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Report of Working Group IV (Electronic Commerce) on the work of its fifty-fourth session (Vienna, 31 October-4 November 2016)

Contents

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I. Introduction

1. At its forty-fourth session, in 2011, the Commission mandated Working Group IV to undertake work in the field of electronic transferable records.[1]

2. At its forty-fifth session (Vienna, 10-14 October 2011), the Working Group began its work on various legal issues relating to the use of electronic transferable records, including possible methodology for future work by the Working Group (A/CN.9/737, paras. 14-88).

3. At its forty-fifth session, in 2012, the Commission reaffirmed the mandate of the Working Group relating to electronic transferable records and requested the Secretariat to continue reporting on relevant developments relating to electronic commerce.[2]

4. At its forty-sixth session (Vienna, 29 October-2 November 2012), the Working Group continued its examination of the various legal issues that arose during the life cycle of electronic transferable records (A/CN.9/761, paras. 24-89). At its forty-seventh session (New York, 13-17 May 2013), the Working Group had the first opportunity to consider the draft provisions on electronic transferable records. It was reaffirmed that the draft provisions should be guided by the principles of functional equivalence and technology neutrality, and should not deal with matters governed by the underlying substantive law (A/CN.9/768, para. 14).

5. At its forty-sixth session, in 2013, the Commission reaffirmed the mandate of the Working Group and agreed that work towards developing a legislative text in the field of electronic transferable records should continue.[3]

6. At its forty-eighth session (Vienna, 9-13 December 2013), the Working Group continued its work on the preparation of draft provisions on electronic transferable records. The Working Group also took into consideration legal issues related to the use of electronic transferable records in relationship with the Convention Providing a Uniform Law for Bills of Exchange and Promissory Notes (Geneva, 7 June 1930) and the Convention Providing a Uniform Law for Cheques (Geneva, 19 March 1931) (A/CN.9/797, paras. 109-112). At its forty-ninth session (New York, 28 April-2 May 2014), the Working Group continued its work on the preparation of draft provisions on the basis of document A/CN.9/WG.IV/WP.128 and Add.1.

7. At its forty-seventh session, in 2014, the Commission reaffirmed the mandate of the Working Group to develop a legislative text on electronic transferable records that would greatly assist in facilitating electronic commerce in international trade.[4]

8. At its fiftieth session (Vienna, 10-14 November 2014), the Working Group continued its work on the preparation of draft provisions on the basis of 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). At its fifty-first session (New York, 18-22 May 2015), the Working Group continued its work on the preparation of draft provisions on the basis of document A/CN.9/WG.IV/WP.132 and Add.1.

9. At its forty-eighth session, in 2015, the Commission encouraged the Working Group to finalize the current work in order to submit its results at the Commission's

[1] *Official Records of the General Assembly, Sixty-sixth Session, Supplement No. 17* (A/66/17), para. 238.
[2] Ibid., *Sixty-seventh Session*, *Supplement No. 17* (A/67/17), para. 90.
[3] Ibid., *Sixty-eighth Session, Supplement No. 17* (A/68/17), paras. 230 and 313.
[4] Ibid., *Sixty-ninth Session, Supplement No. 17* (A/69/17), para. 149.

forty-ninth session bearing in mind that an UNCITRAL model law on electronic transferable records would be accompanied by explanatory materials.[5]

10. At its fifty-second session (Vienna, 9-13 November 2015), the Working Group continued its work on the preparation of draft provisions on the basis of document A/CN.9/WG.IV/WP.135 and Add.1. The Working Group proceeded with its deliberations of the notions of electronic transferable records and of control as functional equivalent of possession as well as of a general reliability standard.

11. At its fifty-third session (New York, 9-13 May 2016), the Working Group continued its work on the preparation of draft provisions on the basis of document A/CN.9/WG.IV/WP.137 and Add.1.

12. At its forty-ninth session, in 2016, the Commission agreed that priority should be given to completing the preparation of the draft Model Law on Electronic Transferable Records and the accompanying explanatory note, so that they could be finalized and adopted by the Commission at its next session. It was generally felt that the topics of identity management and trust services as well as of cloud computing should be retained on the work agenda and that it would be premature to prioritize between the two topics. The Commission confirmed its decision that the Working Group could take up work on those topics upon completion of the work on the draft Model Law on Electronic Transferable Records. In that context, the Secretariat, within its existing resources, and the Working Group were asked to continue to update and conduct preparatory work on the two topics including their feasibility in parallel and in a flexible manner and report back to the Commission so that it could make an informed decision at a future session, including the priority to be given to each topic. It was also mentioned that priority should be based on practical needs rather than on how interesting the topic was or the feasibility of work.[6]

II. Organization of the session

13. The Working Group, composed of all States members of the Commission, held its fifty-fourth session in Vienna from 31 October to 4 November 2016. The session was attended by representatives of the following States members of the Working Group: Argentina, Austria, Brazil, Canada, China, Colombia, Czechia, El Salvador, France, Germany, Honduras, India, Indonesia, Italy, Japan, Kenya, Kuwait, Mexico, Pakistan, Panama, Philippines, Republic of Korea, Romania, Russian Federation, Singapore, Spain, Thailand, United Kingdom of Great Britain and Northern Ireland, United States of America, and Venezuela (Bolivarian Republic of).

