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**ECONOMIC COMMISSION FOR EUROPE**

INLAND TRANSPORT COMMITTEE

Working Party on Road Transport  
(Ninety-seventh session, 28-30 October 2003  
agenda item 5 (b))

**HARMONIZATION OF REQUIREMENTS CONCERNING INTERNATIONAL  
ROAD TRANSPORT AND FACILITATION OF ITS OPERATION**

**Protocol additional to the CMR: EDI-CMR Protocol**

Transmitted by Germany

Introduction

At its ninety-sixth session (8-10 October 2002), the Working Party on Road Transport (SC.1) considered the responses to a questionnaire on the draft text of a Protocol to the CMR aimed at introducing electronic data interchange into its procedures (TRANS/SC.1/2002/2 and Add.1 and 2), as well as an analysis of the responses prepared by the representative of Unidroit (TRANS/SC.1/2002/2/Add.3). All the replies were in favour of developing a new Protocol.

The representative of Germany raised a number of points to be resolved in the draft Protocol presented, particularly with regard to the electronic signature. In order to make progress, SC.1 asked the German delegation to submit specific proposals. The proposal appears below.

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## D r a f t

### **Additional Protocol to the Convention on the Contract for the International Carriage of Goods by Road (CMR) for the Unification of Certain Rules Relating to the Electronic Consignment Note**

#### **Preamble**

THE STATES PARTIES TO THIS ADDITIONAL PROTOCOL,

HAVING RECOGNIZED that the CMR does not include any provisions on the use of electronic records,

CONVINCED of the need for uniform conditions for the use of such records in the international carriage of goods by road,

HAVE AGREED AS FOLLOWS:

#### **Chapter I. General provisions**

##### Article 1

##### **Scope**

This Additional Protocol shall apply to electronic consignment notes issued and used in a State Party to this Additional Protocol.

##### Article 2

##### **Definitions**

For the purposes of this Additional Protocol

1. "Convention" means the Convention on the Contract for the International Carriage of Goods by Road (CMR) of 19 May 1956,
2. "electronic signature" means data in electronic form which are attached to or logically associated with other electronic data and which serve as a method of authentication;<sup>1</sup>
3. "certification service provider" means a natural or legal person who issues certificates or provides other services related to electronic signatures<sup>2</sup> and can demonstrate the necessary reliability and expertise as well as insurance cover for liability;<sup>3</sup>
4. "holder of the signature key" means a natural person acting on his own behalf or on behalf of another<sup>4</sup> who holds unique electronic data such as private cryptographic keys for creating an

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<sup>1</sup> Cf. Article 2, number 1, of the Directive 1999/93/EC of the European Parliament and of the Council of 13 December 1999 on a Community framework for electronic signatures (*Official Journal L 013, 19/01/2000 P. 0012*).

<sup>2</sup> Cf. Article 2, number 11, of the Directive 1999/93/EC.

<sup>3</sup> Cf. Annex II letters a and h of the Directive 1999/93/EC.

<sup>4</sup> Cf. Article 2, number 3, of the Directive 1999/93/EC.

electronic signature (signature key) as well as configured software or hardware for verifying the signature key (signature verification key).<sup>5,6</sup>

## Chapter II. Electronic Consignment Note

### Article 3

#### Issuance of the electronic consignment note

- (1) The consignment note may be issued electronically (electronic consignment note). The signature requirement of Article 5 (1) of the Convention shall, in this case, only be met if the signatory attaches a qualified electronic signature to the electronic document.
- (2) A qualified electronic signature within the meaning of paragraph (1) is an electronic signature of a holder of the signature key which
- a) is created by data which
    - (i) can occur only once,<sup>7</sup>
    - (ii) cannot, with reasonable assurance, be derived<sup>8</sup> and
    - (iii) can be kept secret<sup>9</sup> and maintained under the holder's sole control,<sup>10</sup>
  - b) is uniquely linked to the holder of the signature key, is capable of identifying the holder,<sup>11</sup> and is protected against forgery using currently available technology,<sup>12</sup>
  - c) is linked to the other electronic data to which it relates in such manner that any subsequent change of the data is detectable<sup>13</sup> and
  - d) is based on an electronic certificate<sup>14, 15</sup> of a certification service provider which is valid at the time of its creation, bears a qualified electronic signature, and contains the following information:
    - (i) an indication that the certificate has been issued as a qualified certificate,<sup>16</sup>
    - (ii) the identification of the certification service provider and the State in which it is established,<sup>17</sup>
    - (iii) the unmistakable or, if mistakable, supplemented name of the holder of the signature key or an unmistakable pseudonym attributable to him and identified as such,<sup>18</sup>
    - (iv) the signature verification key,<sup>19</sup>

<sup>5</sup> Cf. Article 2, number 3, in conjunction with number 5 and 4, of the Directive 1999/93/EC.

