



General Assembly

Distr.: Limited
3 March 2015

Original: English

**United Nations Commission
on International Trade Law**
Working Group IV (Electronic Commerce)
Fifty-first session
New York, 18-22 May 2015

Draft provisions on electronic transferable records

Note by the Secretariat

Contents

	<i>Paragraphs</i>	<i>Page</i>
I. Introduction	1-6	2
II. Draft provisions on electronic transferable records	7-77	3
A. General (Articles 1-6).....	7-44	3
B. Provisions on electronic transactions (Articles 7-9)	45-55	9
C. Use of electronic transferable records (Articles 10-11).....	56-77	12



I. Introduction

1. At its forty-fourth session, in 2011, the Commission mandated the Working Group to undertake work in the field of electronic transferable records.¹
2. At its forty-sixth session (Vienna, 29 October-2 November 2012), broad support was expressed by the Working Group for the preparation of draft provisions on electronic transferable records, to be presented in the form of a model law without prejudice to the decision on the final form of its work (A/CN.9/761, paras. 90-93).
3. At its forty-seventh session (New York, 13-17 May 2013), the Working Group began reviewing the draft provisions on electronic transferable records as provided in document A/CN.9/WG.IV/WP.122 and noted that while it was premature to start a discussion on the final form of work, the draft provisions were largely compatible with different outcomes that could be achieved.
4. At its forty-eighth session (Vienna, 9-13 December 2013), the Working Group continued its consideration of the draft provisions as contained in document A/CN.9/WG.IV/WP.124 and Add.1.
5. At its forty-ninth session (New York, 28 April-2 May 2014), the Working Group continued its work on the preparation of draft provisions as presented in document A/CN.9/WG.IV/WP.128 and Add.1. The Working Group focused its discussion on concepts of original, uniqueness, and integrity of an electronic transferable record.
6. At its fiftieth session (Vienna, 10-14 November 2014), the Working Group continued its work on the preparation of draft provisions as presented in document A/CN.9/WG.IV/WP.130 and Add.1. Subject to a final decision to be made by the Commission, the Working Group agreed to proceed with the preparation of a draft model law on electronic transferable records (A/CN.9/828, para. 23). It was suggested that the draft Model Law should provide for both electronic equivalents of paper-based transferable documents or instruments and for transferable records that existed only in an electronic environment. It was agreed that priority should be given to the preparation of provisions dealing with electronic equivalents of paper-based transferable documents or instruments, and that those provisions should be subsequently reviewed and adjusted, as appropriate, to accommodate the use of transferable records that existed only in an electronic environment (A/CN.9/828, para. 30). Part II of this note contains the draft provisions reflecting the deliberations and decisions of the Working Group during that session (A/CN.9/828, paras. 20-111).

¹ *Official Records of the General Assembly, Sixty-sixth Session, Supplement No. 17 (A/66/17)*, para. 238.

II. Draft provisions on electronic transferable records

A. General

“Draft article 1. Scope of application

- “1. This Law applies to electronic transferable records.
- “2. Other than as provided for in this Law, nothing in this Law affects the application to an electronic transferable record of any rule of law governing a paper-based transferable document or instrument.
- “[3. This Law applies to electronic transferable records other than as provided by [law governing a certain type of electronic transferable record to be specified by the enacting State].”

Remarks

7. Draft article 1 reflects the Working Group’s deliberations at its forty-eighth session (A/CN.9/797, paras. 16-17).
8. Draft paragraph 2 sets forth the principle that the draft Model Law does not affect substantive law applicable to paper-based transferable documents or instruments and to their electronic equivalents. Accordingly, it enables the issuance of an electronic transferable record to bearer when permitted under substantive law (A/CN.9/797, para. 65). It also allows changing the modalities for circulation of an electronic transferable record issued to bearer in an electronic transferable record to a named person and the reverse case (“blank endorsement”) when permissible under substantive law (A/CN.9/828, para. 82).
9. Draft paragraph 3 aims at allowing the application of the draft provisions also to electronic transferable records that exist only in an electronic environment without interfering with their substantive law. Hence, paragraph 3 would not be necessary in jurisdictions where those electronic transferable records do not exist (A/CN.9/797, para. 17). The Working Group may wish to review this provision according to its decision on work priorities (A/CN.9/828, para. 30).

