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## **Harmonization of B&H Legislation with EU Law in domain of E-Legislation**

*Key words: E-business, electronic contracts, e-signatures*

### **1. INTRODUCTION**

E-business is a general concept that encompasses all forms of business transactions or information exchange performed using the information and communication technology (ICT), between companies, between companies and their customers, or within companies themselves. It includes electronic trade in goods and services. E-business can be viewed from various aspects. From the communication viewpoint, e-business represents the electronic delivery of information, products and services, and electronic payment using computer and other communication networks. From business perspective, it is the application of technology aimed at automating business transactions and operations. From the viewpoint of services, e-business is a tool that allows the reduction of operating costs with the simultaneous increase in service quality and speed of delivery.

Contract law is the foundation of every economic system. Each sale of goods or services, as well as property transfer is based on contracts. Contract law, which has historically been associated with written contracts materialized on paper and personally signed by parties to the contract, is facing a new challenge. It is the challenge of signing contracts in a new digital area by exchanging electronic messages by means of ICT. The law of ever-increasing complexity and strictness of e-business standards is particularly evident in this area.

The technique of making electronic contracts becomes specific, particularly due to the medium in which the electronic contract is manifested (emergence of the Internet), manner of negotiating, and hardware and software resources used when expressing willingness to sign the contract (electronic messages, electronic signatures, legal persons' electronic stamps). The significance of e-legislation for Bosnia and Herzegovina is reflected in the fact that it is a prerequisite for development and overcoming the lag that Bosnia and Herzegovina (henceforth: B&H) was exposed to

due to historic circumstances. Legal regulation of ICT use has had extremely favorable effects. This is the source of its driving power and synergy.

The most important problems of e-business relate to: technique of making contract via electronic messages using ICT, identification of signatory and verification of the signed electronic record authenticity in case of dispute. The listed problems exist in the EU and B&H laws. A contract made via electronic messages and using ICT (term 'electronic contract' will be used further in the paper, since it is the most frequently used one in comparative law) has quite a distinctive formation technique, different from the technique of standard contract making, both in the European and in B&H contract law.

## **2. SOURCES OF LAW RELEVANT FOR MAKING E-CONTRACTS**

E-business has been on the upswing in recent years. Since it relates to global trade, which knows of no borders, numerous barriers were immediately observed, including the lack of appropriate legal regulations.<sup>1</sup> In order to remove legal barriers<sup>2</sup> and speed up e-business development, a number of international organizations started to regulate this domain.<sup>3</sup> The most important subject of norms includes: commercial documents; e-signatures; e-accounts; e-contracts; e-banking; e-payment. Naturally, this does not include all the manifestations of e-business. Each of the listed categories implies a separate system and classification according to individual specific kinds of individual deals. International organizations active in this domain that particularly deserve to be mentioned are: UN Commission for International Trade Law (UNCITRAL); International Chamber of Commerce (ICC); International Maritime Committee (CMI); Economic Commission for Europe – RG.4 (CEFACT), and European Economic Community – European Union. The most important regulations related to e-commerce on the international and regional level include<sup>4</sup>: UNCITRAL's model law on electronic trade; International Maritime Committee's Rules for electronic bills of lading; EU Directive on certain legal aspects of e-commerce in the internal market; European Parliament and Council's Directive on the Community framework for e-signatures; European code of conduct in the field of e-payments; UNCITRAL's model law on international funds transfer; International Chamber of Commerce Rules on standby letters of credit and UNCITRAL's model law on e-signatures.

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<sup>1</sup> For more detail see Željko Panian, "Izazovi elektroničkog poslovanja", Narodne novine Zagreb (2002), pp. 22-130

<sup>2</sup> Cf. Legal Barriers in E-business, Commission Staff Working Paper, Brussels, (2004).

