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**Legal issues relating to the use of electronic transferable  
records (*continued*)**

**Note by the Secretariat**

**Addendum**

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### **III. Legal issues with respect to electronic transferable records** *(continued)*

#### **B. Circulation of electronic transferable records**

1. An electronic transferable record may need to be amended in order to reflect the legal acts involving it. A common reason is its transfer. Other possible reasons include subrogation, succession (heritage or merger), guarantee, splitting or combining the record. In registry-based systems, the amendment may not affect the electronic record itself, but rather its attributes stored in the registry.

##### **1. Amendment of an electronic transferable record**

2. In general, the amendment of an electronic transferable record requires the consent of the entity exercising control. Depending on the type of amendment, and on the type of transaction to be recorded in the amendment, the consent of other parties might also be required. Thus, for instance, transfer of an electronic transferable record might require the consent of the transferee for perfection. Those requirements are common to paper-based documents and therefore relevant rules may be found in substantive law.

3. General rules on the amendment of electronic records are not common in existing laws. This might be due to the fact that electronic records are seen as evidence of contractual agreements and therefore amendments may be agreed by the parties to the contract at any time, provided basic principles on the use of electronic communications are respected.

4. Article 26 of ERMCA provides that alteration (i.e. amendments) of the contents of electronically recorded monetary claims shall not be effective without the making of an alteration record, with article 27 prescribing the content of an alteration record. Furthermore, article 29(1) provides that all persons that have an interest in the electronic records may make requests for alteration records.

5. The cooperation of a third party to amend the electronic transferable record may be needed if the system, e.g., an electronic registry, assumes the existence of such third party.<sup>1</sup>

##### **2. Transfer of control**

6. The transfer of the right to the performance of an obligation embodied in a paper-based document takes place with the transfer of the actual or constructive possession over that document. In an electronic environment, that transfer takes place with the transfer of control over the electronic transferable record. This transfer of control needs to address two elements: the perfection of the transfer between transferor and transferee; and the perfection of the transfer vis-à-vis all other parties, which are third parties with respect to that transfer.

7. An additional complication may arise from the necessary involvement under certain technologies of a special type of third party, in charge of assisting with the

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<sup>1</sup> See, for example, the mechanism adopted in the legislation on electronic bills of lading of the Republic of Korea (A/CN.9/692, paras. 35-36).

technical aspects of the transfer, such as an electronic registry operator. The electronic registry operator has special duties towards the transferor and the transferee by virtue of the services it has undertaken to perform.

8. In the media-neutral system of the Rotterdam Rules, article 57, paragraph 2 provides that when a negotiable electronic transport record is issued, its holder may transfer the rights incorporated in it, whether it be made out to order or to the order of a named person, by transferring the electronic transport record in accordance with the procedures referred to in article 9, paragraph 1 (procedures for use of negotiable electronic transferable records). An element of interest in that provision is offered by the possibility of having the transfer effected by blank endorsement and not by endorsement to a named person (article 57, paragraph 1). In an electronic environment, this would require the ability of the system to accommodate electronic transferable records without a named holder.<sup>2</sup>

9. Section 7-501(b) of the UCC deals specifically with the transfer of electronic transferable records.<sup>3</sup> It implements the principle that transfer of control, as evidenced in the single authoritative copy of the electronic transferable record, is equivalent to delivery and, if need be, endorsement of the paper-based document of title. This provision seems to reaffirm the effectiveness of the principles of the substantive law of documents of title in an electronic environment.

10. Section 7-501(b) also seems to allow for an electronic equivalent of a document of title to bearer, as the official commentary to this provision indicates that negotiation under this section may be made by any holder no matter how the holder acquired possession or control of the document.<sup>4</sup> However, the possibility to implement this rule may need to be carefully considered against the requirements for authentication of the parties.

11. In that respect, paragraphs 4 to 6 of section 7-106(b) of the UCC require, in line with general rules, that the amendment of the electronic transferable record, including for the purpose of transfer of control, should be easily identifiable as authorized.<sup>5</sup> This is especially necessary for the protection of third parties. The satisfaction of that requirement while preserving the total anonymity of the holder might result in a technical challenge.

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<sup>2</sup> A/CN.9/WG.IV/WP.118, para. 64.

<sup>3</sup> Section 7-501(b) “The following rules apply to a negotiable electronic document of title:

(1) If the document’s original terms run to the order of a named person or to bearer, the document is negotiated by delivery of the document to another person. Indorsement by the named person is not required to negotiate the document.