“Draft article 2. Exclusions

- “1. This Law does not override any rule of law applicable to consumer protection.
- “2. This Law does not apply to securities, such as shares and bonds, and other investment instruments.
- “3. [This Law does not apply to bills of exchange, promissory notes and cheques.]”

Remarks

10. Draft article 2 reflects the Working Group’s deliberations at its forty-eighth session (A/CN.9/797, paras. 18-20). The term “investment instrument” is understood to include derivative instruments, money market instruments and any other financial product available for investment (A/CN.9/797, para. 19).

11. The Working Group may wish to discuss whether draft article 2, paragraph 1, should be retained in light of the fact that the draft Model Law does not affect substantive law, as set forth in draft article 1, paragraph 2.

12. As a reference, the Working Group may wish to compare the language used in the “Rome II” Regulation,² to exclude from the application of the Regulation “non-contractual obligations arising under bills of exchange, cheques and promissory notes and other negotiable instruments to the extent that the obligations under such other negotiable instruments arise out of their negotiable character”. Therefore, it is understood that “other transferable documents, such as investment securities and loans”³ fall within the scope of the Regulation. However, the ultimate result may depend on domestic law, as, for instance, in certain jurisdictions shares and bonds are considered negotiable instruments and would therefore be excluded from the scope of the Regulation.

13. Paragraph 3 reflects the view that certain paper-based transferable documents or instruments should be excluded from its scope of application in order to avoid conflicts with other treaties such as the Convention Providing a Uniform Law for Bills of Exchange and Promissory Notes (Geneva, 1930) and the Convention Providing a Uniform Law for Cheques (Geneva, 1931) (the “Geneva Conventions”) (A/CN.9/797, paras. 20, 109-112; see also A/CN.9/WG.IV/WP.125).

14. The Working Group may wish to consider whether paragraph 3 should be retained in the draft Model Law to provide guidance to those jurisdictions that are parties to the Geneva Conventions as well as any other relevant conventions when they wish to enact that model law.

“Draft article 3. Definitions

“For the purposes of this Law:”

Remarks

15. The definitions in draft article 3 have been prepared as a reference and should be examined in the context of the relevant draft articles. The terms are presented in the order they appear throughout the draft provisions (A/CN.9/768, para. 34). Remarks for consideration by the Working Group have been placed after each definition. The Working Group may wish to review the draft definitions once the draft articles of the Model Law had been fully considered and the use of the defined terms ascertained (A/CN.9/828, para. 66).

16. All references to “holder” in the draft provisions have been deleted and replaced with “person in control” (A/CN.9/804, para. 85). The Working Group may wish to clarify in draft article 3 that a “person” may either be a natural or a legal person.

“*electronic transferable record*” means [an electronic record] that entitles the person in control to claim the performance of the obligation [indicated] in the

² Regulation (EC) No. 864/2007 of the European Parliament and of the Council of 11 July 2007 on the law applicable to non-contractual obligations (Rome II), Official Journal L 199, 31/7/2007, pp. 40-49.

³ See Philip R. Wood, Conflict of Laws and International Finance (The Law and Practice of International Finance, Vol. 6), 2007, sub 11-043.

record and that is capable of transferring the right to performance of the obligation [indicated] in the record through the transfer of that record.

“paper-based transferable document or instrument” means a transferable document or instrument issued on paper that entitles the holder to claim the performance of the obligation [indicated] in the document or instrument and that is capable of transferring the right to performance of the obligation [indicated] in the document or instrument through the transfer of that document or instrument.

Paper-based transferable documents or instruments include bills of exchange, cheques, promissory notes, [consignment notes,] bills of lading and warehouse receipts.