<sup>3</sup> Cf. Jelena Vilus, "Elektronsko trgovačko pravo", Evropski centar za mir i razvoj (ECPD) Univerziteta za mir UN, Beograd, (2000), pp. 5-56

<sup>4</sup> Cf. UNDP ICT- Forum, (2003) "Infrastructure of An Information Society, Legal Infrastructure of Information Society", Conference material, Sarajevo, pp. 7-45

## 2.1. Sources of law in the European Union

European Union has issued a number of directives/guides pertaining to e-business.<sup>5</sup> They can roughly be classified in three areas: ICT regulation, e-business and intellectual property<sup>6</sup>. Legal philosophy behind these regulations is horizontal unification. Contrary to the approach of other international organizations, the EU insists on the following characteristics of national laws' unification: obligatoriness, establishing minimum common contents, horizontal effect, freedom in selecting the method of agreement and the possibility for private subjects to refer to these guides based on their direct effect.<sup>7</sup>

Interestingly, EU has not renounced the soft law technique in this domain.<sup>8</sup> The most significant example of the kind is the European EDI agreement<sup>9</sup>, which represents the European Commission's recommendation for the organization of electronic data exchange, Action Plan e-Europe 2002, and preparatory documents of Action Plan e-Europe 2005.<sup>10</sup>

European model EDI agreement was passed in 1994, and represents the Recommendation by the EEC Commission for legal aspects of EDI (electronic data exchange). The agreement consists of fourteen articles, which pertain to the following issues: subject and scope, definitions, contract validity and formation, admissibility of data as evidence, processing and acknowledgement of the receipt of messages, message security, confidentiality and protection of personal data, operational requirements for EDI, technical specifications and requirements, liability, dispute resolution, applicable law and effect, modifications, term and severability.<sup>11</sup> The model agreement points to the use of UN/EDIFACT standards. The basic flaw of the EDI agreement is that it does not bind third parties that are not parties to the transaction, nor is applied on the Internet.

E-Commerce Directive (2000/31/EC) does not pertain to the entire e-business but rather to the information society service providers. It deals with five major issues: establishment of information society, defining the concept of commercial communication, making on-line business transactions, mediators' liability and implementation.

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<sup>5</sup> Cf. A Guide for Business to The Electronic Commerce (EC Directive) Regulations 2002, Department of Trade and Industry, July 2002

<sup>6</sup> Cf. UNDP ICT- Forum, (2003) "*Infrastructure of An Information Society, Legal Infrastructure of Information Society*", Conference material, Sarajevo. pp. 7-45

<sup>7</sup> Miloš Trifković, "Međunarodno poslovno pravo", Ekonomski fakultet u Sarajevu Izdavačka djelatnost, Sarajevo (2001). pp. 60-70

<sup>8</sup> Lillian Edwards, "The New Legal Framework for E-Commerce in Europe" Hart Publishing (2004). 141-211

<sup>9</sup> Cf. <http://english.vipgroup.net>, last visit on 12/02/2005

<sup>10</sup> Ian Walden, Julia Hornie, "E-Commerce Law and Practice in Europe", A Publication of the ECLIP Network Woodhead Publishing (2000)

<sup>11</sup> For more details see: Lillian Edwards, "The New Legal Framework for E-Commerce in Europe" Hart Publishing (2004). pp. 211-256

The most important novelty of the Directive proposal is the establishment of information society service providers. The Directive attempted to set a legal framework for certain aspects of electronic legal and business traffic, which primarily encompasses undertaking and providing information society services, service provider's responsibilities related to information, contracting, and service provider's liability.

The Directive requires member states to ensure, in their respective national legislations, possibility for concluding and legal acknowledgement of contracts made by electronic means. In electronically concluded contracts, the information society service provider is obliged to clearly inform the customer at least on:

- different technical steps to follow to conclude the contract;
- whether or not the concluded contract will be filed by the service provider and whether it will be accessible;
- the technical means for identifying and correcting input errors prior to the placing of the order;
- the languages offered for the conclusion of the contract, and
- codes of conduct the service provider subscribes to, and information on how those codes can be consulted electronically.

