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Executive Summary

The Blue Ribbon Commission to Establish a Comprehensive Internet Policy was established in the First Regular Session of the 119th Legislature by Resolve 1999, chapter 89. The Commission was co-chaired by Senator Carol Kontos and Representative Thomas Davidson and was composed of 12 voting members representing the Legislature, Internet service providers, the telecommunications industry, the Maine Bar Association, the cable television industry, the Maine Civil Liberties Union, and the Maine Software Developers Association. In addition, the Commission was composed of six nonvoting members representing the University of Maine System, the Department of Economic and Community Development, the Secretary of State's Office, the Maine State Library, the Public Advocate's Office and the Public Utilities Commission.

The Commission was convened on September 27, 1999 and met five times. The Commission received input from the Secretary of State's Office, the Securities Division of the Department of Professional and Financial Regulation, the University of Maine Internet Network, the Information Resource of Maine (InforME), the Maine Schools and Libraries Network, the Virginia Information Providers Network, the Maine Municipal Association and various telecommunications interest groups.

The Commission was charged with studying the following broad areas as they relate to the future of information technology in Maine: E-commerce, E-government, education, consumer privacy, Internet abuses, hate mail and pornography, electronic crimes, Internet access and business development.

Due to the relatively short time frame that the Commission had to complete its work and the complexity of the issues before it, the Commission decided to focus the majority of its time on issues relating to the following charges:

- "E-commerce" (specifically, digital and electronic signature verification and amendments to Maine statutes to encourage electronic business transactions on the Internet);
- "E-government" (specifically, payment of agency fees by credit card and other electronic means, requiring agencies to coordinate services on the Internet, and amendments to Maine statutes to encourage electronic governmental transactions on the Internet); and
- "Internet access" (specifically, municipal government linkage to the Internet to coordinate access to services for Maine citizens).

The Commission spent a limited amount of time on the Commission charges relating to "Education", including the University of Maine Internet Network and the Maine Schools and Libraries Network, and "Business development", including business incentives and the Maine Business Works program. For various reasons, including current federal legislative activity, the Commission decided it was not appropriate at this time to discuss issues relating to "Consumer privacy", "Internet abuses", "Hate mail and pornography" and "Electronic crimes" and instead decided these issues required further review.

The Commission makes the following nine recommendations:

- 1. The Commission recommends the Legislature adopt the Uniform Electronic Transactions Act in Maine.**
- 2. The Commission recommends the Legislature consider enacting digital signature legislation in the Second Regular Session of the 119th Legislature.**
- 3. The Commission recommends the following regarding credit card use by state agencies:**
 - a. that the State require agencies to accept credit cards;**
 - b. that Maine law continue to provide that credit card surcharges not be passed on to the consumer; and**
 - c. that the State negotiate with credit card companies for a lower merchant fee on credit card transactions with state agencies.**
- 4. The Commission recommends that, by February 15, 2000, the State Treasurer's Office study and develop procedures to enable state agencies to accept payments for goods and services by electronic means, including but not limited to electronic funds transfer, and report to the Joint Standing Committee on Business and Economic Development on its progress.**
- 5. The Commission recommends that the Legislative Council direct the nonpartisan staff to conduct a study to identify existing impediments to electronic commerce in Maine law and that the study report be submitted to the Joint Standing Committee on Business and Economic Development by December 1, 2000.**
- 6. The Commission supports funding for the Maine Governmental Information Network and recommends that the Joint Standing Committee on Utilities and Energy consider a variety of funding mechanisms for the Maine Governmental Information Network and report out legislation containing its proposal for the appropriate funding mechanism(s) during the Second Regular Session of the 119th Legislature.**
- 7. The Commission recommends that the Commissioner of the Department of Economic and Community Development initiate a process to simplify, streamline and promote existing performance-based business incentive programs, particularly those related to technology, and report to the Joint Standing Committee on Business and Economic Development by January 1, 2001 on the department's progress. The report should include proposed legislation, if any, necessary to implement this recommendation.**
- 8. A. The Commission recommends that the Joint Rules of the Legislature be amended to change the name of the Joint Standing Committee on Business and Economic Development to the Joint Standing Committee on Commerce and Technology to bring under its jurisdiction emerging technology-oriented business development issues.**
B. The Commission recommends that the Joint Rules of the Legislature be amended to change the name of the Joint Standing Committee on Utilities and Energy to the Joint Standing Committee on Utilities, Energy and Telecommunications to reflect the variety of telecommunication issues that the committee currently has under its jurisdiction.

- 9. The Commission recommends that Resolve 1999, chapter 89 be amended to extend the Commission into the legislative interim following the Second Regular Session of the 119th Legislature to continue its work in the following areas as they relate to the future of the Internet and information technology in Maine: E-commerce, E-government and Maine's Freedom of Access law, education, consumer privacy, Internet abuses, hate mail and pornography, electronic crimes, Internet access and business development.**

I. INTRODUCTION

A. Enabling Legislation

The Blue Ribbon Commission to Establish a Comprehensive Internet Policy was established in the First Regular Session of the 119th Legislature by Resolve 1999, chapter 89. The legislation proposing the Commission, L.D. 2155, was introduced by Senator Carol Kontos and was referred to the Joint Standing Committee on Business and Economic Development. A copy of the Resolve is attached as **Appendix A**.

