

FINAL REPORT OF THE ELECTRONIC COMMERCE STUDY COMMITTEE

The Honorable James W. Tysinger

Senator, District 41

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Introduction

During the 1998 Session of the General Assembly, Act 659 (Senate Bill 433), was passed by the legislature and signed into law by Governor Miller. Among other points, this legislation reappointed the Electronic Commerce Study Committee for the 1998 interim. The Committee met throughout the past year addressing legal and policy issues concerning the Georgia Electronic Records and Signatures Act and issues related to the states use of public key and other electronic commerce technology. This report encompasses the work of the Committee over the past year and its recommendations for the upcoming legislative session.

The Study Committee and Legislation

Brief Legislative History

In 1996, pursuant to Senate Resolution 7, Lieutenant Governor Pierre Howard appointed Senator Jim Tysinger to chair the Senate Digital Signature Study Committee. This Committee heard testimony from a cross section of public and private interest regarding the use of digital signature technology. As a result of this Committee's work, the General Assembly passed the Georgia Electronic Records and Signatures Act during the 1997 Session. This legislation authorized the use of electronic records and signatures in addition to those in written form and provided for the legal effect thereof. The legislation provided a private right of recovery for Georgia citizens harmed by the unauthorized use of an electronic signature, and encouraged both public and private sector entities to use electronic and digital signature technology through pilot projects. Finally, the bill created the Electronic Commerce Study Committee (ECSC), a joint committee made up of members from both houses of the General Assembly, other state officials and private citizens. [See footnote 1 1](#)

During the 1997 interim, the ECSC received testimony from both the public and private sectors on various issues and recommendations relating to electronic commerce. The Committee was also presented with proposals for the pilot projects to serve as proof-of-concept for the use of electronic and digital signatures. The proposals were submitted in response to a request for proposal on behalf of the Georgia Information Technology Policy Council (ITPC). The establishment of seven pilot programs met the ITPC's mandate established under the Electronic Records and Signatures Act. Based on the work of the ECSC, the 1998 General Assembly passed S.B. 433 as mentioned above. [See footnote 2 2](#)

1998 Work of the Committee

Over the 1998 interim, the Committee heard among other issues, testimony related to public key infrastructure and policy formulation among state agencies (see section entitled Georgia's Paradox, page 5), a "secure" electronic signature versus simply an electronic signature, and the present and potential scope of Georgia's Electronic Records and Signatures Act. The Committee was also presented with status reports of the pilot projects, other areas where the State is using electronic commerce, and testimony on what other states are doing both legislatively and in the use of this technology.

The final meeting consisted of a drafting committee to address changes in Georgia's current legislation. During this meeting, consensus was reached that all electronic signatures need to be recognized in order not to hinder the growth of electronic commerce in the State. However, there should be a distinction with regard to secure electronic signatures. Second, that while businesses should be bound by electronic signatures, the State and private citizens should not be required to use electronic records or signatures except when they consent. Finally, there was consensus among members of the Committee that Georgia needs to remain in a flexible posture, as case law and legislation in this area continue to evolve throughout the country. Both the use of electronic commerce technology and the legislation which addresses this issue will no doubt see significant changes in the years to come.

Based on these meetings, the Committee states the following recommendations:

(1) That legislation be enacted building on the current Electronic Records and Signatures Act as follows:

(B) Redefine electronic signatures as "secure electronic signatures."

(C) Add a new definition to the current law defining electronic signatures to include all signatures including secure electronic signatures.

(C) Define records to include all electronic commerce.

(D) To amend the current law to provide that business shall be bound by electronic signatures and records and that governmental agencies and consumers shall be bound by

electronic signatures and records only to the extent that they agree to be bound by such electronic signatures and records in the form of a secure electronic signature or electronic signature. ([See attached sample bill.](#))

(2) That the Electronic Commerce Study Committee be permanently continued by deleting the sunset in O.C.G.A. 50-29-12(d) and by making appropriate conforming changes.