The entrepreneur has to acknowledge the receipt of the recipient's order without undue delay and by electronic means.<sup>12</sup> Contract terms and general conditions provided to the recipient must be made available in a way that allows him to store and reproduce them. These solutions do not apply to contracts concluded exclusively by exchange of e-mail or by equivalent individual communications.<sup>13</sup> The provisions pertain to contracts concluded over the web sites.<sup>14</sup>

Directive of the European Parliament and Council on the Community framework for electronic signatures was adopted in 1999.<sup>15</sup> It is heavily influenced by the Guide of American Lawyers' Association on digital signatures and UNCITRAL's Model law on e-signature.<sup>16</sup> The Directive is based on the technologically neutral standards in ensuring requirements for signature security and certification institution.<sup>17</sup>

The Directive establishes two forms of electronic signature: electronic signature and advanced electronic signature. According to the Directive, electronic signature means

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<sup>12</sup> Cf. Ian Walden, Julia Horne, " E-Commerce Law and Practice in Europe", A Publication of the ECLIP Network Woodhead Publishing (2000).str. 223-311.*Infrastructure of Information Society*, Conference material, Sarajevo. pp 7-45

<sup>13</sup> More detail in Steve Hedly, Tanja Aplin, " Statutes on IT and E-Commerce", Oxford University Press (2002). pp. 33-67

<sup>14</sup> Cf. A Guide for Business to The Electronic Commerce (EC Directive) Regulations 2002, Department of Trade and Industry, July 2002

<sup>15</sup> More detail on <http://europa.eu.int>, last visited on 12/01/2005

<sup>16</sup> For more, see <http://www.eurunion.org>, last visited on 10/11/2004

<sup>17</sup> Cf. A Guide for Business to The Electronic Commerce (EC Directive) Regulations 2002, Department of Trade and Industry, July 2002

the messages in the electronic form that are attached to or are logically associated with other electronic messages, and serves as a method of authentication.<sup>18</sup> Advanced electronic signature is defined functionally, by determining requirements an e-signature must meet in order to be qualified as advanced. Advanced electronic signature shall be admitted, relative to data in electronic form, the effect equal to the handwritten signature on the paper-based document (Art. 5 of the Directive). The requirements an advanced e-signature must meet pertain to the relationship between the signature and the signatory, and the signature and data.<sup>19</sup> Article 2 of the Directive states that an advance electronic signature means an electronic signature that meets the following requirements:

- that the signatory's identity can reliably be established based on the signature;
- that the using system has been created with no known flaws that could endanger its authenticity;
- that there are such protection measures that it cannot be used without the will of signatory whose identity it is connected with;
- that any change in data related to the signature can be discovered, and
- that it has been certified by an authorized provider of certification service.

For the purpose of establishing legal security of participants in e-commerce by means of e-signature, the third party is introduced, named a certification service provider (hereinafter: certification institution).<sup>20</sup> It is an "entity, legal or natural person who issues certificates or provides other services related to electronic signatures". In order to be considered reliable, a certification institution has to meet certain requirements before and after issuing certificate. The obligatory requirements relate to: appropriate staff, technical security, financial sources sufficient to cover the risk of damage liability. By issuing the certificate, certification body becomes responsible for the damage caused to any legal or natural person that relies upon the certificate (Art. 6 of the Directive).

## 2.2. Sources of law in B&H

B&H legal framework was set in four basic ways: by taking over the regulations of ex-SFRY, by entities' legislative activities, by cantonal legislation and by passing regulations of the state of B&H. Due to the time of their origin, the overtaken regulations were not designed in accordance with ICT needs. The new regulations of entities, cantons and B&H require the use of ICT in certain areas.<sup>21</sup> Act on Electronic Signature at the state level in B&H was passed on November 14<sup>th</sup>, 2006 (*Službeni*

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<sup>18</sup> Cf. Chris Reed, John Angel, "Computer Law", Oxford University Press (2003), p. 334

<sup>19</sup> Cf. Ian Walden, Julia Hornie, "E-Commerce Law and Practice in Europe", A Publication of the ECLIP Network Woodhead Publishing (2000). pp. 123-211

<sup>20</sup> More in Steve Hedly, Tanja Aplin, "Statutes on IT and E-Commerce", Oxford University Press (2002). pp. 33-67. Ian Walden, Julia Hornie "E-Commerce Law and Practice in Europe", Publication of the ECLIP Network Woodhead Publishing (2000). pp. 123-211. More in Lillian Edwards, "The New Legal Framework for E-Commerce in Europe" Hart Publishing (2004). pp. 211-256

<sup>21</sup> Cf. UNDP ICT- Forum, (2003) "Infrastructure of An Information Society, Legal Infrastructure of Information Society", Conference material, Sarajevo, pp. 7-45

*Glasnik BiH*, issue 91/06), and takes effect six months upon publication. The Act regulates bases of the formation and use of e-signature, and the provision of services related to e-signature and certification. Before the Act was passed, the Central Bank passed two decisions pertaining to signature certification and authorization. Several questions were raised in the existing legal environment about these decisions.