Remarks

17. The definitions of “electronic transferable record” and “paper-based transferable document or instrument” reflect the Working Group’s deliberations at its forty-eighth session (A/CN.9/797, paras. 21-28). These definitions do not aim at affecting the fact that substantive law shall determine whether the person in control is the rightful person in control as well as the substantive rights of the person in control.

18. The definition of “electronic transferable record” does not aim at describing all the functions possibly related to the use of an electronic transferable record. For instance, an electronic transferable record may have an evidentiary value; however, the ability of that record to discharge that function will be assessed under law other than the draft provisions.

19. The Working Group confirmed that certain documents or instruments, which are generally transferable, but whose transferability is limited due to other agreements, such as straight bills of lading, would not fall under either of these two definitions and that the draft provisions should only focus on “transferable” documents (A/CN.9/797, paras. 27-28).

20. The Working Group may wish to consider whether the term “[indicated]” in square brackets in both draft definitions is appropriate or whether other terms might be used such as “represented by”, “incorporated”, “specified” or “contained” (A/CN.9/797, para. 22).

21. The Working Group may wish to take into account the definition of “electronic record” when considering the definition of “electronic transferable record”.

22. The Working Group may wish to consider deleting the definition of paper-based transferable document or instrument as it concerns substantive law.

23. The Working Group may wish to consider whether the indicative list of paper-based transferable documents or instruments, which is inspired by article 2, paragraph 2, of the United Nations Convention on the Use of Electronic Communications in International Contracts (New York, 2005) (the “Electronic Communications Convention”), should be included in the definition of “paper-based transferable document or instrument” or in explanatory material (A/CN.9/768, para. 34, and A/CN.9/797, paras. 25-26), bearing also in mind draft article 2,

paragraph 3. The Working Group may also wish to consider whether to retain the reference to consignment notes, which are not transferable in certain jurisdictions.

“*electronic record*” means information generated, communicated, received or stored by electronic means [, including, where appropriate, all information logically associated or otherwise linked [together] [thereto] [so as to become part of the record], whether generated contemporaneously or [not] [subsequently]].

Remarks

24. The definition of “electronic record” is based on the definition of “data message” contained in the UNCITRAL Model Law on Electronic Commerce (1996) and in the Electronic Communications Convention. The bracketed text aims at highlighting the fact that information may be associated with the electronic transferable record at the time of issuance or thereafter (e.g., information related to endorsement) (A/CN.9/797, paras. 43-45). That bracketed text is also meant to clarify that some electronic records could, but do not need to, include a set of composite information (A/CN.9/797, para. 43). The Working Group may also wish to recall its discussion of “electronic record” with respect to draft article 10 (A/CN.9/828, para. 31).

“*issuer*” means a person that issues, directly or with the assistance of a third party, an electronic transferable record.

Remarks

25. The Working Group may wish to consider whether to retain the definition of “issuer” in light of the deletion of a draft provision on issuance (A/CN.9/797, paras. 64-67). The term “issuer” appears in draft article 27 on retention and may be relevant for other provisions such as draft articles 12, on time and place of dispatch and receipt, 23 on change of medium and 24 on division and consolidation.

26. The words “, directly or with the assistance of a third party,” aim at clarifying that when an electronic transferable record is issued by a third-party service provider upon the issuer’s request, the third-party service provider is not considered an issuer under the draft provisions (A/CN.9/768, para. 33).

[“*control*” of an electronic transferable record means the [de facto power to deal with or dispose of that electronic transferable record] [power to factually deal with or dispose of the electronic transferable record] [control in fact of the electronic transferable record].]

Remarks

27. The draft definition of “control” has been placed in square brackets further to a decision of the Working Group at its fiftieth session made in conjunction with its consideration of draft article 17 on possession (A/CN.9/828, paras. 66-67).

“*transfer*” of an electronic transferable record means the transfer of control over an electronic transferable record.

