

THE ELECTRONIC SIGNATURES IN GLOBAL AND NATIONAL COMMERCE ACT

HEARING BEFORE THE SUBCOMMITTEE ON FINANCE AND HAZARDOUS MATERIALS OF THE COMMITTEE ON COMMERCE HOUSE OF REPRESENTATIVES ONE HUNDRED SIXTH CONGRESS FIRST SESSION

ON

H.R. 1714

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THE ELECTRONIC SIGNATURES IN GLOBAL AND NATIONAL COMMERCE ACT

THURSDAY, JUNE 24, 1999

HOUSE OF REPRESENTATIVES,
COMMITTEE ON COMMERCE,
SUBCOMMITTEE ON FINANCE AND HAZARDOUS MATERIALS,
Washington, DC.

The subcommittee met, pursuant to notice, at 10:05 a.m., in room 2322, Rayburn House Office Building, Hon. Michael G. Oxley (chairman) presiding.

Members present: Representatives Oxley, Gillmor, Bilbray, Lazio, Shimkus, Shadegg, DeGette, Luther, and Capps.

Staff present: Paul Scolese, professional staff member; David Cavicke, majority counsel; Brian McCullough, professional staff member; Betsy Brennan, staff assistant; and Consuela M. Washington, minority counsel.

Mr. OXLEY. The subcommittee will come to order. The Internet has been called the most significant technological development since the discovery of electricity. It is a medium that poses great opportunities for education, communication, and commerce. Commerce on the Internet is projected to grow exponentially to hundreds of billions of dollars in transactions by 2002. The Internet poses significant opportunities for more Americans to become directly involved in the capital markets.

The securities industry has responded to this opportunity with proliferation of on-line trading brokers. Today, millions of Americans trade securities on-line. The cost savings to investors are significant. Full service brokerage costs as much as \$400 per trade. On-line brokerage is less than \$10 per trade at some firms.

The law needs to keep up with this significant technological development. H.R. 1714 called E-Sign, is designed to bring legal certainty to electronic transactions. The legislation states that contracts shall not be deemed invalid because they are authenticated electronically, rather than the old fashion way, with a handwritten signature.

Technology companies are working on a variety of authentication technologies that will help to verify the identity of parties on the Internet. This will allow a contract or agreement to be electronically signed or ensure that transactions between parties take place in a safe environment.

Title 3 of the bill, which is the subject of today's hearing, specifically addresses the use of electronic signatures and electronic records in the securities industry. Title 3 is designed to meet the specific needs of electronic brokerage. One goal is to allow cus-

tomers to open accounts on-line without the need of physically signing a brokerage agreement and mailing it back to the broker. Title 3 of the legislation modernizes the securities laws by providing that requirements for a writing can be satisfied by an electronic signature.

The legislation does not endorse any particular electronic authentication technology. We think the market is the best place to decide that.

Our witnesses today are leaders in the electronic brokerage industry. They will educate us on the role of technology and electronic signatures in facilitating transactions in the digital economy.

I look forward to their testimony and the Chair yields back.

[Additional statements submitted for the record follow:]

PREPARED STATEMENT OF JOHN SHADEGG, A REPRESENTATIVE IN CONGRESS FROM
THE STATE OF ARIZONA

Thank you Mr. Chairman, I commend Chairman Bliley and Chairman Oxley for their leadership on the issue of electronic authentication, or "digital signature." I am confident this legislation allows companies engaged in online securities trading greater ease and efficiency by validating the legal use of electronic or digital signatures. Furthermore, H.R. 1714 provides added protections for personal financial information that could be compromised during electronic commerce transactions.

In the last three years, electronic commerce has advanced to a billion dollar a year industry. Today, consumers can purchase plane tickets and even trade securities online. Digital signature technology is quickly becoming more prevalent to create a valid legal contract and protection information shared between two entities whose sole interaction exists on the Internet.

This issue is significant for the 4th Congressional District of Arizona and exponential economic growth of the City of Phoenix. Charles Schwab & Company, the foremost authority on Internet securities trading, operates its main computer facility and online securities trading business out of its Phoenix offices. As this panel will hear from Mr. Hardy Callcott, Senior Vice President and Chief Counsel at Charles Schwab, since 1996, Charles Schwab's online securities industry has grown to over 2.5 million online accounts and roughly \$2 billion of Internet trading a day.

Over 40 states, including Arizona, have enacted laws addressing the use of digital signatures in some form. The Arizona law deals specifically with electronic filing of court documents and online filings with the Secretary of State's Office. However, the law does not address electronic commerce or, more importantly, securities trading.

Several forms of electronic signature have been adopted by various states. The most widely accepted forms rely upon a Certification Authority. Simply put, a Certification Authority is a third party entity that issues digital certificates to each applicant in order to verify the digital signature issued for electronic commerce or securities transactions.

The need for federal legislation and creation of a uniform electronic signature framework is best demonstrated by the fact that no two current state digital signature laws are alike. This lack of uniformity and the reality that the Internet transcends any geographic boundaries further validate the need for a national framework included in H.R. 1714.

Mr. Chairman, earlier this year, this subcommittee in conjunction with the Subcommittee on Telecommunications, Trade and Consumer Protection, conducted a hearing on the issue of identity theft. As the sponsor of identity theft legislation which was enacted into law in October of 1998, I strongly advocate additional efforts by Congress to protect consumers' personal and financial information. I believe the framework proposed in H.R. 1714 will build on the protections afforded to victims of identity theft by providing a means to prevent theft of personal or financial information on the Internet.

I strongly support H.R. 1714 and believe a national framework for digital signatures is the best method for providing legal validity to online securities trading and protecting the sensitive information used in electronic commerce. I am looking forward to hearing from the assembled panel of witnesses, including Mr. Callcott of Charles Schwab, on the current status of online securities trading and the need for a uniform electronic signature framework.

Thank you and I yield back the balance of my time.

PREPARED STATEMENT OF HON. TOM BLILEY, CHAIRMAN, COMMITTEE ON COMMERCE

Thank you Mr. Oxley.

The electronic brokerage industry is one of the shining examples of the success of electronic commerce. A few short years ago allowing individuals to trade stocks over the Internet was just an idea in the minds of entrepreneurs.

Today, millions of Americans are now managing family finances or their retirement portfolios using the Internet.

Increasingly, we are seeing more and more complex transactions take place on line. Electronic commerce is not just about buying books and CDs online, we are now seeing people use the Internet to purchase automobiles, life insurance and to apply for a mortgage.

As the value and complexity of online transactions grow, the need for knowing that the transaction is legally binding becomes even more important.

Fortunately, industry is working on a variety of electronic authentication technologies that will help verify the identity of parties on the Internet, allow a contract or agreement to be electronically signed and ensure that transaction between these parties take place in a safe and secure environment.

While the technology is moving forward, the law is not.

Currently the legal status of an electronic signature used to seal an online transaction is unclear. To date, forty-four states have enacted some sort of law to provide legal recognition to an electronic signature. Unfortunately, no two laws are the same—some only recognize electronic signatures used on government filings, while some laws only recognize an electronic signature generated by a specific technology.

Because of this patchwork of laws, industry is hesitant to widely use electronic authentication. For unfettered interstate commerce to occur, businesses and consumers must have a single nationwide standard so that all online transactions enjoy the same legal protection regardless of the location of the parties.

This is where H.R. 1714 comes in. By clarifying the legal uncertainty surrounding the acceptance of electronic signatures and records in interstate commercial transactions, more businesses will use electronic signatures and consumers will feel more comfortable doing business online.

Title 3 of the bill, which is the subject of today's hearing, specifically addresses the use of electronic signatures and electronic records in the securities industry. The Committee wanted to acknowledge the broad federal reach of our nation's securities laws by recognizing the importance of electronic signatures to the securities industry.

It is also important to point out that H.R. 1714 does not endorse a specific technology or limit the types of companies that can offer electronic signature services. These are decisions that should be left to the marketplace, not to Congress.

Our witnesses today, representatives of leading online brokers, will tell this subcommittee about the role electronic signatures will play in providing their customers with new and better services.

Anyone who has opened a brokerage account, established an IRA or had money wired from one account to another knows how much paperwork is involved. By using electronic signature technology, brokers could do away with the blizzard of paperwork, and customers will know that their transactions are safer and more secure.

I want to thank all of our witnesses for appearing at this hearing and I want to thank you Mr. Oxley for holding this hearing.

I yield back the balance of my time.

PREPARED STATEMENT OF HON. JOHN D. DINGELL, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MICHIGAN

Mr. Chairman, I commend you for holding this hearing and I thank you for keeping the record open for inclusion of statements by Members who were unable to attend the hearing.

I congratulate both my good friends Chairman Bliley and Ms. Eshoo for their legislative leadership in the important matter of electronic signatures.

This hearing focuses on title III of Chairman Bliley's bill, H.R. 1714. This title amends the federal securities laws to ensure that contracts, agreements, and records will be legally valid if signed in electronic form. The provision preempts "any State statute, regulation, or rule of law."

As I stated at the June 9 hearing in the Subcommittee on Telecommunications, Trade, and Consumer Protection on titles I and II of this bill, I believe that this is an important issue and that carefully crafted legislation is appropriate. I agree with the witnesses that such legislation will provide efficiencies and cost savings for

industry and for investors. However, I have some concerns with the preemption provisions as well as broader technical concerns with H.R. 1714. I therefore have requested the views of the Securities and Exchange Commission and the North American Securities Administrators Association to assist us in addressing these matters. That letter request accompanies my statement. I request that it and the responses also be included in the hearing record.

I understand that the industry witnesses are pressing the Committee to act on this legislation this Summer. I hope that we will take the time to address outstanding concerns and improve the language as we move forward. I pledge to work with Chairmen Bliley and Oxley to that end. In addition, it has been argued by some that electronic signatures will somehow defeat crooks and stop fraud. I harbor no such illusions. Digital signatures no doubt will slow down some illegal behaviors. However, crooks have computers too and, as we know from today's headlines, the ability to crack codes and break into systems exists. Fraud, electronic and otherwise, is on the rise and will continue to be a constant battle for industry and regulators whether we adopt this legislation or not.

U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON COMMERCE
June 24, 1999

The Honorable ARTHUR LEVITT, JR.
Chairman
Securities and Exchange Commission
450 Fifth Street, N.W.
Washington, D.C. 20549

Mr. PHILIP A. FEIGIN
Executive Director
North American Securities Administrators Association, Incorporated
10 G Street, N.E., Suite 710
Washington, D.C. 20002

DEAR CHAIRMAN LEVITT AND MR. FEIGIN: Today the Committee's Subcommittee on Finance and Hazardous Materials held a hearing on H.R. 1714, the Electronic Signatures in Global and National Commerce Act. The purpose of this legislation is to facilitate the use of electronic records and signatures in interstate and foreign commerce. I am transmitting a copy of that legislation along with the background material and the testimony of the three industry witnesses.

I am writing to request your views and technical assistance on H.R. 1714 for inclusion in the hearing record and to guide us in processing this legislation. Your assistance is especially needed on title III (use of Electronic Records and Signatures Under Federal Securities Law) which amends the Securities Exchange Act of 1934 and preempts "any State statute, regulation, or rule of law."

Thank you for your attention to this matter. I respectfully request that you submit your response by July 12, 1999.

Sincerely,

JOHN D. DINGELL
Ranking Member

Enclosures

cc: The Honorable Tom Bliley, Chairman
Committee on Commerce
The Honorable Michael G. Oxley, Chairman
Subcommittee on Finance and Hazardous Materials
The Honorable Edolphus Towns, Ranking Member
Subcommittee on Finance and Hazardous Materials

NORTH AMERICAN SECURITIES ADMINISTRATORS ASSOCIATION, INC.
WASHINGTON, DC 20002
July 12, 1999

The Honorable JOHN D. DINGELL
Ranking Member
Committee on Commerce
Room 2322
Rayburn House Office Building
Washington, D.C. 20515-6115

RE: H.R. 1714 - Electronic Signatures in Global and National Commerce Act

DEAR CONGRESSMAN DINGELL: Thank you for inviting us to comment, provide our views and our technical assistance on H.R. 1714, the Electronic Signatures and National Commerce Act. Please accept this comment letter on behalf of the North American Securities Administrators Association, Inc. ("NASAA") in response to your correspondence of June 24, 1999. NASAA welcomes the opportunity to provide input on this very important subject.

I. INTRODUCTION

NASAA commends the House Commerce Committee on its efforts to modernize the method in which commerce is conducted electronically. NASAA agrees that if the domestic securities markets are to retain their reputation as being in the forefront of technology, efforts must be made to permit the modernization of securities transactions through electronic signatures and record keeping. At the same time, such technological advances must be incorporated into our regulatory system in a manner that compromises neither investor protection nor the legal sanctity of contractual agreements.

NASAA is particularly interested in Title III of H.R. 1714. Revisions to the Securities Exchange Act of 1934 and similar state securities statutory provisions, including those to accommodate innovations in technology, should be approached in a manner that ensures the vital and beneficial protections they provide are preserved. Furthermore, the regulatory agencies mandated to supervise market participants must have the ability to monitor the securities industry even given these changes. We recognize that government regulations should not discriminate against the ability of the private sector to take advantage of advances in technology. At the same time, as a matter of public policy, we must do our best to assure that, regardless of the technology employed by firms, adequate safeguards are in place for investors and for the markets as a whole.

II. COMMENTS ON H.R. 1714

In considering H.R. 1714, two overarching issues concerning electronic securities signatures and record keeping are raised in our view. First, regardless of the record keeping technology employed by securities firms, it should be clear that records must be produced to regulators and made available for their review and examination in a readily recognizable form. Second, given the transition to a paperless system, investors should have ready, online access to their account agreements and statements.

A. Title I

Proposed rules for the validity of electronic records and signatures for commerce are set forth in Title I of H.R. 1714. At Section 102 (b)(1), discrimination in favor of or against a specific technology is prohibited, in order to facilitate electronic commerce. While fulfilling the legislative intent of H.R. 1714 to promote efficiency through technological advances, we believe a clear statement that production of records must be in a standard language will protect consumer interests. Securities regulators will continue to have the ability to oversee the securities industry regardless of what technology securities firms possess.