The first question relates to the legal basis, i.e. competence of the Central Bank for passing decisions on the subject. The second issue is of material nature: are the issues regulated by these decisions ones that can be regulated by a decision at all, or should they be regulated by law, like in other countries. Thirdly, the domain of the decision implementation can be disputable from the moment it is implemented beyond banks' operations.<sup>22</sup> Finally, the fourth issue is of legal-policy and philosophic nature. Passing these Decisions was often justified by the phrase "it is better to have any regulation than none". We believe that the justification quoted is not acceptable. It can start the practice of passing "any" regulations by non-competent organs. Having in mind the non-unification of B-H legal area, the described pragmatism can make work on building a legal system suitable for e-business development considerably more difficult.

The Decision on minimum requirements a certification organ issuing qualified certificates for e-business has to meet (hereinafter: Decision) was passed on March 27<sup>th</sup>, 2002.<sup>23</sup> The Decision prescribes minimum conditions that have to be met by a qualified certification body which wants to issue certificates for a qualified electronic signature used for signing payment orders issued in the electronic form when performing payment transactions in convertible marks, and elements that have to be incorporated in a qualified electronic certificate.<sup>24</sup> The Decision regulates the following issues: qualified certification body, related to payments, while the same issue related to commercial transactions remains unresolved.<sup>25</sup>

Decision on regulating rules for determining elements for electronic signature authenticity (hereinafter: Decision) was passed in order to ensure security of payment transactions in internal payments by electronic means. Regardless of the fact that payments are made within closed systems based on contracts between a given number of contractual parties, it prescribes conditions that regulate the authenticity of e-signature on the payment order.<sup>26</sup> Here are the most important solutions of the Decision. Payment order issued in the electronic form must be signed with a qualified

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<sup>22</sup> Ibid.

<sup>23</sup> Cf. UNDP ICT- Forum, (2003), *"Infrastructure of An Information Society, Legal Infrastructure of Information Society"*, Conference material, Sarajevo, pp. 7-45

<sup>24</sup> Decision of the Central Bank of B&H on minimum requirements that have to be met by a qualified certification body issuing qualified certificates for e-signature, (*Službeni glasnik BiH*, issue 10/02)

<sup>25</sup> Cf. UNDP ICT- Forum, (2003), *"Infrastructure of An Information Society, Legal Infrastructure of Information Society"*, Conference material, Sarajevo, pp. 7-45

<sup>26</sup> Cf. UNDP ICT- Forum, (2003), *"Infrastructure of An Information Society, Legal Infrastructure of Information Society"*, Conference material, Sarajevo, pp. 31-45

electronic signature.<sup>27</sup> E-signature has the equal validity as a hand-written signature certified by a stamp. Its legal force or admissibility as evidence cannot be denied solely for the reason of its being in the electronic form or not based on a qualified certificate or certificate issued by a qualified certification body, or not being created using means for generating a qualified electronic signature.

Act on Electronic Signature of B&H was passed on November 14<sup>th</sup>, 2006 (*Službeni Glasnik BiH* 91/06), and takes effect six months upon publication. The Act regulates the bases of e-signature formation and utilization, and provision of services related to e-signature and its certification.

The Act provisions can also be implemented in closed systems that are fully regulated by contracts among a known number of contractual parties, if their implementation has been agreed upon.<sup>28</sup> The Act provisions are also implemented in the open electronic communication with court and other institutions, except when a separate act determines otherwise.