14. The session was also attended by observers from the following States: Algeria, Belgium, Bolivia (Plurinational State of), Costa Rica, Cyprus, Dominican Republic, Paraguay, Republic of Moldova, Slovakia, Sweden, and Tunisia.

15. The session was also attended by observers from the Holy See and the European Union.

16. The session was also attended by observers from the following international organizations:

(a) *United Nations system*: World Bank;

(b) *Intergovernmental organizations*: Caribbean Court of Justice (CCJ);

[5] Ibid., *Seventieth Session, Supplement No. 17* (A/70/17), para. 231.
[6] Ibid., *Seventy-first Session, Supplement No. 17* (A/71/17), paras. 235 and 353.

(c) *International non-governmental organizations*: Centre for Commercial Law Studies (Queen Mary University of London), European Law Students' Association (ELSA), GSM Association (GSMA), Institute of Law and Technology (Masaryk University), International Bar Association (IBA), International Federation of Freight Forwarders Associations (FIATA), Law Association for Asia and the Pacific (LAWASIA) and The European Ecommerce & Omni-Channel Trade Association (EMOTA).

17. The Working Group elected the following officers:

Chairperson: Ms. Giusella Dolores FINOCCHIARO (Italy)

Rapporteur: Ms. Nadiah Faisal AL-DABBOUS (Kuwait)

18. The Working Group had before it the following documents: (a) annotated provisional agenda (A/CN.9/WG.IV/WP.138); and (b) a note by the Secretariat entitled "Draft Model Law on Electronic Transferable Records" (A/CN.9/WG.IV/WP.139 and its addenda).

19. The Working Group adopted the following agenda:

1. Opening of the session.
2. Election of officers.
3. Adoption of the agenda.
4. Draft Model Law on Electronic Transferable Records.
5. Legal issues related to identity management and trust services.
6. Contractual aspects of cloud computing.
7. Technical assistance and coordination.
8. Other business.
9. Adoption of the report.

III. Deliberations and decisions

20. The Working Group engaged in discussions on the draft Model Law on Electronic Transferable Records contained in document A/CN.9/WG.IV/WP.139 and its addenda (the "draft Model Law"). The deliberations and decisions of the Working Group thereon are reflected in chapter IV below. The Secretariat was requested to revise the draft Model Law and the explanatory materials to reflect those deliberations and decisions and transmit the revised text to the Commission for consideration at its fiftieth session. The Working Group recalled that UNCITRAL practice was to circulate the text as recommended by an UNCITRAL working group to all Governments and relevant international organizations for comment. It was noted that the same practice would be followed with respect to the draft Model Law, so that the comments would be received before the Commission at its fiftieth session.

21. In addition, the Working Group engaged in discussions on legal issues related to identity management and trust services as well as on contractual aspects of cloud computing. The deliberations and decisions of the Working Group thereon are reflected in chapters V and VI respectively below.

IV. Draft Model Law on Electronic Transferable Records

A. General (Draft articles 1-5)

Draft article 1. Scope of application

Footnote

22. It was suggested to delete the footnote to paragraph 3, since paragraph 23 of A/CN.9/WG.IV/WP.139 was viewed as sufficiently explaining the exclusions possible under paragraph 3. In response, it was indicated that the footnote provided enacting States with the desired guidance on the possible scope of draft article 1 and was in line with the drafting style used for other UNCITRAL model laws.

23. After discussion, it was agreed to retain the footnote to paragraph 3 unchanged.

24. It was noted that, while States could create new types of transferable documents or instruments, including in electronic form, by enacting laws, parties to contractual obligations related to electronic transferable records could not do so by agreement.

25. Accordingly, the Working Group agreed that paragraph 18 of A/CN.9/WG.IV/WP.139 should be redrafted so that (a) the words “is not intended to” replaced the words “may not” in the first sentence; and (b) the second sentence should read “Allowing such creation by freedom of contract would circumvent the principle of numerus clausus of transferable documents or instruments, where that principle is applicable.”

26. The Working Group agreed that the chapeau of paragraph 19 of A/CN.9/WG.IV/WP.139 should include the words “the requirements and legal effects of”, in order to better clarify its meaning.

27. The Working Group further agreed to delete the words “if so believed” at the end of paragraph 23, subparagraph (b) of A/CN.9/WG.IV/WP.139 as not appropriate.

28. In addition, the Working Group also agreed that paragraph 23, subparagraph (b) of A/CN.9/WG.IV/WP.139 should indicate that jurisdictions could exclude documents or instruments falling under the scope of 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”), regardless of whether the Geneva Conventions were in force in those jurisdictions.

29. With regard to paragraph 27 of A/CN.9/WG.IV/WP.139, the Working Group agreed that the words “functional equivalents of” should be replaced with the word “legally”, since electronic transferable records existing only in an electronic environment might fulfil the same functions as documents or instruments falling under the scope of the Geneva Conventions.

Draft article 2. Definitions

“electronic transferable record”

30. It was observed that the definition of “electronic transferable record” consisted solely of a reference to draft article 9. In that light, it was suggested to redraft that definition following the approach adopted in the definition of “transferable document or instrument”. In response, it was recalled that such proposal had already been discussed by the Working Group (see A/CN.9/869, paras. 24 and 25; see also A/CN.9/WG.IV/WP.137, paras. 20-26).