<sup>6</sup> Cf. Article 2, number 3, in conjunction with number 4, of the Directive 1999/93/EC.

<sup>7</sup> Cf. Article 5 (1) of the Directive 1999/93/EC in conjunction with Annex III, number 1, letter a, Article 2, number 4 of the Directive.

<sup>8</sup> Cf. Article 5 (1) of the Directive 1999/93/EC in conjunction with Annex III, number 1, letter b, Article 2, number 4 of the Directive.

<sup>9</sup> Cf. Article 5 (1) in conjunction with Annex III, number 1, letter a, Article 2, number 4 of the Directive 1999/93/EC.  
<sup>10</sup> Cf. Article 2, number 2, letter c, and Article 5 (1) in conjunction with Annex III, letter c, Article 2, number 4, of the Directive 1999/93/EC.

<sup>11</sup> Cf. Article 2, number 2, letters a and b of the Directive 1999/93/EC.

<sup>12</sup> Cf. Article 5 (1) of the Directive 1999/93/EC in conjunction with Annex III, number 1, letter b, Article 2, number 4 of the Directive.

<sup>13</sup> Cf. Article 2, number 2, letter d of the Directive 1999/93/EC.

<sup>14</sup> Cf. Article 2, numbers 7 and 9, of the Directive 1999/93/EC.

<sup>15</sup> Cf. Article 5 (1) of the Directive 1999/93/EC.

<sup>16</sup> Cf. Annex I letter a of the Directive 1999/93/EC.

<sup>17</sup> Cf. Annex I letter b of the Directive 1999/93/EC.

<sup>18</sup> Cf. Annex I letters c and d of the Directive 1999/93/EC.

<sup>19</sup> Cf. Annex I letter e of the Directive 1999/93/EC.

- (v) the designation of the algorithms with which the signature verification key of the signature key holder and that of the certification service provider can be used,
- (vi) the identity code of the certificate,<sup>20</sup>
- (vii) an indication of the beginning and end of the period of validity of the certificate,<sup>21</sup>
- (viii) an indication as to whether the nature and the scope of use of the signature key is limited to certain applications<sup>22</sup> and, if necessary, attributes of the signature key holder.<sup>23</sup>

#### Article 4

##### **Access key to the electronic consignment note**

(1) The electronic consignment note consists, contrary to Article 5 of the Convention, of one single document. The sender and the carrier and in the case of Article 12 (3) of the Convention also the consignee shall, however, receive different unique cryptographic keys which are verifiable by means of configured software or hardware (access keys), and which enable an entry into the electronic consignment note.

(2) It shall be ensured by technical means, that

- a) the access key attributed to the sender shall only enable the entry of recognition of a reservation under Article 8 (2) of the Convention, and in the absence of an entry under Article 12 (3) of the Convention the entry of an instruction under Article 12 of the Convention, and the entry of the name and address of a subsequent carrier;
- b) the access key attributed to the carrier shall only enable the entry of a reservation under Article 8 (2) of the Convention and of the result of a checking under Article 8 (3) of the Convention;
- c) the access key attributed to the consignee shall only enable the entry of an instruction under Article 12 of the Convention.

(3) Each entry shall be created by data which comply with the requirements of Article 3 (2) (b) and which exclude any subsequent alteration of entries. Moreover each entry shall be endorsed by a qualified electronic signature within the meaning of Article 3 (2), the validity of which may be checked by the parties at any time.

(4) The carrier shall see to it that a portable device from which the electronic consignment note can be read is carried in the vehicle in which the goods are loaded. Article 5 (2) of the Convention shall remain unaffected.