The Act provides that e-signature can be used in legal and business traffic formed by procedures of different security levels and based upon certificates of different classes. Legal effect of e-signature and its use as evidence cannot be excluded due to the fact that e-signature is available only in the electronic form or that it is not based on a qualified certificate, or a qualified certificate by an authorized certifier, or because it was not formed using technical means and procedures from this Act.<sup>29</sup>

Article 5 of the Act provides that a secure e-signature meets legal requirements for personal signature, and written form in particular, if not otherwise determined by a separate act or agreement between parties to the contract. This can be considered as one of the most important provisions of the Act, since it guarantees that courts shall admit electronic documents signed by a secure e-signature equally as written documents signed personally, and thus facilitate provability of electronic contract, i.e. a contract signed using ICT in case of legal dispute.

Act on Consumer Protection in B&H (*Službeni Glasnik BiH*, issue 25/06 of 04/04/2006) paid due attention to e-business. In Chapter X and Chapter XIII, the Act on Consumer Protection in B&H (henceforth: Act) provided for the possibility of distance sales, and the possibility for payments using some of electronic means of payment.

A distance sale contract is defined as any contract pertaining to the sale of products or services organized by a trader using a means for distance sales,<sup>30</sup> and is made between a trader and a consumer. Distance means or distance communication is

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<sup>27</sup> Decision of the Central Bank of B&H on regulating rules for determining elements for e-signature truthfulness (*Službeni glasnik BiH*, broj 10/02).

<sup>28</sup> Article 2 of the Act on electronic signature (*Službeni glasnik BiH*, issue 91/06).

<sup>29</sup> Article 4 of the Act on electronic signature (*Službeni glasnik BiH*, 91/06).

<sup>30</sup> Cf. UNDP ICT- Forum, (2003), "*Infrastructure of An Information Society, Legal Infrastructure of Information Society*", Conference material, Sarajevo, pp. 7-45

defined as any means without the actual physical presence of the trader and the consumer. Examples included are: printed materials, letters, print advertisements, message with the order, catalogue, video-telephone with a screen, telefax, radio, TV, cable TV, e-mail etc. It is evident that the legislator, when defining means of distance communication, used the possibility for these kinds of contracts to be made by another means of connection and communication that may appear in future. This is independent of the opinion that provisions of the Act on Obligations (Art. 40, paragraph 2) allow a contract to be signed by means of connections of the e-mail type.

The Act provisions pertaining to distance contracts do not apply to: contracts made via vending machines, contracts on real estate sales except for their rent, and contracts made during auctions.

### 3. NEW TRENDS IN CONTRACTING

A contract is the result of parties' agreement resulting from the concurrence of parties' will, or more accurately, the concurrence of expressions of wills. Requirements that have to be met: parties, object of the contract, basis on which the deal is being made, and procedures of reaching concurrence are regulated by the national contract law or, in case of international contracts, by relevant sources of general rules of contract law.<sup>31</sup> Evolution of economic relations and commercial technologies has been reflected on the process of contract formation.<sup>32</sup> It is especially present in contracting<sup>33</sup> via electronic messages using ICT.<sup>34</sup> As a result, changes in the meaning of certain principles and emergence of new solutions are particularly clearly visible in this area.<sup>35</sup>

We will describe the most important among them. The emphasis shifts from will to the expression of will, which is interpreted objectively, in accordance with standards implemented in business operations. The autonomy of will remains the fundamental principle of contracting, with imminent observance of the *pacta sunt servanda* principle. New solutions of the law on obligations are being developed: offer revocation, silence as acceptance, relativization of written form, introduction of electronic form of contracting, etc. New techniques of contracting and proving are also being developed such as: standard-form agreements and general terms of operations on the offeror's web sites, etc. New procedures of contract making have

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<sup>31</sup> Cf. Legal barriers in E-business, Commission Staff Working Paper, Brussels, (2004)

<sup>32</sup> More in Steve Hedly, Tanja Aplin, "Statutes on IT and E-Commerce", Oxford University Press (2002), pp. 33-67. Ian Walden, Julia Hornie, "E-Commerce Law and Practice in Europe", A Publication of the ECLIP Network Woodhead Publishing (2000), pp. 123-211. More in Lillian Edwards, "The New Legal Framework for E-Commerce in Europe", Hart Publishing (2004), pp. 211-256

<sup>33</sup> More in Mladen Draškić, "Zaključivanje ugovora o prodaji", Beograd, (1986), pp. 8-111

<sup>34</sup> Cf. Larry A. DiMatteo, "The Interpretive Turn in International Sales Law", Northwestern Journal of International Law and Business, (2004), pp. 1-28

<sup>35</sup> Cf. David Bender, "Computer Law: Evidence and Procedure", Mathew Bender New York, (1982)

also been recognized: contracts via electronic messages and using information and communication technologies.

