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Draft Model Law on Electronic Transferable Records

Note by the Secretariat

Contents

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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 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).

7. At its fifty-first session (New York, 18-22 May 2015), the Working Group continued its work on the preparation of the draft Model Law as presented in document A/CN.9/WG.IV/WP.132 and Add.1. The Working Group focused its discussion on the definitions of electronic transferable record, possession and control.

8. At its fifty-second session (Vienna, 9-13 November 2015), the Working Group continued its work on the preparation of draft provisions as presented in document A/CN.9/WG.IV/WP.134 and Add.1. In particular, the Working Group discussed the relation between draft articles referring to a “reliable method” and a general reliability standard, as well as the elements relevant for assessing reliability, which include party agreement.

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

9. Part II of this note contains the draft provisions reflecting the deliberations and decisions of the Working Group during that session (A/CN.9/863, paras. 17-102).

II. Draft Model Law 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 transferable document or instrument including any rule of law applicable to consumer protection.

"3. This Law does not apply to securities, such as shares and bonds, and other investment instruments, and to […].

"[4. This Law applies to electronic transferable records other than as provided by [the law governing a certain type of electronic transferable record to be specified by the enacting State].]"

Remarks

10. Draft article 1 reflects the Working Group's deliberations at its forty-eighth (A/CN.9/797, paras. 16 and 17) and fifty-second (A/CN.9/863, paras. 17-22) sessions. The words "paper-based" have been deleted, as an editorial matter, in paragraph 2 pursuant to a decision of the Working Group at its fifty-second session (A/CN.9/863, para. 93).

11. Paragraph 1 states the scope of application of the draft Model Law.

12. Paragraph 2 sets forth the general principles that the substantive law applicable to an electronic transferable record is identified by reference to the substantive law applicable to the equivalent transferable document or instrument and that the draft Model Law does not affect substantive law applicable to transferable documents or instruments. Those general principles apply to each step of the life cycle of an electronic transferable record. The reference to consumer protection law aims at clarifying that those principles should apply also in that respect (A/CN.9/863, paras. 20 and 22).

13. In application of paragraph 2, the issuance of an electronic transferable record to bearer is possible only when permitted under substantive law (A/CN.9/797, para. 65). Likewise, 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") may be changed only when permissible under substantive law (A/CN.9/828, para. 82).

14. Paragraph 3 was included pursuant to a decision of the Working Group at its fifty-second session (A/CN.9/863, para. 22). It clarifies that the draft Model Law does not apply to securities and other investment instruments. The term "securities" in paragraph 3 does not refer to the use of electronic transferable records as

collateral and therefore the Model Law does not prevent the use of electronic transferable records for security rights purposes (A/CN.9/834, para. 73). 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).

15. Moreover, paragraph 3 includes an open-ended exclusion list that permits application of the draft Model Law according to the needs of each enacting jurisdiction. The insertion of an exclusion list aims at providing both flexibility and clarity on the scope of application of the Model Law. For instance, it would be possible to include in the exclusion list certain instruments or documents, such as letters of credit, which may be considered transferable documents or instruments in some jurisdictions but not in others. Similarly, State parties to 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. 109-112) may consider excluding the documents or instruments falling under the scope of the Geneva Conventions in order to avoid potential conflicts between those Conventions and the Model Law.

16. Electronic transferable records that are functional equivalent of transferable documents or instruments and electronic transferable records that exist only in an electronic environment may co-exist in the same jurisdiction. Draft paragraph 4 aims at allowing the application of the draft Model Law also to electronic transferable records that exist only in an electronic environment within the limits set forth in substantive law applicable to those electronic transferable records. Hence, the provision would not be necessary in jurisdictions where those records do not exist (A/CN.9/797, para. 17).

17. At its fifty-second session, the Working Group considered deleting paragraph 4 in view of concerns on its scope and limited clarity (A/CN.9/863, para. 17). However, support had also been expressed for retaining paragraph 4 as providing guidance and flexibility to States. At that session, it was agreed to postpone a decision on paragraph 4 since the content of that paragraph depended on the final form of the definition of electronic transferable record (ibid., paras. 18 and 19).

