electronic commerce)
The purchase of goods and services on the Internet.

e-commerce computing environment
The combination of hardware, software, and networks used for electronic commerce.

e-commerce infrastructure
The basic framework supporting electronic commerce, including hardware, software, networks, and the resources to support it.

e-commerce payment methods
Any type of electronic media used for the transfer of funds to a merchant for payment of Internet purchases. The most common payment method used for e-commerce is credit cards. Internet check is another payment method. See **e-payments.**

e-commerce service
An online service provided by an Internet application that allows the purchase of goods or services.

e-commerce tools
Set of computer applications, external services, training services, information, and/or processes that can be used individually or in any combination with one another to aid in building an e-commerce application (a type of Internet application).

e-forms (electronic forms)
A computer program version of a paper form. Some e-forms retain the data with the electronic form and provide the opportunity for this data to be electronically extracted from the form and loaded into other computer systems.

e-government (electronic government)
The means by which government provides computer access to information and services on the Internet, usually on a public portal. Same as **digital government**.

e-mail
Electronic messages, typically addressed as person-to-person correspondence, transmitted between computers and across networks.

e-payments (electronic payments)
Payments made using various types of electronic media, including credit cards, debit cards, Internet checks, automated clearing house (ACH), wire transfer, and smart cards.

electronic security architecture
A set of related programs that protects the resources of a private network from users outside the private network. Typically, electronic security architecture prevents outsiders from accessing private data resources and can control the outside resources accessible to its own network users. This term often includes a reference to the security policy used with the program.

encryption
The process of translating information into code using mathematic algorithms or other coding methods. In general, the recipient of an encrypted message must have an electronic decoding key to read the message.

enterprise-wide
Affecting all agencies within county government.

firewall
An electronic barrier that keeps unauthorized users, files and programs from accessing a protected computer or network.

hardware
Computer equipment, including the computer case, monitor, keyboard, and mouse.

hosting services
A computing environment provided by a vendor or other service provider for a fee. This environment typically includes computer hardware, network, and technical support staff who oversee its operation and security 24 hours a day. Organizations who use hosting services typically create or procure software applications that run in this environment. In a shared hosting environment, more than one organization would share the same physical equipment, although each organization could access only its own programs and data.

infrastructure
The basic framework supporting digital government, including hardware, software, networks, and the resources to support it.

Internet
Often called "the Net," the Internet is a worldwide system of computer networks on which users can electronically exchange information and communicate with other computer users.

Internet application
Software program (or application) that runs on a web site. Typical Internet applications look up information based on specific criteria and provide results, or allow entry of information and process it, including payments.

Internet checks
Establishes an electronic funds transfer from a personal or business checking account in payment for goods or services purchased on the Internet. Its fee structure and underlying technology are different from debit cards. The State of Washington is establishing a master contract for Internet checks that will use the automated clearing house (ACH) for transfer of funds to an agency's account.

Internet credit card processor (or Internet payment gateway)
Facilitates credit card payments made on the Internet by acting as an intermediary between the payor (the credit card holder), the credit card association (or credit card issuer), and the merchant's bank.

Internet payment processing
The processing of electronic payments on the Internet through the banking system. For credit cards, this includes an immediate authorization of funds when the payment button is clicked and a nightly transfer of funds to the merchant's account that typically occurs 2-3 days later.

intranet
A private network of computers that functions within a company or organization. Often links several local area networks; may also use leased lines in a Wide Area Network.

Intergovernmental Network (IGN)
The IGN functions as an intranet for government agencies, connecting cities, counties, local districts and state agencies, and supporting multiple specialized networks such as the Information Network for Public Health Officials (INPHO) and the Justice Information Network (JIN).

