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REPORT OF THE WORKING GROUP ON ELECTRONIC DATA INTERCHANGE (EDI) ON THE WORK OF ITS TWENTY-NINTH SESSION

(New York, 27 February-10 March 1995)

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INTRODUCTION

1. At its twenty-fourth session (1991), the Commission agreed that the legal issues of electronic data interchange (EDI) would become increasingly important as the use of EDI developed and that the Commission should undertake work in that field. The Commission agreed that the matter needed detailed consideration by a Working Group. 1/

2. Pursuant to that decision, the Working Group on International Payments devoted its twenty-fourth session to identifying and discussing the legal issues arising from the increased use of EDI. In its report on that session, the Working Group suggested that the review of legal issues arising out of the increased use of EDI had demonstrated that among those issues some would most appropriately be dealt with in the form of statutory provisions (A/CN.9/360, para. 129). As regards the possible preparation of a standard communication agreement for world-wide use in international trade, the Working Group decided that, at least currently, it was not necessary for the Commission to develop a standard communication agreement. However, the Working Group noted that, in line with the flexible approach recommended to the Commission concerning the form of the final instrument, situations might arise where the preparation of model contractual clauses would be regarded as an appropriate way of addressing specific issues (ibid., para. 132). The Working Group reaffirmed the need for close cooperation among all international organizations active in the field. It was agreed that the Commission, in view of its universal membership and general mandate as the core legal body of the United Nations system in the field of international trade law, should play a particularly active role in that respect (ibid, para. 133).

3. At its twenty-fifth session (1992), the Commission considered the report of the Working Group on International Payments on the work of its twenty-fourth session (A/CN.9/360). In line with the suggestions of the Working Group, the Commission agreed that there existed a need to investigate further the legal issues of EDI and to develop practical rules in that field. It was agreed, along the lines suggested by the Working Group, that, while some issues would most appropriately be dealt with in the form of statutory provisions, other issues might more appropriately be dealt with through model contractual clauses. After discussion, the Commission endorsed the recommendations contained in the report of the Working Group (ibid., paras. 129-133), reaffirmed the need for active cooperation among all international organizations active in the field and entrusted the preparation of legal rules on EDI to the Working Group on International Payments, which it renamed the Working Group on Electronic Data Interchange. 2/

4. The Working Group devoted its twenty-fifth to twenty-eighth sessions to the preparation of legal rules that were aimed at eliminating legal obstacles to, and uncertainties in, the use of modern communication techniques, where effective removal of such obstacles and uncertainties could only be achieved by statutory provisions. At its twenty-eighth session, the Working Group approved that text of the draft Model Law on Legal Aspects of Electronic Data Interchange and Related Means of Communication (hereinafter referred to as "the Model Law"). The Working Group requested the Secretariat to circulate the text of the draft

Model Law to Governments and interested organizations for comments. It was noted that the text of the draft Model Law, together with a compilation of comments by Governments and interested organizations, would be placed before the Commission at its twenty-eighth session for final review and adoption.

5. There was general support for a suggestion that the draft Model Law should be accompanied by a guide to assist States in enacting and applying the draft Model Law. The guide, much of which could be drawn from the travaux préparatoires of the draft Model Law, would also be helpful to EDI users as well as to scholars in the area of EDI. The Working Group noted that, during its deliberations at its twenty-eighth session, it had proceeded on the assumption that the draft Model Law would be accompanied by a guide, to be adopted by the Commission. For example, the Working Group had decided in respect of a number of issues not to settle them in the draft Model Law but to address them in the guide so as to provide guidance to States enacting the draft Model Law. As to the timing and method of preparation of the guide, the Working Group agreed that the Secretariat should prepare a draft and submit it to the Working Group for consideration at its twenty-ninth session.

6. The Working Group noted that its recommendation to the Commission that preliminary work should be undertaken on the issue of negotiability and transferability of rights in goods in a computer-based environment as soon as the draft Model Law was completed (A/CN.9/390, para. 158) had found general support in the Commission. 3/ It was stated that related legal issues involving electronic registries were a necessary part of such a project. The Working Group also reiterated its decision to address, at a future session, the issue of incorporation of terms and conditions into a data message by means of a mere reference to such terms and conditions.