18. The Working Group may wish to consider whether to retain paragraph 4 in light of those considerations as well as of the fact that a law applicable to electronic transferable records that exist only in an electronic environment is likely to define its scope, including by reference to the draft Model Law. Therefore, the need to exclude electronic transferable records that exist only in an electronic environment from the scope of application of the draft Model Law would arise only if those electronic transferable records existed at the time of the enactment of the Model Law. However, in that case, the exclusion could be effectively addressed by indicating those electronic transferable records in the open-ended exclusion list contained in paragraph 3.

"**Draft article 2. Definitions**

"For the purposes of this Law:"

Remarks

19. The definitions in draft article 2 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 Model Law (A/CN.9/768, para. 34). Remarks for consideration by the Working Group have been placed after each definition.

"*electronic transferable record*" [is an electronic record that contains all of the information that would [make a transferable document or instrument effective] [be required to be contained in an equivalent transferable document or instrument] and that complies with the requirements of article 9].

Remarks

20. The definition of "electronic transferable record" reflects the Working Group's deliberations at its forty-eighth (A/CN.9/797, paras. 21-28), fifty-first (A/CN.9/834, paras. 23-26, 88, 95-98 and 100) and fifty-second (A/CN.9/863, paras. 91 and 92) sessions.

21. The definition of "electronic transferable record" reflects the functional equivalent approach (A/CN.9/863, paras. 91 and 92) and aims at covering electronic transferable records that are equivalent to transferable documents or instruments. However, it does not cover electronic transferable records that exist only in an electronic environment, for which a different definition is needed (A/CN.9/863, para. 91; see also A/CN.9/797, para. 23), to be discussed at a later stage.

22. In that respect, it should be noted that the Model Law does not preclude the development and use of electronic transferable records that do not have a paper equivalent as those records would not be governed by the Model Law (A/CN.9/863, para. 91; see also paras. 16-18 above).

23. The definition of "electronic transferable record" does 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. Likewise, it 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 Model Law.

24. The Working Group may wish to consider whether the words "be required to be contained in an equivalent transferable document or instrument" should be retained, as those words are used in draft article 9, paragraph 1(a). Alternatively, the Working Group may wish to consider whether reference to information is necessary in light of the fact that draft article 9, which is referred to in the draft definition, contains the same requirement.

25. 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 the definition and

that the draft Model Law should only focus on "transferable" documents (A/CN.9/797, paras. 27 and 28).

26. The Working Group may wish to take into account the definition of "electronic record" when considering the definition of "electronic transferable record" (see below, para. 30).

> "*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.

Remarks

27. The definition of "transferable document or instrument" reflects the Working Group's deliberations at its forty-eighth (A/CN.9/797, paras. 21-28) and fifty-second (A/CN.9/863, paras. 93-95) sessions. It does not aim at affecting substantive law.

28. The Working Group may wish to note that, as an editorial matter, the words "paper-based" were deleted from the term "transferable document or instrument" in the English language version throughout the draft Model Law (A/CN.9/863, para. 93), since the definition of transferable document or instrument sufficiently clarified that those documents or instruments were paper-based. Upon consultation, the same words have been deleted in the Arabic, Chinese and Russian language versions of the Model Law, but not in the French and Spanish language versions. The Working Group may wish to confirm that editorial decision.

29. Applicable substantive law shall determine which documents or instruments are transferable in the various jurisdictions (A/CN.9/863, para. 94; see also paragraph 15 above). An indicative list of transferable documents or instruments, 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") includes: bills of exchange; cheques; promissory notes; consignment notes; bills of lading and warehouse receipts (A/CN.9/863, para. 94; see also A/CN.9/768, para. 34; A/CN.9/797, paras. 25 and 26). Cargo insurance certificates and air waybills may be additional examples of transferable documents or instruments.

> "*electronic record*" means information generated, communicated, received or stored by electronic means, including, where appropriate, all information logically associated with or otherwise linked together so as to become part of the record, whether generated contemporaneously or not.

Remarks

30. 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 definition reflects the composite nature of an electronic transferable record, which, in turn, is particularly relevant for the notion of "integrity" contained in paragraph 2 of draft article 9 (A/CN.9/863, para. 96). It highlights 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) and aims to clarify that some electronic records could, but do not need to, include a set of composite information (A/CN.9/797, paras. 43-45; see also A/CN.9/804, para. 71). The word "logically" refers to computer software and not to human logic (A/CN.9/863, para. 97).