The Implementation and Use of Technology

Why States are Rushing Toward E-Commerce Implementation

In many states around the country, budgets in the area of electronic commerce and digital technology are rapidly expanding. Demand, disintermediation, and cost savings seem to be the three reasons why state governments are rushing to embrace all this technology.

Two recently released reports illustrate how fast demand for e-services may increase over the next few years. The usually conservative market research firm, Forrester Research, predicts that worldwide e-commerce could reach between \$1.4 trillion to \$3.2 trillion in online sales by 2003.[See footnote 3 3](#) According to a new Cyber Stats survey, 53.5 million U.S. adults, or 27 percent of the adult population, currently use the Internet. This study even recognizes the concept of "active" users. The report also notes that 72 million adults have access to the Internet.[See footnote 4 4](#) According to Government Technology magazine, "smart governments will migrate to online services at the same rate their populations are going online," as "netzens" (citizens with Internet access) demand services online.[See footnote 5 5](#)

In the private sector, disintermediation means bypassing the agent, broker or retailer to offer the same product directly online. The result is lower operating cost, shorter cycle times, increased efficiency and convenience, greater choice and lower prices. When comparing this new model to the old over-the-counter face-to-face model, it is the cost savings which should inspire state governments. The airline industry reports that it costs \$8 to book a traditional reservation and \$1 to process a ticket electronically. For banks, it costs a penny to conduct a transaction over the Internet but more than \$1 if handled by a teller. The first government statistics are beginning to emerge: Arizona reports it costs about \$7 to renew a vehicle registration in person and about \$2 online. That is a cost reduction of more than 70 percent, and it does not include the costs to the public of taking time off work, driving, parking and waiting in line. Again, according to Government Technology magazine, 90 percent of government services are still delivered in the traditional over the counter fashion.[See footnote 6 6](#)

A further illustration of costs was conducted recently by the National Center for State Courts in their report entitled A Guidebook for Electronic Court Filing. This report notes that initial startup costs, when implementing electronic filing, will increase the total costs of operations. However, the total costs of operations will begin to drop significantly as startup costs are absorbed and operational efficiencies begin to have an impact.

According to their analysis, the manual processing time in hours for 100 court documents is approximately 9.75 hours. Conversely, using an e-filing system to process 100 court documents would take approximately 8.8 minutes, a staff time saving of 9.63 hours per 100 documents. If this figure is adjusted for staff savings at a \$30,000 annual salary plus benefits of 30 percent, the monetary savings is projected at \$218.86 per 100 documents filed.[See footnote 7 7](#)

Other States

At the request of the Committee Chairmen, the Senate Research Office made an analysis of what other states are doing in the areas of e-commerce and digital technology. This summary was primarily based on a few of the areas included in a study by the Progress and Freedom Foundation (PFF) and Government Technology magazine entitled The Digital State 1998. This summary examined the following four areas found in the study: Digital Democracy; Business Regulation; Taxation; and Law Enforcement and the Courts.

Digital Democracy: The application of digital technology, largely via the Internet, to permit timely and extensive citizen access to laws, legislators and the democratic process.[See footnote 8 8](#)

Alaska

(www.legis.state.ak.us)

One of the primary missions of the Legislative Affairs Agency is to provide Alaskans with the objective information they need to make informed decisions about the public policy choices confronting the Legislature and to provide legislators with open lines of communication with Alaskans.

The Legislative Information Office (LIO) network provides the citizens of Alaska with a one-stop location for all their legislative information needs. Established in the early 80s, these offices serve as a resource to all Alaskans, especially residents that do not have the means for Internet connections. The LIOs provide teleconference services, fax services for transmissions to legislators, written session materials, access to a legislative library, and access to a computer connected to the Bill Action Status Inquiry System, and maintain the Public Opinion Messages (POMs) service that enables citizens to send a brief electronic e- mail to legislators. The POMs may be sent to LIOs by fax, telephone or in writing, making the system accessible to all.[See footnote 9 9](#)

The Alaska State Legislature's web site contains a large amount of appropriations and budget content. This includes: agency requests; committee reports; the governor's request; the legislation; and a guide for citizens entitled the Swiss Army Knife of Budget Handbooks.