7. As to the planning of future work, the view was expressed that the Working Group at its twenty-ninth session, after completing its consideration of the draft guide to enactment to be prepared by the Secretariat, could have a general discussion on negotiability and transferability of rights in goods. Another view was that the issue of incorporation by reference could also be considered at the twenty-ninth session for possible inclusion in the draft Model Law. A number of delegations expressed their willingness to prepare a brief paper to facilitate discussions on both topics. It was noted, however, that, while the Working Group might have sufficient time for a general discussion, it could not go into detail on either topic.

8. The Working Group on Electronic Data Interchange, which was composed of all the States members of the Commission, held its twenty-ninth session in New York from 27 February to 10 March 1995. The session was attended by representatives of the following States members of the Working Group: Argentina, Austria, Bulgaria, Canada, Chile, China, Costa Rica, Denmark, Ecuador, France, Germany, Hungary, India, Iran (Islamic Republic of), Italy, Japan, Mexico, Morocco, Poland, Russian Federation, Saudi Arabia, Slovakia, Spain, Thailand, United Kingdom of Great Britain and Northern Ireland, United States of America and Uruguay.

9. The session was attended by observers from the following States: Algeria, Australia, Bangladesh, Bolivia, Bosnia and Herzegovina, Cambodia, Colombia,

Czech Republic, Finland, Indonesia, Lebanon, Malaysia, Netherlands, Republic of Korea, Sweden, Ukraine and Yemen.

10. The session was attended by observers from the following international organizations: International Association of Ports and Harbours (IAPH), International Chamber of Commerce (ICC) and International Federation of Freight Forwarders Associations.

11. The Working Group elected the following officers:

Chairman: Mr. José-María Abascal Zamora (Mexico);

Rapporteur: Mr. T. L. Gill (India).

12. The Working Group had before it the following documents: provisional agenda (A/CN.9/WG.IV/WP.63), a note by the Secretariat containing a draft guide to enactment of the draft UNCITRAL Model Law on Legal Aspects of Electronic Data Interchange and Related Means of Communication (A/CN.9/WG.IV/WP.64), a proposal by the observer for the International Chamber of Commerce (A/CN.9/WG.IV/WP.65), a proposal by the United Kingdom of Great Britain and Northern Ireland (A/CN.9/WG.IV/WP.66) and a proposal by the United States of America (A/CN.9/WG.IV/WP.67).

13. The Working Group adopted the following agenda:

1. Election of officers.

2. Adoption of the agenda.

3. Draft UNCITRAL Model Law on Legal Aspects of Electronic Data Interchange and Related Means of Communication: preparation of a guide to enactment.

4. Planning of future work: general discussion on the issue of incorporation by reference; general discussion on negotiability and transferability of rights in goods in an electronic data interchange environment.

5. Other business.

6. Adoption of the report.

I. DELIBERATIONS AND DECISIONS

14. The Working Group discussed the draft Guide to enactment (hereinafter referred to as "the draft Guide") of the Model Law as set forth in the note by the Secretariat (A/CN.9/WG.IV/WP.64) and requested the Secretariat to prepare a revised version of the draft Guide reflecting the decisions made by the Working Group and taking into account the various views, suggestions and concerns that had been expressed at the current session. The deliberations and conclusions of

the Working Group with respect to the draft Guide are set forth in section II below.

15. The Working Group also considered in the context of a general debate on possible future work the topics of incorporation by reference and negotiability or transferability of rights in goods as set forth in the proposals by the observer for the International Chamber of Commerce, the United Kingdom of Great Britain and Northern Ireland and the United States of America (A/CN.9/WG.IV/WP.65, WP.66 and WP.67). The Working Group requested the Secretariat to take into account the various views, suggestions and concerns expressed with regard to the issue of incorporation by reference when preparing a revised version of the draft Guide. As to the issues of negotiability or transferability of rights in goods in an electronic environment, the Working Group requested the Secretariat to prepare a study that would discuss those issues in the context of transport documents, with particular reference to maritime bills of lading, for consideration at a future session of the Working Group. The deliberations and conclusions of the Working Group with respect to those topics are set forth in section III below.