"**Draft article 3. Interpretation**

"1. This Law is derived from a model law 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

31. Draft article 3 is intended to draw the attention of courts and other authorities to the fact that domestic enactments of the Model Law should be interpreted with reference to their international origin in order to facilitate uniform interpretation (A/CN.9/768, para. 35). Similar wording is found in article 3 of the UNCITRAL Model Law on Electronic Commerce and in article 4 of the UNCITRAL Model Law on Electronic Signature.

32. The words "This Law is derived from a model law of international origin" were included pursuant to a decision made by the Working Group at its forty-seventh session, in order to emphasize that the law constituted an enactment of a model law with international origin (A/CN.9/768, para. 35). Those words do not appear in other UNCITRAL texts. Alternatively, the Working Group may wish to consider whether that language should be retained and the underlying notion should be further developed in guidance materials.

33. The Working Group may wish to consider whether the words "[and the observance of good faith]" should be retained in light of the possible substantive law implications, and, in particular, of the existence of a specific notion of good faith in the law of transferable documents or instruments. Alternatively, the Working Group may wish to clarify whether that reference is intended as to the general notion of good faith in international trade (see also para. 35 below). Reference to good faith is contained in several other UNCITRAL texts, including article 3, paragraph 1 of the UNCITRAL Model Law on Electronic Commerce and article 4, paragraph 1 of the UNCITRAL Model Law on Electronic Signatures.

34. 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.

35. The notion of "general principles" contained in paragraph 2 refers to the general principles of electronic communications (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 against electronic communications, technological neutrality and functional equivalence are

general principles underlying the draft Model Law. Other general principles might be identified as the work of the Working Group progresses. For instance, the provisions in other UNCITRAL texts on electronic commerce relating to the irrelevance of the location of information systems for the determination of the place of business could be relevant as general principles on which the Model Law is based (see A/CN.9/WG.IV/WP.137/Add.1, para. 7). The notion of good faith in international trade could also be considered as a general principle relevant for the Model Law. The interpretation and application of the Model Law will further identify its general principles, in a manner akin to other UNCITRAL texts.

"**Draft article 4. Party autonomy [and privity of contract**]

"1. The parties may derogate from or vary by agreement the provisions of this Law [except articles […]][, unless that agreement would not be valid or effective under applicable law].

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

Remarks

36. 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).

37. While party autonomy is a fundamental principle underpinning commercial law and UNCITRAL texts, the Working Group may wish to note that the principle has found some limits in its implementation in UNCITRAL texts on electronic commerce in order to avoid conflicts with rules of mandatory application, such as those on public policy. Article 4 of the UNCITRAL Model Law on Electronic Commerce and article 5 of the UNCITRAL Model Law on Electronic Signature provide examples of that approach. The words "[, unless that agreement would not be valid or effective under applicable law]", contained in article 5 of the UNCITRAL Model Law on Electronic Signature, have been inserted in draft article 4 of the Model Law to reflect that approach.

38. Alternatively, the possibility of derogating from or varying a provision of the draft Model Law could be indicated by inserting specific language, such as "unless otherwise agreed by the parties", in each provision that may be derogated from or varied by the parties.

39. Paragraph 2 was inserted to reflect the concerns of the Working Group that derogations and variations to the Model Law shall not affect third parties (A/CN.9/768, para. 36), in particular, by circumventing the principle of numerus clausus. The Working Group may wish to consider whether that draft provision is necessary in light of draft article 1, paragraph 2 of the Model Law.

"**Draft article 5. 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."

40. The Working Group decided to retain draft article 5 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).

41. The Working Group may wish to consider draft article 5 in conjunction with draft articles 15 and 16, which also pertain to information requirements. The Working Group may further wish to consider whether those articles should be retained in light of draft article 1, paragraph 2 and of the possibility to provide guidance in explanatory materials.

B. Provisions on electronic transactions

42. The Working Group at its forty-eighth session decided to retain draft articles 6-8 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 Model Law as well as the content of those articles.

> "**Draft article 6. 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

43. Draft article 6 sets forth the principle of non-discrimination. At its forty-ninth session, the Working Group decided to retain draft article 6 in its current form (A/CN.9/804, para. 17; see also A/CN.9/768, para. 39).