31. In view of the content of the definition of “electronic transferable record”, the Working Group agreed that the comments contained in paragraphs 32 to 34 of A/CN.9/WG.IV/WP.139 should be presented as comments to draft article 9.

32. The Working Group also agreed that the words “of straight bills of lading” at the end of the second sentence of paragraph 34 of A/CN.9/WG.IV/WP.139 should be replaced with the words “of straight or nominative instruments, such as promissory notes, bills of lading, and bills of exchange” in order to provide for a broader range of nominative or straight documents or instruments.

“transferable document or instrument”

“issued on paper”

33. A proposal was made to delete the words “issued on paper” from the definition of “transferable document or instrument” as they were viewed as excluding tangible media other than paper. In response, it was indicated that the deletion of the words “issued on paper” would render the definition of “transferable document or instrument” medium-neutral. It was added that such revised definition could have unintended consequences on the fundamental structure of the Model Law, which aimed at establishing functional equivalence between paper-based transferable documents or instruments and electronic transferable records. It was also said that draft article 7, on writing, could refer to tangible media other than paper.

34. After discussion, the Working Group agreed to retain the definition of “transferable document or instrument” unchanged.

35. The Working Group also agreed that the second sentence in paragraphs 32 and 36 of A/CN.9/WG.IV/WP.139 should read “It does not aim at affecting the fact that substantive law shall determine the rights of the person in control.” because the substantive law determined who was necessarily entitled to the rights referred to in the electronic transferable record.

36. The Working Group further agreed to delete the word “cargo” from paragraph 37 of A/CN.9/WG.IV/WP.139.

“electronic record”

37. The Working Group agreed to retain the definition of “electronic record” unchanged.

Draft article 3. Interpretation

General principles

38. With respect to the reference to “general principles on which this Law is based” contained in paragraph 2, it was indicated that identification of those principles would be useful, in particular, to provide guidance to readers not yet fully familiar with the Model Law. In that line, it was confirmed that the three fundamental principles underlying the Model Law were the principles of non-discrimination against electronic communications, functional equivalence and technological neutrality.

39. It was indicated that additional principles applicable to the Model Law, including some common to other uniform law texts, could be identified. It was added that the principle of good faith could be one of those principles, subject to the qualifications already expressed by the Working Group (A/CN.9/WG.IV/WP.139, para. 44).

40. It was further said that, while those general principles were already present in the Model Law, their exact content and operation could be identified progressively in light of the increasing level of use, application and interpretation of the Model Law. It was

explained that such approach would provide needed flexibility in the interpretation of the Model Law. It was suggested that the explanatory materials should be amended accordingly. In response, it was stated that the Model Law could not be based on general principles that did not yet exist.

41. After discussion, the Working Group agreed to (a) retain draft article 3 unchanged; (b) highlight in the explanatory materials that the principles of non-discrimination against electronic communications, functional equivalence and technological neutrality were the three fundamental principles underlying the Model Law; and (c) indicate in paragraph 46 of A/CN.9/WG.IV/WP.139 that: "The clarification of the exact content and operation of those general principles may take place progressively in light of the increasing level of use, application and interpretation of the Model Law."

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

42. It was recalled that the purpose of the Model Law was to promote international trade by enabling the use of electronic transferable records. It was added that the principle of party autonomy pursued the same purpose and that explanatory materials to the Model Law should reflect that.

43. It was explained that paragraph 1 referred to parties to contractual obligations related to the electronic transferable records. It was added that those parties needed to take full advantage of party autonomy, in particular, to support the rapid development of business practices.

44. In response, it was said that party autonomy was a notion adequate for contractual relations, but that substantive law applicable to transferable documents or instruments was often of mandatory application. It was added that functional equivalence rules aimed at enabling the use of electronic equivalents of transferable documents or instruments should likewise not be derogable.

45. It was indicated that the creation of dual or multiple functional equivalence regimes, based on different contractual agreements, was to be avoided, as it was with respect to transferable documents or instruments.

46. It was also indicated that the open list of provisions that could be derogated from contained in paragraph 1 did not provide sufficient guidance and that variance in its enactment could significantly disrupt uniformity. It was added that the Model Law should provide additional guidance on which provisions could be derogated from. As an example, it was indicated that draft articles 1 to 10, 12, 16, 17 and 20 of the Model Law could be identified as not derogable.

47. After discussion, the Working Group agreed to (a) retain draft article 4 unchanged; (b) retain the words "and privity of contract" outside square brackets in the title of draft article 4; (c) indicate in paragraph 50 of A/CN.9/WG.IV/WP.139 that: "Limiting party autonomy could hinder international trade as well as technological innovation and the development of new business practices."; (d) delete the word "broad" in paragraph 54 of A/CN.9/WG.IV/WP.139; and (e) reflect in the explanatory materials to the Model Law that enacting jurisdictions should carefully consider the possibility of allowing derogation of general principles underlying the Model Law and, in particular, functional equivalence rules, and the consequences thereof.

Draft article 5. Information requirements

48. The Working Group agreed to retain draft article 5 unchanged.

49. The Working Group agreed that draft article 15 should be placed after draft article 5, as both articles related to information requirements.

B. Provisions on electronic transactions (Draft articles 6-8)

Draft article 6. Legal recognition of an electronic transferable record

50. The Working Group agreed that draft article 6 should be placed in the first section of the Model Law, while functional equivalence related provisions should be placed in the second section of the Model Law, and asked the Secretariat to make editorial changes accordingly.