II. CONSIDERATION OF THE DRAFT GUIDE TO ENACTMENT OF THE UNCITRAL MODEL LAW ON LEGAL ASPECTS OF ELECTRONIC DATA INTERCHANGE (EDI) AND RELATED MEANS OF COMMUNICATION

General remarks

16. The Working Group expressed overall satisfaction about the current form and substance of the draft Guide and engaged in a general exchange of views on its structure and intended audience. With respect to audience, it was generally considered that the draft Guide should be geared primarily to providing guidance to legislators and other authorities that might contemplate implementing the Model Law as part of their national legislation. However, it was also thought that the draft Guide should be so drafted that other audiences could benefit from it. In particular, the draft Guide should provide a tool for interpretation of the Model Law by courts, public authorities and users of electronic data interchange (EDI) applying the Model Law. It was decided that appropriate explanations should be introduced into the draft Guide regarding its intended audience.

17. With respect to structure, it was thought that the first part of the draft Guide should contain more detailed information as to the purpose of the Model Law. To that effect, it was suggested that a new section of the draft Guide should: (1) contain a general description of EDI and related communication techniques; (2) describe the main characteristics of the Model Law, for example, its focus on commercial relationships between originators and addressees of data messages and the fact that it was not intended to constitute a regulatory document; (3) explain why the legal rules developed in a paper-based environment needed to be adapted to accommodate the new situations created by electronic communications and provide examples illustrating the reasons why the kind of provisions contained in the Model Law were needed to facilitate the increased use of EDI; and (4) indicate briefly why the individual rules contained in the Model Law had been chosen as particularly appropriate for EDI and related means

of communication. For example, it was stated that a general presentation of EDI should indicate why provisions inspired from the "receipt rule", according to which contracts are formed at the moment when acceptance by the offeree is received by the offeror, might be regarded as particularly suitable for transactions operated in an electronic environment. More generally, it was suggested that the new section should include a presentation of the main benefits to be expected from the Model Law, for example, (1) validating transactions operated by electronic means; (2) eliminating uncertainties as to the rules to be applied to the movement of dematerialized information; (3) providing a framework for parties to structure their transactions; and (4) establishing equal treatment for users of electronic communication techniques and for users of more traditional means of communication. It was stated that most of the additional information to be concentrated in the first part of the draft Guide was already present in scattered form in the various paragraphs that dealt with the purpose of the Model Law.

18. Various views were expressed as to the manner in which the new section dealing with the general purpose of the Model Law should be combined with the current section entitled "History and purpose of the Model Law". One view was that the new section should replace the section currently opening the draft Guide. It was stated that the current section, while entitled "History and purpose of the Model Law", dealt almost exclusively with history, which was of secondary interest to legislators. Therefore, it should be placed at the end of the draft Guide or in an annex. Another view was that the section dealing with history should be considerably shortened. The prevailing view, however, was that the history of the Model Law should be presented with sufficient detail, since in many countries it would be of particular importance to legislators considering enacting the Model Law. It was decided that the history of the Model Law should be dealt with in the first part of the draft Guide. It was suggested that, when preparing a revised version of the draft Guide, the historical presentation of the Model Law should be streamlined. In that connection, consideration might be given to combining the current chronological approach with a thematic approach to explain, for example, the conditions under which the Commission had decided to prepare model legislation instead of a model interchange agreement and the reasons why legislation in the field of EDI had been found to be necessary, together with interchange agreements. It was also suggested that, either in the general presentation of the purposes of the Model Law or in the presentation of its history, the draft Guide should reflect the decision by the Working Group that the focus of the Model Law should be on the relationships between originators and addressees of data messages, and not on the relationships between either the originator or the addressee and any intermediary whose services they might use.

19. The Working Group proceeded with a discussion of the contents of the draft Guide on a paragraph-by-paragraph basis. It was agreed that, when preparing a revised version of the draft Guide to reflect the decisions made by the Working Group at its current session, the Secretariat should have the discretion to consider additional redrafting and restructuring of the draft Guide, as might be appropriate.

Consideration of the paragraphs of the draft Guide

HISTORY AND PURPOSE OF THE MODEL LAW

A. History (paragraphs 1 to 21)

20. The Working Group found the substance of paragraph 1 to be generally acceptable.

21. With respect to paragraph 2, the view was expressed that the notion of "trading partners" might have no readily ascertainable meaning outside the context of EDI. It was considered that wording along the lines of "parties doing business on an international level through the use of computerized or other modern techniques" would be preferable. The view was also expressed that the reference to "the field of communication" was inappropriate since the Model Law was not attempting to deal with communication law but rather with commercial relationships in which communication issues might become relevant.