B. Membership

The Commission consisted of 18 members: 12 voting members and 6 nonvoting members. The 12 voting members were selected as follows:

- Six members appointed by the President of the Senate including:
 - one Senator who serves on the Joint Standing Committee on Business and Economic Development,
 - two other Senators,
 - one member representing large Internet service providers,
 - one member representing the telecommunications industry, and
 - one member representing the Maine Bar Association; and
- Six members appointed by the Speaker of the House including:
 - one member of the House of Representatives who serves on the Joint Standing Committee on Business and Economic Development,
 - one other Representative,
 - one member representing small Internet service providers,
 - one member representing the Maine Software Developers Association,
 - one member representing the cable television industry, and
 - one member representing the Maine Civil Liberties Union.

The six nonvoting members of the Commission included the following:

- one representative of the University of Maine system appointed by the Chancellor of the University of Maine System;
- the Commissioner of Economic and Community Development or the commissioner's designee;
- the Secretary of State or the secretary's designee;
- the State Librarian or the State Librarian's designee;
- one representative of the Public Advocate's Office appointed by the Governor; and
- one representative of the Public Utilities Commission appointed by the Governor.

Senator Carol Kontos served as the Senate chair and Representative Thomas Davidson served as the House chair. A list of Commission members is included as **Appendix B**.

C. Charge to the Commission

The charge to the Commission was specified in the enabling legislation. The Commission was charged with studying the following issues that relate to the future of information technology in Maine:

1. The facilitation of electronic commerce for Maine citizens and businesses (“E-commerce”);
2. Making government more accessible to the citizens (“E-government”);
3. The use of the Internet and related technologies to improve education throughout the State (“Education”);
4. The protection of Internet users’ and citizens’ privacy (“Consumer privacy”);
5. The mitigation of Internet abuses including transmission of unsolicited bulk e-mail or spam (“Internet abuses”);
6. The regulation of hate mail and pornography (“Hate mail and pornography”);
7. The elimination of electronic crimes (“Electronic crimes”);
8. The promotion of Internet access for citizens throughout the State (“Internet access”); and
9. The promotion of business development in the areas of electronic, Internet-based and information technology businesses throughout the State (“Business development”).

D. Focus of the Commission

The charge to the Commission was broad. Due to the relatively short time frame that the Commission had to complete its work and the complexity of the issues before it, the Commission decided to focus the majority of its time on areas relating to the following charges:

- “E-commerce” (specifically, digital and electronic signature verification and amendments to Maine statutes to encourage electronic business transactions on the Internet);
- “E-government” (specifically, payment of agency fees by credit card and other electronic means, requiring agencies to coordinate services on the Internet, and amendments to Maine statutes to encourage electronic governmental transactions on the Internet); and
- “Internet access” (specifically, municipal government linkage to the Internet to coordinate access to services for Maine citizens).

The Commission spent a limited amount of time on the Commission charges relating to “Education”, including the University of Maine Internet Network and the Maine Schools and Libraries Network, and “Business development”, including business incentives and the Maine Business Works program. For various reasons, including current federal legislative activity, the Commission decided it was not appropriate at this time to discuss issues relating to “Consumer privacy”, “Internet abuses”, “Hate mail and pornography” and “Electronic crimes” and instead decided these issues required further review.

II. COMMISSION PROCESS

A. Scope and Focus of Commission Meetings

The legislation that created the Commission had an effective date of June 17, 1999. The Commission was convened on September 27, 1999. In addition to this first meeting, the Commission held four other meetings. These meetings were held on October 13, 1999, November 8, 1999, November 22, 1999 and December 6, 1999. Meeting summaries are included as **Appendix C**.

1. The first meeting of the Blue Ribbon Commission focused on reviewing the Commission’s charge and identifying issues to be addressed by the Commission. The Commission also received a presentation on InforME from the Maine Secretary of State. InforME is a public/private partnership that provides delivery of governmental services and information to citizens and businesses via Internet technology. In addition, the Deputy Secretary of State spoke to the Commission about InforME’s role in administering the State of Maine homepage, the automation of State and municipal government to coordinate services using the Internet, collection of credit card fees for purchases of governmental services via the Internet and the need for the creation of a system to verify digital signatures.
2. The second meeting of the Commission focused on digital and electronic signatures and credit card payments to agencies for purchases of governmental services. In addition, the Commission received a presentation on the

University Maine System's Internet Network (UNET) from the Executive Director of UNET. The Maine State Library presented information to the Commission on the Maine Schools and Libraries Network (MSLN).