#### Article 5

##### **Delivery of the consignment note**

Where an electronic consignment note is issued, the delivery of the consignment note within the meaning of the Convention shall be substituted by the transfer of the access key.

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<sup>20</sup> Cf. Annex I letter g of the Directive 1999/93/EC.

<sup>21</sup> Cf. Annex I letter f of the Directive 1999/93/EC.

<sup>22</sup> Cf. Annex I letters i and h of the Directive 1999/93/EC.

<sup>23</sup> Cf. Annex I letter d of the Directive 1999/93/EC.

For the purpose of transfer of the access key to a third party,<sup>24</sup> the third party, by means of a unique cryptographic key attributed solely to him, takes the place of the previous holder of the access key and evidences transfer by means of a qualified electronic signature within the meaning of Article 3 (2) on the electronic consignment note.

#### Article 6

### **Accompanying documents**

The accompanying documents referred to in Article 11 of the Convention may also be made available in electronic form, if they can be stored and reproduced on a long-term basis.

#### Article 7

### **Right of disposal**

- (1) Where an electronic consignment note is issued, the sender's right of disposal of the goods shall cease to exist as soon as the carrier<sup>25</sup> transfers the access key to the consignee in accordance with Article 5, or the consignee exercises his right under Article 13 (1) of the Convention.
- (2) The exercise of the right of disposal shall, in derogation of Article 12 (5) (a) of the Convention, only be subject to the entry of the instruction in the electronic consignment note.<sup>26</sup>
- (3) A carrier who carries out instructions that have not been entered in the electronic consignment note shall be liable to the person having the right of disposal for any loss or damage caused by the carrying out of the instruction.

#### Article 8

### **Rights of the consignee after arrival of the goods**

- (1) Where an electronic consignment note is issued, the consignee may, after arrival of the goods at the place designated for delivery, require the carrier,<sup>27</sup> in derogation of Article 13 (1) of the Convention, to transfer to him, against receipt, the access key in accordance with Article 5 and to deliver the goods.
- (2) The receipt may also be made out electronically. An electronic receipt must, however, bear the signatory's qualified electronic signature within the meaning of Article 3 (2).

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<sup>24</sup> A third party may be a bank that has been instructed to open a letter of credit and is obliged to pay the beneficiary under the letter of credit on presentation of the consignment note; the third party may also be the consignee.

<sup>25</sup> As Article 12 (2) of the Convention refers to the "second" copy, i.e. the copy accompanying the goods, it is the transfer by the carrier that matters in the case of an electronic consignment note.

<sup>26</sup> As the electronic consignment note is not issued in more than one copy, the requirement to produce the first copy does not apply. By allocating a key which enables only the person having the right of disposal to enter instructions on the consignment note, it is ensured that it is only the person having the right of disposal that is entitled to enter an instruction on the consignment note.

<sup>27</sup> Referring to transfer by the carrier comes closest to delivery of the second copy.

Article 9

**Successive carriers**

- (1) Where an electronic consignment note is issued, successive road carriers shall only be those to whom a previous carrier has transferred the access key in accordance with Article 5.
- (2) The receipt to be given under Article 35 (1) of the Convention may also be made out electronically. Article 8 (2) shall apply *mutatis mutandis*.

**Chapter III. Final Clauses**

Article 10

**Signature, ratification, acceptance, approval or accession**

- (1) This Additional Protocol shall be open for signature by all States Party to the Convention at the headquarters of the United Nations in Geneva from ... to... .
- (2) Any State Party to the Convention may become a Party to this Additional Protocol
  - a) by signing it without reservation as to ratification, acceptance or approval,
  - b) by signing it subject to ratification, acceptance or approval and ratifying, accepting or approving it later.
  - c) by acceding to it after expiry of the time limit for signing it.
- (3) The instrument of ratification, acceptance, approval or accession shall be deposited with the Secretary-General of the United Nations.

Article 11

**Entry into force**

- (1) This Additional Protocol shall enter into force on the ninetieth day after five of the States Party to the Convention have signed this Additional Protocol without reservation as to ratification, acceptance or approval or have deposited their instruments of ratification, acceptance, approval or accession with the Secretary-General of the United Nations.
- (2) For any State signing this Additional Protocol without reservation as to ratification, acceptance or approval or depositing its instrument of ratification, acceptance, approval or accession after five States have deposited their instruments of ratification, acceptance, approval or accession, this Additional Protocol shall enter into force on the ninetieth day after the said State has signed it or deposited its instrument of ratification, acceptance, approval or accession.