IT
Information technology.

mainframe
Large computer with high data-handling or computational capacity.

master contract
Allows government entities the option to purchase goods or services offered for sale under the contract. This relieves government entities of the repetitive and costly administrative burden associated with individually conducting competitive acquisitions for similar products and services.

merchant account
An account established with a merchant bank for the purpose of receiving funds from credit card payments.

middleware
Connects two or more distinct applications running on one or more computers and allows two applications or two computers to share information and data.

mission-critical functions
Those computing functions that form the core operation, security, emergency and data processing responsibilities of government.

network
A group of two or more computers connected to each other to share resources such as software, data, communications and peripherals. Networks can interconnect with other networks and contain sub-networks. Also, hardware and software are needed to connect a computer network.

off-the-shelf components
Hardware or software available as a stock item for purchase rather than custom-made.

one face of government
Occurs when agency services grouped behind a government portal are presented with a "services-forward" approach. This concept places less presentation emphasis on the inner workings and hierarchy of government and more value on what the public can find and do on a government site.

online
When an individual is online, he or she is connected to a network of computers. In current usage, this term is used to describe someone who is connected to the Internet.

privacy
Relates to protecting personal information, including its collection, retention, and release.

plug-in components
Computer programs that are installed and used with a Web browser. Browsers recognize plug-in applications and their functions are integrated into the browser's HTML presentation.

policy framework
Consistent set of laws, policies, standards, and guidelines that work together to support an overall business process.

portal
A Web site that catalogs Web sites and acts as a main point of entry to the cataloged portion of the Web.

Public Key Infrastructure (PKI)
PKI is the infrastructure needed to support public key encryption. It requires a certificate authority (CA) to issue and verify the public keys, registration authority that verifies the identity of a person or organization before a key is issued, a certificate directory of the public keys and a certificate management system. Public key encryption can be used to verify an identity or to encrypt date or messages.

schematic
A drawing depicting the physical and/or logical components of a computing environment, including its hardware and network elements.

security
Relates to protecting private computer systems and their information from intentional and unintentional access by unauthorized computer systems and/or individuals.

security infrastructure
Relates to the hardware, software, policies, standards, and guidelines used to manage data and network security within an organization.

server platform
The fundamental hardware and software components of any computer system, including mainframes.

server-side logic
Programming code that executes on the Web server, generating HTML to be viewed in a browser. Server-side logic is used to limit the amount of work a citizen's computer must perform to access information on a Web site. For example, server-side logic can provide access to backend systems that enable e-commerce, or allow specialized functions such as access to streaming media.

software
A set of instructions that tell the computer what to do. Software can be divided into two groups: operating system software and application software.

standards
The rules, principles, or models that must be followed within an organization as established by an authority. For e-commerce, standards could include rules about common look and feel of these Internet applications.

Transact Washington™
The secured authentication gateway developed for Washington state government. Allows trading partners (businesses and individuals) single sign-on access to government agency applications. Use of Transact Washington™ requires presentation of a valid digital certificate.

technical infrastructure
The basic framework supporting digital government, including hardware, software, networks, and the resources to support it. Same as **infrastructure.**

Technology Management Board
Established by KCC 2.16.07584 to "act in an advisory capacity to the county's chief information officer on issues including policies and standards for privacy and security, applications, infrastructure and data management."

template
In computer programming, a template describes a body of generic code that can be used as the basis for building software applications, such as permits and forms.

utility
Technology components bundled together with business processes that enable agencies to provide a common service, such as e-commerce.

user authentication
Process of determining that a computer user is truly who they claim to be. Digital certificates can be used to identify a person or entity online. See **digital certificates.**

web-enabled
An application, data, or service that is available on a web site

web-based customer support
Web-based customer support provides online help and information through a combination of self-directed knowledge-based solutions, e-mail and telephone support 24 hours a day, seven days a week.

World Wide Web
Includes all the network-accessible data and resources that use Hypertext Transfer Protocol (HTTP) to share information between computer users on the Internet. HTTP defines the rules for exchanging this information, using files (text, graphic images, sound, video and other multimedia files) on the Web.

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