Remarks

28. In considering the draft definition, the Working Group may wish to note its decisions to delete a draft provision on transfer (A/CN.9/828, para. 84) as well as a draft rule conveying that transfer of control over an electronic transferable record was necessary to transfer that electronic transferable record (A/CN.9/804, paras. 82 and 85).

“*amendment*” means the modification of information contained in the electronic transferable record in accordance with the procedure set out in draft article 21.

Remarks

29. The Working Group may wish to consider whether to retain this definition in light of draft article 21 on amendment and of the remarks to that draft article. The term “amendment” occurs only in that draft article.

“*performance of obligation*” means the delivery of goods or the payment of a sum of money as specified in a paper-based transferable document or instrument or an electronic transferable record.

Remarks

30. The Working Group may wish to consider whether to retain this definition in light of its substantive law implications. That draft definition refers generally to the delivery of goods or the payment of a sum of money as mentioned in article 2, paragraph 2, of the Electronic Communications Convention (A/CN.9/761, para. 22). The term “performance of obligations” appears in the definitions of “electronic transferable record” and of “paper-based transferable document or instrument”.

“*obligor*” means the person [indicated] in a paper-based transferable document or instrument or in an electronic transferable record as having the obligation to perform [the obligation contained in that document, instrument or record].

Remarks

31. The definition of “obligor” has been reviewed in order to further clarify that it has only descriptive value and that substantive law shall determine who the obligor is. The Working Group may wish to consider whether the definition of “obligor” should be retained in light of the fact that the notion may be defined under substantive law.

32. The term “obligor” appears in draft articles 19, 23 and 28, respectively on presentation, change of medium, and conduct of a third-party service provider. The Working Group may wish to consider the continued relevance of that draft definition in light of the final form of those articles.

33. If the definition of “obligor” is retained, the Working Group may wish to consider whether the term “[indicated]” is appropriate or whether other terms might be used (see also above, para. 20).

“*replacement*” means substitution of a paper-based transferable document or instrument with an electronic transferable record or [vice versa] [conversely].

Remarks

34. The Working Group may wish to consider whether the draft definition should be retained in light of draft article 23 on change of medium. In that case, the Working Group may wish to discuss whether the draft definition should refer only to instances falling under the scope of draft article 23, or whether it should be broadened to include instances where an electronic transferable record was reissued to substitute for another electronic transferable record according to draft article 22 (see A/CN.9/WG.IV/WP.124/Add.1, para. 27).

“third-party service provider” means a third party providing services related to [the use of] electronic transferable records [in accordance with articles 28 and 29].”

35. The words “[in accordance with articles 28 and 29]” were retained pending deliberations of the Working Group on those draft provisions.

36. The Working Group may wish to consider whether the words [the use of] should be deleted to ensure consistency with the definition of “certificate service provider” contained in article 2(e) of the UNCITRAL Model Law on Electronic Signatures (2001).

“Draft article 4. Interpretation

“1. This Law is derived from [...] of international origin. In the interpretation of this Law, regard is to be had to the international origin and to the need to promote uniformity in its application [and the observance of good faith].

“2. Questions concerning matters governed by this Law which are not expressly settled in it are to be settled in conformity with the general principles on which this Law is based.”

Remarks

37. Draft article 4 is intended to draw the attention of courts and other authorities to the fact that the draft provisions should be interpreted with reference to their international origin in order to facilitate uniform interpretation (A/CN.9/768, para. 35). The square bracketed text in paragraph 1 would depend on the final form of the draft provisions and the paragraph itself would need to be revised accordingly.

38. The notion of “general principles” contained in paragraph 2 has been used in several UNCITRAL texts. Article 7 of the United Nations Convention on Contracts for the International Sale of Goods (Vienna, 1980) (“CISG”) is the provision containing that notion that has been most interpreted by case law.

39. The UNCITRAL Digest of Case Law on the United Nations Convention on Contracts for the International Sale of Goods (2012) lists several general principles relevant to article 7 of the CISG according to case law. Those general principles may be contained in specific provisions of the CISG and applied in other cases falling under the scope of the CISG.

