

# Legal Procedures to Protect E-Signature for Net-Users from Fraudulent E-Contracts

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**Abstract:** In this paper, we will explain the importance of e-signature for e-documents, e-contracts and e-invoices, the uses of e-signature in e-commerce, and the legal measures and addresses enacted by countries to reduce the crime of fraudulent e-signature.

**Keywords:** E-signature, E-commerce, E-signature Law.

## Introduction

E-signature is "a signature that consists of one or more letters, characters, numbers or other symbols in digital form incorporated in, attached to or associated with an electronic document. Or the electronic signature is in the form of encrypted letters and numbers to reduce the cases of fraud and electronic fraud. An electronic signature relates a lot to e-commerce over the Internet. [10]

In the recent period, the high speed of the Internet and communications encouraged people to use contracts and electronic signatures via the Internet [1] [9]

The development of search engines support e-commerce and the transmission of contracts and documents. [4]. Marketing products through social networks and the development of database security are factors that have affected the increase in e-commerce. [3] [8]. In addition to the development of the IOT in education, medical, agricultural technologies. [7] [14] [15]. Psychology has developed with the Internet and the knowledge of people's desire for products and their marketing, for example, the colors, sizes and designs of products. [2]. In addition to the techniques of electronic signatures with encryption and symbols, it is possible to develop an eye print through which people can be distinguished and the development of this technology in the field of computers and the Internet. [5][6]

All of these factors that we mentioned previously increased the use of contracts and documents via the Internet, and thus the increased use of electronic signatures. [10]

## E-commerce

E-commerce or online commerce is the process of purchasing goods and commodities displayed on Internet pages, on social networks, or on e-mail messages. [11]. E-commerce is between individuals and companies within the country or from other countries. As in traditional commerce, e-commerce is used e-contracts, e-documents and e-invoices. All e-documents use e-signature to identify individuals, companies, or state institutions. [10] [16]

E-commerce has become one of the necessities of life for people, especially in a period of epidemics and diseases for the purpose of social distancing between people. [12]

## E-signature

The term electronic signature appeared in the decades of the seventies and eighties of the last century due to the development of fax and telex for the exchange of documents between individuals, companies and state institutions. E-Signature can be either symbols, digital cipher, logo, electronic stamp, or ID. With the development of the Internet and facilitating the work of e-commerce, companies and individuals, the use of electronic signature has become largely in the recent period.

Thus, laws must be enacted to limit the crime of forging e- signatures in e-contracts, e-invoices and e-documents. [10] [16]

## Legal Procedures to protect E-signature

In the recent period, there has been a significant increase in e-commerce, as well as an increase in fraud in electronic contracts and signatures. Fraudsters use corporate electronic signatures to market fake goods and services or to steal Internet service users' money. This crime is considered one of the computer and internet crimes. [13]

The economic damage of this crime directly affects individuals, companies, and countries. People are affected by either stealing their money or buying counterfeit products. The second harm to companies is by counterfeiting their products and stealing their customers. The third harm is for governments, as governments pay large sums of money to eliminate criminals and develop technologies to curb this crime. [11]. A number of countries of the world have enacted several laws to reduce this crime. Table 1.

Countries	laws
Iraq	Electronic Transactions and Electronic Signature Act No 78 in 2012
UK	s.7 Electronic Communications Act 2000
USA	U.S. - Electronic Signatures in Global and National Commerce Act U.S. - Uniform Electronic Transactions Act - adopted by 48 states U.S. - Digital Signature And Electronic Authentication Law U.S. - Government Paperwork Elimination Act GPEA U.S. - The Uniform Commercial Code (UCC)
China	Law of the People’s Republic of China on Electronic Signature (effective April 1, 2005)
European Union	EIDAS regulation on implementation within the EU is set out in the Digital Signatures and the Law.
India	Information Technology Act
Singapore	Electronic Transactions Act (2010) (background information, differences between ETA 1998 and ETA 2010)
South Africa	The Electronic Communications and Transactions Act 25, 2002
Australia	Electronic Transactions Act 1999 (which incorporates amendments from Electronic Transactions Amendment Act 2011), Section 10 - Signatures specifically relates to electronic signatures.
Canada	PIPEDA, its regulations, and the Canada Evidence Act
Costa Rica	Digital Signature Law 8454 (2005)
Ecuador	Ley de Comercio Electronico Firmas y Mensajes de Datos
Ireland	Electronic Commerce Act 2000
Japan	Law Concerning Electronic Signatures and Certification Services, 2000
Mexico	E-Commerce Act [2000]
Malaysia	Digital Signature Act 1997 and Digital Signature Regulation 1998
Moldova	Privind semnătura electronică și documentul electronic
New Zealand	Electronic Transactions Act 2002
Philippines	Electronic Commerce Act of 2000
Poland	Ustawa o podpisie elektronicznym(Dziennik Ustaw z 2001 r. Nr 130 poz. 1450)
Russian Federation	Federal Law of Russian Federation about Electronic Signature (06.04.2011)
Slovenia	Slovene Electronic Commerce and Electronic Signature Act
Turkey	Electronic Signature Law
Ukraine	Electronic Signature Law, 2003
Lithuania	Electronic signature law

Table1: E-signature laws

We mentioned in Table 1 is a model for some countries, as most countries in the world have laws to protect users from the crime of forged electronic signature.

The problem faced by users around the world is the lack of a uniform international law for e-signature. As the e-commerce and e-contracts are not within the borders of one country only. Most of e-commerce is between different countries of the world.

Conclusion & Future work

In this paper, we explained the importance of e-signature in e-commerce, especially as it facilitates the process of e-commerce around the world. We also clarified the problems of e-signature fraud that companies, individuals and governments are exposed to, and the legal measures taken by the countries of the world to reduce this crime.

We suggest that there be a unified international law for electronic signature and be under the auspices of the United Nations. The arrest of criminals in cooperation with the International Police (Interpol) to reduce this crime that causes material harm to companies, people and governments.

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