(2) If the document’s original terms run to the order of a named person and the named person has control of the document, the effect is the same as if the document had been negotiated.

(3) A document is duly negotiated if it is negotiated in the manner stated in this subsection to a holder that purchases it in good faith, without notice of any defense against or claim to it on the part of any person, and for value, unless it is established that the negotiation is not in the regular course of business or financing or involves taking delivery of the document in settlement or payment of a monetary obligation.”

<sup>4</sup> National Conference of Commissioners on Uniform State Laws — The American Law Institute, Revision of Uniform Commercial Code Article 7 — Documents of Title, with Prefatory Notes and Official Comments, 2004, p. 63.

<sup>5</sup> A/CN.9/WP.IV/WP.118, footnote 51.

12. In registry-based systems, the transfer of control takes place with the substitution of the person entitled to exercise that right according to registry entries. Article 17 of the ERMCA specifies that assignment of an electronically recorded monetary claim shall not be effective until the assignment record is made. Article 18 sets forth the content of the assignment record.<sup>6</sup>

13. The legislation on electronic bills of lading of the Republic of Korea specifies that endorsement of an electronic bill of lading takes place with the transmission of a message from the holder of that bill of lading to the registry operator containing the order to transfer the control over the bill of lading to a named transferee and the identification of the bill of lading through its unique identification number. The transferee begins to exercise control over the bill of lading upon receipt of a message informing him or her of the transfer.<sup>7</sup>

14. Some legislation may set a ceiling to the number of possible transfers. For instance, article 7(5) of the Act on Issuance and Negotiation of Electronic Bills of Exchanges and Promissory Notes of the Republic of Korea sets a maximum of twenty endorsements for each electronic promissory note. In registry-based systems, such a ceiling may also be determined by virtue of contractual agreement or by decision of the registry operator; in that case, the ceiling must be annotated on the electronic transferable record to be valid and enforceable. In that line, article 16(2) of the ERMCA states that the accrual record may record agreements to restrict the number of times assignment records may be made.

15. An additional aspect relates to the possibility for the transferee to refuse the transfer upon inspection of the electronic transferable record or as otherwise appropriate. This possibility seems to be foreseen in article 11(2) of the Presidential Decree on the Issuance and Negotiation of Electronic Promissory Notes of the Republic of Korea. According to that article, the refusing party shall complete a dedicated form and inform the registry operator of the refusal. The registry operator will then attach a certificate of refusal to the record of the electronic promissory note, the legal effect being that the intended recipient will not receive the electronic promissory note.

16. Reliable identification of the holder of the electronic transferable record is important not only to allow exercise of control but also to verify the validity of the chain of transfers of the electronic transferable record.<sup>8</sup> Reliable and complete data regarding amendments to the electronic transferable record might also be needed for other purposes.

17. At a general level and absent contractual provisions to the contrary, the time of the transfer should be determined under general rules applicable to dispatch and receipt of electronic communications, as reflected in article 10 of the Electronic Communications Convention. Communications exchanged in the context of an electronic registry might be considered as “not leaving the system under the control

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<sup>6</sup> Article 26 of the ERMCA provides, as a general rule, that “manifestation of intention” to alter the contents of an electronically recorded monetary claim shall not be effective until the record of that claim is altered, unless otherwise prescribed by ERMCA. The assignment of the claim is one of the cases of “otherwise prescribed by this Act”.

<sup>7</sup> A/CN.9/692, paras. 33-34.

<sup>8</sup> A/CN.9/737, para. 68.

of the party who has sent the electronic communication on behalf of the originator” for the purpose of the application of those rules.

18. Finally, the entity exercising control may not want the electronic transferable record to be further circulated. In the registry-based system, this would require a request to the registry operator.<sup>9</sup>

### **3. Corrections**

19. Article 10 of the ERMCA lists the cases that justify corrections to the electronic record. They include input errors (i.e., the information provided by the requesting party is different from the one that has actually been recorded), issuance of electronic records without a request, omission of details to be recorded and incorrect early termination of the electronic record.

20. Under that article, if a third-party has an interest in the electronic record to be corrected, the correction may be made only with the consent of that third-party. Moreover, the registry operator is required to notify both the entity exercising control over the corrected electronic record and the electronically recorded claim obligor (i.e., the debtor) of the correction, once it is effected.