3. The third meeting of the Commission focused on continued discussion of digital and electronic signatures and credit card payments to agencies for purchases of governmental services. The General Manager for the Virginia Information Providers Network gave a presentation to the Commission on digital signature technology. The Securities Administrator from the Department of Professional and Financial Regulation discussed the Uniform Electronic Transactions Act (UETA) with the Commission and presented a piece of draft legislation to adopt UETA in Maine.
4. The fourth meeting of the Commission focused on formulating recommendations for the report. In addition, the Department of Community and Economic Development presented the Commission with information on business development incentive programs in Maine.
5. The fifth meeting of the Commission focused on a review of the recommendations and the draft final report.

B. Report and Legislation

Resolve 1999, chapter 89 established December 1, 1999 as the reporting date of the Commission to the Joint Standing Committee on Business and Economic Development. However, the Commission requested and received permission from the Legislative Council to extend the reporting date to December 17, 1999. The Joint Standing Committee on Business and Economic Development is authorized pursuant to Resolve 1999, chapter 89 to report out a bill during the Second Regular Session of the 119th Legislature concerning the findings and recommendations of the Commission.

III. BACKGROUND INFORMATION

A. Electronic Commerce and Electronic Government

The use of the Internet is growing at an increasingly rapid pace. According to the "1999 Digital Economy Factbook", during the first quarter of 1999, more than 83 million adults accessed the Internet. In addition, 56 million individuals shopped on-line and 23.5 million made at least one on-line purchase. Analysts predict that by 2002, the online retail market could reach \$80 billion.

Purchasing products and services over the Internet, however, does not come without some concerns by consumers. Consumers that are reluctant to purchase items over the Internet are generally concerned about whether or not their transactions will be

safe and whether or not the information they are electronically sending will remain private. With the use of electronic authentication technology, consumers gain confidence in the reliability of the transfer of confidential information to another party, while also reducing reliance on paper identification and handwritten signatures.

Many state governments have enacted legislation to authorize electronic commerce transactions for governmental purchases, others have enacted legislation that applies to private electronic commerce. The advantages of electronic commerce for government include reduced costs, delivery of services to new markets, service or product differentiation and providing choices to consumers of whether to purchase governmental services on-line or in-person.

States that have enacted legislation dealing with electronic commerce have essentially authorized the use of electronic authentication technology. Generally, electronic authentication technology allows the consumer to conduct business over the Internet without the use of a hand-written signature. There are two broad categories of electronic authentication technology; electronic signatures and digital signatures.

B. Electronic Authentication

1. Overview of electronic signature and digital signature technology

While both electronic and digital signatures may serve as substitutes for handwritten signatures, there are distinct differences between the two technologies. “Electronic signature” technology generally refers to using any identifiers such as letters, characters, or symbols that are created by electronic or similar means with the intent to authenticate a writing. Examples of electronic signatures include a name typed at the end of an email message by the sender, a digitized image of a handwritten signature that is attached to an electronic document and a personal identification number (PIN). In contrast, “digital signature” technology generally refers to using an electronic identifier that utilizes an information security measure, such as public key encryption, to ensure the integrity, authenticity, and nonrepudiation of a signature.

2. State electronic and digital signature initiatives

Most state legislation on electronic authentication addresses either electronic signatures or digital signatures, but not both. However, several states have enacted legislation that includes definitions of both electronic and digital signatures. These states include Illinois, Florida, Indiana, Mississippi, and New Hampshire. In many of the states that have adopted electronic authentication legislation, the legislation does not properly distinguish between electronic signatures and digital signatures. Therefore, several state statutes use the term “digital signature” when in practice it is being used as an “electronic signature”. These states include California, Georgia, Illinois and Nebraska. Other states use

the terms electronic signature and digital signature, but do not define them in their statutes. These states include Arizona, Connecticut, and Hawaii.

Another difference among the states that have enacted electronic authentication legislation is the categories of transactions covered. Many states authorize the use of electronic signatures only for transactions involving government agencies, while other states have limited the type of transaction in which the use of electronic signatures is authorized. These types of transactions include the following: gaining access to medical records; filing motor vehicle registrations; filing judicial forms and documents; and filing tax returns. A comparison of state legislation is included as **Appendix D**.

3. Approaches to electronic authentication legislation

State legislative efforts in the area of electronic authentication have typically fallen into three categories: Signature enabling legislation, criteria-based legislation and prescriptive legislation. However, within these categories, state laws vary as to their application and scope.

- **Signature enabling legislation**

As of July 1999, twenty-four states, including Colorado, Massachusetts, Mississippi and Virginia, had enacted signature enabling electronic authentication legislation. Generally, these states define an “electronic signature” as any symbol in an electronic message used as an identification mark by the sending party. An example of an electronic transaction that is authorized under this type of legislation is password access to a website. The advantages of signature enabling legislation are that it is technology neutral, easy to understand and implement, and supports a broad range of electronic verification methods. The disadvantages of this type of legislation are that the laws do not provide guidance on what constitutes an acceptable electronic signature and individuals and businesses may be reluctant to use this type of technology for sensitive transactions due to the lack of security measures.