22. The Working Group found the substance of paragraphs 3 to 12 to be generally acceptable. As a matter of drafting, a view was expressed that the meaning of the word "writing" used as a noun in the second sentence of paragraph 9 might be difficult to interpret and that a definition of "a writing" might need to be included in the draft Guide. It was noted that the word was also used as a noun in paragraphs 3, 38, 59, 61 to 63, 74, 75, 82 and 100. The prevailing view was that such a definition was unnecessary. It was observed that the word had been used consistently during the preparation of the Model Law, apparently without giving rise to difficulties. A suggestion was made that, in the preparation of a revised version of the draft Guide, attention might be given to avoiding the use of "writing" as a noun, omitting the definite article or placing the word "writing" between inverted commas.

23. With respect to paragraph 13, a concern was expressed that the second sentence might be misinterpreted as indicating that the Model Law was intended to constitute "a general framework identifying the legal issues and providing a set of legal principles and basic legal rules governing communication through EDI". It was agreed that the objectives of the Model Law were somewhat different and more limited, since the main purpose of the Model Law was to adapt existing statutory requirements so that they would no longer constitute obstacles to the use of EDI and related means of communication. It was also agreed that the objectives of the Model Law should be clearly spelled out in paragraph 13.

24. The Working Group found the substance of paragraphs 14 to 21 to be generally acceptable.

B. Purpose (paragraphs 22 to 26)

25. It was agreed that paragraph 22 should be revised to indicate more clearly that the notion of EDI used in that paragraph was not to be construed as a reference to narrowly defined EDI under article 2 (b) of the Model Law but to a variety of trade-related uses of modern communication techniques that might be

referred to broadly under the rubric of "electronic commerce". In that connection, it was suggested that the draft Guide should better reflect the fact that the Model Law was not intended only for application in the context of existing communication techniques but rather as a set of flexible rules that should accommodate foreseeable technical developments. In the context of the discussion of paragraph 22, the view was expressed that the draft Guide should emphasize that the purpose of the Model Law was not only to establish rules for the movement of information communicated by means of data messages but equally to deal with the storage of information in data messages that were not intended for communication.

26. With respect to paragraph 23, it was generally thought that indicating that a purpose of the Model Law was "to enable potential EDI users to establish a secure EDI relationship by way of a communication agreement within a closed network" was misleading. It was stated that the current wording might be misinterpreted as dealing with the "enabling" of EDI relationships from a technical perspective. It was pointed out that the aim of the Model Law was not to deal with the establishment of secure EDI relationships by the parties but to create a legal environment that would be as secure as possible, so as to facilitate the use of EDI between communicating parties. As to the indication that the Model Law "set forth a basic framework for the development of EDI outside such a closed network in an open environment", it was stated that the draft Guide should not create the impression that the Model Law established a general framework for "Open EDI". It was agreed that the draft Guide should emphasize that the Model Law was intended to remove statutory requirements that constituted obstacles to the increased use of EDI and related means of communication, irrespective of whether the users of such means of communication were linked by an interchange agreement. It was suggested that the third sentence of paragraph 23 should be redrafted to indicate that the Model Law was intended to support the increased use of EDI within a closed network or an open-system environment. As regards the reference to "some of the issues concerning the situation of third parties" in the third sentence of paragraph 23, the view was expressed that, since the Model Law did not deal with intermediaries, the draft Guide should acknowledge that the Model Law had failed to achieve its purpose in that respect.

27. In the context of the discussion of paragraphs 24 and 25, views were exchanged regarding the title of the Model Law. One view was that the notion of "model statutory provisions", which allowed for more flexibility in the implementation of the text, was more appropriate than the notion of "model law". The Working Group, while noting that its mandate at its current session was not to discuss the form or content of the Model Law, reaffirmed its previous decision as to the title of the Model Law. As to how the specific nature of the Model Law should be reflected in the draft Guide, it was agreed that clear indication should be given that the Model Law was intended to constitute a discrete and balanced set of rules, all of which should be enacted by implementing States in order to meet the objectives of the Model Law. However, it was also agreed that appropriate mention should be made in the draft Guide that, depending on the situation in each implementing State, the Model Law could be enacted in various ways, either as a single statute or in various pieces of legislation. For example, it was stated that, while the provisions contained in articles 5 to 7 would typically replace existing statutory requirements, the

provisions of the Model Law regarding evidence or the provisions of chapter III, which could be regarded as default rules to be used in the absence of an interchange agreement, might not necessarily form part of statutory law in certain countries.

