

**CONNECTICUT'S
UNIFORM ELECTRONIC TRANSACTIONS ACT:
Making electronic contracts enforceable**

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Regional Bar Association

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- I. The common law was unclear about whether or not electronic contracts were enforceable.
- A. The commonly raised issues were:
1. What constitutes a signature?
 2. What constitutes a writing?
 3. What constitutes an original for the purposes of the best evidence rule?
- B. Some commentators said no special legislation was necessary.
1. *"Does Computer Stored Data Constitute a Writing for the Purposes of the Statute of Frauds and the Statute of Wills?"* 9 Rutgers Computer and Technology Law Journal 93 (1982).
 2. *"Normalization: A Revolutionary Approach"* 20 Jurimetrics Journal 140 (1979).
- C. Other commentators suggested a traditional written agreement would support electronic transactions.
1. *"The Model Form of Electronic Data Interchange Trading Partner Agreement and Commentary"* 45 Business Lawyer 1717-1749 (1990).

¹ Mr. Lowry is a member of the Meriden, Connecticut law firm of Brown & Welsh, P.C. His first article on electronic commerce was published in 1979. Since then, he has assisted the United States government with its negotiations at the United Nations Commission on International Trade Law ("UNCITRAL") and the Free Trade Area in the Americas ("FTAA") concerning electronic commerce, as well as assisting private clients. He is a member of the Legal Working Group of the United Nations Centre for Trade Facilitation and Electronic Business. He has both drafted documentation for, and litigated, computer related matters.

Mr. Lowry recently testified at the Connecticut General Assembly concerning the Connecticut version of the Uniform Electronic Transactions Act.

Brown & Welsh's web site is found at: www.BrownWelsh.com

II. Signatures and their issues involved

- A. General rule from the Uniform Commercial Code §1-201(39) is: "signed" includes any symbol executed or adopted by a party with present intention to authenticate a writing. A writing is further defined in §1-201(46) as including printing, typewriting or any other intentional reduction to tangible form.
- B. What function is a signature intended to fulfill? The answer depends on the context of the question.
1. Identify a person.
 2. To provide certainty as to the personal involvement of that person in the act of signing.
 3. To associate a person with the contents of a document (such as agreeing to the terms of the document, etc.).
- C. The concept is to make a signature technologically neutral. The law should not confer a special portion to any technology, especially if it is patented.
- D. What factors should you consider to determine if a signature is appropriate? 1996 UNCITRAL Model Law on Electronic Commerce, Guide to Enactment ¶58.
1. the sophistication of the equipment used by each of the parties;
 2. the nature of their trade activity;
 3. the frequency at which commercial transactions take place between the parties;
 4. the kind and size of the transaction;
 5. the function of signature requirements in a given statutory and regulatory environment;
 6. the capability of communication systems;
 7. compliance with authentication procedures set forth by intermediaries;
 8. the range of authentication procedures made available by any intermediary;
 9. compliance with trade customs and practice;
 10. the existence of insurance coverage mechanisms against unauthorized messages;
 11. the importance and the value of the information contained in the data message;
 12. the availability of alternative methods of identification and the cost of implementation;

13. the degree of acceptance or non-acceptance of the method of identification in the relevant industry or field both at the time the method was agreed upon and the time when the data message was communicated; and
14. any other relevant factor.

III. What is a Digital Signature?

- A. Digital Signatures are a subset of Electronic Signatures. While all Digital Signatures are Electronic Signatures, not all Electronic Signatures are Digital Signatures.
- B. Public key cryptography (sometimes called asymmetrical key cryptography) is used to create Digital Signatures. The process is mathematically similar to the process of encryption.
 1. The public key can be freely distributed and is used to test the validity of the signature.
 2. The private key must be kept secret and is used to make the signature.
 3. The reliability of the signature is determined, in part, by the length of the key. Most browsers use 56 bit² or 128 bit keys.
- C. The process is based upon the mathematical fact is presently impossible to determine the very large prime numbers that make up a single large product (the factoring problem). If this mathematical puzzle is solved, the present day Digital Signature will be about as effective as typing your name in ASCII. The process depends on the implementation of this "one way" mathematical function.
- D. While the mathematical process is the same, different software vendors implement it differently. The implementation may affect the likelihood an unsophisticated party will accept the signature.
 1. Pretty Good Privacy.
 2. Adobe Acrobat 5.0.