> "**Draft article 7. Writing**
>
> "Where the law requires that information should be in 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

44. Draft article 7 reflects the Working Group's deliberations at its forty-ninth session (A/CN.9/804, paras. 18 and 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). 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). Draft article 7 refers to the notion of "information" instead of "communication" as not all relevant information might necessarily be communicated (A/CN.9/797, para. 37).

45. Pursuant to a decision of the Working Group at its fifty-first session, the explanatory materials to the draft provisions will reflect the understanding that any legal requirement contained in the draft Model Law implies consequences for the case it is not met, making it not necessary to explicitly refer to those consequences (A/CN.9/834, paras. 43 and 46). Accordingly, the words "or provides consequences

for the absence of a writing" have been deleted throughout the draft Model Law since they are redundant.

46. At the Working Group's forty-ninth session, it was suggested that draft article 7 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 2. 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 clarify the relationship between draft article 7 and draft article 9, setting forth information and integrity requirements for the functional equivalence of transferable documents or instruments.

47. In its future deliberations on a law applicable to electronic transferable records existing only in electronic form, the Working Group may wish to confirm that the law governing those records should set forth the same requirements contained in draft article 7, i.e. that information should be accessible so as to be usable for subsequent reference (A/CN.9/768, para. 42).

"**Draft article 8. Signature**

"Where the law requires a signature of a person, that requirement is met [with respect to] [in relation to] [by] an electronic transferable record if a reliable method is used to identify that person and to indicate that person's intention in respect of the information contained in the electronic record."

Remarks

48. Draft article 8 reflects the Working Group's deliberations at its forty-ninth (A/CN.9/804, para. 20) and fifty-second (A/CN.9/863, paras. 66 and 73) sessions. It establishes the requirements for the functional equivalence of "signature" (A/CN.9/804, para. 20) 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; see also A/CN.9/834, para. 43).

49. The text of draft article 8, originally based on the text of article 9, paragraph 3, of the Electronic Communications Convention, reflects the changes made pursuant to the Working Group's decision at its fifty-second session with regard to draft article 10 on the general reliability standard (A/CN.9/863, paras. 66 and 73). Accordingly, the reliability of the method referred to in draft article 8 shall be assessed according to the general reliability standard contained in draft article 10.

50. The Working Group may wish to consider whether the text of draft article 8 should better clarify that that provision applies to electronic transferable records only and not to other electronic records that are not transferable but are somehow related to an electronic transferable record. Alternative wording is suggested to that end. The words "with respect to" have been used in the chapeau of draft article 8. The words "in relation to" are used in article 9(3) of the Electronic Communications Convention. The word "by" has been used in other UNCITRAL provisions on functional equivalence and may suggest a narrower application of draft article 8.

Remarks on "original"

51. 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 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 9. [Electronic transferable record]**

"1. Where the law requires a transferable document or instrument, that requirement is met by an electronic record if:

(a) The electronic record contains the information that would be required to be contained in an [equivalent] transferable document or instrument; and

(b) A reliable method is used:

(i) To identify that electronic record as the [authoritative] [record constituting the] electronic transferable record;

(ii) To render that electronic record capable of being subject to control from its creation until it ceases to have any effect or validity; and

(iii) To retain the integrity of the electronic transferable record."

"2. The criterion for assessing integrity shall be whether information contained in the electronic transferable record, including any [authorized] change that arises 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

52. Draft article 9 has been recast in light of the Working Group's deliberations at its fifty-first (A/CN.9/834, paras. 21-30, 85-94 and 99) and fifty-second (A/CN.9/863, paras. 66 and 73) sessions. The current text aims at combining the two prevalent approaches to avoid multiple claims for performance, i.e. "singularity" and "control" (A/CN.9/834, para. 86) and reflects the changes made pursuant to the Working Group's decision at its fifty-second session with regard to draft article 10 on the general reliability standard (A/CN.9/863, paras. 66 and 73). Accordingly, the

reliability of the method referred to in draft article 9 shall be assessed according to the general reliability standard contained in draft article 10.

53. Draft article 9 intends to offer a functional equivalence rule for the use of transferable documents or instruments by setting forth the requirements to be met by an electronic record. The Working Group agreed to introduce draft article 9 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).

54. 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).

55. Subparagraph 1(a) states that the electronic record should contain the information required in a transferable document or instrument. The Working Group may wish to consider whether the word "equivalent" before the words "transferable document or instrument" could be misleading in view of the purpose of draft article 9 to provide a rule on functional equivalence. Alternative drafting, such as the use of the words "respective" or "corresponding", may be considered.