21. In other cases, absent statutory provisions, detailed rules on the correction of electronic transferable records are set forth in contractual stipulations. That is the case, for instance, of the Mortgage Electronic Registration Systems (MERS) in the United States of America.<sup>10</sup>

### **4. Guarantees and pledges**

22. The treatment of guarantees and pledges on electronic transferable records is usually discussed in legislation relating to the electronic equivalent of transferable instruments.

23. Section 6 of the ERMCA provides for the legal treatment of electronically recorded guarantees. Article 32 of the ERMCA sets forth the information to be indicated in the electronic guarantee record: a statement of intent to provide the guarantee; name and address of the guarantor; information necessary to identify the principal obligation; and the date. And additional information may be added to reflect contractual agreements. Article 35(1) of the ERMCA, indicating that the guarantor that makes a payment against the principal obligation acquires an electronically recorded monetary claim of corresponding amount, is an application of the general principle of subrogation of the guarantor in an electronic environment.

24. Section 7 of the ERMCA deals with pledges of electronically recorded monetary claims. According to article 36(1) of the ERMCA, the creation of a pledge

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<sup>9</sup> With respect to electronic promissory notes in the Republic of Korea, see article 14 of the UNote Registry Service Agreement, a document of contractual nature.

<sup>10</sup> MERS serves several mortgage industry purposes. It permits lenders and investors to transfer mortgages without recording assignments in local public registries, saving them recording fees. It enables consumers, title companies and other real estate professionals to easily identify the current holders of registered mortgages and obtain discharges despite any transfers of the mortgages or mergers or acquisitions of the lenders and investors in interest that may otherwise make it difficult to trace ownership.

on the electronically recorded monetary claim is not effective until the related electronic record is made. Thus, the perfection of the record indicating the existence of the pledge is the equivalent of dispossession in the physical world. Sub-pledges are also specifically foreseen in article 40. Article 37(1) of the ERMCA lists the elements that need to be indicated in the pledge record: a statement of intent to create the pledge; name and address of the pledge; information necessary to identify the secured claim; unique identifier of the pledge; and date.

25. Article 8 of the Act relating to the Issuance and Negotiation of Electronic Promissory Notes of the Republic of Korea enables the provision of a guarantee on an electronic promissory note. The elements that need to be present on the guarantee record are listed in article 20(1) of the relevant Service Agreement, which include: identification of the guaranteed electronic promissory note; amount of the guarantee; the term “guarantee” itself; and identification of the relevant parties through their designated bank accounts.

## **5. Splitting and consolidating electronic transferable records**

26. Splitting and consolidating electronic transferable records may be necessary, for instance, in connection with the circulation of electronic equivalents of bills of lading. Similar operations may occur when pooling negotiable instruments in the context of their transfer or securitization.

27. Section 8 of the ERMCA provides rules for the division of electronically recorded monetary claims, including for cases of separation with respect to multiple obligees or obligors. According to article 43(3) of the ERMCA, only the obligee may request the division of an electronic record. Article 44, listing the information to be entered in the division record, specifies that the unique identifiers of both the original electronic monetary claim record and of the electronic monetary claim record resulting after the division should be indicated.

28. In the Republic of Korea, only the person exercising control over the electronic bill of lading may submit a request to the registry operator to split or consolidate the bill of lading. However, the consent of the carrier is also required if, as a result of splitting or consolidating, the electronic bill of lading is terminated.<sup>11</sup>

## **6. Involvement of issuer during the life cycle**

29. The extent to which the issuer should remain involved in the transfer of electronic transferable records is addressed in relevant substantive law. While the electronic transferable record, once issued, should be subsequently circulated without the involvement of the issuer,<sup>12</sup> there may be instances where the issuer would need to be involved, for example, when converting the electronic transferable record to a paper-based document. The involvement of the issuer during the life cycle of the electronic transferable record would also depend on the type of technology used.

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<sup>11</sup> Article 19 of the Service Agreement of the e-Bill of Lading Korea Portal.

<sup>12</sup> A/CN.9/737, para. 80.

## C. End of the life cycle of electronic transferable records

### 1. Presentation for performance

30. Presentation of a paper-based document may require a verification of the chain of endorsements in order to ensure that performance is given to the entity entitled to it by virtue of circulation of that document. In an electronic environment, the chain of transfers is documented in the authoritative copy of the electronic transferable record or in the attributes of that record stored in a registry. Nevertheless, the debtor may have to follow specific rules to ascertain the validity and enforceability of the presented electronic transferable record.<sup>13</sup>

31. Under article 47(1)(a)(ii) of the Rotterdam Rules, reference is made to the necessity for the holder to demonstrate that the procedures establishing control have been followed. The carrier may refuse delivery if those procedures were not satisfied.