51. A question was raised whether the word "consent" in paragraph 69 of A/CN.9/WG.IV/WP.139 referred to an agreement on the use of an electronic transferable record between the parties to contractual obligations related to electronic transferable records, or to an agreement on the use of system rules between the user of an electronic transferable records management system and the centralized operator of that system.

52. In that respect, it was explained that in certain types of systems based on the distributed ledger model there was no centralized operator and that therefore, while consent to the use of an electronic transferable record could be expressed, including implicitly, that may not be possible for system rules. In view of that observation as well as of the rapidly-evolving practice in the use of distributed ledgers, it was proposed to replace the words "do not require prior acceptance" in paragraph 69 of A/CN.9/WG.IV/WP.139 with the words "may not require prior acceptance".

53. After discussion, the Working Group agreed to (a) retain draft article 6 unchanged; (b) replace the words "enacting jurisdictions may decide to mandate" in paragraph 66 of A/CN.9/WG.IV/WP.139 with the words "this does not preclude enacting jurisdictions from mandating" as more appropriate for explanatory materials; and (c) revise paragraph 69 of A/CN.9/WG.IV/WP.139 to clarify the concept of consent referred to therein.

Techniques of enactment of draft articles 7 and 8

54. The Working Group agreed that provisions indicating the requirements for functional equivalence of the notions of "writing" and "signature" in an electronic environment were of fundamental importance for the application of UNCITRAL texts on electronic commerce. It was added that, while the enactment of the Model Law on Electronic Transferable Records required the adoption of those functional equivalence standards, such adoption could take place with different techniques.

55. In that respect, it was noted that a general law on electronic transactions was likely to contain such functional equivalence provisions, which could be based on UNCITRAL uniform texts. However, it was added, the case could also be that those functional equivalence provisions did not exist in a jurisdiction wishing to enact the Model Law on Electronic Transferable Records. In that case, the adoption of draft articles 7 and 8 would address the legislative need.

56. It was further explained that if those functional equivalence provisions already existed in a jurisdiction enacting the Model Law, a policy decision would have to be made on whether existing functional equivalence provisions contained in the general law on electronic commerce would apply also with regard to electronic transferable records, or, alternatively, draft articles 7 and 8 would apply. In that latter case, it was indicated that, while each enacting jurisdiction would be best placed to choose the most appropriate legislative approach, particular attention should be paid to avoid establishing a dual regime that sets forth different functional equivalence requirements for electronic records and electronic transferable records.

57. The Working Group agreed that the above considerations (see paras. 54-56 above) should be reflected in explanatory materials so as to provide guidance to enacting jurisdictions.

Relationship with other UNCITRAL texts on electronic commerce

58. A question was raised on the relationship between the Model Law on Electronic Transferable Records and the UNCITRAL Model Law on Electronic Commerce (1996).[7] In particular, it was suggested that paragraphs 3 and 4 of article 17 of the UNCITRAL Model Law on Electronic Commerce and certain provisions of the Model Law on Electronic Transferable Records could be incompatible.

59. A suggestion was made that additional guidance could be provided on the interaction of the different UNCITRAL texts on electronic commerce. It was recalled that those texts reflected evolving electronic commerce practice and that therefore certain provisions had been complemented, amended or updated by subsequent texts. It was added that such guidance would be particularly useful in technical cooperation activities.

60. After discussion, the Working Group agreed to (a) give further consideration to the relationship between the UNCITRAL Model Law on Electronic Commerce and the Model Law on Electronic Transferable Records; and (b) defer any consideration on the possibility of providing additional guidance on the interaction of the different UNCITRAL texts on electronic commerce to a future session.

Draft article 7. Writing

61. The Working Group agreed to retain draft article 7 unchanged.

Draft article 8. Signature

62. It was indicated that draft article 8 was meant to apply only to electronic transferable records and not to electronic records (see A/CN.9/WG.IV/WP.139, para. 75). After discussion, the Working Group agreed that reference be made to "electronic transferable record" instead of "electronic record".

63. It was said that a signature could relate to a voluntary decision rather than the need to meet a legal requirement. In order to reflect that possibility, the Working Group agreed that the words "or permits" should be included after the word "requires" and that the explanatory materials on that issue should reflect the content of paragraphs 4 and 29 of A/CN.9/WG.IV/WP.139/Add.2.

64. It was indicated that paragraph 79 of A/CN.9/WG.IV/WP.139 was not accurate since it could be read as not taking into account that the link between pseudonyms and real names could be based on factual elements to be found outside distributed ledger systems. In that light, the Working Group agreed that paragraph 79 of A/CN.9/WG.IV/WP.139 should be redrafted, taking also into account paragraph 39 of A/CN.9/WG.IV/WP.139/Add.1.

[7] UNCITRAL Model Law on Electronic Commerce with Guide to Enactment (New York, 1999), United Nations Publication Sales No. E.99.V.4.

C. Use of electronic transferable records (Draft articles 9-19)

Draft article 9. Transferable document or instrument

65. Different views were heard with respect to the title. After discussion, the Working Group agreed on the title "Requirements for the use of an electronic transferable record" as best illustrating the content of draft article 9.