The term and usage of "electronic signature" are defined at Section 104(2). Pursuant to Section 104(2)(A), an electronic signature is intended to signify the parties' assent to a contract or an agreement. Under Section 104(2)(B) and Section 104(2)(C), an electronic signature also validates the identity of the parties and must be linked to the record in a secure manner so as to preclude alteration of the record after the signature is recorded. As we make the transition to a paperless system, it will become increasingly important that customers have online access to their account agreements and statements.

B. Title II

The proposed rules for the development and adoption of electronic signatures, products and services are set forth in Title II of H.R. 1714. NASAA applauds the sponsors' decision in Section 201(b)(2)(a) to allow free markets and self-regulation rather than the government to govern the development of electronic signatures. Government should permit private industry to foster technological advances. In addition, parties should be free to contract in any manner that facilitates efficient dealings in commerce and a mutual understanding of the parties.

In Section 201(c), the Secretary of Commerce is directed to conduct an inquiry within three years after the date of the enactment of this Act, to determine whether state statutes, regulations or other rules enacted or adopted after such enactment comply with Section 102(b). In considering this federal legislation, we believe the

Congress would be well served to consider state statutes already enacted that address the same issues now. Since 1995, when Utah enacted the first comprehensive law regulating electronic signatures, more than forty states have recognized the benefits of electronic commerce through the adoption of legislation. Also, the National Conference of Commissioners of Uniform State Law ("NCCUSL") has been working since 1997 to update electronic standards for commerce through the model "Uniform Electronic Transactions Act." We suggest that all would benefit from a consideration of the state legislation already enacted, and that the state experience should be evaluated contemporaneously with consideration of this bill.

C. Title III

In Title III of H.R. 1714, the proposed rules for the use of electronic records and signatures under federal securities laws are set forth. As stated previously, NASAA believes the Act would be enhanced with a clear statement to the effect that nothing in the Act should be construed to absolve a brokerage firm of its obligation to produce records to regulators in a readily understandable format. This would resolve any concern about any potentially adverse impact of the proposed changes to Section 3 of the Securities Exchange of 1934 (15 U.S.C. 78c) on investor protection.

III. CONCLUSION

Earlier this year, NASAA formed an Online Trading Project Group, which I chair, to explore the many aspects of this new technology and the opportunities and problems it may present. As you proceed in consideration of H.R. 1714, and as we continue in our study and review of the related issues, consideration should be given to the following areas:

- It should be made clear that in accommodating the development of new technologies, neither favoring nor deterring a specific technology or method for facilitating electronic commerce, regulated firms will continue to be required to provide records to regulators in a readily understandable and standard format.
- Electronic contracts will have the same legal effect as written contracts. For instance, customers enter into comprehensive customer agreements in which, among other things, customers bind themselves to resolve disputes with a firm through mandatory arbitration, the terms for extension of "margin" are set forth, and the trading of speculative securities such as options is authorized. For reasons such as these, it will grow increasingly important that the customer agreement and transaction records be available to them at any time, online and available to them for downloading so that they may read, review and understand them better. In a paperless environment, we should examine alternatives for seeing to it that electronic contract or agreement disclosure language is readily available to customers.
- A major component of the acceptance by the public of the electronic signatures and record keeping system will be their belief that that system is secure and reliable. They will want some assurances against fraud. Retrieval and review by customers of their account records is the best check on unauthorized account activity. To assure electronic signatures have not been misappropriated to engage in fraudulent activity in an account, customers' account records should be made available to them at all times. The account record must be in a format that can be downloaded and printed.

NASAA supports the goals of H.R. 1714 and looks forward to continuing to work with you to ensure this landmark legislation that will strengthen the securities markets and provide both opportunity and protection for investors. If the Committee has any questions regarding this letter, please call me at (603) 271-1463 or Karen O'Brien, NASAA General Counsel, at (202) 737-0900.

Very truly yours,

PETER C. HILDRETH
New Hampshire Director of Securities
President, NASAA

cc: Honorable Thomas Bliley
 Honorable Michael G. Oxley
 Honorable Edolphus Towns

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
 WASHINGTON, D.C. 20549
 July 23, 1999

The Honorable JOHN D. DINGELL
Ranking Member
Committee on Commerce
United States House of Representatives
 2322 Rayburn House Office Building
 Washington, D.C. 20515-6115

DEAR CONGRESSMAN DINGELL: Chairman Levitt has asked me to reply to your letter dated June 24, 1999 regarding H.R. 1714, the proposed Electronic Signatures in Global and National Commerce Act. In response to your letter, the Chairman asked the Commission staff to provide technical assistance to your staff as the bill was being considered by the Subcommittee. As you know, Title III, which directly affects the Securities and Exchange Commission ("SEC" or "Commission"), was amended prior to being reported out of the Finance Subcommittee earlier this week.

The overall goal of H.R. 1714, which is to facilitate the use of technology in interstate commerce by providing legal certainty with respect to the use of electronic signatures, reflects a long-term SEC goal in promoting electronic signatures and the use of developing technologies in the financial markets. As early as 1986, the Commission grappled with electronic signature issues in connection with EDGAR. More recently, in 1995, the Commission provided guidance regarding the use of electronic media to satisfy delivery obligations under the federal securities laws and regulations. The Commission extended this framework in 1996 by providing guidance regarding, among other things, the use of electronic communication to satisfy Commission regulations requiring investor consent to receipt of Commission-mandated disclosure documents in electronic form.

I understand that the bill as amended by the Finance Subcommittee represents a considerable improvement over the original bill. The amendment addressed a number of concerns expressed by the Commission staff about the bill as introduced. That being said, the staff continues to have several concerns about the bill as amended, most of which echo concerns expressed in your statement on the bill dated July 21, 1999.

First, the staff stresses the importance of the exceptions contained in subparagraphs (h)(3)(A) and (B) of the amendment. As you know, this is a narrow piece of legislation designed to establish legal equivalence between written signatures and electronic signatures to facilitate electronic commerce transactions between private parties. Nonetheless, the staff believes that the exceptions are important to avoid, any unintended consequences to the SEC's regulatory mission. The first exception protects the ability of the Commission and self-regulatory organizations to designate formats for filing records involving electronic signatures. As you noted in your statement, this language is intended to protect current and future arrangements regarding regulatory filings, including EDGAR and the Central Records Depository System operated by the National Association of Securities Dealers. The second exception protects the ability of the Commission to continue to require manual signatures in connection with transactions in penny stocks and similar securities which are susceptible to fraud.

Second, the staff emphasizes the need to clarify the relationship between Title I which addresses the validity of electronic signatures and writings in the context of interstate commerce generally, and Title III. Without such clarification, Title I may be interpreted in such a way as to undermine the Commission's regulatory authority under Title III. I understand that the Telecommunications Subcommittee will mark-up Title I some time next week.

Third, while significant progress has been made on Title III, the staff believes that additional work may be needed to clarify the scope of, and interaction between, the provisions contained in subparagraph (h)(1) of Title III of the bill as amended. These provisions address the validity of electronic signatures and writings for documents "required by the securities laws" on the one hand, and documents entered into, or accepted by, the securities industry on the other. The staff is currently in the process of reviewing these provisions and their effects in detail and may provide additional technical assistance to your staff on this issue as the bill continues to move forward.

Finally, I note in passing the staff's view that the legal effect and enforceability of electronic signatures and electronic writings are primarily state law issues, not federal securities law issues. In this regard, we are aware of the efforts of the National Conference of Commissioners on Uniform State Laws ("NCCUSL") to address this issue through the Uniform Electronic Transactions Act ("UETK"). We under-

stand that the UETA will be considered for approval at NCCUSL's annual meeting this year (July 23-July 30). Given the states' traditional primacy in the area of commercial law, the staff believes that federal legislation should leverage the states' expertise to the fullest extent possible and encourage swift adoption of uniform state legislation in this area. We understand and appreciate, however, that the Committee wishes to address the specific concerns of the securities industry relating to the use of electronic signatures and related writing in the securities context.

We appreciate this opportunity to outline our remaining issues with the bill. We look forward to continuing to work with you, the other members of the Committee, and Committee staff as the bill moves forward.

Please contact me at (202) 942-0900 if you have any questions.

Sincerely,

HARVEY J. GOLDSCHMID
General Counsel

Mr. OXLEY. We'd now like to introduce our witnesses. First, if they could come forward. Mr. Hardy Callcott, Senior Vice President, General Counsel from Charles Schwab & Company, from San Francisco. Mr. Thomas C. Quick, President and COO, Quick & Reilly/Fleet Securities, from New York. And Mr. Michael Hogan, Senior Vice President and General Counsel for DLJdirect Inc., from Jersey City, New Jersey.

Gentlemen, welcome to all of you. We appreciate your coming here. Mr. Callcott, you get the award for coming the longest distance, which is merely a warm handshake around here, but we are honored to have everyone here and we will begin with Mr. Callcott.

STATEMENTS OF W. HARDY CALLCOTT, SENIOR VICE PRESIDENT AND GENERAL COUNSEL, CHARLES SCHWAB & CO., INC.; MICHAEL J. HOGAN, SENIOR VICE PRESIDENT AND GENERAL COUNSEL, DLJDIRECT INC.; AND THOMAS C. QUICK, PRESIDENT AND COO, QUICK & RILEY/FLEET SECURITIES, INC.

Mr. CALLCOTT. Thank you, Mr. Chairman. My name is Hardy Callcott and I am from Charles Schwab in San Francisco. I want to thank you for the opportunity to testify on behalf of the "Electronic Signatures and Global and National Commerce Act," which we believe will create the kind of predictable market oriented environment necessary to foster the continued growth of electronic commerce. This is a good bipartisan bill which we hope will become Federal law in this session.

Charles Schwab is a great example of the value of electronic commerce to our economy and its acceptance by individual customers. In just 3 years, we have become the largest on-line brokerage in the world with 2.5 million active on-line accounts holding some over \$219 billion in total customer assets. To give you a sense of contrast, amazon.com currently conducts about \$3 million a day of business on its Internet website. Schwab conducts about \$2 billion of Internet commerce per day.

If we are already conducting so much business on-line, why do we believe that electronic authentication legislation is necessary. The answer is simple. Schwab and other broker-dealers need greater certainty that electronic signatures will have the same legal effect as traditional pen and ink signatures on paper based agreements. For example, if somebody currently wants to open an account at Schwab, they have to fill out a paper application manually, sign it and submit it to us in person or through the mail. With electronic authentication, this could all be done on-line. So could

other transactions which also require a signature, such as change of address forms, wire transfer requests, and IRA distributions. Handling these and other transactions on-line will be quicker and more convenient for our customers as well as for firms such as ours.

Let me discuss briefly why we support this legislation. First, it provides needed uniformity. Today's securities markets are national in scope and involve transactions that are entirely interstate in nature. Schwab does business in all 50 States and we may not even know where our customer, who has a laptop or one of the wireless computers, where they are when they are accessing our systems. If a Schwab customer in Ohio accesses our website and places an order electronically, that order is going to be transmitted to our main data processing facility in Phoenix, where it is going to be reviewed, and then it is going to be routed to a stock exchange in New York or Massachusetts or Illinois or a market maker in New Jersey. So that the transactions that we are engaging in are, as I say, completely interstate in character. For that reason consistent uniform Federal standards are really imperative if brokers and others in the securities industry are going to be able to engage in electronic commerce with certainty or liability.

A similar need for uniformity was the impetus behind the National Securities Market Improvement Act as well as the Securities Litigation Reform Act. Uniformity and electronic authentication is in our view the logical next step. Although efforts are under way at the State level to legislate on electronic signatures, patchwork regulation by the State remains the greatest barrier to the use and development of electronic technology. Numerous States have enacted or are considering electronic signature statutes, but they vary greatly in their definitions and the types of transactions that they cover. Some of them are technology specific and some contain standards that favor certain types of technology over others and the result is a lack of consistency, potential conflicts, and continuing legal uncertainty for business.

Second, this bill is technology neutral. Technology is obviously a critical component in any legislation dealing with electronic authentication, and the technology is evolving rapidly. We believe legislation must be technology neutral so as not to stifle continued innovation. By broadly defining electronic signature, this bill allows the market to decide which technologies work, to balance the costs and the risks, and to reach an innovative and cost effective solution for both businesses and consumers.

In its July 1997 Framework for Global Electronic Commerce, the administration embraced a series of fundamental principles which in their view should govern the role of government in the electronic marketplace. Among these principles were that the private sector should lead, the government should avoid undue restrictions on electronic commerce and where government involvement is needed, its aim should be to support and enforce a predictable minimalist, consistent and simple legal environment for commerce. Those are all direct quotes from the administration. We agree and we believe this bill is consistent with those important principles, and we are very pleased that this bill has bipartisan support here on the committee.

In sum, H.R. 1714 deserves the committee's support and it represents a crucial step toward passage of a law that will enable the United States to continue to lead the entire world in electronic commerce. Thank you.

[The prepared statement of W. Hardy Callcott follows:]

PREPARED STATEMENT OF W. HARDY CALLCOTT, SVP, GENERAL COUNSEL, CHARLES SCHWAB & CO., INC.

Mr. Chairman and members of the Committee, my name is Hardy Callcott. I am General Counsel at Charles Schwab & Co., Inc. of San Francisco, California. Thank you for the opportunity to testify on behalf of the "Electronic Signatures in Global and National Commerce Act" (H.R. 1714). My comments this morning will focus primarily on Title III of the bill, which addresses the use of electronic records and signatures under federal securities law, and I will also provide you with background on the current need for federal legislation. We at Schwab thank the principal sponsor of H.R. 1714, Chairman Bliley, along with his co-sponsors, for their bipartisan endorsement of what we hope will become law in this session of Congress: a technology-neutral, uniform federal law validating the use of, and reliance upon, electronic records and signatures.