32. Section 7-501(b)(1) of the UCC on negotiable electronic documents of title states that if the document's original terms run to the order of a named person or to bearer, the document is negotiated by delivery of the document to another person. It is further stated that endorsement by the named person is not required to negotiate the document. The mechanism for practical implementation of that provision, envisaging an anonymous transfer of the electronic transferable record, may deserve careful study.

33. The termination of the electronic transferable record following presentation of that record and performance by the debtor is a fundamental aspect of the life cycle of the electronic transferable record. The obligation to terminate may be satisfied directly by the holder, if control is so exercised, or through cooperation of a third-party registry operator. The holder and the registry operator may be required to securely store the electronic record after its termination for the period of time required by substantive law (e.g., article 86 of the ERMCA of Japan).

34. Detailed rules have been drafted for the termination of records in registry-based systems. Section 4 of the ERMCA lists various causes for termination of an electronic record relating to partial or total performance of the obligation: payment, set-off and merger.

35. The legislation on electronic bills of lading of the Republic of Korea also provides specific provisions on the presentation of the electronic bill of lading for delivery of goods. The holder of the electronic bill of lading requests the delivery of the goods to the carrier through the registry operator. The intervention of the registry operator is necessary to amend the electronic record so as to prevent its further circulation, and to transmit the delivery request to the carrier. Upon verification of the validity of the request, the carrier communicates to the registry operator its acceptance of the delivery request and delivers the goods. After delivery, the carrier transmits to the registry operator the actual name of the recipient of the goods and the date of actual delivery. The registry operator then

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<sup>13</sup> Ibid., para. 67.

terminates the electronic record and communicates the termination to the carrier and to the consignee.<sup>14</sup>

36. The legislation on electronic promissory notes of the Republic of Korea contains similar provisions. The presentation of the electronic promissory note takes place when the holder of that note transmits the request for payment to the financial institution responsible for paying the note on behalf of the debtor. Notice of payment must be given to the registry operator, so that the electronic promissory note may be terminated.<sup>15</sup> Consequently, the registry operator makes an annotation of the payment on the electronic promissory note and transmits the note to the obligor.<sup>16</sup>

37. As performance may be partial, legislative provisions would need to address the partial termination of the electronic transferable record and the annotation of that partial performance. Partial performance could also be treated as a case for splitting records, by creating one record for the remaining performance and terminating the original record.

38. However, the legislation on electronic promissory notes of the Republic of Korea explicitly prohibits partial payment of an electronic promissory note,<sup>17</sup> while partial payment of paper-based promissory notes is possible.<sup>18</sup> This approach should be carefully considered since it might reduce the appeal of the use of electronic means for commercial operators and also result in a violation of the principle of non-discrimination of electronic communications.

39. Relevant legislation should also address circumstances where the debtor refuses to perform as requested with the presentation of the electronic transferable record. With respect to electronic promissory notes in the Republic of Korea, the financial institution that receives the note may refuse the payment (e.g., for lack of funds). Notification to the registry operator of the refusal to pay, and subsequent annotation by the operator of that refusal on the electronic promissory note, is equivalent to the notarised notice of protest for paper-based documents.<sup>19</sup> After refusal of payment, the electronic promissory note is terminated.<sup>20</sup> However, depending on applicable law and possible uses of the refused electronic transferable record, it may be possible to return that record to its holder for further legal action (e.g., against an endorser or a guarantor) instead of terminating it.

40. Similarly, according to the legislation on electronic bills of lading of the Republic of Korea, in case of refusal to deliver the goods, the carrier shall inform

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<sup>14</sup> A/CN.9/692, paras. 38-40.

<sup>15</sup> Articles 9 and 10 of the Act relating to the Issuance and Negotiation of Electronic Promissory Notes.

<sup>16</sup> Article 9 of the Presidential Decree on the Issuance and Negotiation of Electronic Promissory Notes.

<sup>17</sup> Article 11 of the Act relating to the Issuance and Negotiation of Electronic Promissory Notes.

<sup>18</sup> Article 39 of the Bills of Exchange and Promissory Notes Act, Act no. 1001 of 1962, and subsequent amendments.

<sup>19</sup> Article 12(2) of the Act relating to the Issuance and Negotiation of Electronic Promissory Notes and article 10(2) of the Presidential Decree on the Issuance and Negotiation of the Electronic Promissory Note.