28. The Working Group found the substance of paragraph 26 to be generally acceptable. As a matter of drafting, it was suggested that the word "legislator" should replace the word "parliament".

PART ONE. INTRODUCTION TO THE MODEL LAW

A. Objectives (paragraphs 27 to 29)

29. The Working Group found the substance of paragraphs 27 to 29 to be generally acceptable. It was felt that the draft Guide should make it clear that, while a few countries had adopted specific provisions to deal with certain aspects of EDI, there existed no legislation dealing with EDI and related means of communication as a whole. It was stated that existing legislation governing communication and storage of information was inadequate or outdated precisely because it did not contemplate the use of EDI and related means of communication, thus creating uncertainty with respect to the legal regime of transactions operated by electronic means and restricting the use of such means. It was agreed that express mention should be made in the draft Guide of the fact that existing legislation was restrictive. In the context of the discussion of paragraph 29, it was suggested that the concept of media neutrality should be presented in the first part of the draft Guide, since a fundamental purpose of the Model Law was to ensure that users of electronic means and users of more traditional means of communication and storage of information would receive equal treatment.

B. Scope (paragraphs 30 to 33)

30. The Working Group found the substance of paragraphs 30 to 33 to be generally acceptable. It was generally thought that the draft Guide should contain detailed explanations as to why the sphere of application of the Model Law was intended to be broad. For example, a data message might be initiated as an oral communication and end up in the form of a telecopy, or it might start as a telecopy and end up as an EDI message. In that connection, it was stated that the draft Guide should indicate as a characteristic of EDI and related means of communication that they covered programmable messages, the computer programming of which was the essential difference between such messages and traditional paper-based documents. As a matter of drafting, it was stated that the references to telex and telecopy in paragraphs 27, 30 and 31 might need to be combined to avoid repetition.

C. A "framework" law to be supplemented by technical regulations (paragraphs 34 and 35)

31. The Working Group found the substance of paragraphs 34 and 35 to be generally acceptable. As a matter of drafting, it was suggested that, in the third sentence of paragraph 34, the words "an enacting State may wish to issue" should replace the words "an enacting State may be envisaged to issue". It was also suggested that the words "technique for recording and communicating information" should replace the words "communication techniques" in paragraph 35. A further suggestion was that references to "procedure" should be clarified so as not to be misinterpreted as dealing with questions of civil or criminal procedure. In the context of the discussion of paragraphs 34 and 35, the view was expressed that the first part of the draft Guide should contain an indication that the Model Law was not intended to restate any existing body of substantive law.

D. The "functional-equivalent" approach (paragraphs 36 to 39)

32. The Working Group found the substance of paragraphs 36 to 39 to be generally acceptable. It was suggested that the draft Guide should indicate more clearly that the functional-equivalent approach had been taken in articles 5 to 7 of the Model Law with respect to the concepts of "writing", "signature" and "original" but not with respect to other legal concepts dealt with in the Model Law. For example, article 14 did not attempt to create a functional equivalent of existing storage requirements. Another suggestion was that article 7 of the UNCITRAL Model Law on International Commercial Arbitration should be given as an example in paragraph 37, together with article 13 of the United Nations Convention on Contracts for the International Sale of Goods. As a matter of drafting, it was agreed that the last sentence of paragraph 36 should read as follows: "This was due to one of many distinctions between EDI messages and paper-based documents, namely, that the latter were readable by the human eye, while the former were not so readable unless reduced to paper or displayed on a screen". In paragraph 39, it was agreed that the words "corresponding paper documents" should replace the words "the corresponding paper documents".

E. Default rules and mandatory law (paragraphs 40 and 41)

33. The Working Group found the substance of paragraphs 40 and 41 to be generally acceptable. As to the use of the notion of "system rules", a view was expressed that the draft Guide should make it clear that the notion might cover two different categories of rules, namely, general terms provided by communication networks and specific rules that might be included in those general terms to deal with bilateral relationships between originators and addressees of data messages. It was suggested that the draft Guide should make it clear that it dealt only with the narrower category.

34. With respect to paragraph 40, it was stated that the words "They may be used by parties as a basis for concluding more detailed agreements" should be deleted to avoid suggesting that the Model Law might invite parties already

using EDI in the context of interchange agreements to conclude more detailed agreements.