Charles Schwab & Co., Inc. is an excellent example of the value of electronic commerce to our economy and its acceptance by individual consumers. In just three years, we have become the largest online brokerage in the world, with 2.5—million active online accounts holding some \$219—billion in total customer assets. Schwab conducts about \$2 billion of Internet commerce per day. By way of contrast, Amazon.com currently conducts about \$3 million of business per day on its Internet website.

Online investing offers tremendous benefits to individual investors, the most important of which is access to better information: real-time access to investment research, market news, company press releases and SEC filings, earnings estimates and consensus recommendations, quotes, account balances, and other investment tools such as stock screening, stock charting, and portfolio tracking. Very simply, the Internet has done more to put individual investors on a level playing field with large institutional investors than any development since fixed commissions were abolished in the 1970's.

Online investing has also dramatically reduced transaction costs for individual investors. Most online trades at Schwab cost \$29.95, compared to average commissions of several hundred dollars per trade at full-commission firms. Online investing is also convenient: customers can do research and place trades at their convenience, at any time, day or night, for execution during market hours. Online investing offers accuracy and control. And online investing allows customers to make their own decisions without having to trade through a full-commission broker who may, or may not, have the customer's interest at heart. These factors help explain the rapid growth in customer demand for online investing.

If so much business is already being successfully conducted online, why, then, is electronic authentication legislation necessary? The answer is a simple one. Schwab and other broker-dealers need greater certainty that electronic communications and agreements bearing electronic signatures will have the same legal effect as traditional paper-based communications and agreements bearing a handwritten signature.

Take the simple example of account-opening procedures. Currently, customers fill out account applications on paper, sign them manually, and then submit them in person or through the mail. With electronic authentication, this could be done entirely online and would save the industry—and, inevitably, the customer—tens, if not hundreds, of millions of dollars in operating costs. It also would be quicker and more convenient for the customer. Other transactions which require signatures now must be handled manually and could also be performed online if we are able to obtain legal assurances that electronic authentication would be recognized. These include: allowing margin trading, allowing option trading, change of address forms, wire transfer requests, beneficiary forms, IRA distributions, and letters of authorization.

Uniformity and consistency are the most important elements in providing us with the legal certainty we need. Today's securities markets are national in scope and operation and involve transactions that are entirely interstate in nature. Schwab does business in all fifty states, and may not even know from where a customer with a laptop or a wireless computer is accessing our systems. A single transaction with a customer may involve activities that take place in many different states. For ex-

ample, if a Schwab customer in Richmond, Virginia, accesses our website and places an order electronically, that order is transmitted through the customer's Internet service provider, which may be located in California, to our main computer facility in Phoenix, Arizona. The order is then routed for execution to a stock exchange located in another state such as New York, or to a market-maker which may be located in still another state, such as New Jersey.

This is precisely what Congress envisioned when it adopted the 1975 amendments to the Securities Exchange Act of 1934 and directed the SEC to oversee the development of a national securities market. The SEC has carried out its congressional mandate in part through the adoption of consistent and uniform federal standards that have allowed broker-dealers to engage in interstate transactions without having to adjust their nationwide operations to comply with varying and inconsistent state standards. As a result, the United States securities markets have become the envy of the world.

Consistent and uniform federal standards validating electronic authentication are imperative if brokers and others in the securities industry are to engage in electronic commerce with any degree of certainty and reliability. This Committee has already recognized this reality in the areas of books and records and securities litigation, for example. Uniformity was the impetus behind the National Securities Markets Improvement Act ("NSMIA"), and the two private securities litigation reform acts. Uniformity in electronic authentication is the logical and necessary next step, and it can be accomplished by adjusting the '34 Act to allow the SEC the flexibility it needs to carry out its responsibility to protect investors and guarantee uniform enforcement of the securities laws in an electronic environment.

Without baseline federal legislation such as H.R. 1714, Schwab and others will be left facing a patchwork of inconsistent laws and regulations by the states that pose perhaps the single greatest barrier to the use and development of electronic signature technology and the continued evolution of e-commerce. Most every state either has already adopted or is in the process of adopting its own law governing electronic authentication—and no two are alike. States have taken widely disparate approaches to electronic authentication. Some states, such as Utah, recognize only one type of electronic authentication—digital signatures—and regulate the providers of electronic authentication services through a bureaucratic system of registration, licensing and payment of fees. Other states, such as Florida, have adopted laws that only recognize transactions with the state government.

Beyond these two basic formats, state laws take varying approaches with respect to such matters as regulation of certificate authorities and the definition of "electronic signatures", "electronic records" and other basic defined terms. They contain varying treatment of licensed and unlicensed certificate authorities, differing fee schemes, different rules for suspension of certificates, varying treatment of liability between parties, and divergent standards for agreement on the use of electronic formats. Some state laws recognize only particular technologies, such as "digital signatures" and public key infrastructure, or "PKI," technology, while others are technology-neutral.

Although we applaud the initiative and leadership the states have provided, the need for uniformity remains paramount. The states themselves are aware of the problems posed by conflicting laws, as reflected by the efforts of the National Conference of Commissioners on Uniform State Laws (NCCUSL), which was responsible for the adoption of the Uniform Commercial Code (UCC) thirty years ago, to draft a Uniform Electronic Transactions Act (UETA). A final version of the UETA is due to be submitted to the states next month. While we enthusiastically endorse NCCUSL's efforts, however, there is no assurance that the UETA will be adopted uniformly by all or even a majority of states, or that it will be adopted in a reasonable time frame. It is worth recalling that it took nine years (from 1958-1967) for the UCC to achieve adoption nationally, and even then two jurisdictions, Louisiana and the District of Columbia, failed to adopt it in its entirety. The Uniform Securities Act, first proposed in the 1950s and revised in the 1980s, still has failed to provide uniform state securities laws. Very simply, the electronic commerce industry does not have the luxury of that kind of time. We need federal action now to allow us to go forward with certainty and clarity in the marketplace.

The need for uniformity and consistency across jurisdictions and borders has been recognized by almost everyone involved in electronic commerce issues, including the Administration. In its July 1, 1997 Framework for Global Electronic Commerce, the Administration embraced a series of fundamental principles which, it argued, should govern the role of government in this emerging marketplace. Among these were that "[t]he private sector should lead," that "[g]overnment should avoid undue restrictions on electronic commerce," and that "[w]here governmental involvement is needed, its aim should be to support and enforce a predictable, minimalist, consistent

and simple legal environment for commerce.” With respect to its global application, the Framework notes that “[t]he legal framework supporting commercial transactions over the Internet should be *governed by* consistent principles across state, national, and international borders that lead to predictable results regardless of the jurisdiction in which a particular buyer or seller resides.” (emphasis added). We agree wholeheartedly and believe that H.R. 1714 is consistent with this position.

Uniformity and harmonization of national laws is also important in the international arena. The United Nations Commission on International Trade Law (UNCITRAL) has promulgated a Model Law on Electronic Commerce and is currently drafting a set of uniform rules for electronic signatures. The purpose of these uniform rules is to “prevent[] disharmony in the legal rules applicable to electronic commerce” by providing a set of standards on the basis of which the legal effect of electronic signatures can be recognized. The Organization for Economic Cooperation and Development (OECD) is involved in similar efforts to develop guidelines to harmonize national laws governing electronic commerce in general and electronic authentication in particular.

H.R. 1714’s efforts to create domestic uniformity is thus fully in accord with the principles endorsed by the Administration and international bodies such as UNCITRAL and the OECD. It not only promotes greater uniformity within the United States, but will better enable the United States to press for the adoption of consistent standards internationally. Indeed, the use of the word “global” in the title of H.R. 1714 reflects the recognition and appreciation of the political reality that the historic limitations of domestic and international boundaries are rapidly vanishing in favor of an electronic marketplace where even the most geographically isolated among us can have the ability to engage in informed and reliable transactions over the Internet.

H.R. 1714 also reflects the other principles underlying the Administration’s Framework and these international efforts—technology neutrality, party autonomy, non-discrimination, and a minimal approach to government regulation—all of which we support. We see no need for legislation that attempts to resolve all open issues in this area or sets up new standards or regulatory regimes. What is needed is simple legislation that constructs the framework within which the market can develop the technologies and systems that work best.

Technology neutrality is a critical component of any legislation dealing with electronic authentication. Technology in the electronic commerce area is evolving rapidly. Legislation must be neutral so as not to stifle continued innovation. Federal legislative attempts to dictate what technology is or is not acceptable, however well-intentioned they might be, will fail. The market should be allowed to select those technologies that work and deliver appropriate security and reliability, and to reject those which do not. Legislation that enshrines any particular technology, such as public key infrastructure, or sets standards that give one technology an advantage over others will stifle innovation at these critical early stages.

For this reason, legislation should include a broad definition of “electronic signature” that enables market participants to choose among themselves which technology and which level of security and liability meets their individualized needs for any particular situation. Existing law does not establish minimum standards of security and liability for pen and ink signatures (for example, there are no minimum standards to make signatures harder to forge). Similarly, we believe legislation should not set minimum standards for electronic signatures. The market will work this out, selecting the best technologies, balancing costs and risks, and inevitably reaching a result which is innovative and cost effective, both to the broker and the customer.

In conclusion, Charles Schwab believes that H.R. 1714 deserves the Committee’s support and represents a significant step toward the passage of a law that will enable the United States to continue to lead the world in electronic commerce.

Thank you.

Mr. OXLEY. Thank you, Mr. Callcott.
Mr. Hogan.

STATEMENT OF MICHAEL J. HOGAN

Mr. HOGAN. Good morning, Chairman Oxley. My name is Michael Hogan, and I am the Senior Vice President and General Counsel at DLJdirect, Inc., a pioneer in the on-line brokerage industry. I appreciate the opportunity to testify in support of H.R. 1714, the Electronic Signatures and Global and National Com-

merce Act, and to thank you and the entire committee for your leadership role in addressing the important policy issues of the electronic marketplace.

We support H.R. 1714 and believe that Federal legislation to establish a national acceptance of electronic signatures is critical to the success of our business as well as to the continued growth of the electronic marketplace, both in the United States and around the world. With the chairman's permission, I would ask that my full statement be inserted in the record.

Mr. OXLEY. Without objection, all of the statements will be made part of the record.

Mr. HOGAN. Thank you. First and most importantly, I want to emphasize how important it is that Congress act now to address the issue of digital signatures and records. Already 2.5 million Americans invest on-line. A quarter of those individuals opened accounts in 1998. Today one in every three individual trades each day is executed on-line and that number will only go up. I am here today to tell you that this bill responds to a real need and will help to address real problems that we at *DLJdirect* and our consumers encounter every day.

People use the Internet because it is convenient, persuasive and empowers—pervasive and empowering. A quarter of all our consumers' trades are placed at night by people who value their access to financial services on their own time. These consumers complain about our process when we require them to execute some written agreement, mail it in, and wait for it to be received and acted upon before they can engage in further activity with us. This situation makes no sense in an age when the whole process can be conducted in the blink of an eye entirely on-line.

At *DLJdirect*, we allow instant account opening upon electronic application. However, because of the uncertainty, which this bill will resolve, we then inundate our consumers with a follow-on paper process. For example, I brought with me today one of every form which we require a signature on. I have 40 of them here. It is bulky, it is unnecessary, it is e-commerce on training wheels. With the help of this bill, 1 day soon this physical process will become obsolete.

Let me mention one everyday problem caused by the lack of acceptance of digital signatures. The current physical environment surrounding the transfer of an account from one broker to the next. Streetwide firms require written signatures based on the New York Stock Exchange and -NASD rule before they will release a client's assets. The entire process can take weeks, weeks during which an investor is unable to access some or all of his portfolio or any cash balance. The process is frustrating and inexplicable to an on-line consumer. Recognition of digital signatures would eliminate this delay and empower consumers to initiate the transfer of their accounts immediately and on-line.

We at *DLJdirect* support H.R. 1714 because it will provide legal certainty and a clear, straightforward rule of law and it will do it in a technologically neutral way. The bill sets forth certain baseline requirements that will enable interstate e-commerce to flourish. National standards are no stranger to the securities industry. Congress and regulators long ago recognized the importance of a strong

Federal role in the industry. Just as the basic criteria for use of a paper signature are well established and fundamentally uniform, the same should be true for digital signatures if they truly are to take the place of paper.

As you know, the U.S. is not the only forum in which these issues are being debated. The European Union is moving forward rapidly with its own directive addressing electronic signatures, one that adopts a far different and in our view a misguided approach. In the Internet world, developments occur at a dizzying pace. Often the first at the door with the new standard or rule is able to win acceptance and influence the shape of later events simply by being first. For that reason, and because we believe the approach represented by H.R. 1714 is the right one, rapid passage of the bill before the EU issues its directive in the fall is imperative.

Congress and this subcommittee through passage of the bill will deserve great credit for helping the U.S. Vision to prevail as the model for electronic signatures and contracts in the future. We at DLJdirect thank this subcommittee and the committee as a whole for taking significant steps in that direction and urge your continued effort to submit a bill to the President for his signature this summer.

I would be happy to answer any questions, Mr. Chairman.
[The prepared statement of Michael J. Hogan follows:]

PREPARED STATEMENT OF MICHAEL J. HOGAN, SENIOR VICE PRESIDENT AND
GENERAL COUNSEL, DLJdirect INC.

Good morning, Chairman Oxley, members of the subcommittee. My name is Michael Hogan, and I am the Senior Vice President and General Counsel of DLJdirect Inc., the online brokerage service of Donaldson, Lufkin & Jenrette, headquartered in Jersey City, New Jersey. I appreciate the opportunity to testify today in support of H.R. 1714, the Electronic Signatures in Global and National Commerce Act. At DLJdirect, we applaud you, Congressman Towns, Chairman Bliley, and the entire Commerce Committee for your leadership role in addressing the important policy issues of the electronic marketplace. We support H.R. 1714 and believe that federal legislation to establish a national acceptance of electronic signatures is critical to the success of our business as well as to the continued growth of the electronic marketplace, both in the United States and around the world.

