

# Digital and electronic signature law commercial essay

Law



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## **Introduction**

In current years we have seen a considerable advance in electronic commerce and regarded as the key to the growth of digital economy worldwide. As a results security of business transactions happen to be very important. With the nature of internet acting as an open as well as the globalization of the market economy create legal concerns regarding security and electronic verification during transaction over the internet as the results consumers and businesses are unwilling to be engaged in e-transaction since the current legal structure do not offer assurance for a reliable online commerce. Consequently the security process of e-transactions has to be addressed globally and not only on national level. The essay will explain the current method of e-transactions especially the e-signature based on initiatives taken place globally and set up a trustworthy atmosphere for e-transaction and see whether there is a need and necessary for common National Law in digital signatures.

## **Digital & Electronic Signature (Different expressions for the similar concept, benefits and advantages)**

Electronic signatures can be defined as any electronic process signifying an approval to terms, and/or a document, presented in electronic format.

[1]Actually there are three technique of electronic verification or authentication which normally used for e-signatures, the first one being the knowledge and awareness of either a certain code, password and so forth, second the use of biometric system which recognize the unique physical character of each individual it might be voice, finger prints, blood pressure records & strokes and lastly but not least the ownership of smart card. While <https://assignbuster.com/digital-and-electronic-signature-law-commercial-essay/>

a digital signature usually regarded as a widely used and the most advanced form of e-signature system which uses encryption system. The main principle of encryption system is that two different keys, one known as public and the other private (key pair) normally used so as to generate a digital signature, encode the data, authenticate and then decode the data as well. i. e. the sender of electronic document can sign by using his/her private key that should be reserved secret and the signature should only be confirmed with the public key of the sender which is obtainable to the public. The process of creating and verifying digital signature provides important functions for legal purposes due to the fact that the asymmetric cryptography or public-key cryptography use a pair of keys to encrypt and decrypt a message so that it arrives securely.[2]This ensures securities and confidentiality of message in an open Internet network system. Actually there are two techniques of encryption used in the e-signature, one being the symmetrical key which is base on single secret key (without public key) known from the sender and from the recipient. Once somebody else holds the secret key, then he might be able to decipher the communications and the other already explained which is known as asymmetrical keys which have public keys. Digital signature as well provides verification of the signer identity and identifies who involved in the transaction as results it is difficult to be forged unless the signer misplace of her/his private key. It is further protects the data so the recipient would be confident that comparing the two message digests has not changed the message.[3]Being confident two terminologies don't cover similar meaning, the preference selection of which of them to be utilized is full of relevant consequences. If one legislation

selects the term e-signature, the principle of technological neutrality in that regulation does not allow the description of a specific technology and therefore it is less detailed but does not need continuous updating. On the other hand, when the term digital signature is used, there is a more detailed regulation, that has a need of continuous updating.[4]E-signatures offer better reliability, transparency and security in e-transactions by play down the risk of dealing with frauds or individual who try to escape accountability by declaring to have been impersonated. Generally digital signatures can assure the integrity of message by stop illegal access to data, become aware of any message interfere and withdrawing the danger of forged claims that data was distorted after it was sent. For that reason the system of open network can be indebted with well-organized of data interchanges, safe information as well as cost-effective which are the necessary gears on consumers' data protection and privacy.

## **Initiatives on International approaches toward digital signature legislation**

It is important to understand the necessity of adopting the legislation law with similar principles worldwide and not just inside USA and European Union Countries only, but furthermore all countries globally. Since e-commerce transactions are regularly done from one country to another, it is simple to realize the significance of adopting National law so as to speed up the technology and reduce risk for consumers. This movement of harmonization can largely be performed by international agreements, conventions and organizations. They are the basics that might trim down the variation of legislations in different countries. A big task can however be played by the

legislations of the European Union and the United States of America with rules that might guide the future movement of the legislators. In EU, the call for an action in the direction of an international harmonization is articulated by section 23 of the 1999/93/EC directive on a Community framework for electronic signatures which says " The development of international electronic commerce requires cross-border arrangements involving third countries; in order to ensure interoperability at a global level, agreements on multilateral rules with third countries on mutual recognition of certification services could be beneficial". Furthermore, in article seven (7) subsections 1 of the 1999/93/EC, emphasis more on the rules in relate to international harmonization. It states that In order to facilitate cross-border certification services with third countries and legal recognition of advanced electronic signatures originating in third countries, the Commission shall make proposals, where appropriate, to achieve the effective implementation of standards and international agreements applicable to certification services. While in USA, the Electronic-Sign Act, Title III also play part in the promotion of e-commerce and use of digital signature globally as it can been seen in section 301 and principles of governing the use of electronic signatures in international Transactions where by secretary of Commerce shall promote and use, on an international basis of e-signatures in accordance with the principles specified in paragraph 2 and in the manner consistent with section 101 of this Act, further more the secretary shall take all actions necessary in a manner consistent with such principles to eliminate or reduce, the maximum extent possible, the impediments to commerce in e-signatures for the purpose of facilitating the development of interstate and foreign

commerce. In general, the following were the principles specified in that particular paragraph, remove paper based obstacles to e-transactions and adopt principals from UNCITRAL Model law, establish appropriate authentication technologies, allow opportunity to prove in court that their authentication approaches and their transactions are valid and take a nondiscriminatory approach to electronic signatures and authentication methods from other jurisdictions as well. In evaluating similarities between the EU and the United States of America regulation, it should be noted section 301 is the base that motivated all regulations in the area of international harmonization. In reality the UNCITRAL and the EU regulation have follow the direction of the USA legislation. Thus, the two articles are similar, going both in the direction of the international harmonization.