40. However, not all the general principles that have been identified in the CISG gather the same level of support in being recognized as such. Moreover,

determination of the content and operation of those general principles takes place progressively. Such progressive determination assists in ensuring flexibility in the interpretation of the CISG and in adapting the CISG to evolving commercial practices and business needs.

41. The notion of “general principles” contained in draft article 4, paragraph 2, of the draft provisions refers to the general principles of electronic transactions (A/CN.9/797, para. 29), including those already stated in relevant UNCITRAL texts. In this line, the Working Group may wish to confirm that the fundamental principles of non-discrimination of electronic communications, technological neutrality and functional equivalence are general principles underlying the draft provisions. Other general principles might be identified as the work of the Working Group makes progress.

42. Some of the general principles underlying the CISG, such as party autonomy and good faith, may also be relevant to define the notion of general principles contained in the draft provisions. In that respect, the Working Group may wish to consider whether a reference to good faith should be retained, also in light of the fact that it is contained in several other UNCITRAL texts, including those on electronic commerce.

“Draft article 5. Party autonomy [and privity of contract]

“1. The parties may derogate from or vary by agreement the provisions of this Law [except articles 1, 2, 4, 5, paragraph 2, 6, 7, [...], 28 and 29].

“2. Such an agreement does not affect the rights of any person that is not a party to that agreement.”

Remarks

43. The Working Group highlighted the importance of party autonomy in the draft provisions (A/CN.9/797, para. 30) and, based on the general applicability of that principle, agreed to identify which draft articles could not be derogated from (A/CN.9/797, para. 32). It is suggested that such identification should be carried out at a later stage of preparation of the draft provisions, pending, in particular, discussion on the provisions relating to third-party service providers.

“Draft article 6. Information requirements

“Nothing in this Law affects the application of any rule of law that may require a person to disclose its identity, place of business or other information, or relieves a person from the legal consequences of making inaccurate, incomplete or false statements in that regard.”

44. The Working Group decided to retain draft article 6 with the understanding that it reminds parties of the need to comply with possible disclosure obligations that might exist under other law (A/CN.9/797, para. 33).

B. Provisions on electronic transactions

45. The Working Group at its forty-eighth session decided to retain draft articles 7-9 as a separate section (A/CN.9/797, para. 34). The Working Group may

wish to review its decision in light of the final form of the draft provisions as well as the content of those articles.

“Draft article 7. Legal recognition of an electronic transferable record

“An electronic transferable record shall not be denied legal effect, validity or enforceability on the sole ground that it is in electronic form.”

Remarks

46. Draft article 7 sets forth the principle of non-discrimination. At its forty-ninth session, the Working Group decided to retain draft article 7 in its current form (A/CN.9/804, para. 17, see also A/CN.9/768, para. 39).

“Draft article 8. Writing

“Where the law requires that information should be in writing or provides consequences for the absence of a writing, that requirement is met with respect to an electronic transferable record if the information contained therein is accessible so as to be usable for subsequent reference.”

Remarks

47. Draft article 8 reflects the Working Group’s deliberations at its forty-ninth session (A/CN.9/804, paras. 18-19). It establishes the requirements for the functional equivalence of the written form with respect to information contained in or related to electronic transferable records (A/CN.9/797, para. 37). Draft article 8 refers to the notion of “information” instead of “communication” as not all relevant information might necessarily be communicated (*ibid.*). The general rule on functional equivalence between electronic and written form should be contained in the law on electronic transactions (A/CN.9/797, para. 38).

48. At the forty-ninth session, it was suggested that draft article 8 might not be necessary as the fulfilment of the functional equivalence of the “writing” requirement was implied in the definition of “electronic transferable record” in draft article 3. In response, it was stated that a rule on the “writing” requirement was necessary in light of the other rules on functional equivalence contained in the draft provisions (A/CN.9/804, para. 18). The Working Group may wish to consider the desirability of maintaining draft article 8 in light of draft articles 10 and 11.