A subsidiary of Donaldson, Lufkin & Jenrette, Inc., DLJdirect is one of America's premier online brokerage firms. Since we were founded just over ten years ago, DLJdirect has executed over \$53 billion in online transactions. Today, we have more than 600,000 customer accounts. DLJdirect charges \$20.00 per trade and offers investors a variety of tools and services including DLJ research, access to initial public offerings, and MarketSpeed™, our proprietary Windows software that offers investors increased performance, usability, and a full array of customized functionality. This past spring, DLJ raised approximately \$253 million for DLJdirect in a public offering to foster DLJdirect's projected growth both domestically and internationally. As the online brokerage industry continues to boom, our primary mission remains the same: to provide self-directed online investors with the most complete and convenient package of resources and services they need to manage their finances.

Some Background On Online Investing

In the decade since we were founded, the financial services industry has undergone a tremendous transformation. The Internet has revolutionized the securities industry and opened the world of investing to millions of individuals by offering lower transaction costs, increased access to market information, convenience, and speed. Currently, 2.5 million Americans invest online. Roughly one half of those individuals opened an account in 1998. Each day, one of every three individual trades is executed online. Furthermore, analysts predict that by the year 2000, 10 million individuals will be managing their investments online.

Because of regulatory requirements, DLJdirect is licensed or registered as a broker-dealer in all 50 States and is therefore subject to State contract law in all

jurisdictions. More importantly, our clients come to us over the Internet from every State and transact an increasingly wide range of financial services through us. The need for a national, uniform rule of law in the securities markets, therefore, cannot be overstated.

Moreover, the need is now. The pace of online investing continues to increase, and, if the past year offers any guide, we expect to see a renewed burst of activity in the fall, when people return to their workaday routines after summer holidays. Winter promises to be even more dramatic. Last Christmas, for example, we witnessed an explosion in the number of online applications and online activity. Setting aside the need for leadership in the international arena, which I discuss below, Congress should act if for no other reason than to clarify the rules governing electronic agreements before the next major segment of the public joins the online investing community.

H.R. 1714 Responds To Real Problems

I am here today enthusiastically to endorse H.R. 1714 and to express my gratitude and the gratitude of the investment community to Chairman Bliley, and Congressmen Oxley, Tauzin, Davis, Towns, and Fossella for pushing forward on this very important issue. *DLJdirect* cannot emphasize enough that this bill is *timely*; it responds to a real need and will help to address real problems encountered by my industry and consumers in my industry every day.

The securities industry relies on a variety of contracts and agreements to establish the relationships of the parties, the rules of the marketplace, and the elements of individual securities and money transactions. Brokerage firms generally have customers manually sign a general customer agreement and an IRS tax form (Form W-9). In a large number of cases, this is followed by the establishment of a margin account and/or options trading capability. Each of these and other types of actions currently generates a separate, unique agreement requiring a signature.

DLJdirect is the only online broker that currently allows individual investors to sign up online and begin trading in limited sums immediately, prior to receiving any written signature. We feel that's what an investor wants when using the Internet—the speed and convenience that the medium affords. All a potential investor needs to do is find our webpage at “<http://dljdirect.com>,” click on “instant account opening,” and then fill out the appropriate account application. The application is then submitted by “clicking” on the indicated button. An online agreement is then displayed, to which the new investor must indicate acceptance or rejection, again by clicking on the appropriate button. If she accepts the agreement, then, after completing an automated credit check, our system issues the new investor a password, and she can begin trading immediately.

In an attempt to maximize the convenience of the Internet to the greatest degree currently possible, we decided to take the step of allowing immediate trading with the knowledge that, without any clear rule that digital assent is enforceable, we might be “stuck” with a loss or with a lawsuit should an investor attempt to challenge the terms of the relationship prior to the submission of a written signature on an agreement. Other firms have not taken that risk. Even we at *DLJdirect* require that written agreements and IRS tax forms be supplied within 15 days of activation.

Many other typical relationships between online brokers and investors require a written signature *prior* to activation. These include:

- establishing a retirement savings account, which requires an IRA, 401(k), or other agreement;
- appointing a relative to look over an account while one vacations or is otherwise unavailable, which requires a power of attorney;
- hiring an investment manager, which requires a “discretionary account agreement”; and
- directing that money be transferred to the investor's commercial bank or from an offline to an online broker.

All of these transactions or decisions require a separate agreement or instruction signed in “hard copy.” In addition, with the increasing convergence of financial services and the expansion of online brokers into new financial areas, the need for written signatures will only grow in the absence of this legislation. Already, *DLJdirect* and many other online brokers offer a variety of interrelated services through third parties, including mortgage lending services and integrated checking and credit or debit card services in coordination with banking institutions that require more written signatures on still other hard-copy agreements.

I took the liberty in preparing for today's testimony of asking my staff to pull together one copy of every single written form at *DLJdirect* that today requires a written signature and that, if this bill passes, one day soon may be replaced with the

convenience of fully integrated online transactions. These documents are close to 40 in number and are listed in Attachment A to this statement.

Widespread Use Of Digital Signatures Promises Much-Needed Convenience To Consumers

Convenience is really at the core of why this bill is important. The primary reason why the problems I've just described matter is because they create delay that imposes several hidden costs and much obvious inconvenience on investors. At DLJdirect, new accounts have grown from 390,000 in 1997 to 590,000 in March of this year. We are currently processing 60,000 new online contracts each month. The average number of trades executed each day increased from 6,100 in 1997 to 20,200 during the first quarter of 1999.

Almost *one-quarter* of those trades are entered at night or when markets are closed, by people who don't have time or choose not to manage their personal matters during the day and so address their personal financial and other matters after working hours. The last thing they want or need is to be told that they have to acquire and mail in a written form before being able to accomplish their desired transaction. Yet that is what we and others in the online industry are forced to tell them today; their demand is for greater convenience.

To take one other example, because of the current requirement for written signatures when transferring accounts, it can take weeks for an investor to acquire the paper forms, fill them out, mail them into his or her new broker, and accomplish the transfer of assets from one institution to the other. The value of that investor's portfolio can change dramatically while it is in "limbo," and any balance in the account is unavailable during the transfer period. *In an age of instant communications and secure technologies, there is no need for this kind of serious inconvenience and delay.* Recognition of a digital signature would eliminate the "initiation delay" associated with transfers and allow investors with complex accounts to issue follow-on instructions to address problems and complete transfers with the same ease that it takes to enter and pay for a new investment.

We believe the legal certainty provided by this legislation would greatly benefit firms and investors in several ways. It would facilitate more efficient customer relationships and transactions. It would validate the Internet as a means for safe, legally secure transactions. It would enable firms and their clients easily to amend the terms of their relationships as new features and services are added. Most importantly, it would significantly reduce the underlying cost and client inconvenience attendant to paper-based contracts.

Online investing, unlike some other areas of e-commerce, is not entered into by individuals as a casual transaction. It involves an individual's money, time, and trust. To be a success, online firms depend on the confidence their individual investor clients have in the integrity and security of their accounts. Investors and the securities industry alike share an interest in utilizing acknowledged legal methodologies when entering into a brokerage relationship or managing their money. H.R. 1714 will provide the necessary legal underpinnings to do just that.

H.R. 1714 Is Carefully Crafted To Fill Existing Needs And Preserve The Creativity And Flexibility That Make The Internet Valuable.

Turning to the particulars of the legislation itself, DLJdirect supports the current House proposal for four simple reasons:

- (1) It establishes a straightforward **rule of law** that is **consistent with** the hallmarks of the securities laws and the Securities and Exchange Commission's ("SEC") mandate.
- (2) It is **market-neutral**; it does not favor one firm over another or one way of doing business over another.
- (3) It is **technology-neutral**; it does not mandate one type of technology to achieve its result and allows for future inventions and developments.
- (4) Finally, the legislation **establishes the United States as the leader** on the issue of digital signatures, positioning the United States to influence developing standards worldwide.

The Bill Establishes A Clear, Straightforward Rule Of Law.

The securities markets in the United States are the largest, deepest, and most efficient in the world. Congress, through the major securities acts, and the SEC, with its disclosure and investor protection mandates, have contributed to that success. The common element fundamental to these efforts is legal certainty—a level of certainty that many markets around the world have yet to achieve. H.R. 1714 follows in that tradition by establishing a straightforward, clear rule of law that dig-

ital signatures meeting certain basic criteria are to be treated just as paper signatures in all securities and similar financial transactions.

Legal *uncertainty* is the antithesis of strong and efficient markets. Securities firms to date have shunned reliance solely on digital signatures and digital records because they might be legally challenged on the ground that the digital signature contracts are unenforceable for failure to meet some State standard. Neither can the firms run the financial and reputational risk that one of the 50 or more regulators that oversee financial services might object to reliance on digital signatures.

The SEC and other securities regulators have begun to embrace concepts of electronic commerce, including electronic signature and electronic records. The SEC has supported disclosure and delivery of required disclosure documents through various electronic means, and it has supported delivery of documents electronically to evidence the securities contract, such as the confirmation statement. The SEC has permitted regulated firms to store required books and records electronically to save storage cost and thereby reduce costs to investors. Self-regulatory organizations ("SROs"), such as the NASD Regulation, Inc. ("NASD"), have permitted supervisors to record their signatures electronically when approving new customer accounts. However, none of the regulatory organizations believe it within their jurisdiction to take the final step and themselves declare the acceptability of digital signatures for all purposes. Title III of this bill, by amending the Securities Exchange Act of 1934 specifically to recognize digital records and signatures, will enable the SEC further to facilitate online securities transactions consistent with the rest of the securities laws.

Given the explosive growth of online securities transactions, H.R. 1714, in the U.S. tradition of the rule of law, promises to help the United States maintain its lead as the venue of choice for trading in securities. Investors will gravitate to the United States because they will have legal certainty in their online contracts and transactions.

The Legislation Espouses Market And Technology Neutrality.

H.R. 1714, because it does not mandate any specific technologies for digital signatures and expressly rejects linking the acceptability of particular methodologies to the type or size of entity involved, maintains a level playing field that allows for creativity, self-regulation, and maximum autonomy for all market participants. The bill avoids the pitfalls of many State laws that prescribe overly specific methods or criteria for digital signatures and, as a result, are of limited use to a company that transacts business over the Internet.

It is this lack of consistency which points most strongly to the need for a *national* policy in this area. We do not view H.R. 1714 as unjustly preempting the States' historic ability to order their own contract laws. Instead, the bill simply delineates certain "baseline" requirements that will enable cross-border, interstate commerce to flourish.

This Committee has already heard from other witnesses, including federal and State representatives, who have outlined the significant strides which the States have made to harmonize their laws and to facilitate digital signatures. Some of those witnesses already have explained the clear need for uniformity because of inconsistent and conflicting existing State laws. Notwithstanding the significant developments at the State level, which should be congratulated and continued, we also believe there is a clear need for federal legislation to ensure conformity in the essential requirements for digital signatures as soon as possible. Just as the basic criteria for a paper signature are well-established and fundamentally uniform, the same should be true for digital signatures if they truly are to take the place of paper. A clear national standard we believe is in the interest of the States, the federal government, e-commerce participants, and the international community.

A national standard is particularly appropriate in the context of securities. The securities industry possesses a long history of federal oversight and regulation. Regulators and market participants long ago recognized that for securities a strong federal role was appropriate; additional federal direction of this nature should not raise the same types of federalism concerns that may attend other areas. Similarly, the Internet, as we all know, recognizes no boundaries. The Net allows a market entrant to undertake national and even international endeavors with far fewer physical assets than in the past—for example, without the need to establish physical offices in each location in which it wishes to do business. The joinder of these two elements—a federally regulated securities industry and the Net—mandates the need for a uniform, national approach to electronic signatures and records. Only through such uniformity can we and our customers fully realize the promise of online investing.

Passage Of The Bill Will Demonstrate International Leadership.

Finally, I'd like to offer a brief word in support of Title II of the bill. As I've already discussed, a clear, straightforward, uniform standard and technology and market neutrality lie at the core of what makes H.R. 1714 worthwhile. As you know, the United States is not the only forum in which these issues are being debated. The European Union is moving forward rapidly with its own directive addressing electronic signatures, one that adopts a far different, and in our view misguided, approach. At least as things now stand, the E.U. appears poised to adopt technology-specific or party-specific methodologies that will stifle the inventiveness that is the online community's greatest strength.

Global securities transactions conducted over the Internet promise to comprise the next frontier for the securities industry. DLJdirect has made significant investment in international ventures in the United Kingdom and Japan and plans to consider other international markets. These investments will not reach their full potential if the E.U. and other international bodies or nations in essence preempt the United States because Congress has not acted to adopt a U.S. model to which others can look as the best international standard.

In the Internet world, developments occur at a dizzying pace. Often, the first at the door with a new standard or rule is able to win acceptance and influence the shape of later events simply by being first. For that reason, and because we believe that the approach adopted in H.R. 1714 is the right one, rapid passage of the bill before the E.U. issues its directive in the fall, is imperative. Congress and the Administration bear a large measure of responsibility, and through passage of this bill would deserve great credit, for ensuring that the U.S. vision of a self-regulating marketplace that does not discriminate for or against a specific technology or type or size of entity prevails as the model for electronic commerce in the future.

We at DLJdirect thank this subcommittee and the Committee as a whole for taking significant steps in that direction and urge you to continue your efforts to submit a bill to the president for his signature this summer. I would be happy to address any questions you or the other Members might have.

Thank you.