66. It was indicated that the comments to draft article 9 in A/CN.9/WG.IV/WP.139/Add.1 could be misinterpreted as the notion of "singularity" was to be understood as referring to singularity of claims and not to singularity of documents. It was explained that, while singularity of an electronic transferable record was possible, it was not necessary under the Model Law and might not be possible to achieve in registry-based systems, whose use the Model Law should also enable. It was suggested to review the explanatory materials to the Model Law accordingly.

67. In response, it was said that the matter had been discussed extensively and that the commentary reflected accurately the Working Group's discussions and deliberations. In particular, it was said that singularity of documents and singularity of claims were two distinct notions that both found adequate illustration in the explanatory materials. It was added that the suggested revision would require amending the text of draft article 9, since the article "the" in the English language version of draft article 9, paragraph 1 (b)(i) and its corresponding translations were meant to reflect singularity of documents.

68. After discussion, the Working Group agreed to leave the explanatory materials to draft article 9 unchanged with respect to the references to singularity.

69. The Working Group agreed that the words "(or singularity)" should be deleted from paragraph 7 of A/CN.9/WG.IV/WP.139/Add.1 to avoid any confusion between the notions of "uniqueness" and "singularity".

70. It was suggested that paragraph 11 of A/CN.9/WG.IV/WP.139/Add.1 could be misread as authorizing replication of electronic transferable records and should be deleted. In response, it was said that, while replication of electronic transferable records could be technically possible, the electronic transferable records management system should prevent such replication, as indicated in paragraph 11 of A/CN.9/WG.IV/WP.139/Add.1. It was added that the possibility of producing non-transferable copies of electronic transferable records was not excluded under the Model Law.

71. It was indicated that the text of paragraph 13 of A/CN.9/WG.IV/WP.139/Add.1 could be misunderstood as implying a formal requirement of identification of the electronic transferable record as functional equivalent of a transferable document or instrument. In that light, the Working Group agreed to revise paragraph 13 of A/CN.9/WG.IV/WP.139/Add.1 as follows: "The information that would be required to be contained in a transferable document or instrument allows determining the substantive law applicable to the electronic transferable record (e.g., the law applicable to a bill of lading, rather than the law applicable to a promissory note). Nevertheless, one electronic transferable record may contain information that would be required to be contained in more than one type of transferable document or instrument."

72. It was indicated that the text of paragraph 21 of A/CN.9/WG.IV/WP.139/Add.1 could be misleading. It was further indicated that draft article 9 required that the electronic transferable record was capable of being controlled rather than being actually controlled. The Working Group agreed that paragraph 21 of A/CN.9/WG.IV/WP.139/Add.1 should be deleted.

73. It was said that the first sentence of paragraph 25 of A/CN.9/WG.IV/WP.139/Add.1 could be interpreted as indicating that only system designers could authorize changes, while those changes would be actually agreed upon by the parties to contractual obligations related to electronic transferable records. In light of that observation, the Working Group agreed to draft the first sentence of paragraph 25 of A/CN.9/WG.IV/WP.139/Add.1 as follows: "'Authorized' changes are those changes agreed upon by the parties to contractual obligations related to electronic transferable records throughout the life cycle of an electronic transferable record and permitted by the electronic transferable records management system."

74. It was suggested that the explanatory materials should provide guidance on the words "apart from any change which arises in the normal course of communication, storage and display" in draft article 9, paragraph 2. In that respect, it was recalled that the same words were used in article 8, paragraph 3 (a) of the UNCITRAL Model Law on Electronic Commerce, and that useful guidance could be found in the Guide to Enactment to that Model Law, subject to any adjustment needed in relation to the use of electronic transferable records.

75. The Working Group agreed that the explanatory materials should provide guidance on the words "apart from any change which arises in the normal course of communication, storage and display" in draft article 9, paragraph 2.

Draft article 10. Control

76. It was indicated that the notions of logical and physical control contained in paragraph 28 of A/CN.9/WG.IV/WP.139/Add.1 were not particularly relevant for the operation of the Model Law and could be easily misinterpreted. It was further said that the reference to the notion of "control" as implementing the requirement contained in draft article 9, paragraph 1(b)(ii) was obscure. The Working Group agreed to retain the following draft of paragraph 28 of A/CN.9/WG.IV/WP.139/Add.1: "The notion of "control" is closely related to article 9, paragraph 1(b)(ii) (A/CN.9/869, para. 103)."

77. It was said that, although possession was a factual situation, and control was the functional equivalent of possession, the first sentence of paragraph 30 of A/CN.9/WG.IV/WP.139/Add.1 was not appropriate. The Working Group agreed to substitute the first sentence of paragraph 30 of A/CN.9/WG.IV/WP.139/Add.1 with the following: "The Model Law is concerned with identifying a functional equivalent to the fact of possession."

78. The Working Group agreed that the words "an electronic transferable record" in paragraph 37 of A/CN.9/WG.IV/WP.139/Add.1 should be replaced with the words "a transferable document or instrument". However, a view was expressed that the entities able to control an electronic transferable record may not necessarily be the same entities able to possess a transferable document or instrument, and that further consideration should be given to the possibility that physical and digital objects could, under certain circumstances, control electronic transferable records.

Draft article 11. General reliability standard

79. Broad support was expressed for the view that the concept of "reliability" in draft article 11 referred to the reliability of the method, and that reference to a method would include any system used to implement that method. It was suggested that draft article 11 should be revised accordingly. In that light, the Working Group agreed that subparagraph (a)(i) should read "Any operational rules relevant to the assessment of reliability"; and subparagraph (a)(iv) should read "The security of hardware and software".