35. As to paragraph 41, a concern was expressed that the word "enable" might be misinterpreted as dealing with the "enabling" of EDI relationships from a technical perspective (see para. 26 above). It was stated that appropriate wording might need to be found to reflect the fact that the Model Law was intended to facilitate or accommodate the use of modern communication and storage techniques. It was also stated that the last sentence of paragraph 41 might need to be redrafted to avoid being misinterpreted as encouraging States to impose additional requirements beyond the "minimal requirements" established under chapter II of the Model Law. Such additional requirements should be discouraged unless they responded to compelling reasons that might exist in certain enacting States.

F. Assistance from UNCITRAL secretariat (paragraphs 42 and 43)

36. The Working Group found the substance of paragraphs 42 and 43 to be generally acceptable. In the context of the discussion of those paragraphs, the view was expressed that assistance from the UNCITRAL secretariat with respect to the legal issues of EDI would be particularly needed by developing countries. Another view was that it might be desirable to make information concerning the Model Law available through electronic mail.

PART TWO. ARTICLE-BY-ARTICLE REMARKS

CHAPTER I. GENERAL PROVISIONS

Article 1. Sphere of application (paragraphs 44 to 49)

37. The Working Group found the substance of paragraphs 44 to 49 to be generally acceptable. Various suggestions were made with respect to possible additions to the current text. One suggestion was that paragraph 44 should provide examples of factual situations where communication would be carried out using various means of transmission, such as a communication beginning as a telecopy and ending up as an EDI message (see para. 30 above). Another suggestion was that paragraph 45 should contain more indications as to what constituted "commercial law". It was stated that the draft Guide should reproduce the wording of the footnote to article 1 and indicate that, when interpreting the notion of "commercial law" under the Model Law, it should be borne in mind that the Model Law was referring to "commercial law" as understood in international trade usage, and not to "commercial law" as defined under the domestic law of any enacting State.

38. As a matter of drafting, the view was expressed that paragraph 46 might need to be modified to parallel the wording of paragraph 45 with respect to the limitation of the sphere of application of the Model Law to "commercial law". It was suggested that the words "and nothing in the Model Law should prevent an implementing State to extend the scope ..." should be replaced by the words "and notwithstanding that the Model Law was drafted to form part of commercial law,

implementing States may wish to extend the scope of it to cover uses outside the commercial sphere, such as administrative uses involving public authorities".

39. As regards paragraphs 48 and 49, the view was expressed that the draft Guide should emphasize that, in some jurisdictions, particularly in federal States, considerable difficulties might arise in distinguishing international trade from domestic trade. It was stated that the draft Guide should clearly indicate that the Model Law was not intended to encourage implementing States to limit the applicability of the Model Law to international cases.

40. As a matter of drafting, the view was expressed that the third sentence of paragraph 49 would be better drafted along the lines "As the Model Law contains a number of articles (articles 5 to 7) that allow a degree of flexibility to implementing States to limit the scope of application of specific aspects of the Model Law, a narrowing of the scope of application of the text to international trade should not be necessary". A final sentence indicating the difficulty of dividing communications in international trade into purely domestic and international parts might also be useful.

Article 2. Definitions (paragraphs 50 to 55)

"Data message" (paragraphs 50 and 51)

41. The Working Group found the substance of paragraphs 50 and 51 to be generally acceptable. Various suggestions were made with respect to possible additions to the current text. A concern was expressed that the current text of paragraph 50, while covering communicated data messages and data messages not intended for communication, might be interpreted as not covering data messages intended for communication and not communicated. With a view to covering all data messages, irrespective of whether they were communicated or intended for communication, it was suggested that the first sentence of paragraph 50 should be drafted as follows: "The notion of 'data message' is not limited to communication but also intended to encompass computer-generated records that are not necessarily intended for communication".

42. As to possible amendments to data messages, it was suggested that wording along the following lines should be included in paragraph 51: "A data message is presumed to have a fixed information content but it may be revoked or amended by another data message".

43. As to the notion of "analogous means", it was suggested that the draft Guide should contain more explanations, and that it should emphasize that the definition of data message was not intended to exclude any future technical means of communication and storage of data (see para. 25 above).