The overall changes in the contract-making process have resulted<sup>36</sup> in a new division of actions and stages of contract making. Presently, offer and acceptance with all their modifications make up the obligatory stage of the contract-making procedure. It is preceded by the possible or optional negotiating stage. Optional stages are classified into: preliminary contacts, negotiations, written consent, and occasionally preparatory contracts. ICT use has raised the most new issues in the area of preliminary contacts, and we will therefore focus only on these.

### **3.1. Preliminary contacts (Internet advertising)**

Same as contracting itself, preliminary contacts in the new medium also differ from the classical way of doing business.<sup>37</sup> The biggest change occurred in the legal treatment of advertising. In the classical way of doing business, advertising is not a preliminary contact. Internet advertising is. There are more reasons that required such a solution, but the most important are the interactivity of web sites and e-mail messages. Owing to these, messages are both an one-sided advertising and a means, place and way of obtaining all the necessary information before starting negotiations and concluding the contract itself.<sup>38</sup>

### **3.2. Written consent**

Electronic contracting is primarily based on concluding contracts using standard-form contracts where negotiation is not possible. Contract making is automated (e.g. double click on the question on the web site as to whether you accept the offer), which also prevents defining and separate wording of individual clauses.

If a web site includes a request for offer, the offers must be in a standardized form, which is nothing else but a standard-form contract on the web site that the offeror has to fill in. Negotiations and written consents are theoretically possible and can appear only in contracts signed via e-mail.<sup>39</sup>

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<sup>36</sup> Cf. G.H. Treitel, " Law of Contract", Sweet and Maxwell London, (1995), pp. 23-47

<sup>37</sup> More on <http://www.ebusinesslex.net> last visited on 12/01/2005.

<sup>38</sup> Cf. Scott W. Pink, "The Internet and E-Commerce Legal Handbook", Prima Lifestyles (2001), pp. 373-431.

<sup>39</sup> More in Andrew Sparrow, "E-Commerce and the Law: The Legal Implications of Doing Business Online" (FT Managements Briefings) Financial Times Prentice Hall, (2003), pp. 44-190

### 3.3. Elements of contract making

#### *Offer*

A proposal for contract making addressed to one or more specified persons represents an offer if it is sufficiently defined and if it points to the offeror's intention to be bound in case of acceptance.<sup>40</sup> This definition determines the essential elements of offer as a unilateral legal transaction. What is specific for electronic contract making, and where its greatest risk lies is not the interpretation of the parties' will but rather the materialization of their expressions of will in the electronic form.<sup>41</sup> Publication of an electronic document on a web site, message authentication and sender's identification in e-mail messages (open systems), or in another way agreed upon by the parties for sending and receiving electronic messages (closed systems) are significant issues.<sup>42</sup> Careless statements given in this way, or a poorly constructed web site can result in unwanted offers sent to the whole world in the open systems, or to a number of persons in the closed systems. Furthermore, it can result in binding to unwanted contracts by acceptance of the offer by the offeree.<sup>43</sup> In order to avoid this risk, an electronic offer should clearly define the following, besides its essential elements:

- distinction between the offer and request for offers;
- clause on general terms of acceptance;
- clause on limiting or excluding responsibility for certain cases;
- applicable law;
- manner of contract concluding;
- delivery, or way of executing contractual obligation;
- price, currency, and way of payment;
- geographic limitations.