<sup>20</sup> Article 10(3) of the Presidential Decree on the Issuance and Negotiation of the Electronic Promissory Note.

the registry operator of the reasons. In turn, the registry operator shall communicate the refusal to the holder of the electronic bill of lading.<sup>21</sup>

41. Finally, it should be noted that there might be other manners in which the obligation may be performed (e.g., by set-off). Article 22 of the ERMCA provides a special rule for cases when the obligor acquires the electronically recorded monetary claim, and article 23 refers to extinction of the obligation and termination of the related electronic record due to the running of the limitation period.

## **2. Conversion/Replacement**

42. Existing legislation reflects various approaches regarding conversion of paper-based documents into electronic records and vice versa.

43. At a general level, legislation may be totally media-neutral. The Act concerning the Legal Framework for Information Technology (Loi concernant le cadre juridique des technologies de l'information) of Québec, Canada (L.R.Q., chapitre C-1.1) might be an example of such an approach. Article 17 of that Act defines the notion of document in media-neutral terms, allowing the exchange of paper and electronic support at any time without affecting the legal status of the information contained in the document, provided that the conversion procedure is documented in order to ensure integrity of that information.

44. A more common approach relies on general rules establishing functional equivalence between electronic and paper-based documents similar to those contained in UNCITRAL texts, namely article 6 of the Model Law on Electronic Commerce, and subsequent provisions inspired by that article. Article 17(5) of the Model Law on Electronic Commerce provides an early example of a provision on conversion between different supports of electronic negotiable documents and records used in the transport field.

45. Article 10 of the Rotterdam Rules deals with the replacement of a negotiable transport document or negotiable electronic transport record. The replacement may take place if there is agreement between the holder of the existing document or record and the carrier (i.e., the obligor and issuer, in a legal if not technological sense, of the electronic transferable record). In that case, the document or record to be replaced is surrendered by the holder to the carrier (in all copies, if multiple originals of the paper-based document exist). That document or record is terminated and ceases to have any effect or validity. The carrier issues directly or through a third party a new document or record on the desired medium that includes a statement that it replaces the previous one on a different medium.

46. Rules on the reissuance in another medium similar to those foreseen in article 10 of the Rotterdam Rules are contained in section 7-105 of the UCC as well as in the legislation on electronic bills of lading of the Republic of Korea.<sup>22</sup>

47. An additional element contained in section 7-105(d)(2) of the UCC pertains to the requirement that the person requesting issuance of the electronic document should warrant to all subsequent persons entitled under the electronic document that it was exercising control over the paper document when it surrendered control of

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<sup>21</sup> A/CN.9/692, para. 41.

<sup>22</sup> *Ibid.*, para. 37.

that document for conversion. A similar provision, *mutatis mutandis*, applies for the case of substitution of an electronic document with a paper-based one.<sup>23</sup>

48. As mentioned,<sup>24</sup> the mechanism for check truncation devised in the Check 21 Act aims at substituting the paper-based check with its digital image or a print-out of that image, the substitute check. Section 4 of the Check 21 Act requires that, for a substitute check to be the legal equivalent of the original paper-based check for all purposes, it accurately represent all of the information on the front and back of the paper-based check as of the time it was truncated and include the following statement: “This is a legal copy of your check. You can use it the same way you would use the original check.”

49. Among information to be reproduced on the substitute check is the magnetic ink character recognition (MICR) line, a unique identifier of the check that is, on paper-based checks, magnetic and hence machine-readable.<sup>25</sup> Moreover, the substitute check should also bear all endorsements, and identify the reconverting bank, the bank issuing the substitute check, or, if the substitute check was not issued by a bank, the first bank that transferred or presented that substitute check.<sup>26</sup> In fact, truncation may occur at an early stage of the check processing cycle since the Check 21 Act allows for the deposit in the bank of the electronic image of the paper-based check.<sup>27</sup>

### 3. Termination

50. Once the obligation contained in the electronic transferable record is discharged, the electronic transferable record needs to be terminated to avoid its further circulation and possible multiple requests for performance. Akin to what happens in the paper-based environment, control over the electronic transferable record is relinquished to the debtor or to a third party on behalf of that debtor.

51. Section 9-208(b)(3) of the UCC sets forth provisions applicable to electronic chattel papers when there is no outstanding secured obligation and the secured party is not committed to make advances, incur obligations, or otherwise give value.<sup>28</sup>

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<sup>23</sup> Section 7-105(b)(2) of the UCC.

<sup>24</sup> A/CN.9/WG.IV/WP.118 paras. 48-49.