- **Criteria-based legislation**

As of July 1999, eleven states, including California, Kansas, and Georgia, had enacted electronic authentication legislation that places limitations on the type of electronic signatures that are considered legally valid. Almost all of these states in this category have applied the same five criteria to electronic signatures. These state statutes are modeled after the California law passed in 1995. These five criteria specify that the electronic signature must be:

1. unique to the person using it;
2. capable of verification;
3. under the sole control of the person using it;
4. linked to the data so that if the data is changed, the signature is invalid;
and
5. in conformance with regulations adopted by the implementing state government entity.

An example of an electronic transaction authorized under this type of legislation is purchasing an item over the Internet using a credit card. The advantages of criteria-based electronic signature legislation are that specific criteria reduce doubts about acceptable methods of authentication and that the verification method can be technology neutral depending upon the criteria specified in the legislation. The disadvantage of criteria-based electronic signature legislation is that it could discourage development of new technologies if the criteria are too specific or if they depend upon a single technology for implementation.

- **Prescriptive legislation**

As of July 1999, nine states, including Utah, Illinois, Oregon and Washington, had enacted prescriptive electronic authentication legislation. This type of electronic authentication legislation serves the purpose of enabling and facilitating electronic commerce through the recognition of digital signature technology. In this type of legislation, electronic transactions utilize cryptographic methods to provide electronic authentication. There are generally two types of cryptographic methods: symmetric, which uses a single key to lock and unlock data, and asymmetric, which uses separate keys to lock and unlock data. Private keys are used to code information while public keys are used to decode information. Public key cryptography is used to ensure the confidentiality of data and to verify the authenticity and integrity of transmitted data.

Digital signature technology involves three processes: public/private key generation; public key cryptography; and public key infrastructure (PKI). Typically, the use of a PKI system involves a third party whose purpose is to associate a person or entity on one end of a transaction with the person using a key pair to create a digital signature. These third parties are called certificate authorities and can be either government agencies or private commercial companies. Certificate authorities accept applications, verify identities, issue certificates, revoke certificates and provide status information. There are three types of PKI systems used to establish digital signature verification:

1. a closed system where the entity accepting the transaction issues a certificate;

2. an open system where the entity accepting the transaction does not issue a certificate and may not know the certificate authority; and
3. an open, but bounded system where a negotiated contractual agreement exists between open partners for specific applications.

The advantages of prescriptive electronic authentication legislation are that it establishes a specific method of authentication, it provides a high level of confidence in the identity of the signer, and it ensures that data has not been altered during its transmission. The disadvantages of prescriptive electronic authentication legislation are that it is not technology neutral, its implementation is complex, and its technology is difficult for users to understand.

While there is not uniformity in state legislation dealing with electronic authentication legislation, most states at a minimum have enabled electronic commerce by recognizing that the primary objective of electronic authentication is the removal of barriers associated with traditional writing and signature requirements.

4. Federal government initiatives

Although the federal government has yet to adopt digital signature legislation, it has authorized the use of electronic authentication technology for governmental transactions in several pieces of legislation.

In 1998, Congress passed the Government Paper Elimination Act with the intent of making governmental forms available electronically. The Act also specifies that electronic records that are submitted or maintained in accordance with the procedures in the Act are not to be denied legal effect because they are in electronic form. The Internal Revenue Restructuring and Reform Act of 1998 requires the Secretary of Treasury to develop procedures and regulations enabling the electronic filing of federal tax returns and the acceptance of electronic and digital signatures. In September of 1999, the General Services Administration under the Access Certificate for Electronic Services Program, awarded the first series of digital signature contracts for public key infrastructure services. These certificates will allow individuals a secure, uniform way to conduct business with the federal government electronically.

C. Uniform Electronic Transactions Act

Although commercial transactions are occurring over the Internet, there is currently uncertainty regarding the legal validity of electronically created contracts and the evidentiary acceptability of electronic records and documents. In an attempt to provide certainty, states enacted differing state statutes regarding electronic and digital signatures. In response to this non-uniformity, the National Conference of Commissioners on Uniform

State Laws established a drafting committee to create a uniform act in the area of electronic transactions.

The National Conference of Commissioners on Uniform State Laws (“NCCUSL”) is comprised of primarily lawyers, judges and law professors appointed by the states and includes representatives from each state. NCCUSL’s primary task is to determine the areas of the law that would benefit from uniformity, and to develop and recommend uniform laws to state legislatures for enactment.

After several years and numerous drafts, the Uniform Electronic Transactions Act (“UETA”) was approved by NCCUSL in July of 1999. The purpose of UETA is to establish legal recognition of electronic records and electronic signatures. UETA allows the use of electronic records and electronic signatures in any transaction, with limited exceptions. UETA is a procedural statute and does not mandate either electronic signatures or records. Adoption of UETA will ensure that manual signature requirements will not be barriers to electronic transactions. UETA also authorizes state governmental entities to create and receive records electronically.