Business Regulation: Availability of regulations, forms, on-line assistance and/or the ability to submit required "paperwork" using the Internet or in digital form.[See footnote 10 10](#)

Michigan

(www.cis.state.mi.us/corp)

The Corporation, Securities & Land Development Bureau has the dual responsibility of actively encouraging the growth of business in Michigan while at the same time protecting investors and consumers.

To help them meet these responsibilities, they are using The Michigan Electronic Filing Program (Mich-ELF) to process forms. This paperless corporate record filing system utilizes a fax gateway that displays documents on computer screens and routes the completed forms seamlessly through the system until documents are ready to be digitally stored. No paper is created in this process. This service is available 24 hours a day and has been hailed by businesses throughout the state.[See footnote 11 11](#)

Their web site includes an online information index, and an investor education section. Education materials include the Basics of Investing a guide for individual investors, Kid\$ Inve\$t a web site educating about investing, and the quarterly disciplinary action reports showing actions taken by the state against firms doing business in Michigan.

Taxation: Use of digital technologies to store and retrieve taxpayer information, and/or the ability for taxpayers to obtain information, submit returns or correspond with revenue authorities on-line.[See footnote 12 12](#)

Maryland

(www.comp.state.md.us)

The Maryland State Comptroller of the Treasury's Office features a pilot program that assists new businesses in the state tax account registration process. The Combined Registration Application (CRA) is filled out on-line and information is protected by Verisign encryption. The CRA is used to open accounts for sales and use tax, employer withholding, unemployment insurance, admissions and amusement tax, tire recycling fee and transient vendor licenses.

Registrants simply complete a new registration form by following the prompts and, upon submission, the information is seamlessly transmitted to the necessary agencies.

Maryland's paperless CRA system speeds up the business registration process and enables the Comptroller's office to digitally manage the large volume of business tax registrations.[See footnote 13 13](#)

Their web site also includes information for tax preparers to file electronic returns. Electronic returns are processed the same night they are received, and in most cases refunds are mailed within 48 hours. The status of refunds may be checked by an automated refund telephone inquiry.

Law Enforcement and the Courts: Utilization of digital technologies by the judicial system, including on-line access to court opinions, use of digital communications by police agencies and the presence or absence of "digital signature" capability for contracts and filings.[See footnote 14 14](#)

Utah

(www.ps.ex.state.ut.us/cits/bci)

The state of Utah is assisting in the development of the Combined DNA Index System (CODIS), an initiative being led by the FBI. This database will maintain a national collection of convicted offender DNA profiles. The Forensic Biology Section of the state's Division of Law Enforcement and Technical Services is applying various collection and identification techniques to ensure the highest quality DNA information is captured for the system. Presently, several states have passed laws authorizing the collection of DNA samples from sexual offenders and individuals that commit serious crimes. Utah's efforts will benefit citizens throughout the country by providing law enforcement entities with access to a state- of-the-art criminal identification database.[See footnote 15 15](#)

The Utah Department of Public Safety Web Site also includes crime statistics, and handbooks for drivers, commercial vehicle and motorcycle operators. The web site lists 46 service areas ranging from bicycle safety to Utah missing persons.

Georgia's Paradox

In the above mentioned report, The Digital State 1998, which was in part published by Government Technology magazine in September of 1998, Georgia received a digital report card ranking of 42 out of the 50 states. This was a 14 point drop from the State's 1997 ranking of 28. However, in October of 1998, the same publication, Government Technology magazine, awarded the state 3rd place in its annual "Best of the Web" contest. Understanding this apparent paradox illustrates where the State needs to concentrate its efforts with regard to e-commerce. While GeorgiaNet is nationally recognized for its work in developing the State's web presence, the state as a whole is losing ground when it comes to technology policy and implementation.