ATTACHMENT A

5305-SEP (Simplified Employee Pension-Individual Retirement Accounts Contribution Agreement); Accommodation Transfer Authorization¹; Account Transfer Form²; Affidavit of Domicile and Debts²; AssetMasterSM; Authorization for Investment in a Private Placement and/or Limited Partnership for DLJ; Custodial Accounts²; Certificate of Corporate Secretary and Certified Copy of Certain Resolutions Adopted by the Board of Directors Whereby the Establishment and Maintenance of Accounts Have Been Authorized³; Certificate of Sole Proprietorship¹; Community Property Agreement; Corporate Resolution (Irrevocable Stock or Bond Power)³; Customer Agreement (2 versions); Designation of Beneficiary (IRA, SEP, SIMPLE IRA); Direct Deposit Authorization; Direct Rollover Form (Retirement Account form addressed to Benefits Administrator)²; Disclosure Statement; Distribution Request (IRA, SEP, SIMPLE IRA); Exercise and Sale Form (Irrevocable Stock or Bond Power); Full Trading Authorization¹; Internet Link Request; Investment Account Application; Investment Club Account Agreement; IRA Adoption Agreement; IRA Application & Adoption Agreement; Irrevocable Stock and Bond Power²; IRS Form W-8; IRS Form W-9; Letter of Certificate Release; Money Market Funds; Options Account Agreement and Application; Partnership Account Agreement; Precious Metals Account Agreement; Qualified Retirement Plan Distribution Request; Request for Disposition of a Non-Transferable Security Form; Retirement Account Contribution Form; Retirement Plan Contribution (IRA, SEP, SIMPLE Plan); Roth IRA Application & Adoption Agreement; Roth IRA Conversion Form; Tenants in Common Agreement; and Transfer on Death Account Agreement (Individual, Joint Tenant).

¹ Must be signed in presence of Notary Public and have the notary affix their seal

² Additional forms or certificates must be submitted

³ Corporate seal and signature of President and/or Corporate Officer required

Mr. OXLEY. Thank you, Mr. Hogan. Mr. Quick?

STATEMENT OF THOMAS C. QUICK

Mr. QUICK. Good morning, Mr. Chairman, and members of the subcommittee. My name is Tom Quick and I am the President and COO of Quick & Reilly/Fleet Securities, and of the Fleet Financial

Group. I appreciate the opportunity to be with you today to talk about H.R. 1714, the Electronic Signatures and Global and National Commerce Act, and would like you to know that we believe that this is good legislation that deserves your support.

To give you a better understanding of why we think this is so important, I would like to take a moment to give you some background on Quick & Reilly and our brokerage business.

Our firm was founded in 1974, shortly thereafter becoming the first member firm on the New York Stock Exchange to offer discounted commissions to the individual investor. Today we have over 118 offices in 33 States with the major presence on the Internet. Prior to and since becoming affiliated with Fleet Financial, we have built an integrated group of businesses with a goal of delivering value to individual investors as safely and efficiently as possible. This includes U.S. Clearing Corp., one of the country's largest clearing execution firms, which handles processing functions for 390 brokers and bank security subsidiaries, which include 7 of the top 20 Internet firms today.

Another of our companies is Fleet Specialists, which is the second largest specialist firm on the floor of the exchange, providing for a fair, liquid and orderly market in securities for 335 companies and it counts for 14 percent of the volume that is done there on a daily basis. And last but certainly not least is SURETRADE, a separate broker-dealer we set up exclusively for Internet trading activities. In its 18 months of operation, SURETRADE has opened 300,000 accounts and has attracted well over \$1 billion in assets.

Over the last year, we have seen a dramatic shift in the preference of our customers away from the traditional brokerage to using the Internet to effect trades. For example, according to a survey we regularly conduct of 500 Quick & Reilly clients, we learned that 63 percent now have access to the Internet compared to only 44 percent 2 years ago. This is reflected in the growth of our on-line business which surged from 11 percent of our overall business in 1997 to 20 percent this past quarter. This increase in percentage of trades conducted on the Internet came at a time when total trading volume on and offline was up dramatically, approximately 68 percent, and the trend toward Internet trading will accelerate and we have an obligation to make the process as fast, convenient, and reliable as possible for existing and potential clients.

Even when we operate in the on-line environment, current security laws and regulation requires us to leave a paper record. This includes opening the account and confirming trades as well as other transactions such as wire transfers, money market checks, transfer of sureties, portfolio reorg instructions as well as other services such as margin and option trading agreements. Much to the surprise of many of our on-line customers which are used to the lightning speed of e-mail and other Internet communications, we are required to send them forms by mail which must be filled out, sent back to us, often causing delays. This is a cumbersome process which frustrates us and our customers and which would be eliminated if H.R. 1714 was enacted into law.

This particular law pending, and particularly Title 3 which deals specifically with the use of electronic records under the Federal securities law, will cut through this bottleneck by clearing the way

for companies like ours to put in place a flexible yet legally binding mechanism for authorizing on-line transactions through digital signatures for our customers in all 50 States as well as throughout the world. With a few strokes of the keyboard, our on-line customers will finally be able to open accounts, make payments, authorize us to act as their agent when the securities are subject to a reorg and in short obtain all the benefits promised by the Internet.

I understand the concerns that have been expressed that H.R. 1714 might interfere with efforts by the States to deal with this issue on a uniform and consistent basis, in particular, the work of the National Conference of Commissioners on Uniform State Laws on uniform electronic transactions. However, it is my understanding that H.R. 1714 is not intended to interfere with this effort and there was testimony to that effect by State officials at the June 9 hearing held by your colleagues on the Telecommunications Subcommittee. The fact is we need action on this as soon as possible and Federal legislation is our best hope for accomplishing this.

As a business with customers throughout the country and the world, it is important for us to avoid a patchwork of inconsistent State electronic signature laws. I think this would also be important to a committee such as yours that encourages fair competition as well as the protection of the individual consumer. One of our main concerns is that differing State laws on electronic signatures will force us to customize our products to meet the requirements of each of the 50 States. This can have a disproportionate impact on smaller businesses by raising costs and making it difficult and perhaps impossible for us to serve their needs on a cost effective basis. For example, U.S. Clearing Corp. provides clearing trades for approximately 400 firms. Many of these companies are smaller, community oriented firms. U.S. Clearing also handles Internet and brokerage services for a number of different associations throughout the country. As the Net grows and people become more comfortable with doing business on-line, it will become even more important to have an efficient, standardized regulation in place if we are to provide cost efficient support to these smaller firms, thus helping them provide services to their customers. They could keep them competitive with larger companies like ourselves.

In conclusion, Mr. Chairman, and members, H.R. 1714 is important legislation not only for the on-line brokerage business but for all companies that engage in e-commerce now and that will do so in the future. H.R. 1714 is pro consumer and pro small business because once enacted into law, it will facilitate the ability of our clients and small business customers to manage their money quickly and efficiently. In fact, getting the bill enacted into law as soon as possible could possibly be one of the most important actions Congress takes this summer to help foster the orderly and reliable growth of Internet commerce, and we look forward to working with you to achieve this objective.

Thank you for this opportunity.

[The prepared statement of Thomas C. Quick follows:]

PREPARED STATEMENT OF THOMAS C. QUICK, PRESIDENT AND CHIEF OPERATING
OFFICER, QUICK & REILLY/FLEET SECURITIES, INC.

Good morning Mr. Chairman and Members of the Subcommittee, my name is Tom Quick. I am the President and Chief Operating Officer of Quick & Reilly and Fleet Securities, Incorporated, an affiliate of Fleet Financial Group. I appreciate the opportunity to be with you today to talk about H.R. 1714, the "Electronic Signatures in Global and National Commerce Act", and would like you to know that we believe that this is good legislation that deserves your support.

To give you a better understanding of why we think this legislation is so important, I would like to take a moment to give you some background on Quick & Reilly and our brokerage business. My father, Leslie Quick, Jr., founded Quick & Reilly in 1974. Shortly thereafter, we became the first NYSE member to offer discounted commissions to retail investors. Today, Quick & Reilly is one of the nation's largest brokerage firms, with 118 Investor Centers in 33 states, and a major presence on the Internet.

Prior to, and since becoming affiliated with Fleet Financial Group in 1998, we have built an integrated group of businesses with the goal of delivering value to individual investors as safely and efficiently as possible. This includes U.S. Clearing, one of the nation's largest clearing and execution firms, which handles processing functions for 390 brokers and bank securities subsidiaries, including 7 of the top 20 Internet brokers. Another of our companies is Fleet Specialists, which is the second largest specialist firm on the floor of the New York Stock Exchange. Fleet Specialists provides for a fair, liquid and orderly market in securities for 334 companies and accounts for 14% of the volume on the "Big Board". Last, but certainly not least, is SURETRADE, a separate broker dealer we set up exclusively for Internet trading activities. In its 18 months of operation, SURETRADE has opened 300,000 accounts and has attracted well over \$1 billion in customer assets.

Over the last year we have seen a dramatic shift in the preferences of our customers away from traditional brokerage to using the Internet to effect trades. For example, according to a survey we regularly conduct of 500 Quick & Reilly customers, we learned that 63 percent now have access to the Internet, compared to only 44 percent two years ago. This is reflected in the growth of our online business, which surged from 11% of our overall business in 1997 to 20% this year. This increase in percentage of trades conducted on the Internet came at a time when total trading volume on and off-line was up dramatically—about 68% over last year. We believe that the trend toward Internet trading will accelerate and that we have an obligation to make the process as fast, convenient and reliable as possible for our existing and potential customers.

Even when we operate in the online environment, current securities law and regulation requires us to leave a paper record. This includes opening an account and confirming trades, as well as other transactions such as wire transfers, money market checks, transfer of securities, portfolio reorganization instructions, as well as other services such as margin and option trading agreements.

Much to the surprise of many of our online customers, who are used to the lightening speed of e-mail and other Internet communications, we are required to send them forms by mail, which must then be filled out and sent back to us by mail—often causing delays of several days. This is a cumbersome process that frustrates us and our customers, and which would be eliminated if H.R. 1714 were enacted into law.

H.R. 1714, in particular Title III which deals specifically with the use of electronic records under Federal securities law, will cut through this bottleneck by clearing the way for companies like ours to put in place a flexible, yet legally binding mechanism for authorizing online transactions through digital signatures for our customers in all 50 states and around the world. With a few strokes of the keyboard, our online customers will finally be able to open accounts, make payments, authorize us to act as their agent when their securities are subject to a reorganization, and in short, obtain all of the benefits promised by the Internet.

I understand that concerns have been expressed that H.R. 1714 might interfere with efforts by the states to deal with this issue on a uniform and consistent basis. In particular, the work of the National Conference of Commissioners on Uniform State Laws on uniform electronic transactions legislation. However, it is my understanding that H.R. 1714 is not intended to interfere with this effort, and there was testimony to this effect by state officials at the June 9 hearing held by your colleagues on the Telecommunications Subcommittee. The fact is that we need action on this as soon as possible and Federal legislation is our best hope for accomplishing this.

As a business with customers in all 50 states and around the world, it is important for us to avoid a patchwork of inconsistent state electronic signature laws. I think that this would also be important to a Committee such as yours that encourages fair competition and protection of consumers. One of our main concerns is that differing state laws on electronic signatures will force us to “customize” our products to meet the requirements of each of the 50 states. This can have a disproportionate impact on smaller businesses by raising costs and making it difficult, and perhaps impossible, for us to serve their needs on a cost-effective basis.

For example, our clearing house firm U.S. Clearing, provides clearance, trade and execution services for about 390 brokerage firms throughout the nation. Many of these companies are smaller, community-oriented firms. U.S. Clearing also handles Internet and brokerage services for the Independent Community Bankers Association, a trade group consisting of smaller community-based banks. As the Internet grows, and people become more comfortable with doing business on-line, it will become even more important to have efficient, standardized regulation in place if we are to provide cost-efficient support to these smaller firms, thus helping them provide services to their customers that keep them competitive with larger companies.

In conclusion, Mr. Chairman and Members of the Committee, H.R. 1714 is important legislation not only for the online brokerage business but for all companies that engage in e-commerce now and that will do so in the future. H.R. 1714 is pro-consumer and pro-small business because, once enacted into law, it will facilitate the ability of our retail investors and small business customers to manage their money quickly and effectively. In fact, getting this bill enacted into law as soon as possible could be one of the most important actions Congress can take this year to help foster the orderly and reliable growth of Internet commerce and we look forward to working with you to achieve this objective.

Thank you for the opportunity to testify today and I look forward to any questions you might have.

Mr. OXLEY. Thank you, Mr. Quick, and to all of you. Let me begin the questioning with Mr. Hogan and I want to explore a little bit the European Union directive and how that contrasts with what we are trying to do and based on your testimony I think indicating that we need to act before the European Union directive goes into effect. Could you walk us through that process?

Mr. HOGAN. Certainly. It is reasonably simple. The beauty of H.R. 1714 is that it has addressed directly and acknowledged the technology neutral solutions are the right solutions. The European directive in its current form and forms that have been discussed talk to specific technology solutions, specific protocols for achieving a digital signature result. All of them in our view make the mistake of freezing a view of the world at a moment in time. Technology is advancing so rapidly that any declared technology solution today will be ancient history in 2 years at the most.

We think that the committee's approach to declaring technology neutrality as the central theme is the right way to go. We also think that it is important for the United States to be on record, if you will, through action, declaring value and validity of digital signatures and a technology neutral solution. The majority of e-commerce today happens in America. It would be unfortunate in our view if another country or another group of countries declared a standard which might have to be met before we had the opportunity as a country to do the same thing.

Mr. OXLEY. What effect would it have—let me just ask all of you, assuming that the European directive is enacted by the European Commission and the European Parliament, what effect would that have on your business in Europe?

Mr. CALLCOTT. If I could follow up on what Mr. Hogan said. We strongly agree with his point of view on this. Schwab actually owns the largest discount broker in the United Kingdom right now and

the first Internet broker in the United Kingdom and if we are required to set up different technology regimes for different of our international subsidiaries, we think that is going to retard the growth of electronic commerce not only in Europe but around the world.

The United States is arguing at the United Nations and other forums for uniformity in approach to electronic signatures, and that is one of the reasons why we believe it is important to have uniformity among the 50 U.S. States. It is difficult for us to argue for national uniformity when we don't have domestic uniformity and as I said in my testimony, technology neutrality is important for exactly the reasons that Mr. Hogan said.

Two years from now we expect electronic signature technology is going to be cheaper, faster, and easier to use for all consumers and we don't want to stop new and better technology from being adopted both in the United States and overseas and we are concerned that the European Union's approach may frustrate that.

Mr. OXLEY. Mr. Quick, do you have operations in Europe?