Another feature of UETA is that it defines and gives validity to electronic signatures. An electronic signature is defined in UETA as “an electronic sound, symbol, or process attached to or logically associated with a record and executed or adopted by a person with the intent to sign the record.” The definition covers a variety of signatures. A digital signature using encryption technology and a person’s name at the end of an e-mail message would both qualify as electronic signatures as long as in each case the person intended to sign the record.

D. Electronic Credit Card Payments to State Agencies

As individuals become accustomed to using the Internet for private transactions, more demand is being put on state agencies to provide services on-line. In response to that demand, state agencies are looking for acceptable ways for the public to pay for services delivered via the Internet. Although Maine law (5 MRSA §1509-A) permits agencies to accept payment for goods, services and fees by major credit cards, state agencies have been reluctant to accept receipt of payment by credit card because credit card companies require a merchant fee of 1% to 3% of the amount charged on each payment. This is a fee paid by the merchant (state agency) to the credit card company. These fees are expensive for state agencies to pay and Maine law does not allow an agency to pass that fee on to the consumer. Therefore, state agencies must absorb these costs within their existing budgets. In addition to Maine’s prohibition on passing fees on to consumers, the major credit card companies do not allow governments to pass the merchant fee imposed by credit card companies to consumers.

According to the Government Finance Officers Association, states have responded to the credit card company prohibitions on passing the merchant fee on to consumers in a number of ways. Some states use outside vendors to process credit card transactions.

The credit card companies have generally not opposed passing on the fees when an outside vendor is used. Some states pass the fees on to consumers until the credit card company discovers it. Still other states have stopped the use of credit cards altogether.

Major credit card companies maintain that cardholders should not have to pay for the use of credit cards since it is a substitute for cash. They also maintain that the use of a credit card is a value to governments in cost savings that result from more efficient and timely payment. Additionally, credit card companies maintain that their merchant fees are just another cost of doing business and that if government passed these fees on to consumers, the fees would fall disproportionately on low and moderate income citizens.

The primary issues that arise when considering electronic credit card payments to state agencies are whether Maine should require, instead of simply permitting, state agencies to accept payment by credit card and whether Maine should allow an agency to pass the merchant fee on to the consumer.

E. E-commerce and E-government in Maine

1. Business incentives

Technology-oriented businesses are one of the fastest growing industries in the United States. According to a 1999 Milliken Institute Report, *"America's High Tech Economy: Growth, Development and Risks for Metropolitan Areas"*, in 1998 more than 50% of total business capital spending was in the area of information technology. Maine has three types of technology enterprises: existing Maine businesses that have the potential to grow through electronic information exchange; entrepreneurial Internet-based businesses; and established e-commerce firms.

Currently, the State of Maine offers a number of performance-based economic development incentive tools to assist both in-state employers and out-of-state employers to conduct their business. These incentives include a number of tax-related initiatives, a reduction in workers' compensation costs, employee training programs, a modern, competitive telecommunications infrastructure and low interest loan and grant programs. These initiatives are aimed at creating high quality jobs and encouraging investments in technology, research and development. Maine is spending a significant amount per year to support these programs.

According to the Department of Economic and Community Development, the following economic development incentives offered by the State are the ones most likely to be used by technology-oriented businesses:

- Maine Quality Centers Program
- Governor's Training Initiative

- Business Property Tax Reimbursement (BETR)
- Employer-Assisted Daycare Credit
- Employment Tax Increment Financing (ETIF)
- High Technology Investment Tax Credit
- Jobs and Investment Tax Credit
- Custom Computer Programming Sales Tax Exemption
- Manufacturing Sales Tax Exemption
- Fuels and Electricity Sales Tax Exemption
- Major Business Expansion Program (FAME)
- Small Enterprise Growth Fund
- Maine Technology Investment Fund (MSTF)
- Municipal Tax Increment Financing
- Business Assistance Program
- Economic Development Infrastructure Grant Program
- Development Fund Loan Program

A summary of each of these incentive programs is included as **Appendix**

E.

Other strengths that Maine offers to high-technology businesses are the productivity of its workforce and its quality of life.

There are several areas that Maine needs to continue improving in order to increase its success in attracting high-technology business to the State. These areas include the following: lowering corporate income taxes; lowering personal income taxes; increasing the education levels of its workforce; increasing transportation access; and increasing research and development industry areas.

2. Maine Business Works

Another economic development program that the State offers is Maine Business Works. The goal of Maine Business Works is to unify economic development initiatives in Maine by providing information to interested individuals and businesses regarding the variety of economic development resources available throughout the entire State; creating a virtual electronic communications Internet-based tool linking Maine's economic development agencies, the private sector and the public; and developing a partnership uniting Maine economic development service providers in the pursuit of these common goals and objectives.