The GeorgiaNet Authority Background

The GeorgiaNet Authority is the primary entity concerned with the State's front end web site development. Created in 1990 by the Georgia General Assembly, GeorgiaNet is a self-funding state authority with the purpose of providing electronic access to public

information. In November 1996, GeorgiaNet moved their dial-up information to the Internet. Over 95 percent of the information located on the GeorgiaNet site is freely available, and agencies are not charged fees for development of their online presence. This not only enables them to make the majority of their current information available to the general public for free, but also enables the State of Georgia to develop a wide variety of electronic commerce applications

Over the past two years, GeorgiaNet has assisted many state agencies and commissions in the development of online information services. GeorgiaNet provides Internet access to legislative information, including full text to all introduced legislation and live audio from the House of Representatives and Senate; legal information, including the Georgia code, administrative rules and regulations, the Georgia Register, and Attorney General opinions; and travel information including current traffic speeds and road conditions in the Atlanta area, flight schedules, and a wide variety of tourism information.

In addition to making a tremendous amount of information available via their Internet site, GeorgiaNet, in cooperation with the Department of Transportation, Industry, Trade & Tourism, and MARTA, has developed a state-wide Internet based kiosk network. Georgians can access information on Atlanta traffic conditions, check current weather, make hotel and motel reservations, and access a vast array of Georgia tourist attractions and information.

Some Specific E-Commerce Applications

Corporations Division, Office of the Secretary of State: The workload of the Corporations Division has increased by approximately 10 percent each of the past two years. During that period, the Division has reduced its staff by more than 10 percent. The Division has exceeded the Governor's 5 percent redirection requests in each of the past two years. Response times for all services provided by the Division have improved by more than 100 percent. GaNet's relationship with the Corporations Division has been a component of the Division's reduction in staff and improvement in response times, both in the face of an ever- increasing workload.

The GaNet Authority has worked closely with the Corporations Division on several initiatives that have enhanced customer service and expanded access to business entity information. The Corporations Division is the filing agency for corporations, limited liability companies and limited partnerships in the State of Georgia. There are approximately 350,000 active entities currently on file, and nearly 600,000 total records. Some 4,000 new entities are filed each month. The Division issues approximately 6,500 name reservations each month and certifies more than 5,000 records each month. GaNet assisted the Division with the posting of business entity data on the Internet. Registered agent and officer and address information may now be obtained, free of charge, 24 hours a day. This has helped the Division reduce the number of telephone calls received each month by about 10 percent, to the current level of 28,000, over the past four months.

GaNet worked closely with Division management to develop a system whereby name reservations, certificates of good standing and certified copies may be requested via the Internet. The Division presently receives about 200 Internet requests each day. Customers may pay for certificates by credit card under a system developed by GaNet and approved by the Corporations Division. This eliminates the need to send an invoice with each order, and process a check upon receipt of payment. The system also assists customers with accounting records relative to business with the Corporations Division.

GaNet also developed an accounting system whereby "regular" customers of the Division, primarily law firms and service companies, can establish accounts with GaNet and the Division. For many customers, this offers the opportunity to avoid writing literally hundreds of checks to the Division each month. The system has streamlined accounting activities of the Division by eliminating steps involved with the processing of multiple checks. Several meetings have been held with Division management toward the development of a system to allow online payment of business entity annual registrations. Approximately 310,000 annual registrations will be mailed out by the Division in 1999. It is anticipated that online registration will be available in the Summer of 1999. GaNet continues to work closely with the Division to assure that legal mandates are met, to expand access to public information, and to assist the Corporations Division in its daily customer service initiatives.

Digital Signature Pilot Project: In October of 1997, the Georgia Department of Banking and Finance, the GeorgiaNet Authority and First Union National Bank were selected to participate in a joint digital signature pilot project. The pilot project involved the filing of "Georgia Residential Mortgage Act Fee Statements" by mortgage lenders and brokers.