49. In case the draft provisions were to be applicable to electronic transferable records with no paper-based equivalent (see para. 9 above), the Working Group may wish to confirm that the law governing those records should set forth the same requirements contained in draft article 8, i.e. that information should be accessible so as to be usable for subsequent reference (A/CN.9/768, para. 42).

“Draft article 9. Signature

“Where the law requires a signature of a person or provides consequences for the absence of a signature, that requirement is met with respect to an electronic transferable record if:

(a) A method is used to identify that person and to indicate that person’s intention in respect of the information contained in the electronic record; and

- (b) The method used is either:
- (i) As reliable as appropriate for the purpose for which the electronic record was generated, in the light of all the relevant circumstances, including any relevant agreement; or
 - (ii) Proven in fact to have fulfilled the functions described in subparagraph (a) above, by itself or together with further evidence.”

Remarks

50. Draft article 9 reflects the Working Group’s deliberations at its forty-ninth session (A/CN.9/804, para. 20). It establishes the requirements for the functional equivalence of “signature” (ibid.) when substantive law either contains an explicit signature requirement or provides consequences for the absence of a signature (implicit signature requirement) (A/CN.9/797, para. 46). It follows closely the text of article 9, paragraph 3, of the Electronic Communications Convention.

51. Reference in draft article 9, paragraph (b)(i), to “as reliable as appropriate” follows the approach adopted in article 9, paragraph 3, of the Electronic Communications Convention. This approach to a method “as reliable as appropriate” is distinct from the references contained in other draft articles to a “reliable method”. It may also be distinct from the reference to a method “as reliable as appropriate” contained in draft article 17 since that draft article deals with functional equivalence of possession, which is not discussed in the Electronic Communications Convention.

52. The explanatory note to the Electronic Communications Convention provides guidance on the content and operation of that notion of “reliability” in the context of article 9, paragraph 3, of that Convention.⁴ The Working Group may wish to confirm that the guidance provided in that explanatory note would be appropriate in interpreting draft article 9, subparagraph (b)(i).

53. In that respect, the Working Group may also wish to clarify whether the general reliability standard contained in draft article 11 would apply also to draft article 9, subparagraph (b)(i) (A/CN.9/804, para. 20).

54. Another option would be to include in draft article 9 text similar to the requirements set forth in article 6, paragraph 3, of the Model Law on Electronic Signatures, thus providing a specific reliability standard applicable only to draft article 9, subparagraph (b)(i). It should, however, be noted that the Working Group had already agreed that such “two-tier” approach would not be adopted in the draft provisions (A/CN.9/797, para. 40).

Remarks on “original”

55. After noting that the notion of “original” in the context of electronic transferable records was different from that adopted in other UNCITRAL texts (A/CN.9/797, para. 47) and that the main purpose of a functional equivalence rule for that notion in the context of electronic transferable records should be the

⁴ United Nations, Explanatory note by the UNCITRAL secretariat on the United Nations Convention on the Use of Electronic Communications in International Contracts, New York, 2007, paras. 161-164.

prevention of multiple claims (A/CN.9/804, para. 21), the Working Group agreed that there was no need to include a functional equivalence rule for “original” in the draft provisions (A/CN.9/804, para. 40). It was explained that the goal of avoiding multiple claims in the context of electronic transferable records could be achieved through the notion of “control”. It was further explained that the notion of “control” could identify both the person entitled to performance and the object of control (A/CN.9/804, para. 39).

C. Use of electronic transferable records

***“Draft article 10. [Paper-based transferable document or instrument]
[Operative electronic record] [Electronic transferable record]”***

“1. Where the law requires the use of a paper-based transferable document or instrument or provides consequences for its absence, that requirement is met by the use of an electronic record if a method is employed:

(a) That is as reliable as appropriate, [to identify that electronic record as the electronic transferable record] [to identify that electronic record as the electronic record containing the authoritative information constituting the electronic transferable record] and to prevent the unauthorized replication of that electronic transferable record;

(b) To render that electronic record capable of being subject to control during its life cycle; and

(c) That is as reliable as appropriate, to retain the integrity of the electronic transferable record.