Maine Business Works was initially conceived in 1996 as a wide-area network (WAN) connecting the Economic Development Districts of Maine with the University of Southern Maine's Center for Business and Economic Development (CBER) and the Maine Small Business Development Centers (MSBDC). A proposal for funding the Maine Economic Development Network (as it was originally named) was prepared and submitted by CBER. As a result, a

grant was received from the Department of Commerce Telecommunication Infrastructure and Information Assistance Program (TIIAP). Matching funds were received from the State of Maine through the Department of Economic and Community Development (DECD). The Maine Economic Development Network project was one of fourteen statewide telecommunication projects funded by the TIIAP grant in 1996.

The Maine Business Works website, located at www.MaineBusinessWorks.org, provides individuals, business owners and service providers electronic access to a vast array of up-to-date economic development information. The website promotes the state's programs and resources and provides a single source of economic development information to anyone considering starting a business, expanding a current business, or bringing an existing business to Maine. Specifically, the website provides the following types of information:

- information and links to organizations that comprise Maine's economic development community;
- financial programs and resources available to small businesses;
- a comprehensive resource library and calendar of small business events, conferences and training programs,
- a database containing commercial and industrial real estate listings,
- an internal network for economic development service providers and their programs; and
- a search function to help an individual find information within the Maine Business Works website.

3. Information Resource of Maine (InforME)

In 1998, the Legislature enacted the InforME Public Information Access Act in Public Law 1997, chapter 713. The Information Resource of Maine, InforME, is a public/private long-term partnership to build a gateway network to public information for citizens and businesses through Internet technology. InforME provides application development and marketing of state agencies products and services through service level agreements. InforME is a self-supporting entity and generates revenue through fees or surcharges on premium services paid by subscribers and from money, goods or in-kind services donated or awarded from non-General Fund sources.

InforME is operated by a private network manager. Oversight is provided by the InforME Board, a 17-member entity that includes, but is not limited to, members from state agencies who are major data custodians, a representative from the University of Maine System, a representative of an association of municipalities, a non-profit organization advancing citizens' rights of access to information, and a representative of an association of public libraries. The

InforME board sets policy and approves fees for InforME services. The Department of Administrative and Financial Services, Bureau of Information Services, provides staff to the InforME board. InforME is required to conduct an annual audit and to submit an annual report to the Legislature. In addition, the State's Chief Information Officer provides oversight of the Network Manager.

Maine is one of nine states that currently have Internet gateways, with Maine being the only state in the Northeast. Public/private Internet gateways are established in response to the following factors: the public demands more responsive access, state databases are not electronically accessible, the state lacks resources to invest in technology, the existence of a disparity in web standards, presentation and navigation, and cost inequities and duplication between agencies.

The advantages of Internet gateways include the following: accelerated electronic access to public information, expanded information through the Internet, voluntary participation by state agencies, and a single point of contact for the public.

F. Municipal Linkage

1. Overview

Increasingly, Maine citizens are demanding efficient delivery of government services at all levels of government. The use of technology by Maine citizens in both rural and urban areas of the State is also increasing. One way to satisfy citizens' demand for governmental services is to assist municipalities in increasing their use and access to technology. Currently, several hundred municipalities do not have technology in place to enable the coordination of government services using the Internet.

The Internet can potentially provide small local governments with access to a wealth of information and services, and can provide the following:

- Citizen access to community information and governmental services;
- Enhanced communication among municipalities and between municipalities and other levels of government; and
- An electronic link between local governments and state agencies to improve efficiency and accountability.

2. Maine Governmental Information Network Board

The Maine Governmental Information Network Board was established by Public Law 1999, chapter 428. The board was established to enhance electronic data exchange among state and local governments and other providers of governmental services. The board oversees the computer network that connects individual municipal governments and other governmental service providers. The board consists of seven members including the Secretary of State and the Director of the Bureau of Information Services, two public members, two members representing municipalities' interests and a member with technical expertise in electronic communications. The Office of the Secretary of State provides administrative support to the board and is responsible for all regular operations of the board.

The board's powers and duties include the following:

- Overseeing the construction and operation of a computer network to connect state, local and regional governments;
- Enabling electronic access to the electronic data resources of any state agency whose data enhances the delivery by a municipal government or county government of state services;
- Providing grants to municipalities and counties for the purchase of computer hardware, software and peripherals necessary to connect the municipalities and county governments with state data and information systems;
- Contracting to provide technical support to municipal and county information network participants;
- Contracting to provide basic computer training and instruction in the operation of the statewide computer network; and
- Employing consultants and accepting and using any funding available to the board.

Chapter 428 also created the Maine Governmental Information Network Fund to carry out the purposes of the law. However, limited funding of \$1,000 for Fiscal Year 2000-2001 was allocated to the Fund.