<sup>25</sup> Check 21 Section 3(16)(B).

<sup>26</sup> Check 21 Section 4(c) and (d).

<sup>27</sup> Legal aspects of the process, called “remote deposit capture”, are discussed in J. Kopchik, “Remote Deposit Capture: A Primer”, 6 *Supervisory Insights* 1 (2009), 19-24.

<sup>28</sup> Section 9-208(b) [Duties of secured party after receiving demand from debtor]

Within 10 days after receiving an authenticated demand by the debtor:

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“(3) a secured party, other than a buyer, having control of electronic chattel paper under Section 9-105 shall:

(A) communicate the authoritative copy of the electronic chattel paper to the debtor or its designated custodian;

(B) if the debtor designates a custodian that is the designated custodian with which the authoritative copy of the electronic chattel paper is maintained for the secured party, communicate to the custodian an authenticated record releasing the designated custodian from any further obligation to comply with instructions originated by the secured party and instructing the custodian to comply with instructions originated by the debtor; and

52. Termination of the electronic transferable record in a registry-based system takes place with the annotation of the full performance of the obligation on that record. Article 24(1) of the ERMCA of Japan lists the information to be inserted on that annotation: cause of performance (payment, set off, merger, etc.); amount of performance (including principal); identification of the performer (if third party, including reason for performance); and date of performance.

53. A similar mechanism is foreseen in the legislation on electronic promissory notes of the Republic of Korea. Once the electronic promissory note is paid, an annotation of the payment is made on the record of that electronic promissory note, and the registry operator transfers control over the annotated record to the issuer of the electronic promissory note.<sup>29</sup>

54. After termination of the record, its custodian, i.e. the debtor or a third party, depending on the system chosen, has a duty to store it for archival purposes. The period of record retention may be specified in the law<sup>30</sup> and should be in line with what is prescribed for the equivalent paper-based documents. Article 10 of the Model Law on Electronic Commerce provides guidance on the retention of electronic records.

## IV. Other issues with respect to electronic transferable records

### A. Third-party operators of electronic transferable records registry

55. In registry-based systems, the presence of a third-party registry operator is typically required. Hence, laws foreseeing the use of electronic registries have specific provisions on registry operators.

56. One of the issues relates to the existence of a licensing system for the operation of the electronic registry. Such a system is foreseen in the electronic warehouse receipts legislation of the United States of America,<sup>31</sup> article 51 of the ERMCA of Japan, and legislation on bills of lading<sup>32</sup> and on electronic promissory notes of the Republic of Korea.<sup>33</sup> A licensing system is compatible with the existence of a single or multiple operators.

57. Where a licensing system is foreseen, an authority is designated for approval of licences as well as oversight of the operation of licensed registry operators. The relevant legislation may set forth minimum requirements for applicants for a licence

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(C) take appropriate action to enable the debtor or its designated custodian to make copies of or revisions to the authoritative copy which add or change an identified assignee of the authoritative copy without the consent of the secured party;”.

<sup>29</sup> Article 10 of the Act relating to the Issuance and Negotiation of Electronic Promissory Notes and article 9 of the Presidential Decree on the Issuance and Negotiation of Electronic Promissory Notes.

<sup>30</sup> Article 86 of the ERMCA of Japan and article 13 of the Presidential Decree on the Issuance and Negotiation of Electronic Promissory Notes of the Republic of Korea; legislation on electronic bills of lading of the Republic of Korea (A/CN.9/692, para. 46).

<sup>31</sup> United States Code of Federal Regulations, Title 7, Section 735-401.

<sup>32</sup> A/CN.9/692, para. 42.

<sup>33</sup> Article 3 of the Act Relating to the Issuance and Negotiation of Electronic Promissory Notes of the Republic of Korea.

as registry operators. Those requirements may include capital, form of incorporation and information on technological, financial, human and other resources to be employed.<sup>34</sup> The provision of an insurance to cover damages arising from errors and omissions as well as fraud and dishonesty may also be demanded.<sup>35</sup> In this respect, it should be noted that article 10 of the Model Law on Electronic Signatures contains a list of factors relevant in establishing the trustworthiness of certification service providers.

58. The registry operator may be liable for damages arising from its operations, yet such liability might be limited by statute or contractual provisions. Articles 11 and 14 of the ERMCA of Japan deal, respectively, with liability for errors of the registry operator in creating, amending and terminating the electronic records, and in issuing electronic records based on a request from a non-legitimate entity. In both cases, the liability rule contains a reversal of burden of proof, and the registry operator may be exempted by proving that there was no negligence.