“2. The criteria for assessing integrity shall be whether information contained in the electronic transferable record, including any [legally relevant] [authorized] change that arises [throughout its life cycle] [from its creation until it ceases to have any effect or validity], has remained complete and unaltered apart from any change which arises in the normal course of communication, storage and display. The standard of reliability required shall be assessed in the light of the purpose for which the information contained in the electronic transferable record was generated and in the light of all the relevant circumstances.”

Remarks

56. Draft article 10 aims to offer a functional equivalence rule for the use of paper-based transferable documents or instruments by setting forth the requirements to be met by an electronic record. The Working Group agreed to introduce draft article 10 in light of its discussions on the notion of uniqueness and its decision to delete a rule on uniqueness (A/CN.9/804, paras. 71 and 74). It was added that resorting to the notion of “control” would make it possible not to refer to the notion of “uniqueness”, which posed technical challenges (A/CN.9/804, para. 38).

57. The Working Group agreed that reference to the definition of “electronic record” would suffice to provide for cases when, as it may happen in certain registry systems, there might be data elements that, taken together, provided the information

constituting the electronic transferable record, with no discrete record constituting the electronic transferable record (A/CN.9/828, para. 31).

58. Subparagraph 1(a) reflects the Working Group's discussion on the necessity to identify an electronic transferable record as the operative or authoritative electronic record (A/CN.9/828, paras. 32-35). The Working Group may wish to consider whether the definition of "electronic transferable record" in draft article 3 would suffice to ensure that an electronic transferable record produced legal effects and therefore render the qualification of an electronic transferable record as "authoritative" unnecessary.

59. Subparagraph 1(b) reflects the Working Group's deliberations at its fiftieth session (A/CN.9/828, para. 55). The draft provision reflects the view that an electronic transferable record might not necessarily be subject to control, but should be capable of being controlled during its entire life cycle, particularly in order to allow for its transfer (A/CN.9/804, para. 61). This could happen, for instance, when a token-based electronic transferable record is lost.

60. At its fiftieth session, the Working Group agreed to insert a provision on the assessment of the reliability standard for the notion of integrity (A/CN.9/828, para. 49). That provision, which has been included as paragraph 2, indicates that an electronic transferable record retains integrity when any set of information related to legally relevant changes during its life cycle (as opposed to changes of purely technical nature) remains complete and unaltered (A/CN.9/804, para. 29). It is inspired by article 8, paragraph 3, of the Model Law on Electronic Commerce.

61. The Working Group may wish to consider whether the words [legally relevant] [authorized] should be retained in light of its discussions on the desirability to record all or only selected changes, and on the difference between authorized and legitimate changes (A/CN.9/828, paras. 42-44; A/CN.9/804, paras. 30-32).

62. The words "[from its creation until it ceases to have any effect or validity]" are used in article 1(21) of the Rotterdam Rules (A/CN.9/828, para. 56).

63. At the Working Group's fiftieth session, it was said that subparagraph 1(a) should be assessed against general reliability standards (A/CN.9/828, para. 37) and that subparagraph 1(b) was not subject to a reliability test as draft article 17 provided the reliability standard to assess the method used to establish control (*ibid.*, para. 38). The Working Group may wish to consider whether additional guidance is needed on the reliability standards applicable to subparagraphs 1(a) and (b).

64. The Working Group may wish to consider whether draft article 10 should be placed closer to draft article 18 relating to "control" (A/CN.9/804, para. 75).

"Draft article 11. General reliability standard"

"1. The standard of reliability required shall be assessed in the light of the purpose for which the information contained in the electronic transferable record was generated and in the light of all the relevant circumstances.