IV. FINDINGS AND RECOMMENDATIONS

1. Uniform Electronic Transactions Act

Findings: The Commission finds that electronic commerce is expanding rapidly and can contribute to economic growth in the State. The Commission also finds that uniformity among state laws recognizing the validity and enforceability of electronic signatures, records and writings is important to the continued expansion of electronic commerce. The Commission further finds that the model Uniform Electronic Transactions Act, when adopted by the states, will provide certainty and uniformity in the area of electronic transactions. Additionally, the Commission finds that UETA is: (1) permissive - it does not mandate the use of electronic signatures; (2) technology neutral; and (3) applicable to both private transactions and public transactions.

Recommendation: The Commission recommends the Legislature adopt the Uniform Electronic Transactions Act in Maine. (Draft legislation that implements the Commission's recommendation for adoption of UETA is included as Appendix F.)

2. Digital signature legislation

Findings: The Commission finds that although the definition of electronic signature in UETA is broad enough to encompass digital signatures, legislation that specifically sets criteria for digital signature use in Maine is necessary. The Commission further finds that digital signature legislation in Maine should encompass the following principles:

- The use of digital signatures should be at the option of the parties to the transaction;
- Regulation of digital signatures should be technology neutral;
- Security procedures should be required; and
- Digital signatures for transactions involving state governmental entities should conform to regulations adopted by the Secretary of State.

Recommendation: The Commission recommends the Legislature consider enacting digital signature legislation in the Second Regular Session of the 119th Legislature. (Draft legislation that implements the Commission's recommendation for regulation of digital signatures is included as Appendix G.)

3. Credit card payments to state agencies

Findings: The Commission finds the following regarding credit card use by state agencies:

- a) that state agencies should make their services accessible to consumers over the Internet and that acceptance of credit cards by state agencies for agency services will encourage consumers to use the Internet for the provision of those services;
- b) that passing credit card surcharges on to consumers would not encourage consumers to use the Internet, but in fact would discourage use by consumers; and
- c) that the State's contract with the major credit card companies includes a merchant fee that is higher than the Commission believes it could be. The Commission also finds that if the State obtained a lower credit card merchant fee, the fee that an agency must absorb within its existing budget would be lowered.

Recommendations: The Commission recommends the following regarding credit card use by state agencies:

- a) that the State require agencies to accept credit cards;
- b) that Maine law continue to provide that credit card surcharges not be passed on to the consumer; and
- c) that the State negotiate with credit card companies for a lower merchant fee on credit card transactions with state agencies.

(Draft legislation that implements the Commission's recommendation to require agencies to accept credit cards is included as Appendix H.)

4. Electronic payments to state agencies

Findings: The Commission finds that citizens' demands for access to state government services electronically are increasing and that state government needs to be responsive to those demands. The Commission further finds that citizens' demands for paying for governmental services by electronic means, in addition to credit cards, are increasing and will continue to increase in the future. The Commission further finds that the infrastructure for processing these electronic payments appears to be inadequate and requires further study.

Recommendation: The Commission recommends that, by February 15, 2000, the State Treasurer's Office study and develop procedures to enable state agencies to accept payments for goods and services by electronic means, including but not limited to electronic funds transfer, and report to the Joint Standing Committee on Business and Economic Development on its progress.

5. Statutory impediments to electronic commerce

Findings: The Commission finds that there may be existing language in Maine law that could impede the use of electronic commerce in Maine, particularly for purchasing governmental products and services. An example of one such impediment may be statutory language providing that an individual must appear in person in order to transact business with a governmental agency. The Commission finds that identifying these types of statutory provisions is necessary to allow for the purchase of governmental services electronically.

Recommendation: The Commission recommends that the Legislative Council direct the nonpartisan staff to conduct a study to identify existing impediments to electronic commerce in Maine law and that the study report be submitted to the Joint Standing Committee on Business and Economic Development by December 1, 2000.

6. Maine Governmental Information Network

Findings: The Commission finds that to adequately serve the citizens of Maine, local governments should increase their use and access to technology. Thus, the Commission finds that the Maine Governmental Information Network should be appropriately funded so that it may begin its work of enhancing electronic data exchange among state and local governments and other providers of governmental services. The Commission further finds that the Joint Standing Committee on Utilities and Energy should be the legislative body to study and recommend a funding mechanism(s) for the Maine Governmental Information Network.

Recommendation: The Commission supports funding for the Maine Governmental Information Network and recommends that the Joint Standing Committee on Utilities and Energy consider a variety of funding mechanisms for the Maine Governmental Information Network and report out legislation containing its proposal for the appropriate funding mechanism(s) during the Second Regular Session of the 119th Legislature.

7. Business incentives

Findings: The Commission finds that enabling the growth of existing high-quality businesses and attracting new investment to Maine is essential to the expansion of Maine's economy. The Commission further finds that Maine currently offers a comprehensive package of performance-based economic development incentives to businesses; however, the Department of Community and Economic Development, which facilitates and coordinates access to these programs, should improve the process by which information

about these programs is distributed in order to promote Maine's economic development incentives among both in-state and out-of-state businesses.