59. Duties are also imposed on users of the electronic registry. These obligations are often defined contractually in service agreements. Particularly relevant may be the duties of the users to maintain secure access to the system, as well as those relating to prompt updating of changes in user information, as found in the legislation on electronic bills of lading of the Republic of Korea.<sup>36</sup> Violation of those duties may give rise to liability.<sup>37</sup> In turn, the registry operator has the duty to disclose the general conditions of contract to users.<sup>38</sup>

60. A dedicated dispute settlement mechanism may be established to adjudicate disputes arising from the use of the electronic registry.<sup>39</sup>

## **B. Cross-border recognition of electronic transferable records**

61. At the forty-fifth session of the Commission, the need for an international regime to facilitate the cross-border use of electronic transferable records was emphasized.<sup>40</sup>

62. While examples of national legislation enabling the successful market use of electronic transferable records are available, specific legal obstacles might exist in a cross-border context, where such a market has not yet fully developed. Those obstacles might be adequately addressed by uniform international rules dealing with international aspects of the use of electronic transferable records.

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<sup>34</sup> Articles 3 and 4 of the Presidential Decree on the Issuance and Negotiation of Electronic Promissory Notes of the Republic of Korea (A/CN.9/692, para. 42).

<sup>35</sup> United States Code of Federal Regulations, Title 7, Section 735-401(2).

<sup>36</sup> A/CN.9/692, paras. 43-45.

<sup>37</sup> Article 8 of the Model Law on Electronic Signatures on the conduct of the signatory.

<sup>38</sup> Article 18 of the Act relating to the Issuance and Negotiation of Electronic Promissory Notes of the Republic of Korea and Article 15 of the Presidential Decree on the Issuance and Negotiation of Electronic Promissory Notes of the Republic of Korea.

<sup>39</sup> Article 16 of the Presidential Decree on the Issuance and Negotiation of Electronic Promissory Notes of the Republic of Korea.

<sup>40</sup> *Official Records of the General Assembly, Sixty-seventh Session, Supplement No. 17 (A/67/17)*, para. 83. At the forty-fifth session of the Working Group, it was noted that text(s) to be prepared should address issues relating to cross-border recognition of electronic transferable records (A/CN.9/737, para. 44).

63. An example of an international instrument explicitly envisaging the use of electronic transferable records is the Rotterdam Rules, although limited to the use of electronic transport records.

64. From the perspective of the law of electronic transactions, the pioneer work carried out by UNCITRAL has initially focused on the preparation of uniform model laws. That approach allowed for an alignment of national legal systems without a formal mechanism for recognition of foreign electronic communications. Thus, the Model Law on Electronic Commerce has been a remarkable success, having already been adopted in more than 40 States and being used as inspiration for regional legislation; however, that Model Law does not contain explicit provisions on cross-border transactions. This applies also to its article 17 that offers an early treatment of electronic transferable records.<sup>41</sup>

65. The lack of specific cross-border provisions does not prevent the application of domestic enactments of the Model Law on Electronic Commerce to cross-border transactions.<sup>42</sup> The fact that those cases are still rare should not necessarily be understood as a sign of limited relevance of electronic communications for international trade. In fact, empirical evidence suggests the opposite conclusion. Rather, the relative lack of case law could be due to the fact that there is limited attention for collecting those cases, which typically are reported in connection with legal issues arising from other legal fields (e.g., sale of goods). Moreover, in certain jurisdictions, especially those belonging to the common law tradition, legal issues relating to the use of electronic communications may be considered non-controversial and therefore are not raised during litigation.

66. Article 12 of the Model Law on Electronic Signatures, dealing with recognition of foreign electronic signatures, offers an example of uniform model provision devoted exclusively to cross-border issues. It adopts a technology-neutral approach and is based on the principle of non-geographic discrimination. However, that article has not yet been widely enacted by national jurisdictions, and other model provisions, based on more prescriptive approaches, may also be found (e.g., article 7 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;<sup>43</sup> that Directive is currently under review<sup>44</sup>).

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<sup>41</sup> A/CN.9/WG.IV/WP.118, para. 15.

<sup>42</sup> See, e.g., Federal Court of Australia, *Olivaylle Pty Ltd v Flottweg GMBH & Co KGAA*, [2009] FCA 522 (CLOUT case no. 956); High Commercial Court of Ukraine, case no. 2009/17/140-3571 (9/56-1492): *LLC Horizont Marketing-Finance-Logistika v. LLC Terkyrii-2* (CLOUT case no. 1051).