² The length of the key originally set for the Data Encryption Standard (DES).

- E. The important feature is the length of the key.
 - 1. For a long time, 56 bit keys were the largest that could be handled by software that was exported (otherwise the software was a munition). Keys of this length were first used with the Data Encryption Standard ("DES") established by the United States government.
 - 2. Browsers came in "strong" encryption domestic versions using 128 bit keys. They could not be exported.
 - 3. I use a 4,096 bit key with Pretty Good Privacy, which is about 8,000 times harder to break than a 128 bit key.³

IV. Legislation to enable electronic commerce.

- A. Legal issues addressed by P.L. 106-229⁴ (federal "eSign" legislation). Very similar to the Uniform Electronic Transactions Act ("UETA")⁵ drafted by the National Conference of Commissioners on Uniform State Laws ("NCCUSL"). UETA was already adopted by 41 states and is pending in 5 other states.⁶
- B. The Connecticut Law Revision Commission recommended some changes to UETA and transmitted this draft to the Connecticut General Assembly at the beginning of the 2001 legislative session. It is now P.A. 02-68, effective October 1, 2002.
<http://www.cga.state.ct.us/lrc/Electronic%20Communications/ElectronicMain.htm>

V. Connecticut Uniform Electronic Transactions Act

- A. Relationship to eSign - it is up in the air.
 - 1. Federal law always pre-empts state law.

³ But remember computing power doubles every 18 months, as a general rule.

⁴ http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=106_cong_bills&docid=f:s761enr.txt.pdf

⁵ <http://www.law.upenn.edu/bll/ulc/fnact99/1990s/ueta99.htm>

⁶ http://www.nccusl.org/nccusl/uniformact_factsheets/uniformacts-fs-ueta.asp

2. UETA safe harbor - but can it be modified?
 3. Does Federal law pre-empt evidentiary issues?
- B. Changes from the NCCUSL draft
1. An "electronic record" explicitly includes facsimiles, §2(7).
 2. Cancellation of utility services, §3(c)(2)(A).
 3. Default notices regarding loans secured by primary residences, §3(c)(2)(B).
 4. Termination of health or life insurance, §3(c)(2)(C).
 5. Product recalls for defects that endanger health & safety, §3(c)(2)(D).
 6. Documents accompanying hazardous materials, §3(c)(2)(E).
 7. Does not apply to the Connecticut Practice Book, §3(d).
 8. Applies to all negotiable instruments under §16, not just those under Uniform Commercial Code Article 3.
 9. The State Librarian has authority to decide what records shall be electronic, §17.
 10. Each governmental agency shall decide what records will be electronic, §18.
- C. An electronic document constitutes a writing §7(c) (although a document being recorded on the land records must still be on paper for the time being). This does not prevent contracts for the conveyance of land from being formed electronically (they just can't be recorded in that form).
- E. An electronic signature is a valid signature, §7(d).
- F. Failure to verify a signature may result in the lack of an enforceable document, §10(1).
- G. Failure to give a "last chance" to verify a transaction with an electronic agent may allow a person to avoid the transaction, §10(2). Such a person must immediately notify the other party of the error.

- H. An electronic document may be admitted to the court, although you may need to show what steps you took to preserve the document's integrity, §12.
- I. The record cannot prevent itself from being stored or being printed, §8. Failure to comply with this renders the document unenforceable against the party who can't print or store it.
- J. The parties must have agreed to transact business electronically. No one can be forced into the cyberworld unwillingly.