Recommendation: The Commission recommends that the Commissioner of the Department of Economic and Community Development initiate a process to simplify, streamline and promote existing performance-based business incentive programs, particularly those related to technology, and report to the Joint Standing Committee on Business and Economic Development by January 1, 2001 on the department's progress. The report should include proposed legislation, if any, necessary to implement this recommendation.

8. Joint Standing Committees

Findings A:

The Commission finds that technology-related issues will continue to be an important factor in the State's economic development and that the Legislature should be consistent in its approach to dealing with these types of issues. Thus, the Commission finds that the Joint Standing Committee on Business and Economic Development, which currently has jurisdiction over business and economic development issues, should be given jurisdiction over technology-oriented legislation. The Commission further finds that the name of the Joint Standing Committee on Business and Economic Development should be changed in order to reflect the committee's new jurisdiction and to promote the Legislature's commitment to the development of technology in the State.

Recommendation A: The Commission recommends that the Joint Rules of the Legislature be amended to change the name of the Joint Standing Committee on Business and Economic Development to the Joint Standing Committee on Commerce and Technology to bring under its jurisdiction emerging technology-oriented business development issues.

Findings B:

The Commission finds that the telecommunications industry is rapidly expanding and that the number of legislative proposals concerning telecommunications is increasing. The Commission further finds that the name of the Joint Standing Committee on Utilities and Energy, which currently has jurisdiction over telecommunications issues, should be changed to reflect the number and variety of telecommunications issues considered by that committee.

Recommendation B. The Commission recommends that the Joint Rules of the Legislature be amended to change name of the Joint Standing Committee on Utilities and Energy to the Joint Standing Committee on Utilities, Energy and Telecommunications to reflect the variety of telecommunication issues that the committee currently has under its jurisdiction.

9. Extension of Commission

Findings: The Commission finds that the issues it was charged with studying are complex and require additional study. These issues include the following, as they relate to the Internet and information technology in Maine: E-commerce, E-government and Maine's Freedom of Access law, education, consumer privacy, Internet abuses, hate mail and pornography, electronic crimes, Internet access and business development. The Commission further finds that in order to complete its examination of these complex issues it will require additional meetings with corresponding additional funding.

Recommendation: The Commission recommends that **Resolve 1999, chapter 89 be amended to extend the Commission into the legislative interim following the Second Regular Session of the 119th Legislature to continue its work in the following areas as they relate to the future of the Internet and information technology in Maine: E-commerce, E-government and Maine's Freedom of Access law, education, consumer privacy, Internet abuses, hate mail and pornography, electronic crimes, Internet access and business development. (Draft legislation that implements the Commission's recommendation for additional meetings is included as Appendix I.)**

References

- Carmel, Eisenach and Lenard, *The Digital Economy Factbook, First Edition* (Washington, DC: The Progress and Freedom Foundation, 1999).
- Department of Economic and Community Development, "State of Maine Business Incentives, Business Assistance and Business Climate Information," June 1999
- DeVol, R., *America's High-tech Economy: Growth, Development, and Risks for Metropolitan Areas* (Miliken Institute, 1999). +
- Forrester Research Inc., "Internet Services Hypergrowth," February 1999, www.forrester.com
- Forrester Research Inc., "Unlocking Home Business," December 1998, www.forrester.com
- Gidari, Morgan and Coie, "Survey of State Electronic and Digital Signature Legislative Initiatives in the United States," September 1997, www.ilpf.org
- Gidari, Morgan and Coie, "Update: Survey of Electronic and Digital Signature Legislative Initiatives in the United States," April 1998, www.ilpf.org
- Government Finance Officers Association, "GFOA Fact Sheet, Credit Card Fees and Surcharges," 1998, www.gfoa.org
- Gwadowsky, Dan, "InforMe, A Gateway to Democracy", PowerPoint presentation, September 1999
- Harreld, H., "Digital Signatures Key to Cross-governmental Biz," *Marketplace*, October 1999.
- Houlihan, Dan, "Digital Signatures, Technology for Secure Electronic Commerce: A Brief Overview" PowerPoint presentation given on November 1999.
- McBride, Baker and Coles, "Scope of Authorization to Use of Electronic Signatures in Enacted Legislation," May 1999, www.mbc.com
- McBride, Baker and Coles, "Definition of the Term "Electronic Signature in Enacted Legislation," May 1999, www.mbc.com
- McBride, Baker and Coles, "Definitions of the Term Digital Signature in Enacted Legislation," May 1999, www.mbc.com
- Slanis Technology, Inc., "Electronic and Digital Signatures – An Overview: U.S. Federal Legislation and Standards," 1999

Smedinghoff, T.J., "Digital Signatures: the Key to Secure Internet Commerce, An Overview of Law and Legislation," National Conference of State Legislatures Annual Meeting, July 1998

United States Internet Commission, "State of the Internet: USIC's Report on the Use and Threats in 1999," August 1999, www.usic.org

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