<sup>43</sup> Available at [http://europa.eu/legislation\\_summaries/information\\_society/other\\_policies/124118\\_en.htm](http://europa.eu/legislation_summaries/information_society/other_policies/124118_en.htm).

<sup>44</sup> On 4 June 2012, the European Commission adopted a proposal for a “Regulation of the European Parliament and of the Council on electronic identification and trust services for electronic transactions in the internal market”. The new framework aims at ensuring mutual recognition and acceptance of electronic identification across borders and giving legal effect and mutual recognition to trust services including enhancing current rules on e-signatures and providing a legal framework for electronic seals, time stamping, electronic document acceptability, electronic delivery and website authentication. The text of the proposal and additional information is available at [http://ec.europa.eu/information\\_society/policy/esignature/eu\\_legislation/regulation/index\\_en.htm](http://ec.europa.eu/information_society/policy/esignature/eu_legislation/regulation/index_en.htm).

67. The desirability of addressing cross-border issues, especially those arising from the application of international agreements drafted before the widespread use of electronic communications, was one of the reasons leading to the preparation and adoption of the Electronic Communications Convention. While the Convention will enter into force on 1 March 2013, the rate of adoption of that Convention by States has been slower than expected.<sup>45</sup> Several reasons have been identified for that trend, including limited awareness of, and therefore demand for, the adoption of the Convention, in business and the legal sector, and difficulties in coordinating the position of regional economic integration organizations so as to allow the adoption of the Convention by member States of those organizations.

68. Moreover, an evaluation of the actual influence of that Convention on the global law of electronic transactions should take into account that a number of developing countries have adopted the substantive provisions of the Convention but have not formally adopted the treaty. This may be due to a number of reasons, including the difficulty of coordinating the domestic process of preparation of legislation on electronic transactions with the formal adoption of an international instrument, and the lack of a trailing effect stemming from the early wider adoption of the Convention by jurisdictions seen as more advanced in the use of electronic communications for cross-border commercial purposes.

69. Article 20 of the Electronic Communications Convention has an explicit enabling effect on a number of treaties prepared by UNCITRAL; however, it does not list among those treaties the United Nations Convention on International Bills of Exchange and International Promissory Notes, 1988, and the United Nations Convention on the Carriage of Goods by Sea, 1978 (“Hamburg Rules”), due to the fact that both treaties deal with the paper-based equivalent of electronic transferable records.<sup>46</sup> Accordingly, electronic transferable records were excluded from the scope of application of the Electronic Communications Convention (article 2, paragraph 2). One possible mechanism to address such a gap could consist of the preparation of a protocol to the Electronic Communications Convention dealing specifically with electronic transferable records. That protocol could also contain rules on private international law aspects, if so desired.

70. Additional considerations useful in the formulation of a policy on cross-border aspects of electronic transferable records relate to the experience in the two industry segments most directly interested in the use of those records, i.e. maritime transport and financial services.

71. In the field of maritime law, enabling the cross-border use of paper-based documents of title has historically been a leading motivation in the preparation of international instruments, as evidenced by the International Convention for the Unification of Certain Rules of Law relating to Bills of Lading, 1924 (the “Hague Rules”). Most recently, accommodating cross-border use of negotiable electronic transport records has been a major goal of the Rotterdam Rules.

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<sup>45</sup> See press release available at [www.unis.unvienna.org/unis/pressrels/2012/unisl172.html](http://www.unis.unvienna.org/unis/pressrels/2012/unisl172.html). The status of the Convention is available at [www.uncitral.org/uncitral/en/uncitral\\_texts/electronic\\_commerce/2005Convention\\_status.html](http://www.uncitral.org/uncitral/en/uncitral_texts/electronic_commerce/2005Convention_status.html).

<sup>46</sup> A/CN.9/527, paras. 45 and 65.

72. In the field of financial services and, more specifically, of negotiable instruments, attempts at harmonizing the international legal framework have had limited success. In particular, the United Nations Convention on International Bills of Exchange and International Promissory Notes has not yet entered into force. The ascertainment of current needs and practices of that business sector may require additional attention.

73. In conclusion, a number of possibilities exist to overcome legal obstacles to cross-border use of electronic national laws. Available options include the preparation of uniform provisions or other guidance texts on cross-border issues, and the preparation of a binding international law instrument. The choice of appropriate solutions may also vary in light of the concerned industry segment.

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