Mr. QUICK. No, we don't. I would not be an expert on this.

Mr. OXLEY. Let me ask Mr. Callcott, what's stopping you from using electronic commerce, electronic signatures today?

Mr. CALLCOTT. To go back to my testimony, the real concern is the lack of uniformity among the different State laws. My understanding is there are now over a hundred brokerage firms doing business over the Internet. I am not aware of a single one that will open an account using electronic signatures because of the great concern about whether those signatures are going to be viewed as valid under the laws of the different States. So of course we and everybody else here takes trades electronically, but many of the key events in handling an account like wire transfers and change of address and adding margin or option features to an account, my understanding is that everybody in the industry takes the same view as we do that there is just not enough legal certainty for us to take those steps right now.

Mr. OXLEY. Apparently there is an effort under way by the National Conference of Commissioners on Uniform State Laws to develop a uniform standard for the 50 States. What do you know about that and what would be your guess as to how successful and how long it would take them to achieve that goal? Mr. Quick?

Mr. QUICK. I would tell you after talking with our counsel and people working on this project for us, it would—it could take a couple of years for us to finally get agreement on this. You have heard this morning just how quickly this part of the business has taken off over the last several years and as you also heard this morning, that it will continue. It is being considered more and more by individual investors on a daily basis. For us to wait several more years for something like this to be enacted, to be agreed upon, certainly, you know, hinders. It does not help us. I don't really think it helps the individual investor.

Mr. CALLCOTT. I would certainly echo those remarks. We support the effort of the State commissioners on uniform laws and we hope that their effort is successful but as a point of reference, the Uniform Commercial Code took more than 10 years to be adopted and still hasn't been adopted by two of the States. The State Uniform

Securities Code was first adopted in the 1950's and then substantially revised in the 1980's and still has not been adopted by a substantial number of States and as my panelists said earlier, technology is moving so fast in the Internet area that waiting for years or even decades for a uniform solution to emerge at the State level is going to greatly impede the growth of electronic commerce but at the same time, this legislation, I think it is important to recognize, will not prevent the States from going forward with that effort and so we think this sort of limited level of interference with State law that is involved in this bill is appropriate in creating the needed level of uniformity now to allow the States to then go ahead with their process.

Mr. OXLEY. You mentioned the UCC. What effect would—if we pass this legislation, what effect would that have on the UCC in relation to electronic commerce and electronic signatures?

Mr. HOGAN. It is our view it wouldn't have a negative effect at all. This legislation simply validates the fact that digitalized or electronic signatures are to be treated the same way as an ink on paper signature. The beauty of that statement is that all of the rest of the laws can go forward and be applied in the same way they do today. It brings certainty and trust to the system and certainly in our business, the financial services business where we deal with people's money, that level of certainty, that level of confidence is helpful to the marketplace as a whole. So we think this is very much the perfect solution to that problem.

Mr. OXLEY. In your opinion, though, if we pass this legislation, would the UCC have to amend—would they have to amend the UCC to reflect that?

Mr. CALLCOTT. I don't think that would be necessary. This as a piece of Federal law would supersede any part of the UCC that was inconsistent with it but it would continue to allow the States to legislate in specific areas where they found a specific need on things like disclosure or consumer protection type rules. So in our view, this bill is actually complimentary to the Uniform Commercial Code. It would not require the States to go back and repeal parts of the Uniform Commercial Code. Our hope is that the Uniform Electronic Transactions Act will be reported out and adopted by the States and I think that would be completely consistent with the legislation that is under consideration here today.

Mr. OXLEY. Thank you. My time has expired. The gentlelady from Colorado.

Ms. DEGETTE. Thank you, Mr. Chairman. I never heard such faith in Congress doing something before 2 years in the entire 2½ years I have been in Congress. So I hope you are right, Congress can do something before the 2 years.

I do really support electronic commerce and I really support the concept of electronic signatures very strongly but I have a couple of questions. One is the area the chairman was talking about, this preemption of State laws, because it seems to me that in the area of electronic signatures there might be some State need to go beyond the protections of the Federal law and in looking at this, it seems to me that this act would preempt State laws.

Mr. Quick, you testified that the States came into the telecom hearing and testified they were in favor of this act but the Com-

merce Department's general counsel came in and testified that he saw some problems with the State preemption. I am wondering if there isn't some way we can write the Federal law so it allows some flexibility in the State but still gives you the uniform protection for electronic signatures that you need.

Mr. QUICK. As I said, I was just informed that that did take place and in fact there might have been some questions about it but that overall they were in agreement that this was something that was going to take time to enact. And I would say to you that again I don't think anybody can really truly appreciate just how quickly this segment of the business is growing. We just recently had, you know, the major competitor who a year ago was telling the general public this is not efficient and there was a lot of questions about this type of electronic trading has completely changed their tune so that they are now going to come into the game, you know, this December. So for the largest, you know, of the retail brokerage firms to recognize this, this is something that I think they didn't anticipate and we certainly didn't anticipate a few years ago. It is just a matter of how are we going to do it and how are we going to do it to protect the individual investor here. That is the biggest concern here is protecting our clients.

Mr. CALLCOTT. If I could add just one point to that. Actually yesterday in the Senate, in the Senate Commerce Committee, there was a markup on the Senate bill which is very similar to this bill and actually the general counsel of the Commerce Department submitted a letter supporting that bill. There was a slight amendment to the preemption provisions that had been introduced in the Senate and I would be happy to provide the committee with a copy of Mr. Pincus' letter in support of Federal electronic signature legislation.

Mr. OXLEY. Without objection, it will be made part of the record.
[The information referred to follows:]

UNITED STATES DEPARTMENT OF COMMERCE
WASHINGTON, D.C.
June 22, 1999

The HONORABLE SPENCER ABRAHAM
Committee on Commerce, Science, and Transportation
United States Senate
Washington, D.C. 20510-6125

DEAR SENATOR ABRAHAM: This letter conveys the views of the Department of Commerce on the substitute version of S. 761, the "Millennium Digital Signature Act," that we understand will be marked-up by the Senate Commerce Committee. A copy of the substitute that serves as the basis for these views is attached to this letter.

In July 1997 the Administration issued *The Framework for Global Electronic Commerce*, wherein President Clinton and Vice President Gore recognized the importance of developing a predictable, minimalist legal environment in order to promote electronic commerce. President Clinton directed Secretary Daley "to work with the private sector, State and local governments, and foreign governments to support the development, both domestically and internationally, of a uniform commercial legal framework that recognizes, facilitates, and enforces electronic transactions worldwide."

Since July 1997, we have been consulting with countries to encourage their adoption of an approach to electronic authentication that will assure parties that their transactions will be recognized and enforced globally. Under this approach, countries would: (1) eliminate paper-based legal barriers to electronic transactions by implementing the relevant provisions of the 1996 UNCITRAL Model Law on Electronic Commerce; (2) reaffirm the rights of parties to determine for themselves the appropriate technological means of authenticating their transactions; (3) ensure any party

the opportunity to prove in court that a particular authentication technique is sufficient to create a legally binding agreement; and (4) state that governments should treat technologies and providers of authentication services from other countries in a non-discriminatory manner.

The principles set out in section 5 of S. 761 mirror those advocated by the Administration in international fora, and we support their adoption in federal legislation. In October 1998, the OECD Ministers approved a Declaration on Authentication for Electronic Commerce affirming these principles. In addition, these principles have also been incorporated into joint statements between the United States and Japan, Australia, France, the United Kingdom and South Korea.

Congressional endorsement of the principles would greatly assist in developing the full potential of electronic commerce as was envisioned by the President and Vice President Gore in *The Framework for Global Electronic Commerce*.

On the domestic front, the National Conference of Commissioners of Uniform State Law (NCCUSL) has been working since early 1997 to craft a uniform law for consideration by State legislatures that would adapt standards governing private commercial transactions to cyberspace. This model law is entitled the "Uniform Electronic Transactions Act" (UETA), and I understand that it will receive final consideration at the NCCUSL Annual Meeting at the end of July. In the view of the Administration, the current UETA draft adheres to the minimalist "enabling" framework advocated by the Administration, and we believe that UETA will provide an excellent domestic legal model for electronic transactions, as well as a strong model for the rest of the world.

Section 6 of the substitute ("Interstate Contract Certainty") addresses the concern that several years will elapse before the UETA is enacted by the states. It fills that gap temporarily with federal legal standards, but ultimately leaves the issue to be resolved by each state as it considers the UETA.

With regard to commercial transactions affecting interstate commerce, this section eliminates statutory rules requiring paper contracts, recognizes the validity of electronic signatures as a substitute for paper signatures, and provides that parties may decide for themselves, should they so choose, what method of electronic signature to use.

Another important aspect of the substitute is that it would provide for the termination of any federal preemption as to the law of any state that adopts the UETA (including any of the variations that the UETA may allow) and maintains it in effect. We note that this provision would impose no overarching requirement that the UETA or individual state laws be "consistent" with the specific terms of this Act; this provision, and its potential effect, will be closely monitored by the Administration as the legislation progresses. There is every reason to believe that the States will continue to move, as they consistently have moved, toward adopting and maintaining an "enabling" approach to electronic commerce consistent with the principles stated in this Act. We therefore believe that any preemption that may ultimately result from this legislation can safely be allowed to "sunset" for any state upon its adoption of the eventual uniform electronic transactions legislation developed by the states.

We also support limiting the scope of this Act to commercial transactions, which is consistent with the current approach of the draft UETA, and utilizing definitions in the Act that mirror those of the current draft UETA, which we consider appropriate in light of the expert effort that has been directed to the development of the UETA provisions under the procedures of NCCUSL.

With regard to section 7(a), the Administration requests that the Committee delete the reference to the Office of Management and Budget ("OMB"); there is no need for agencies to file duplicate reports. The report that the Secretary of Commerce is directed to prepare pursuant to section 7(b) will, of course, be coordinated with OMB.

The substitute version of S. 761 would in our view provide an excellent framework for the speedy development of uniform electronic transactions legislation in an environment of partnership between the federal government and the states. We look forward to working with the Committee on the bill as it proceeds through the legislative process.

The Office of Management and Budget advises that there is no objection to the transmittal of this report from the standpoint of the Administration's program.

Sincerely,

ANDREW J. PINCUS
General Counsel

Attachment

GUIDELINE

BILL NO. OVERLAYS. 761 Amdt.

Star Print_

AMENDMENT NO.

CAL. NO.

COMMITTEE AMENDMENT

[Staff Working Draft]

June 22, 1999

Purpose: To conform the definitions to those used in the Uniform Electronic Transactions Act, and for other purposes.

IN THE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION_ 106 th Cong., 1 st Sess.

S. 761, 106 th Congress, 1 st Session

DATELINE June 23, 1999

Intended to be proposed by Mr. Abraham

Viz: Strike out all after the enacting clause and insert the following:

SECTION 1. SHORT TITLE.

This Act may be cited as the ``Third Millennium Electronic Commerce Act''.

SEC. 2. FINDINGS.

The Congress makes the following findings:

- (1) The growth of electronic commerce and electronic government transactions represent a powerful force for economic growth, consumer choice, improved civic participation and wealth creation.
- (2) The promotion of growth in private sector electronic commerce through federal legislation is in the national interest because that market is globally important to the United States.
- (3) A consistent legal foundation, across multiple jurisdictions, for

electronic commerce will promote the growth of such transactions, and that such a foundation should be based upon a simple, technology neutral, non-regulatory, and market-based approach.

(4) The nation and the world stand at the beginning of a large scale transition to an information society which will require innovative legal and policy approaches, and therefore, States can serve the national interest by continuing their proven role as laboratories of innovation for quickly evolving areas of public policy, provided that States also adopt a consistent, reasonable national baseline to eliminate obsolete barriers to electronic commerce such as undue paper and pen requirements, and further, that any such innovation should not unduly burden inter-jurisdictional commerce.

(5) To the extent State laws or regulations do not provide a consistent, reasonable national baseline or in fact create an undue burden to interstate commerce in the important burgeoning area of electronic commerce, the national interest is best served by Federal preemption to the extent necessary to provide such consistent, reasonable national baseline eliminate said burden, but that absent such lack of consistent, reasonable national baseline or such undue burdens, the best legal system for electronic commerce will result from continuing experimentation by individual jurisdictions.

(6) With due regard to the fundamental need for a consistent national baseline, each jurisdiction that enacts such laws should have the right to determine the need for any exceptions to protect consumers and maintain consistency with existing related bodies of law within a particular jurisdiction.

(7) Industry has developed several electronic signature technologies for use in electronic transactions, and the public policies of the United States should serve to promote a dynamic marketplace within which these technologies can compete. Consistent with this Act, States should permit the use and development of any authentication technologies that are appropriate as practicable as between private parties and in use with State agencies.

SEC. 3. PURPOSES.

The purposes of this Act are_

(1) to permit and encourage the continued expansion of electronic commerce through the operation of free market forces rather than proscriptive governmental mandates and regulations;

(2) to promote public confidence in the validity, integrity and reliability of electronic commerce and online government under Federal law;

(3) to facilitate and promote electronic commerce by clarifying the legal

status of electronic records and electronic signatures in the context of writing and signing requirements imposed by law;

(4) to facilitate the ability of private parties engaged in interstate transactions to agree among themselves on the terms and conditions on which they use and accept electronic signatures and electronic records; and

(5) to promote the development of a consistent national legal infrastructure necessary to support of electronic commerce at the Federal and state levels within existing areas of jurisdiction.

SEC. 4. DEFINITIONS.

In this Act:

(1) Electronic._ The term ``electronic'' means relating to technology having electrical, digital, magnetic, wireless, optical, electromagnetic, or similar capabilities.

(2) Electronic agent._ The term ``electronic agent'' means a computer program or an electronic or other automated means used to initiate an action or respond to electronic records or performances in whole or in part without review by an individual at the time of the action or response.

(3) Electronic record._ The term ``electronic record'' means a record created, generated, sent, communicated, received, or stored by electronic means.