80. The Working Group agreed that the words “illustrative and as such” should be included in paragraph 47 of A/CN.9/WG.IV/WP.139/Add.1 before the words “not exhaustive” to align the content of that paragraph with that of paragraph 50 of A/CN.9/WG.IV/WP.139/Add.1.

81. The Working Group also agreed that the words “parties, including” should be included before the words “third parties” in the first sentence of paragraph 54 of A/CN.9/WG.IV/WP.139/Add.1 to reflect that “authorized access and use of the system” was a notion relevant to all parties.

Draft article 12. Indication of time and place in electronic transferable records

82. It was indicated that the third sentence of paragraph 2 of A/CN.9/WG.IV/WP.139/Add.2 placed unnecessary importance on the indication of time and place in electronic transferable records. It was suggested that the sentence could be revised as follows: “Article 12 allows for that indication in electronic transferable records.”

83. It was indicated that paragraph 7 of A/CN.9/WG.IV/WP.139/Add.2 could create the impression of the existence of an evidentiary rule in the Model Law. In response, it was explained that paragraph 7 aimed to clarify that, when substantive law allowed for agreement on the determination of time, that possibility should not be hindered by the technical features of the electronic transferable records management system.

84. After discussion, the Working Group agreed to (a) retain draft article 12 unchanged; (b) revise the third sentence of paragraph 2 of A/CN.9/WG.IV/WP.139/Add.2 as suggested; and (c) delete paragraph 7 of A/CN.9/WG.IV/WP.139/Add.2.

Draft article 13. Determination of place of business

85. After discussion, the Working Group agreed to retain draft article 13 unchanged.

86. It was indicated that, while the elements listed in draft article 13 did not, per se, determine the location of a place of business, those elements could be used together with other elements to determine the location of a place of business. It was recalled that such interpretation was consistent with that of article 6, paragraphs 4 and 5 of the the United Nations Convention on the Use of Electronic Communications in International Contracts (New York, 2005) (“Electronic Communications Convention”).[8] The Working Group agreed that explanatory materials should reflect that interpretation.

87. The Working Group also agreed to delete the reference to “of business” in the last sentence of paragraph 11 of A/CN.9/WG.IV/WP.139/Add.2 since the notion of “place of business” was not relevant for draft article 12.

Draft article 14. Issuance of multiple originals

88. It was suggested to delete draft article 14, since draft article 1, paragraph 2 of the Model Law already enabled the issuance of multiple originals when permitted under applicable substantive law. It was added that the use of a single electronic transferable record could satisfy the functions pursued with the use of multiple original transferable documents or instruments.

89. In response, it was said that draft article 14 should be retained, as it provided guidance on a practice that existed in the paper environment. It was indicated that enacting jurisdictions would be in the best position to decide on the enactment of the

[8] United Nations Convention on the Use of Electronic Communications in International Contracts (New York, 2005), United Nations Publication Sales No. E.07.V.2.

provision taking into consideration whether substantive law permitted issuance of multiple originals for transferable documents or instruments.

Issuance of multiple originals on different media

90. The Working Group considered whether a provision dealing with the coexistence of multiple originals issued simultaneously on different media should be included in the Model Law (A/CN.9/WG.IV/WP.139/Add.2, paras. 14-16). It was said that the inclusion of such provision would provide additional clarity. In reply, it was said that such matter, although specifically covered by that provision, could be addressed in substantive law. It was also said that in practice issuing multiple originals on different media was not a common feature given the potential for competing claims for performance.

91. After discussion, the Working Group agreed to (a) retain draft article 14 unchanged; and (b) indicate in the explanatory materials that the Model Law did not prevent the possibility of issuing multiple originals on different media, when permitted by applicable substantive law.

Draft article 15. Additional information in electronic transferable records

92. The Working Group recalled its agreement to place draft article 15 in the general section of the Model Law (see para. 49 above).

Draft article 16. Endorsement

93. The Working Group agreed to retain draft article 16 unchanged.

Draft article 17. Amendment

94. It was suggested that draft article 17 introduced requirements that were not present in draft articles 7, 8 and 16, namely with respect to the use of a reliable method and to identification of the amendment. It was added that such different treatment of similar articles was inconsistent and could lead to interpretative challenges. In response, it was said that the scope of draft article 17 was different from those of draft articles 7, 8 or 16 and that, in particular, draft article 17 aimed at ensuring that amendments of an electronic transferable record, which needed not to be evident in the electronic environment, could be identified as such.

95. It was indicated that draft article 17 referred to amendments of a legal nature (A/CN.9/804, para. 86). It was also said that the notion of "change which arises in the normal course of communication, storage and display" contained in draft article 9, paragraph 2 could be relevant to illustrate the difference between amendments of a legal and of a technical nature.

96. After discussion, the Working Group agreed to retain draft article 17 unchanged.

Draft article 18. Replacement of a transferable document or instrument with an electronic transferable record; Draft article 19. Replacement of an electronic transferable record with a transferable document or instrument

97. The Working Group confirmed that, in case a transferable document or instrument or an electronic transferable record were invalidated on the wrong assumption of the validity of the replacing record, document or instrument, substantive law would apply to the reissuance of the invalidated document, instrument or record, or to the issuance of the replacing record, document or instrument.