The GeorgiaNet Authority developed the online digital signature pilot application. First Union National Bank enlisted the participation of GTE CyberTrust as the official certifying authority for the pilot project. Mortgage brokers and lenders accessed the site to securely apply for and receive their valid digital certificate.

In September, First Mortgage Banc of Georgia volunteered to file their Georgia Residential Mortgage Act Fee Statement electronically. First Mortgage Banc digitally signed and submitted their Georgia Residential Mortgage Act Fee Statement. They reported 75 mortgage closings and authorized the electronic payment of the required fees of \$487.50 from their bank account to the State of Georgia. The funds were transferred electronically on September 30, 1998.

Professional License Renewals: GeorgiaNet is currently developing several online professional license renewal applications for the Real Estate Commission and the Secretary of State's Office. On Monday, December 14, 1998, professional engineers were able to renew their professional licenses by accessing a Web page on GeorgiaNet. It is anticipated that by January 1999, real estate agents and professional architects will be able to renew their professional licenses by accessing a Web page on GeorgiaNet. The professional will be able to view the renewal form online and make necessary corrections to the license information maintained by the agency. They would then pay the renewal

fee by credit card and receive electronic confirmation that their license had been renewed. It is anticipated that between 10 to 20 additional license renewal applications will be implemented during 1999.

This is only a partial list and does not include the many applications which GeorgiaNet has under development, nor does it include the critical application developed for the ITPC so that state agencies may publically report their "Year 2000" readiness. From a financial standpoint, GeorgiaNet's expenses decreased from \$4 million in fiscal year 1996 to \$2.6 million in fiscal year 1998. Revenue over expenses went from \$14.6 million to \$16.5 million during this same period, representing a 13 percent increase. In short, the GeorgiaNet Authority does an outstanding job helping agencies publish their content and providing fee based services over the Internet. However, GeorgiaNet is neither charged with nor does it have the resources to create content or establish e-commerce policy development for state agencies.

Technology Policy and Implementation

As noted from Georgia's ranking in The Digital State 1998 report, the state as a whole needs to move faster in implementing e-commerce solutions to stay on pace with other states around the country. Implementing electronic commerce solutions requires the resolution of a unique set of business (policy and management), technical, and legal issues. Generally, to implement rational electronic commerce solutions, business managers must first determine what is technically possible and second what is legally acceptable. Once it is known what the technicians can do and what the lawyers will allow, business managers must carefully weigh other factors, such as cost/benefit and return on investment, in-sourcing versus out-sourcing, and user friendliness, to name a few.

Some business, technical, and legal issues must be resolved on a case-by-case basis depending on the specific application being implemented. For instance, certain issues related to the electronic filing of court documents are different than issues related to transmitting electronic adoption information between private service providers and the Department of Health and Human Resources. [See footnote 16 16](#) However, if for nothing more than efficiency, it is essential that general business, technical, and legal policy should be developed to guide individual agencies and the courts in implementing electronic commerce solutions. There is a need to strengthen Georgia's present position as an electronic commerce implementor through: (1) leadership; (2) funding; and (3) continued policy development.

Leadership: To facilitate strong leadership, the Study Committee recommends reaffirming and strengthening: (1) the leadership role of the office of Georgia's Chief Information Officer (hereafter "CIO"); (2) business and legal policy development role of the Information Technology Policy Council; and (3) the technical role of the Department of Administrative Services and GeorgiaNET.

Funding: Strong leadership and continued policy development does not come without an appropriation. The CIO's office has only limited resources dedicated to electronic commerce issues. The Study Committee has relied heavily on Georgia's unfunded Pilots and the Digital Signature Task Force in developing its recommendations and policy. While the Study Committee is satisfied with its work to date, it is clear that the continued development of electronic commerce in Georgia depends on increased funding of electronic commerce efforts.