#### *Acceptance*

Acceptance is the statement or another behaviour by the offeree that points to his consent to the offer. If the offeror has defined the way of communicating acceptance in its offer, it is binding for the offeree. This is the most frequently used way in e-business. The offeror determines the way of communicating acceptance, i.e. determines the software application over which the acceptance is given (e.g. double click on the box saying that the terms from the offer are accepted, and that you fully agree with the elements of the offer, or simply by placing payment order, which represents the acceptance by concluding actions). Giving acceptance with concluding

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<sup>40</sup> More in John Bagby, "The Legal and Regulatory Environment of E-Business Law for the Converging Economy", South Western College Publishing 2002, pp. 12-33.

<sup>41</sup> Cf. John Bagby, "E-Commerce Law: Issues for Business", South Western College Publishing 2002, pp. 321-509

<sup>42</sup> Roger Miller, "Law for E-Commerce", South Western College Publishing 2001 and Henry Cheeseman "Business Law: Legal, E-Commerce, Ethical and International Environments", Prentice Hall, 2003.

<sup>43</sup> David B. Canton, John E., "Legal Landmines in E-Commerce", McGraw-Hill Education, (2002), pp. 7-9.

actions is not rare in e-business. Technological revolution has made this option specific, and it is most frequently manifested in buyer's placing payment order over the seller's web site, which has to be considered as acceptance. The effect of proper acceptance is the formation of contract. The moment of its formation is defined according to the theory of acceptance, i.e. when an electronic message representing the acceptance enters the offeror's information system.<sup>44</sup>

### 3.4. Technology of concluding contracts

Concluding contract via electronic messages and using ICT involves browsing processes (e.g. browsing the offeror's web site),<sup>45</sup> making offers, their acceptance, authorization of payments and payment itself as a way to accept by concluding actions.<sup>46</sup>

The buyer accesses the seller's web site, browses data on products and services, and prepares an order, which has to be in the standardized form from the web site (standard form contract). Having done so, he places an order which, depending on the web site formulation, can be placed in the form of either offer or acceptance (depending if the offer was given, or the request for offers made). The software installed on the seller's web site receives the order information, including the description of product or service and the total price, shipping and handling. When the seller receives the acceptance in the prescribed standardized form found on the web site, the notification on the received order will be electronically sent to the acceptance, i.e. the order form sender, and the payment instruction will be given.

The process of contracting starts when the buyer sends the initiating request to the seller. The seller receives the request and sends the reply. The reply includes the seller's certificates, which will later be used for message encryption. The buyer receives the certificate and generates request for purchase, which he will send to the seller. A request for purchase is an electronic message which consists of two parts, including the double signature. The two parts of the message are *order instruction*, required by the seller, and *payment instruction*, required by the buyer. The buyer sends the request for initiating the purchase to the seller. The seller receives the buyer's request for initiating the purchase and sends back the reply which includes certificates. The verifier's certificate will be used for the protection of payment information sent to the seller. The seller is connected to the verifier's system, which will provide him with a copy of verifier's certificate. The seller's certificate will be used for the protection of order instruction sent to him. The seller then receives the request for initiating purchase. The seller generates the reply message and signs it digitally by passing the reply through hash function (a function that grinds the message, i.e.

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<sup>44</sup> Lillian Edwards, "The New Legal Framework for E-Commerce in Europe" Hart Publishing (2004) kao i Simmons&Simmons, "Communication Practice E-Commerce Law: Doing Business Online", Copenhagen Business School Press, (2002), p. 54

<sup>45</sup> C. J. Armstrong, "Staying Legal: A Guide to Issues and Practice for Users and Publishers of Electronic Resources", Library Association Publishing, (1999).

<sup>46</sup> Cf. A Guide for Business to The Electronic Commerce (EC Directive) Regulations 2002, Department of Trade and Industry, July, 2002.

transforms it into an algorithm). A message summary obtained in this way is coded with the seller's private key, which results in the electronic signature. The seller sends, to the buyer, a reply, e-signature, his certificate, which includes a public key and the verifier's certificate, which includes a public key – the key of the exchange.<sup>47</sup>

As the next step, the buyer sends the request for payment to the seller. This message consists of two parts: *order instruction*, processed by the seller, and *payment instruction*, processed by the verifier.<sup>48</sup> The seller processes the message including the request for purchase.<sup>49</sup> The buyer receives the seller's reply, telling him that the request for purchase has been accepted, and that he can expect the product delivery provided there is enough money on his account.<sup>50</sup> Payment authorization ensures the transaction approval by the credit card issuer (credit card holder's financial institution). This approval guarantees, to the seller, that he will receive the money for ordered products or services, and he can then carry on with delivery of the product or provision of the service requested by the buyer.