98. It was noted that an electronic transferable record could contain information that could not be included in a transferable document or instrument, e.g. metadata. In that

case, it was added, the requirement contained in draft article 19, paragraph 2 (a), indicating that the replacing transferable document or instrument shall include all the information contained in the replaced electronic transferable record, might not be satisfied. It was therefore suggested to delete draft article 19, paragraph 2 (a), and, for consistency, draft article 18, paragraph 2 (a). It was added that substantive law would identify the information requirements to be satisfied by the replacing record, document or instrument.

99. It was further indicated that the purpose of draft articles 18 and 19 was to ensure that the change of medium would not affect the rights and obligations of the concerned parties. Accordingly, it was explained that the replacing record, document or instrument should contain all the information necessary in order not to affect those rights and obligations, regardless of the nature of that information. To clarify that point, it was suggested to replace the words "does not" with the words "shall not" in paragraph 4 of draft articles 18 and 19.

100. After discussion, the Working Group agreed to (a) delete paragraph 2 (a) of draft articles 18 and 19; (b) replace "does not" with "shall not" in paragraph 4 of draft articles 18 and 19; and (c) reflect the discussion in the explanatory materials.

D. Cross-border recognition of electronic transferable records (Draft article 20)

Draft article 20. Non-discrimination of foreign electronic transferable records

101. The Working Group agreed to retain draft article 20 unchanged.

102. The Working Group agreed that a reference should be added in the explanatory materials to clarify that the words "issued or used" in paragraph 1 included endorsement and amendment of an electronic transferable record.

103. It was indicated that, while the adoption of the Model Law would provide an adequate legal framework and therefore promote the use of electronic transferable records, other techniques could be available to pursue that goal.

104. In particular, it was noted that, if the rules of private international law as enacted in national law, pointed to a law applicable to electronic transferable records, it could be an effective manner to enable the use of those records, including in States that did not adopt dedicated legislation enabling that use. It was suggested that the following paragraphs could be added to the explanatory materials to draft article 20:

> "71bis. Recourse to private international law rules can be used to uphold the validity of an electronic transferable record. This is the case, for example, where the applicable conflict of law rules point to the law of the jurisdiction where the electronic transferable record was issued as the law applicable to that record. Similarly, if an electronic transferable record contains a clause on governing law which is recognized under domestic law, including by private international law rules, the validity of that record may be determined by application of the law selected by the parties, and not of the substantive domestic law otherwise applicable to that record. The law of the electronic transferable record is not necessarily the law applicable to transfers or endorsements as transfers or endorsements are often governed by other laws, such as the law where those transactions take place. Mandatory rules under domestic law may also require that a transferable document or instrument be issued or presented on paper. Where this is the case, reference to foreign law by application of private international law rules might not allow a court of the jurisdiction where those

mandatory rules exist to recognize the legal validity of an electronic transferable record in the absence of the Model Law.

"71ter. Paragraph 2 preserves the ability for a party to seek recognition of the validity of an electronic transferable record through the application of rules of private international law, which can be used as a separate and independent ground for upholding the validity of the electronic transferable record. An electronic transferable record issued in accordance with the law of a State that permits or requires the use of electronic transferable records may be recognized in another State by application of that other State's private international law rules or by application of the Model Law. The content and effect of existing domestic private international law rules are relevant considerations for deciding whether to implement the Model Law."

105. It was indicated that the suggested paragraphs should be used as explanatory materials to provide additional guidance and therefore included between paragraphs 71 and 72 of A/CN.9/WG.IV/WP.139/Add.2.

106. It was recalled that the Working Group had agreed that the Model Law should not displace existing private international law rules, including by avoiding the creation of a dual regime applying a special set of private international law rules for electronic transferable records (A/CN.9/869, paras. 125 and 128). It was also said that private international law was a complex matter and caution should be exercised when providing guidance on its interpretation and application. The importance of not contradicting draft article 20 was stressed. It was indicated that encouraging the enactment of the Model Law should be the main vehicle for its promotion.

V. Legal issues related to identity management and trust services

107. Broad consensus was expressed on the fundamental importance of identity management ("IdM") and trust services for all types of electronic transactions. In that respect, it was indicated that the overall goal of the proposed work on IdM should be to promote trade, especially across borders, by removing legal obstacles to mutual recognition of IdM systems and trust services (A/CN.9/854, para. 17). A reference was made to the impact of IdM on regional economic integration.

108. The Working Group heard a brief description of several national and regional IdM experiences. In conclusion, it was noted that current IdM practice was fragmented and that different legislative approaches were emerging. It was added that the preparation and adoption of the eIDAS Regulation[9] was an encouraging precedent with respect to establishing an enabling environment for IdM and trust services that operated in States with different legal backgrounds and IdM approaches.

Scope of work

109. With respect to the scope of the future work, it was suggested that, while IdM services could be used for both commercial and non-commercial services, in light of the mandate of UNCITRAL future work should focus on IdM systems used for commercial purposes, regardless of the private or public nature of the IdM services provider. It was also suggested that future work should take into account that cooperation between private and public entities in the delivery of IdM services was common and could take place in different forms.

[9] Regulation (EU) No. 910/2014 of the European Parliament and of the Council of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC.