Policy Development: The Study Committee, in close cooperation with the Information Technology Policy Council and Georgia's Pilots, is developing a skeletal electronic commerce policy framework to Guide Georgia's agencies (and courts). However, policy development is still in its infancy. Further work must be done in the areas of: (1) general electronic commerce solutions (e.g., low risk transactions); and (2) secure electronic commerce solutions (e.g., sensitive, high-risk transactions).

The development of secure electronic commerce solutions depends heavily on the development of model public-private public key infrastructure (PKI) policy and systems within the state. While comprehensive electronic commerce policy must be developed for general solutions, PKI policy will have an important and critical place in Georgia's comprehensive policy.

The CIO's office should develop and support a model PKI policy for Georgia's state agencies and courts, act as a liaison between state agencies in collecting and disseminating PKI "lessons learned," and develop policy for aggregating and stimulating public-private demand for PKI services within the state.

Nationally and internationally, there are many electronic commerce and PKI forums including, but not limited to, government organizations, [See footnote 17 17](#) legal and technical standards- making bodies, [See footnote 18 18](#) and national pilot projects. [See footnote 19 19](#) It is important for Georgia not only to continue to participate in and learn from national and international activity, but also to exert its presence in these forums by contributing to ongoing work product.

Based on the testimony furnished over the past year, the Committee recommends:

That the FY 2000 budget include \$200,000 to the Information Technology Policy Council for support in helping enable electronic commerce in the State of Georgia and help educate state agencies in the use of electronic commerce.

Footnote: 1 1 For further detailed information see the Report of the Senate Digital Signature Study Committee, December 1996.

Footnote: 2 2 For further detailed information see the Final Report of the Electronic Commerce Study Committee, December 1997.

Footnote: 3 3 Forrester Research, Inc. November 1998 survey of 600 senior-level business executives .

Footnote: 4 4 Fall 1998 Cyber Stats report from Mediamark Research Inc.

Footnote: 5 5 Governance and Digital Democracy on the Internet, Government Internet Guide: Linking Government with Solutions for the Future. Page 8 & 9. Supplement to Government Technology, October 1998.

Footnote: 6 6 Ibid.

Footnote: 7 7 A Guidebook for Electronic Court Filing, the National Center for State Courts, November 1998.

Footnote: 8 8 The Digital State 1998, Page 6. Executive Summary. Progress & Freedom Foundation September 1998.

Footnote: 9 9 Ibid.

Footnote: 10 10 The Digital State 1998, Page 13. Executive Summary. Progress & Freedom Foundation September 1998.

Footnote: 11 11 Ibid.

Footnote: 12 12 The Digital State 1998, Page 15. Executive Summary. Progress & Freedom Foundation September 1998.

Footnote: 13 13 Ibid.

Footnote: 14 14 The Digital State 1998, Page 19. Executive Summary. Progress & Freedom Foundation September 1998.

Footnote: 15 15 Ibid.

Footnote: 16 16 For example, information in court documents is generally public information, while information in adoption records is usually private. As a result of differing privacy consideration, business managers implementing either system must make different policy decisions based on, in this example, technical security of information and legal liability if information is compromised.

Footnote: 17 17 See the National Electronic Commerce Coordinating Council, <http://ec3.org/>.

Footnote: 18 18 The Internet Engineering Task Force's PKIX Workgroup develops technical PKI standards. See <http://www.imc.org/ietf-pkix/>. See also, <http://www1.xcert.com/~marcnarc/PKI/>. The American Bar Association Information Security Committee develops legal PKI standards, including the Digital Signature Guidelines. See <http://www.abanet.org/scitech/ec/isc/>.

Footnote: 19 19 See the National Automated Clearing House Association Internet Council, <http://internetcouncil.nacha.org/>. Georgia, through one of its pilots, recently acted as drafter and reporter of NACHA's CARAT Certificate Policy Guidelines. See

<http://internetcouncil.nacha.org/CARAT/default.htm>

and

[http://internetcouncil.nacha.org/PKIGuidelines.htm.](http://internetcouncil.nacha.org/PKIGuidelines.htm)

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