#### 4. CONCLUSIONS

The significance of e-legislation for B&H is reflected in the fact that it is a prerequisite for development and overcoming the lag that B&H has been exposed to due to historical circumstances. The overview of the most important regulations pertaining to e-business and e-signature clearly shows the legality of harmonizing solutions at the international level. The first area where the harmonization is reflected is the technique of concluding contracts electronically. The second area of harmonization pertains to legal security. It is first achieved by the standardization of technical and technologic requirements, and then by the legal treatment of evidentiary force of electronic contract form. In all the sources it is equal to other evidentiary resources, so that courts can no longer reject, as evidence, a document only because it has been signed in the electronic form. These regulations have by no means changed general solutions of the contract law, and they therefore also apply to contracts signed by means of ICT. Thus, the final conclusion is necessarily the view that the only difference between signing contracts by exchanging electronic messages and using ICT, and the classic way is the technique of concluding contracts and the medium it is done in.

Technological properties of the Internet, as the medium through which these contracts are concluded, make the technique of concluding electronic contracts specific within all the legal systems and legal traditions existing in the European Union. The significance of the EU as a B&H partner and the process of the latter's

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<sup>47</sup> Cf. Dickson K.W. Chiu, "A Three-layer Architecture for E-Contract Enforcement in an E-Service Environment", IEEE, (2004).

<sup>48</sup> Cf. Angelov S., Grefen P., "B2B eContract Handling-A Survey of Projects, Papers and Standards", University of Twente, The Netherlands, 2003.

<sup>49</sup> Ibid.

<sup>50</sup> Cf. Dickson K.W. Chiu, "A Three-layer Architecture for E-Contract Enforcement in an E-Service Environment", IEEE, (2004). Kao I. Angelov S., Grefen P., "B2B eContract Handling"

accession to European integrations imposes the need to harmonize B-H law with *Acquis communautaire*. Act on Electronic Signature of B&H, as well as drafts of the Act and provisions on e-business that have been prepared satisfied this very need both from the legal perspective and from the perspective of the entire BH society.

Tracking the general development of legal regulation of e-business and the need to start negotiations on SAA with the European Union, The Council of Ministers of Bosnia and Herzegovina, in partnership with UNDP BiH (developmental program of the United Nations) have prepared a complex set of laws and rules that represent the future e-legislation of Bosnia and Herzegovina. It includes the already adopted Act on E-signature of Bosnia and Herzegovina, and drafts of laws on specific legal aspects of electronic legal and business operations in B&H; Rules on measures and procedures of the use and protection of e-signature and advanced e-signature, resources for the creation of e-signature and advanced e-signature, and the systems of certifying and mandatory insurance of the provider of qualified certificate issuing services; Rules on technical rules and terms for connecting the systems for e-signature certification; Rules on the registration of the of the electronic signature certification service providers, who issue the qualified certificates; Rules of recording the e-signature certification service providers.

It is reasonable to expect that the adoption and implementation of this legislation in B&H will speed up the accession to both the European Union and the developed countries. Reasons for this can be seen in the fact that, in the modern world, only the regulated ICT use and properly constituted information society can allow a better and more human life for an individual. E-legislation is an inevitable instrument in doing so.

E-business standards are becoming increasingly complex. This law also applies to the domain of concluding e-contracts. The technique of concluding e-contracts is becoming increasingly specific due to the medium an e-contract is manifested in, primarily to the Internet. The specifics are primarily reflected in person's identification, manner of negotiating, determining and authenticating contract contents, utilization of hardware and software resources used when expressing the will to sign a contract (e-messages, e-signatures, e-stamps of legal persons), contract perfection and applicable legal regimen. This proves the hypothesis that legal solutions pertaining to concluding electronic contracts differ from the standard ways of concluding contracts, in national laws and international regulations, only in the technique of concluding contracts.

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