56. Subparagraph 1(b)(i) sets forth the requirement to identify an electronic record as the record containing the operative or authoritative information necessary to establish that record as an electronic transferable record. That requirement implements the "singularity" approach (A/CN.9/834, para. 86).

57. The Working Group may wish to consider whether to retain the word "authoritative" to identify the electronic transferable record (A/CN.9/834, paras. 101-104) in light of the fact that information establishing the electronic record as an electronic transferable record is, by itself, authoritative and therefore that qualification might, on the one hand, be unnecessary and, on the other hand, have the unintended effect of fostering litigation on the meaning of the term "authoritative".

58. If the Working Group decides not to retain the word "authoritative", it may further wish to consider whether the provision might be further simplified by deleting the words "record constituting the".

59. Subparagraph 1(b)(ii) sets forth the requirement that the electronic transferable record should be capable of being controlled from its creation until it ceases to have any effect or validity, particularly in order to allow for its transfer. That requirement implements the "control" approach (A/CN.9/834, para. 86).

60. The draft provision reflects the view that an electronic transferable record might not necessarily be actually subject to control (A/CN.9/804, para. 61). This could happen, for instance, when a token-based electronic transferable record is lost.

61. With regard to paragraph 2, at its fiftieth session, the Working Group agreed to insert a provision on the assessment of the notion of integrity (A/CN.9/828, para. 49). That provision indicates that an electronic transferable record retains integrity when any set of information related to legally relevant changes (as opposed

to changes of purely technical nature) remains complete and unaltered from the time of the creation of the electronic transferable record until it ceases to have any effect or validity (A/CN.9/804, para. 29). It is inspired by article 8, paragraph 3, of the UNCITRAL Model Law on Electronic Commerce.

62. The Working Group may wish to clarify the relation between the reference to the use of a reliable method to retain the integrity of the electronic transferable record contained in paragraph 1(b)(iii) and the reference to the criterion for assessing integrity contained in paragraph 2, in light also of the considerations expressed with respect to draft article 10(1)(a)(ii) (see below, para. 70).

63. In that respect, the Working Group may also wish to consider whether reference to "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" in paragraph 2 should be retained as the same notion is contained in draft article 10.

64. The Working Group may wish to consider whether the word "authorized" in draft paragraph 2 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.9/834, paras. 27-30; A/CN.9/828, paras. 42-44 and A/CN.9/804, paras. 30-32).

65. The Working Group may wish to consider the definition of an electronic transferable record in draft article 2 in conjunction with its deliberations on draft article 9 (see paras. 20-26 above, and A/CN.9/834, paras. 95-100).

"**Draft article 10. General reliability standard**

"1. For the purposes of articles [8, 9, 11, 17, 19, 21, 22, 23] the method referred to shall be:

(a) As reliable as appropriate for the fulfilment of the function for which the method is being used, in the light of all relevant circumstances, which may include:

(i) The operational rules relevant to the assessment of reliability governing the system;

(ii) The assurance of data integrity;

(iii) The ability to prevent unauthorized access to and use of the system;

(iv) The quality of hardware and software systems;

(v) The regularity and extent of audit by an independent body;

(vi) The existence of a declaration by a supervisory body, an accreditation body or a voluntary scheme regarding the reliability of the method;

(vii) Any applicable industry standards; or

(b) Proven in fact to have fulfilled the function agreed to by itself or together with further evidence.

"[2. For the purposes of assessing [the required level of] reliability between parties to an agreement, regard shall be had to such agreement in so far as relevant.]"

Remarks

66. Draft article 10 reflects the deliberations of the Working Group at its forty-ninth (A/CN.9/804, paras. 41-49), fiftieth (A/CN.9/828, paras. 41-49), fifty-first (A/CN.9/834, paras. 66, 73 and 76) and fifty-second (A/CN.9/863, paras. 37-82) sessions.