(4) Electronic signature._ The term ``electronic signature'' means an electronic sound, symbol, or process attached

to or logically associated with an electronic record and executed or adopted by a person with the intent to sign the electronic record.

(5) Governmental agency._ The term ``governmental agency'' means an executive, legislative, or judicial agency, department, board, commission, authority, institution, or instrumentality of the Federal government or of a State or of any county, municipality, or other political subdivision of a State.

(6) Record._ The term ``record'' means information that is inscribed on a tangible medium or that is stored in an electronic or other medium and is retrievable in perceivable form.

(7) Transaction._ The term ``transaction'' means an action or set of actions relating to the conduct of commerce between 2 or more persons, neither of which is the United States Government, a State, or an agency, department, board, commission, authority, institution, or instrumentality of the United States Government or of a State.

(8) Uniform Electronic Transactions Act._ The term ``Uniform Electronic Transactions Act'' means the Uniform Electronic Transactions Act as reported to State legislatures by the National Conference of

Commissioners on Uniform State Law in the form or any variation thereof that is authorized or provided for in such report.

SEC. 5. PRINCIPLES GOVERNING THE USE OF ELECTRONIC SIGNATURES IN INTERNATIONAL TRANSACTIONS.

To the extent practicable, the Federal Government shall observe the following principles in an international context to enable commercial electronic transaction:

(1) Remove paper-based obstacles to electronic transactions by adopting relevant principles from the Model Law on Electronic Commerce adopted in 1996 by the United Nations Commission on International Trade Law (UNCITRAL).

(2) Permit parties to a transaction to determine the appropriate authentication technologies and implementation models for their transactions, with assurance that those technologies and implementation models will be recognized and enforced.

(3) Permit parties to a transaction to have the opportunity to prove in court or other proceedings that their authentication approaches and their transactions are valid.

(4) Take a non-discriminatory approach to electronic signatures and authentication methods from other jurisdictions.

SEC. 6. INTERSTATE CONTRACT CERTAINTY.

(a) In General._ The following rules apply to any commercial transaction affecting interstate commerce:

(1) A record or signature may not be denied legal effect or enforceability solely because it is in electronic form.

(2) A contract may not be denied legal effect or enforceability solely because an electronic record was used in its formation.

(3) If a law requires a record to be in writing, or provides consequences if it is not, an electronic record satisfies the law.

(4) If a law requires a signature, or provides consequences in the absence of a signature, the law is satisfied with respect to an electronic record if the electronic record includes an electronic signature.

(b) Methods._ The parties to a contract may agree on the terms and conditions on which they will use and accept electronic signatures and

electronic records, including the methods therefor, in commercial transactions affecting interstate commerce. Nothing in this subsection requires that any party enter into such a contract.

(c) Intent._ The following rules apply to any commercial transaction affecting interstate commerce:

(1) An electronic record or electronic signature is attributable to a person if it was the act of the person. The act of the person may be established in any manner, including a showing of the efficacy of any security procedures applied to determine the person to which the electronic record or electronic signature was attributable.

(2) The effect of an electronic record or electronic signature attributed to a person under paragraph (1) is determined from the context and surrounding circumstances at the time of its creation, execution, or adoption, including the parties' agreement, if any, and otherwise as provided by law.

(d) Formation of Contract._ A contract relating to a commercial transaction affecting interstate commerce may not be denied legal effect solely because its formation involved_

(1) the interaction of electronic agents of the parties; or

(2) the interaction of an electronic agent of a party and an individual who acts on that individual's own behalf or for another person.

(e) Application in UETA States._ This section does not apply in any State in which the Uniform Electronic Transactions Act is in effect.

SEC. 7. STUDY OF LEGAL AND REGULATORY BARRIERS TO ELECTRONIC COMMERCE.

(a) Barriers._ Each Federal agency shall, not later than 6 months after the date of enactment of this Act, provide a report to the Director of the Office of Management and Budget and the Secretary of Commerce identifying any provision of law administered by such agency, or any regulations issued by such agency and in effect on the date of enactment of this Act, that may impose a barrier to electronic transactions, or otherwise to the conduct of commerce online or by electronic means. Such barriers include, but are not limited to, barriers imposed by a law or regulation directly or indirectly requiring that signatures, or records of transactions, be accomplished or retained in other than electronic form. In its report, each agency shall identify the barriers among those identified whose removal would require legislative action, and shall indicate agency plans to undertake regulatory action to remove such barriers among those identified as are caused by regulations issued by the agency.

(b) Report to Congress._ The Secretary of Commerce, in consultation with the Director of the Office of Management and Budget, shall, within 18

months after the date of enactment of this Act, and after the consultation required by subsection (c) of this section, report to the Congress concerning_

(1) legislation needed to remove barriers to electronic transactions or otherwise to the conduct of commerce online or by electronic means; and

(2) actions being taken by the Executive Branch and individual Federal agencies to remove such barriers as are caused by agency regulations or policies.

(c) Consultation._ In preparing the report required by this section, the Secretary of Commerce shall consult with the General Services Administration, the National Archives and Records Administration, and the Attorney General concerning matters involving the authenticity of records, their storage and retention, and their usability for law enforcement purposes.

(d) Include Findings if No Recommendations._ If the report required by this section omits recommendations for actions needed to fully remove identified barriers to electronic transactions or to online or electronic commerce, it shall include a finding or findings, including substantial reasons therefor, that such removal is impracticable or would be inconsistent with the implementation or enforcement of applicable laws.

Ms. DEGETTE. This is probably the simple solution we needed so I would be very interested, Mr. Chairman, in taking a look at that attempt as we move forward with this act. Maybe we can solve all the preemption problems very easily.

I have just one other issue that I am concerned about as we move more into electronic commerce and electronic signatures. We have held hearings in this subcommittee on issues of identity theft and even at this moment we are grappling with issues of privacy in the context of financial service modernization which I think we might be hearing on the floor next week. These issues are really thorny to policymakers because on the one hand, we want to encourage the free flow of commerce and in particular electronic commerce. On the other hand, we want to make sure that we protect consumers and investors from real security breaches that exist much more so with computers than with the big file you have, Mr. Hogan. I am wondering if you can comment on that. We will start with Mr. Hogan on that.

Mr. HOGAN. Sure. To a large extent they are separate issues. All the financial services firms, bank brokerage firms are extremely sensitive about the security of individuals' information. They are in that business and have been regulated around those issues for years. The integrity of data that we get whether it is ink on paper or an electronic signature equivalent, once we get them are held and maintained with the same good process that we use today and have used since the 30's. I don't think this bill will have an impact positive negative or otherwise on the issue of privacy. The laws that exist today, whether it is the Uniform Commercial Code or Federal legislation in other areas, deal well with the practices that

people have to use to engage in a relationship and to memorialize that relationship. Those practices aren't going to change. The digital signature is not the single sole element that is used by a firm to engage in a relationship with a client. We collect a number of bits of information about a human being and we compare that in our case today to an outside third party source. It happens to be a credit rating agency but it is done instantly. The matchup of a series of data which are unique about an individual is what allows us to form a belief that we are dealing with that unique individual.

There is a de minimis amount of successful theft identity that happens in the outside world today. It happens before people get to a financial services institution and hopefully our good practices find it before it can do any real damage. So I don't think this bill is inconsistent with the goal of protection of people's privacy and their data and I don't think it diminishes in any way, shape or form how firms are going to behave and conduct their activity in terms of engaging in a client relationship.

Mr. CALLCOTT. If I could follow up, security is a critical concern for us. We have a large full-time security staff that tries to prevent any kind of breaches of security on our website. Our belief is that electronic signature technology is actually more secure against forgery than pen and ink signatures and the fact is our experience has been that we have had instances of identity theft but where they have been have been customer statements stolen out of the U.S. Mail and then someone calling up one of our telephone call centers as opposed to trying to go on-line. So of our top three security issues that we have had at Schwab, Internet fraud is not one of those top three. The top three are, as I say, identity theft and people trying to call us up and then credit card fraud and check fraud. So we believe that strong electronic signature legislation is in fact good for customer signature and security of their private financial information and is something that will be very beneficial to customers.

Mr. QUICK. I would like to reiterate that. With the hundreds of thousands of transactions that we do on a daily basis, it has not been brought to my attention as the head of the company that we have never had a problem where, you know, somebody has found themselves in a position where, you know, their moneys or securities have been lost, have been stolen as a result of using the Internet. And just to reiterate, before we have had more problems with forged signatures on documents as opposed to the Internet. So I really don't think that it is a problem.

Ms. DEGETTE. I yield back. Thank you, Mr. Chairman.

Mr. OXLEY. The gentlelady yields back. The gentleman from California.

Mr. BILBRAY. I would like to follow up on that because I think there is an inherent fear of the unknown or something new. But to reinforce a statement by the fact that it is not only less secure, it is more secure with electronic signature because the ability to cross reference instantly through the use of technology which you wouldn't be able to do with a hard copy without screening and going through that whole thing. So the people that really need to fear this increased efficiency of technology is the crooks out there

trying to hide—you know, basically rip off the consumer. Would you agree with that?

Mr. HOGAN. We certainly think that is right.

Mr. BILBRAY. My colleague from California will point this out that California now has gone to not only the electronic signature but also the digital fingerprint reading for all our identifications in California, driver's license and certain technologies. And frankly it has been a big boon for a lot of people to stop that. The question I have is do we have the possibility to take advantage of that in the signature issue to where a company could not only offer to the client the ability to do electronic signature but also to reinforce it with a digital fingerprint to be able to prove that somebody is not ripping them off.

Mr. HOGAN. I think again the beauty to us of H.R. 1714 is that it doesn't freeze time. Right now that sounds like it works very well in California and is excellent technology but in 9 months, 12 months, 18 months, a whole different level of technology and a whole different level of checking, a whole different level of verifying data can come into being and I really think that the central theme here that is excellent is this lack of dictating a technology or technology type solution or a protocol around it. So I would urge that the language that you have today be the language that you go with because it does leave us open for the future which will come at an accelerated rate.

Mr. CALLCOTT. There is very exciting technologies that are emerging right now which would allow a computer basically to be locked unless somebody has a thumb print scan that unlocks it specifically for them. Those are the types of new technology that we would like to see legislation like this recognize. The European Union and some of the States have honed in on what is called public key, private key encryption technology, which is good technology but we don't think it is the only technology out there and one of the reasons why we support this legislation is because it will allow the growth of new and very interesting and important technologies to protect customer security.

Mr. BILBRAY. I know from working in public services the electronic signature issue and the digital reading capabilities were great at getting welfare fraud. We had people using three or four different names. No way would we ever have caught up with them in any other way except for the fact that we were able to track down the fact that there were people who were digitally identified as being three different people on the same fingerprint. And I think there is people that are concerned about government mandating or utilizing fingerprinting to a large degree. But I think the flip side on that is getting people used to technology, the private sector to offer this as part of the security package if they want it and be able to—people being able to understand that it is not something to be feared, but something to really appreciate. I think that we have got a great opportunity here and I know everybody sees the dark side of the cloud as it moves over but I think this issue if it is handled appropriately is going to be something that we look back and say, God, you remember when we used to have to try to compare signatures by the I and see how a -Y was done and an -E. Let's face it, our grandchildren are going to look back and laugh about the fact

that we used signatures as some kind of proof of who you are. That is sort of bizarre. But thank you and I yield back.

Mr. OXLEY. The gentleman yields back. The gentleman from Minnesota, Mr. Luther.

Mr. LUTHER. Thank you, Mr. Chairman. Thanks for the hearing. In reading legislation, it appears that what this would do and I think you have alluded to it also, it would allow each company really to establish its requirements for what would meet the test here of either electronic signature or an electronic record. I take it that that in your view, that is preferable to having one standard that would apply to all companies. And my question then is what is the national association pursuing? In other words, are they pursuing something along the lines of having a national or a State standard of the requirements rather than having it be an individual company requirement?

Mr. QUICK. I believe that what this does is it prevents a monopoly because this is not dictating what you do, you know, how you are going to do it. It actually, I think, promotes the spirit of entrepreneurship that you are able to come up—and some people can do it in house. My colleague here at the table, their firm is one of the best in the country for development of technology so Schwab might do it in house as opposed to our firm which has a tendency to want to—we say we are not in the technology business so we employ outside firms to come in and offer a solution to us. So I think this really truly does not give one particular company a monopoly on this whole process.

Mr. CALLCOTT. My understanding is that the State commissioners on uniform State laws originally started off drafting a bill that was going to be built around the public-private key, public key infrastructure technology and they have made a U-turn on that and what they are anticipated to report out later this summer is going to be a bill like this bill that is technology neutral that allows the marketplace to decide and firms and consumers to decide what is the appropriate level of technology for which particular transactions and so we think that where they are going, although they haven't reported a final product yet, is going to be consistent with the technology neutral approach of H.R. 1714.

Mr. LUTHER. Are you aware of any significant differences that they have in terms of the direction they are going from this legislation?

Mr. CALLCOTT. No. This is very sort of minimum, bare bones legislation here and we think what—where the States are going is in fact consistent with this approach.

Mr. HOGAN. That is our understanding as well.

Mr. LUTHER. As I understand it from I forget who testified to this, but in terms of consumer protections and we know that States have many of them and a variety of them, that you are basically saying here that nothing that is contained here would undermine any of the consumer protections that a State would have? In other words, if a State said in this State to have a transaction you have got to have all of these big disclosures in a certain size print and even have witnesses to this or whatever, those would all be valid under this legislation?

Mr. HOGAN. Our view certainly is that is correct and in particular in connection with this portion of the proposed legislation because it is dealing with the securities firms and financial securities world which, broadly speaking, has probably the greatest level of granular detail of how it handles and treats people's privacy.

Mr. CALLCOTT. I would bring your attention to section 102 of the legislation which allows either a Federal agency or a State to modify or limit the provisions to impose a new disclosure requirement or to pick out a particular transaction that needs to be handled in a different way. They can do that. The problems that right now many States have, hundreds, even thousands of different provisions in their State laws that refer to signatures in some ways and some of those, you know, were written in a way that only contemplated pen and ink signatures and it is sort of a difficult thing for States to go back and amend all of their statutes to say, oh, we meant to allow electronic signatures too. What this will do is sort of level the playing field and then States can go back and pick out, as well as the Federal Government and Federal agencies, and pick out specific transactions or issues where there needs to be, you know, a higher level of disclosure or something like that. And this statute is consistent with that but what it will do is sort of, you know, establish a baseline of no discrimination against electronic signatures which doesn't exist today.