Article 12

**Denunciation**

- (1) Any State Party may, at any time, denounce this Additional Protocol by means of a notification addressed to the Secretary General of the United Nations.

(2) Denunciation shall take effect one year after the date of receipt of the notification by the Secretary-General.

### Article 13

#### **Termination**

(1) If the Convention ceases to be in force for a State Party to this Additional Protocol, this Additional Protocol shall on the same date cease to be in force for that State.

(2) If, after the entry into force of this Additional Protocol, the number of States Parties is reduced, as a result of denunciations, to less than five, this Additional Protocol shall cease to be in force from the date on which the last of such denunciations takes effect. It shall also cease to be in force from the date on which the Convention ceases to be in force.

### Article 14

#### **Change of scope**

(1) Any State may, at the time of depositing its instrument of ratification, acceptance, approval or accession or at any time thereafter, declare by a notification addressed to the Secretary-General of the United Nations that this Additional Protocol shall extend to all or any of the territories for whose international relations it is responsible and in respect of which it has made a declaration in accordance with Article 46 of the Convention. This Protocol shall extend to the territory or territories named in the notification as from the ninetieth day after its receipt by the Secretary General or, if on that day the Protocol has not yet entered into force, as from the time of its entry into force.

(2) Any State which has made a declaration under the preceding paragraph extending this Protocol to any territory for whose international relations it is responsible may denounce the Protocol separately in respect of that territory in accordance with the provisions of Article 11 above.

### Article 15

#### **Procedure in cases of dispute**

Any dispute between two or more States Parties relating to the interpretation or application of this Additional Protocol which the States Parties are unable to settle by negotiation or other means may, at the request of any one of the States Parties concerned, be referred for settlement to the International Court of Justice.

### Article 16

#### **Reservation**

(1) Each State Party may, at the time of signing, ratifying, accepting, approving or acceding to this Additional Protocol, declare by a notification addressed to the Secretary-General of the United Nations that it does not consider itself bound by article 15 of this Additional Protocol. Other States Parties shall not be bound by Article 15 of this Additional Protocol in respect of any State Party which has entered such a reservation.

(2) The declaration referred to in paragraph 1 of this Article may be withdrawn at any time by a notification addressed to the Secretary General of the United Nations

(3) No other reservations to this Protocol shall be permitted.

#### Article 17

##### **Review**

(1) After this Additional Protocol has been in force for three years, any State Party may, by notification to the Secretary-General of the United Nations, request that a conference be convened for the purpose of reviewing this Additional Protocol. The Secretary-General shall notify all States Parties of the request and a review conference shall be convened by the Secretary-General if, within a period of four months following the date of notification by the Secretary-General not less than one-fourth of the States Parties notify him of their concurrence with the request.

(2) If a conference is convened in accordance with the preceding paragraph, the Secretary-General shall notify all the States Parties and invite them to submit within a period of three months such proposals as they may wish the conference to consider. The Secretary-General shall circulate to all States Parties the provisional agenda for the conference together with the texts of such proposals at least three months before the date on which the conference is to meet.

(3) The Secretary-General shall invite to any conference convened in accordance with this Article all Contracting Parties to the Convention.

#### Article 18

##### **Other depositary functions**

(1) In addition to the notifications provided for in Article 17, the Secretary-General of the United Nations shall notify the States which have signed this Additional Protocol or acceded to it:

- a) of any additional signature, any notification and any declaration made in connection therewith, indicating the date of the signature, notification or declaration;
- b) of the date of entry into force of this Additional Protocol;
- c) of any denunciation of this Additional Protocol, indicating the date on which it takes effect;
- d) of the date of termination of this Additional Protocol in accordance with Article 12.

(2) After ..... , the original of this Additional Protocol shall be deposited with the Secretary-General of the United Nations, who shall transmit certified true copies to each of the States Parties to this Additional Protocol.

IN WITNESS WHEREOF, the undersigned, being duly authorised thereto, have signed this Additional Protocol.

DONE at ....., this ....., in a single copy in the English and French languages, each text being equally authentic.

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