67. Draft article 10 provides a general standard on the assessment of reliability. That standard applies throughout the Model Law whenever reference is made to a "reliable method". The provision, which is technology neutral (A/CN.9/863, para. 44), provides for a consistent standard to assess reliability throughout the draft Model Law. In that respect, it should be noted that each provision of the Model Law referring to the use of a reliable method aims at fulfilling a different function (A/CN.9/863, para. 54). Accordingly, the reference to "the purposes of articles" contained in the chapeau of draft article 10 aims to clarify that the assessment of the reliability of each relevant method should be carried out separately in light of the function specifically pursued with the use of that method (A/CN.9/863, para. 39).

Paragraph 1

68. Subparagraph 1(a) contains a list of circumstances to assist in the determination of the reliability in subparagraphs (i)-(vi). The words "which may include" are used to clarify that the list is not exhaustive and has an illustrative nature only (A/CN.9/863, paras. 46 and 66).

69. Subparagraph 1(a)(i) refers to "operational rules" that are usually contained in an operating manual whose application could be monitored by an oversight body and that, as such, may not have a purely contractual nature. The words "relevant to the assessment of" aim to clarify that only operational rules regarding the reliability of the system, and not operational rules in general, should be considered (A/CN.9/863, paras. 57 and 68).

70. Subparagraph 1(a)(ii) refers to the "assurance of data integrity" as an absolute notion, since data integrity cannot be expressed by reference to a level (A/CN.9/863, para. 42). The Working Group may wish to discuss whether subparagraph 1(a)(ii) should refer to data integrity in the system, to integrity of the electronic transferable record or to both, in light also of draft article 9. In that respect, the Working Group may wish to note that the reference to integrity contained in subparagraph 1(a)(ii) operates as a general reliability standard applicable throughout the Model Law, while the reference to integrity contained in draft article 9 operates as a specific parameter in establishing functional equivalence for negotiable documents or instruments (A/CN.9/863, paras. 69 and 70).

71. The circumstances referred to in subparagraphs 1(a)(iv), (v) and (vi) are also referred to in article 10(b), (e) and (f) of the UNCITRAL Model Law on Electronic Signatures. The Working Group may wish to clarify whether the guidance provided

on those provisions of the UNCITRAL Model Law on Electronic Signatures[2] could be useful also with respect to the corresponding provisions of the Model Law on Electronic Transferable Records.

72. The Working Group may also wish to discuss whether subparagraph 1(a)(iii) should refer to unauthorized access and use of the system or rather to unauthorized access and use of the method employed to establish control, also in light of the requirement relating to establishment of exclusive control contained in draft article 17. In that respect, the Working Group may also wish to clarify the relation between the reference to a "system" contained in subparagraph 1(a)(iii) and the reference to "hardware and software systems" contained in subparagraph 1(a)(iv).

73. The Working Group may wish to consider dealing with system reliability in the explanatory material discussing third-party service providers (A/CN.9/834, para. 78).

74. The reference to "any applicable industry standards" contained in subparagraph 1(a)(vii) shall not be interpreted so as to violate the principle of technology neutrality (A/CN.9/863, para. 71). In order to do so, those standards should be internationally recognized (A/CN.9/863, para. 56).

75. Subparagraph 1(b) provides a "safety clause" with the purpose of preventing frivolous litigation by validating methods that had in fact achieved their function regardless of any abstract assessment of their reliability (A/CN.9/863, para. 43). It refers to the fulfilment of the function in the specific case under dispute and does not aim at predicting reliability based on past performance of the method (ibid., para. 51). Thus, the legal mechanism contained in paragraph 2 shall operate as an alternative to that contained in paragraph 1 (ibid., para. 52). Article 9(3)(b)(ii) of the Electronic Communications Convention contains a rule similar to that set forth in paragraph 2.

Paragraph 2

76. Paragraph 2, which is an application of the principle of party autonomy, aims to highlight the relevance of any agreement of the parties when assessing reliability. It was explained that those agreements often contain useful guidance on technical details (A/CN.9/863, para. 74). It was added that reference to those agreements could be useful to provide legal recognition to developments in technology and business practices (ibid., para. 38).

77. The Working Group may wish to note that the scope of paragraph 2 is limited to the allocation of liability arising from an agreement on the reliability of the method. As such, the provision contained in paragraph 2 should not affect third parties or mandatory substantive law provisions such as those relating to the validity of electronic transferable records (A/CN.9/863, para. 75).

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[2] United Nations, Guide to Enactment to the UNCITRAL Model Law on Electronic Signatures, New York, 2002, para. 147 and references therein.