Mr. LUTHER. And then basically, Mr. Chairman, what you are saying is that if you refer to page 4 of the bill then, that none of those kinds of rules would be what would be considered inconsistent with the provisions of section 101? In essence what you are saying is that they would have the flexibility to do that?

Mr. CALLCOTT. That is my understanding.

Mr. HOGAN. Ours as well.

Mr. LUTHER. Thank you.

Mr. OXLEY. The gentleman's time has expired. The gentleman from Illinois, Mr. Shimkus.

Mr. SHIMKUS. Thank you, Mr. Chairman. The first question to the panel at large is in electronic signatures is encryption important? Encryption technology?

Mr. HOGAN. It can be. Again, the reason this particular bill is so useful is that it doesn't dictate a technology, particular technological solution. It can be is truly the answer.

Mr. CALLCOTT. The most prominent technology that is out there today for electronic signatures, the public key, the private key infrastructure technology does rely heavily on encryption so encryption is definitely a part of current technologies and I think we would anticipate they would continue to be an important part of digital signature technologies in the future.

Mr. SHIMKUS. At a hearing on this bill in the Telecommunications Subcommittee, which is one I serve on, earlier this month, one witness stated that companies have not been able to point to any real world problems in the acceptance of electronic signatures that are currently obstructing the development of electronic commerce. Do you agree with this statement?

Mr. CALLCOTT. Actually I disagree with that statement and it goes back to a question that Chairman Oxley asked earlier. There are over a hundred firms in the securities industry right now doing

trading on the Internet. I am not aware of a single firm that has implemented electronic signatures for opening accounts and other transactions that require a signature precisely because there is this welter of un-uniform, inconsistent, conflicting State laws and so we have held back because of that inconsistency that exists and we believe this legislation would cure that inconsistency. So I think in fact there are a lot of people who are not implementing electronic signatures because of that legal concern right now.

Mr. QUICK. I think you have to take into consideration the liability that our firms take on on behalf of our clients when we are buying or selling securities. The last thing we need to do is go into a court of law or arbitration to be told that since we didn't have the proper signature on file, that it is our problem and not the problem of the individual. I mean, for instance, perfect example is the options agreement that must be signed. If it is not signed, it is our responsibility. None of us would take on a transaction and not be protected, and that is one of the reasons why we have not, you know, done this in the industry to date.

Mr. SHIMKUS. This was probably a point of discussion earlier and I apologize because I was at another hearing at the same time. It is tough to be in two places at one time but you probably have addressed the issue of technological neutrality. Do you all agree that it should be technologically neutral and if you don't, why?

Mr. HOGAN. We absolutely agree and it is one of the core reasons why we support the legislation.

Mr. CALLCOTT. Right. And the key reason, as we were discussing with Congressman Bilbray earlier, was that this is the technology—a set of technologies that is rapidly evolving and we think it would be a great mistake to freeze into law one particular technology today. We think it is much preferable to allow the marketplace to choose what technology is the right technology for a particular type of transaction or particular type of customer.

Mr. SHIMKUS. And that is the same for you, Mr. Quick.

Mr. QUICK. I basically say the same thing in terms it doesn't really create a monopoly of one company controlling the industry.

Mr. SHIMKUS. I guess my only question, if I may, Mr. Chairman, finish up on this, I am not a lawyer and I don't even play one in another life. But for the official documents and keeping of records and just like the financial transaction, whether it be a digital signature, or whether it be an eye scan or whether it be some other issue, do you see problems with the differences that could develop on legislation that is not technologically neutral?

Mr. HOGAN. We certainly don't and we spend millions of dollars developing technology. The technology is changing so rapidly and it is getting so much better that the ability to maintain and recognize or to conceptualize a paperless world and have a digitalized documentation set which is verifiable, verifiable as to who signed it, verifiable as to it hasn't been changed, verifiable as to how long it has been stored is here today in a slightly cumbersome form and will be very fluidly available and very easy to implement as time goes by. So we think this is absolutely the right way to go.

Mr. SHIMKUS. Thank you, Mr. Chairman. I yield back.

Mr. OXLEY. The gentleman yields back. I would just say the gentleman from Illinois is not a lawyer. He is a baseball catcher and I think those two are mutually exclusive.

Mr. SHIMKUS. They are.

Mr. OXLEY. The gentleman from Arizona.

Mr. SHADEGG. Thank you. Let me begin by asking in the traditional fashion, I apologize for being late and not having heard your opening statements or answers to earlier questions. In the old world, this would have been handled by the commissioners on uniform State laws and I guess perhaps you have already been asked about this but I am curious. At what point are they in this process, are they making progress, is that something that we need to be aware of and are they going with technologically neutral—moving in the direction of some legislation that would be technologically neutral so as the technology moved forward, whatever they recommend for State legislation would accommodate the changes in technology?

Mr. CALLCOTT. State commissioners on uniform State laws are working on an electronic signatures project. Originally they were going to pick a particular technology and later they decided—they made a 180-degree turn on that and decided to go with the technologically neutral approach. We are hoping that they will report out a bill this summer and of course we are hoping—and incidentally, that bill we believe is very consistent with H.R. 1714.

The concern that we have that I think each of us expressed earlier is that the State uniform law process can be a very slow process. The Uniform Commercial Code took almost 10 years to adopt across the States and two States still haven't adopted it. The Uniform State Securities Code was originally proposed in the 50's and still hasn't been adopted in a number of States. So with the speed at which digital commerce is moving right now, we think relying solely on the uniform State law process would be a mistake. At the same time, this statute will allow the States to do specific things that they want to do that are after the adoption of this statute, so we think this is a very minimal intrusion on federalism that is very consistent with the interstate nature of Internet commerce.

Mr. SHADEGG. I understand in response to a question by Ms. DeGette, you indicated that you see a digital signature as assisting in—with regard to the issue of identity theft and preventing future identity thefts and somebody at least indicated on the panel that one of the problems in identity theft right now is that the paper documents are intercepted and stolen before they ever reach you or perhaps even submitted to you fraudulently. Do you know the degree to which this is part of the problem of identity theft today, particularly in your industry?

Mr. CALLCOTT. As I said earlier, that is our single largest fraud problem today is that people will somehow steal a customer's account number and information and call us up and impersonate that customer and try and get a wire transfer out of the customer's account, and we are very enthusiastic about digital signature technology because we believe it is actually more secure and more resistant to forgery than paper base signatures. So it is an issue. It is not a huge issue for us but it is the largest single fraud exposure that we have at this time.

Mr. HOGAN. That is our experience as well. The thefts occur before someone tries to have a relationship with the financial service institution. The thefts occur in large part through theft of mail, and that is where the information is gathered and then people try to use that.

Mr. SHADEGG. If this legislation were enacted, do you envision that an account can be opened electronically, a signature created electronically and there would be no paper transaction whatsoever; is that right?

Mr. CALLCOTT. Yes.

Mr. QUICK. It would become paperless.

Mr. SHADEGG. With regard to the circumstance you just described, the digital signature would be on file and therefore would preclude the theft or the attempt by someone impersonating the account—the actual account holder from getting access to the account.

Mr. HOGAN. In a far more secure way than exists with ink on paper, yes.

Mr. SHADEGG. The law enforcement community, sometimes they want paper to make cases. Sometimes paper is necessary for cases. Have they expressed any concern to you or were they in agreement that this is an advance in the area?

Mr. HOGAN. We haven't heard a concern, if I might, and in fact I think what you are going to find with respect to people interrelating with financial services firms, banks, brokerage firms, this is an upgrade to what the enforcement people will be able to deal with. We take in real names of people, real e-mail addresses, real mailing addresses. We interphase with them in connection with their money. There is an entire audit trail if you will, and the electronic audit trail is faster, quicker, and more absolute than the old audit trail of paper, mailboxes, post office boxes, different connectivity points. We think this will be a great aid to anyone who needs to engage in an enforcement function whether it is police type activity or securities and exchange type activity.

Mr. CALLCOTT. I would echo that. One of the points I made earlier is yesterday the Commerce Department submitted a letter supporting electronic signature legislation in connection with the Senate Commerce Committee markup and I believe the Commerce Department does represent the interests of the Secret Service and other law enforcement organizations on this issue.

Mr. SHADEGG. Not necessarily.

Mr. CALLCOTT. One would hope.

Mr. SHIMKUS. I was waiting for that.

Mr. SHADEGG. Let me ask you kind of a basic question. Would an individual have a single electronic signature or would they have an electronic signature per account? That is, if someone was doing business with Schwab but also doing business with somebody else, would they have a different electronic signature with each of those locations?

Mr. CALLCOTT. I think either is possible depending on what technology different companies choose to adopt. The most common technology that exists today would assign a single electronic signature to a single customer, but this is an area where the technology is moving very fast and we believe that or at least I believe that it

is quite possible that people will pick unique identifiers in the future for different firms they do business with.

Mr. SHADEGG. How complex or how technical is it to be able to create the signature and then use the signature in transactions? For example, I was the victim of an identity theft. Someone sent an e-mail to one of my constituents, an e-mail which was very offensive. That constituent believed it had actually come from me and was offended by it, turned it over to the media. Fortunately the media in my community knew me. They called me. They said did you send this e-mail and we said absolutely not and we had done some work and the attorney general's office was able to track down who sent the e-mail. I guess my question is, how complicated would it be for me to establish a signature where my electronic signature had to go on any e-mail I sent out so that I could confirm that it really was my e-mail?

Mr. HOGAN. It is certainly possible today. Firms such as ours anyway haven't implemented that yet because we don't want to spend the money until we know where the direction is going to come from in terms of what we have to do. In the environment such as H.R. 1714 would provide we would be able to do that.

Mr. CALLCOTT. One of the things we are hoping is that as the technology evolves, it is going to become easier to use. It is going to take up less space in e-mails and things like that. Right now it is not absolutely seamless but it is an area where the technology is improving rapidly on a month to month basis and I think it will become much more ubiquitous within the next couple of years so that exactly that kind of problem can be prevented in the future.

Mr. SHADEGG. Thank you very much. I yield back the balance of my time.

Mr. OXLEY. I thank the gentleman. The gentleman from Arizona has been one of the leaders in identity theft issues and I appreciate his participation. Let me if I could just wrap it up and ask all of you to kind of do a little crystal ball gazing. Assuming that this legislation passes, how quickly can you roll out electronic signature services for your customers, what kind of authentication technologies might you use, how are you going to handle the costs? Are you going to pass it on to the consumer? Just give us some kind of an idea in a little bit as to how you see this whole thing coming together, assuming we get our job done?

Mr. QUICK. I believe it can be enacted within several months of this legislation being passed. I do not see it being passed on. In fact to the contrary I think we will end up being more efficient, more cost efficient by having this versus the traditional mailing postage fees involved and the forms going back and forth on a regular basis to these customers. So that I see it as a win-win for us as well as for the individual investor. I think that they are going to be protected. It is going to be easier and more efficient for them as well as for us to operate our business as we move forward.

Mr. OXLEY. Hopefully those cost savings will be passed on to your customer.

Mr. QUICK. Well, one of our companies charges \$7.95. We are not going to go much lower on a transaction.

Mr. OXLEY. Advertising there. Mr. Hogan, you mentioned in your testimony the forms. I think some of the members weren't here but

you might reiterate the number of forms that you brought and give us an idea about what your current life is like.

Mr. HOGAN. We have 40 different forms today that, depending upon how you want to relate to the firm, have an IRA account, have a regular account, have a joint account requiring ink on paper signatures. All these can be eliminated if we could go to a digital signature environment. And we would eliminate them. We would—people come to us because they want an on-line experience. We are an on-line broker. We don't have bricks and mortar offices. They are predisposed to want to deal with a paperless environment, but remember it is not paperless. We store the records. We keep all of these accounts for them. We do the backups. We are their safe deposit box, if you will, for financial records about their assets. They like that. They come to us in the evenings, broadly speaking, as well as during the day. They do their housekeeping, their finances at home. They want the ability to do that at all hours of the day and night, 24 hours a day and they don't want to get this back in the mail in a week and a half from us saying please, now that you have done it electronically, do it on paper again.

We think we can implement a solution in a short period of time, months absolutely, not 6 months, probably less than that. The net cost savings to us is so large as it is to the client that there would be no amount of money to pass along. I haven't done it on this but the average cost to send a document out to a client is well in excess of \$3 a mailing and then we have to get it back so the individual consumer has to spend their money or their time and energy to put it back in the mail to send it back to us. All those things go away. You get instantaneous results, you get certain verifiable results and we certainly wouldn't have a cost that I can conceive of to pass along to anybody.

Mr. CALLCOTT. I would agree with Mr. Hogan. We now have over a thousand people in our brokerage operations unit who basically handle paper coming to and from customers and, you know, it is going to be a quicker, more efficient process not only for us but also for the customers because right now when a customer fills out a paper base document, they may make a mistake on it or forget to fill out something. If they send that in to us by paper, we have to call them or sometimes send it back to them whereas when you do it on-line, you know, you will get a prompt saying you need to fill out section -B and it can be corrected instantaneously.

So it is not only going to be quicker and cheaper for us, it is going to be quicker and cheaper for the customer to get their account opened. We are actively looking at the different technologies right now. We like a lot of firms are going to have a Y2K freeze on technology implementations for the last couple of months of this year but we would certainly anticipate if this legislation passes quickly, that early next year we would roll out electronic signatures for our customers.

Mr. OXLEY. Thank you and thanks to all of you for excellent testimony. I would ask unanimous consent that all members' opening statements be made part of the record. If there is nothing else to come before the subcommittee, the subcommittee stands adjourned.

[Whereupon, at 11:10 a.m., the subcommittee was adjourned.]