"2. In determining whether, or to what extent, a method is reliable [for the purposes of articles 10, 17 and ...], regard may be had to the following factors:

- (a) Level of assurance of data integrity;

- (b) Ability to prevent unauthorized access to and use of the system;
- (c) Quality of hardware and software systems;
- (d) Regularity and extent of audit by an independent body;
- (e) The existence of a declaration by a supervisory body, an accreditation body or a voluntary scheme regarding the reliability of the method;
- (f) [Any agreement among the parties;]
- (g) Any other relevant factor.”

Remarks

65. Draft article 11 aims at providing a general reliability standard.
66. At the Working Group’s forty-ninth session, different views were expressed with respect to the desirability of inserting such provision.
67. On the one hand, it was indicated that the draft provisions should provide general guidance on the meaning of reliability and set out the criteria for meeting that standard. It was added that, while party autonomy could suffice to establish reliability standards in closed systems, there still was a need for the draft provisions to set out reliability standards applicable to open systems. It was further mentioned that if a general reliability standard were to be included, it should be drafted in a manner mindful of technological neutrality (A/CN.9/804, para. 43).
68. Moreover, the inclusion of additional factors to assess reliability was suggested. Those factors related to: quality of staff; sufficient financial resources and liability insurance; existence of a notification procedure for security breaches and of reliable audit trails (A/CN.9/804, paras. 44-45).
69. However, at that session the view was also expressed that the existing and newly-suggested reliability factors were too detailed and that the provision was regulatory in nature. It was added that the adoption of such detailed requirements could impose excessive costs on business and ultimately hamper electronic commerce. It was further noted that those requirements could lead to increased litigation based on complex technical matters. It was suggested that a reference to reliable methods based on internationally accepted standards and practices should instead be inserted in the draft provisions (A/CN.9/804, para. 46).
70. In that same line, it was stated that the presence of a general reliability standard could hamper use of electronic transferable records as legal consequences of failure to meet those standards were not clear. It was further indicated that caution should be exercised so as not to make the draft provisions untenable in practice. It was also noted that there was no need for a general reliability standard as each draft article containing a reliability standard should include in itself a provision specific to that context (A/CN.9/804, para. 42).
71. In conclusion, the Working Group agreed to further consider draft article 11 as a possible general rule on system reliability and in connection with provisions relating to third-party service providers. The Working Group also agreed to consider the adoption of specific standards for each draft provision referring to a reliable method (A/CN.9/804, para. 49).

72. At its fiftieth session, the Working Group agreed to incorporate in draft article 11 text providing general guidance on the reliability standard (A/CN.9/828, paras. 47 and 49). That language, inspired also by article 17, paragraph 4, of the Model Law on Electronic Commerce, has been inserted as paragraph 1 of draft article 11.

73. Draft subparagraph 2(f) was inserted to highlight the relevance of any agreement of the parties when assessing reliability.

74. The Working Group may wish to discuss whether draft article 11, subparagraph 2(a), should refer to data integrity in the system, to integrity of the electronic transferable record or to both, in light also of draft article 10.

75. The Working Group may also wish to discuss whether draft article 11, subparagraph 2(b), should explicitly refer to unauthorized access and use of the system or of the method employed to establish control, in light also of draft article 17.

76. The following draft articles contain a specific standard for the assessment of reliability: draft article 9 on signatures, draft article 10, with respect to integrity, and draft article 17 on possession and control. The Working Group may wish to confirm that the general reliability standard contained in draft article 11 would also apply to those draft articles.

77. Draft articles 10, with respect to identification of the electronic record as the electronic transferable record and to prevention of the unauthorized replication of that electronic transferable record, 21 on amendment, 24 on division and consolidation, 25 on termination and 26 on use for security right purposes refer to the use of a reliable method. The Working Group may wish to confirm whether draft article 11 would suffice to assess the reliability of the various methods referred to in those draft articles. In that respect, the Working Group may also wish to clarify if additional guidance could be obtained from the standards contained in draft article 17 on functional equivalence of possession.