## **Conclusion**

Since e-commerce transactions are regularly done from one country to another, it is simple to realize the significance of adopting National law on digital signatures so as to speed up the technology and reduce risk for consumers

## **(ii)The 2005 United Nations Convention on Electronic Communications in International Trade**

### **Introduction and Historical Background**

The 2005 UN Convention on the Electronic Communications also known as Electronic Communications Convention (ECC) was adopted by UN General Assembly on 23rd of November 2005. The Convention intends to smooth the use of electronic communications in international trade contract (CUECIC)The

main objective was to set up standard regulations anticipated to eliminate obstacles to the use of e-communications in international contracts, including obstacles that might result from the operation of existing international trade law instruments, with a view to enhancing legal certainty and commercial predictability. Generally the treat depends on the UNCITRAL Model Law on Electronic Commerce (MLEC), which comprises an electronic commerce flagship scheme from a year 1995. UNCITRAL has been a key model since 1980s by establishing standard legislative rules for the use of electronic communications in international trade. In 1996, the first outcome was the implementation of the Model Law on E-Commerce (MLEC), the second efforts was in 2001 when the (MLES) which is the UNCITRAL Model Law on E-Signatures was adopted. Although, were some issues which were not clearly elaborated. For example model laws might be endorsed with variations in the range of different jurisdictions also it was believed that setting up a core of common provisions might raise standardization as result predictability in international trade law. Also it was regarded that part of the MLEC & MLES provisions could be possibly old-fashioned and complemented. According to the above observation, the Electronic Communications Convention establish other different guiding principle objectives, first it eliminate obstacles found from other international trade law agreements, secondly it provide a standard law of electronic communications resulting to a advanced level of standardization, revise and update MLEC & MLES provisions. Last but not least it enables core legislation on electronic communications to all States that have insufficient or no provisions at all.

## **Critical comments of the convention**

As we have seen above, general objective of ECC is to provide practical and convenient solution for all matters connected to the use of electronic ways of communication in relation with international standards. There certain formal requirements contained in broadly adopted international trade law agreements like the 1958 New York Convention and the UN Convention on Contracts for the International Sale of Goods (CISG) could create obstacles to the extensive use of e-communications. In addition, the ECC serves extra function by smoothing the progress of the use of e-communications in international trade. So, the Convention is anticipated to reinforce the harmonization of the rules concerning e-commerce and encourage uniformity in the domestic ratification of UNCITRAL model laws involving to e-commerce, it also keep update and balance various provisions of model laws in regard to current practice. Moreover, the Convention might possibly provide suitable provisions on e-commerce with up to date, uniform and standard legislation especially to those countries which have not yet adopted the convention. The Convection does not anticipated to set up standardized rules for substantive contractual terms which are not specifically connected to the use of e-communications. But, a strict separation has been put into consideration among related technology and substantive concerns in the context of e-commerce which is constantly not feasible. As a result the convention has a few substantive set of rules which extend a little bit beyond so as to guarantee the effectiveness of electronic communications perspective. According to Article 1, the convention applies to all e-communications exchanged between parties located in two different states



when at least one part has its place of business in a contracting state.[5]Also it might well apply by virtue according to the parties' choice as well. The ECC as explained in Art. 2 does not apply to related contract for individual, family or household purposes. However, unlike the corresponding exclusion under article 2(a) of CISG, the exclusion of these transactions under the ECC is an absolute one, meaning that the convention would not apply to contract entered into for personal purposes even if the particular purpose of the contract was not apparent to the other party and it does not apply to certain financial transactions, negotiable instruments, and documents of title, are excluded from the Convention's scope of application. Furthermore the ECC (Art. 9) reiterates the standards rules found in Art. 8, 7 and 6 of the UNCITRAL Model Law on e-commerce concerning the condition for setting functional uniformity among e-communications and physical paper credentials, handwritten signatures and electronic authentication methods. The ECC unlike the Model Law doesn't involved in record retention as it was believed that subject was much associated to rules of evidence and administrative requirements in the formation of contract. In addition, the Convention set up the principle that communications are not to be denied legal validity solely on the basis that they were formulated in electronic form (Art. 8). particularly, given the creation of automated electronic message systems, the ECC authorize for the enforceability of contracts entered into by such systems, including when no individual examine and review the person actions carried out by them (Art. 12). It further make clear that the suggestion to conclude a contract made through electronic way and not addressed to the precise parties amounts to an invitation to deal, rather than

an offer whose acceptance binds the offering party, in line with the corresponding provision of the CISG (Art. 11). Moreover, the Convention establishes remedies in case of input errors by natural persons entering information into automated message systems (Art. 14). The convention also pays attention in to relate to private international law and existing domestic law whereby it applies to a given international commercial transaction is a matter to be determined by the choice of law rules of the State whose court is asked to decide a dispute. Thus, if the rules of private international law of that State require application of the substantive law of a Contracting State to the resolution of the dispute, the Convention will apply as law of that Contracting State, irrespective of the court's location. Moreover, States may also consider adopting the provisions of the Convention at the domestic level. Such decision would promote uniformity, economizing on judicial and legislative resources as well as further increasing certainty in commercial transactions, especially in light of the diffusion of mobile devices for electronic transactions.

## **Conclusion**

As explained above, the major objective of the Electronic Communications Convention was to set up standard regulations anticipated to eliminate obstacles to the use of e-communications in international trade contracts.