110. It was recalled that the mandate received from the Commission referred to both IdM and trust services. It was suggested that work should be conducted simultaneously on both topics as they were closely related. In response, it was noted that work on IdM could assist in identifying and defining notions and issues that were relevant also for the work on trust services, and that therefore work on IdM should take place first.

111. The importance of taking into account the existence of technical standards was stressed. It was explained that the availability of a harmonized enabling legal framework for IdM and, in particular, the preparation of widely-accepted definitions of the different reliability levels would in turn facilitate the work on technical standards carried out by other organizations.

112. A reference was made to the distinction between two-party IdM systems, where the IdM services provider coincided with the relying party (e.g., the employer providing credentials to the employee for access to a network and then relying on the authentication of the employee with those credentials) and multi-party identity systems (often referred to as "federated identity systems"), where the relying party relied on credentials issued by a third-party services provider. It was suggested that, while use of two-party IdM systems was common and therefore those systems should not be excluded from future work, focus should be placed on multi-party identity systems.

113. The Working Group considered whether its future work on IdM should be limited to natural and legal persons or also include physical and digital objects. It was indicated that there was increasing interest for legislative aspects of the authentication of objects. In response, it was said that only natural and legal persons could have legal capacity, and that for that reason reference to natural or legal persons controlling the objects would suffice. In turn, it was explained that authentication of objects and liability for objects were two separate issues requiring different legal treatment.

Principles applicable to future work on IdM

114. It was indicated that the fundamental principles underpinning UNCITRAL texts on electronic commerce, namely the principles of technology neutrality, non-discrimination against the use of electronic means, functional equivalence and party autonomy, should be relevant also for future work on IdM and trust services.

115. It was added that additional principles could be identified, such as the principle of proportionality in the choice of IdM systems and trust services, which was already present in UNCITRAL texts on electronic commerce. The question was asked whether a principle of identity system neutrality could be identified independently of that of technology neutrality.

116. It was indicated that it could be desirable to identify additional general principles guiding future work. In that respect, reference was made to the possible inclusion of the principle of "transparency".

117. It was stressed that definitions of terms and concepts relevant for IdM and trust services should be provided in order to have a common understanding and basis for discussion.

118. After discussion, the Working Group agreed that its future work on IdM and trust services should be limited to the use of IdM systems for commercial purposes and that it should not take into account the private or public nature of the IdM services provider.

119. The Working Group also agreed that work on IdM could take place on a priority basis. It further agreed that focus should be placed on multi-party identity systems and

on natural and legal persons, without excluding consideration of two-party identity systems and of physical and digital objects when appropriate.

120. In addition, it was agreed that the Working Group should continue its work by further clarifying the goals of the project, specifying its scope, identifying applicable general principles and drafting necessary definitions.

121. Several views were expressed with respect to the use of legislative and contractual provisions in the assessment of reliability of IdM and trust services. It was indicated that, in certain conditions, a need could arise to identify in the legislation some elements relevant for that assessment, which therefore would not be left entirely to the agreement of the parties. However, it was also indicated that only party autonomy provided the flexibility necessary to best accommodate different business needs. It was suggested that such discussion, which was of significant relevance for future work, would greatly benefit from prior agreement on key terms and their definition.

122. In that respect, the Working Group agreed that, while priority could be given to work on IdM, the identification and definition of terms relevant for IdM and trust services should take place simultaneously given the close relationship between the two.

123. In response to a question, it was said that, at the current stage, it was not advisable to make a decision on whether future work should include IdM and trust services provided by private entities when used for non-commercial purposes.

VI. Contractual aspects of cloud computing

124. The Working Group heard that preparatory work on contractual aspects of cloud computing was being conducted at the expert level with a view to providing a draft document for the consideration of the Working Group. It was added that, in light of its content, that document was being drafted in the tentative form of a legal guide, subject to future decisions of the Commission on the final form of that document.

125. It was recalled that the proposal to conduct work on contractual aspects of cloud computing had been formulated based on a number of considerations, including that the provision of cloud computing services, which were of fundamental importance for economic development, had often a cross-border component (A/CN.9/823). Reference was made to the relevance of an adequate, predictable and enforceable contractual framework to support the development of cloud computing services.

126. It was noted that the preparation of a descriptive document listing issues relevant when reviewing contracts for cloud computing services could be particularly useful in assisting small and medium-sized enterprises. It was added that such document should reflect contractual practices and, where available, legislation, and should refer to relevant technical standards, but should not have a legislative nature, without prejudice to future deliberations and decisions of the Commission.

VII. Technical assistance and coordination

127. With respect to technical assistance and coordination, it was indicated that the United Nations Economic and Social Commission for Asia and the Pacific (UN/ESCAP) had adopted the Framework Agreement on Facilitation of Cross-border Paperless Trade in Asia and the Pacific (the “Framework Agreement”) on 19 May 2016 and that the Framework Agreement had opened for signature by UN/ESCAP member States on 1 October 2016.

128. It was explained that the Framework Agreement aimed at facilitating technical interoperability and enabling mutual legal recognition of trade-related electronic transactions, as well as at establishing a technical cooperation mechanism. It was noted that the Framework Agreement relied on the adoption of uniform international legal standards, in particular UNCITRAL texts, for the establishment of a legal framework enabling electronic commerce across borders and that in that respect it was consistent with other recent regional agreements (see A/CN.9/863, para. 107).