"Originator" (paragraph 52)

44. The Working Group found the substance of paragraph 52 to be generally acceptable. It was generally felt that, in addition to providing guidance as to the interpretation of the notion of "originator", the draft Guide should discuss the notion of "addressee". It was suggested that the draft Guide should

emphasize that the "addressee" under the Model Law was the person with whom the originator intended to communicate by transmitting the data message, as opposed to any person who might receive, forward or copy the data message in the course of transmission. It was also suggested that the draft Guide should point out that the definition of "addressee" contrasted with the definition of "originator", which was not focused on intent.

45. It was agreed that the draft Guide should contain an indication that, under the definitions of "originator" and "addressee" under the Model Law, the originator and the addressee of a given data message could be the same person, for example in the case where the data message was intended for storage by its author.

46. The view was expressed that appropriate wording should be included in the draft Guide to make it clear that the addressee who stored a message transmitted by an originator was not itself intended to be covered by the definition of "originator". It was noted, however, that an effect of the current definition of "originator" was that, where a data message was communicated to an addressee and stored by that addressee, the person who communicated the data message and the addressee would both be an "originator" of it. It was stated that the issue might need to be discussed by the Commission when reviewing the text of the Model Law.

47. The view was expressed that the draft Guide should indicate, by way of example, that the definition of "originator" was intended to cover the person who generated the data message even if that message was transmitted by another person. It was stated that the words "'originating' from the legal entity on behalf of which the computer is operated" at the end of paragraph 52 were too vague and might raise questions as to the rule to be applied to determine on whose behalf a computer was operated. In response, it was stated that the law of agency was outside the scope of the Model Law. It was agreed that the draft Guide should contain an indication that questions relevant to agency were to be settled under rules outside the Model Law.

"Intermediary" (paragraphs 53 and 54)

48. The view was expressed that the draft Guide should put more emphasis on the following elements: (1) the definition of "intermediary" was intended to cover both professional and non-professional intermediaries; (2)"intermediary" in the Model Law was defined not as a generic category but with respect to each data message, thus recognizing that the same person could be the originator or addressee of one data message and an intermediary with respect to another data message; and (3) that the Model Law, which was focused on the relationships between originators and addressees, did not, in general, deal with the rights and obligations of intermediaries. It was recalled that a suggestion had been made to include in the general presentation of the Model Law an indication that the Model Law was not intended to address the issues of rights and obligations of intermediaries (see paras. 18 and 26 above).

49. Various views were expressed as to whether the draft Guide should contain a reference to the "paramount importance" of intermediaries in the field of electronic communications. One view was that the word "paramount" should be

deleted, in order not to overemphasize the importance of intermediaries under the Model Law. Another view was that the draft Guide should indicate more clearly that intermediaries had a crucial importance and that no EDI communication was conceivable without them. In the context of that discussion, it was noted that the notion of "intermediary" was used in the Model Law only for definition purposes. The Working Group was informed that several Governments, in their comments to the Commission on the Model Law, had expressed the wish that drafting amendments in the relevant definitions might lead to the elimination of all references to "intermediaries" from the Model Law.

50. The view was expressed that paragraph 54 should list additional "value-added services" performed by network operators, for example, authenticating and certificating data messages and providing security services for electronic transactions.

51. In the context of the discussion of the definition of "intermediary", views were exchanged on the definition of "EDI" under article 2 (b) of the Model Law and, more particularly, on the words "electronic transfer" in that definition. One view was that, since the definition of EDI necessarily implied that data messages were communicated electronically from computer to computer, the use of a telecommunications system acting as an intermediary was inherent in EDI. Another view was that, while EDI would primarily cover situations where data messages were communicated through a telecommunications system, the current definition of EDI would also cover exceptional or incidental types of situation where data structured in the form of an EDI message would be communicated by means that did not involve telecommunications systems, for example, the case where magnetic disks containing EDI messages would be delivered to the addressee by courier. In addition, it was stated that, even if EDI as defined under article 2 (b) were interpreted as implying the use of telecommunications, it would not necessarily imply the use of intermediaries, since electronic communication could be achieved by linking directly the computer systems of the originator and the addressee. A related view was that the definition of EDI in article 2 (b) was focused on the information to be communicated from computer to computer and not on the medium which was used to achieve such communication. After discussion, the Working Group did not reach a decision as to whether or not the case of manual transmission of information should fall under the definition of EDI under article 2 (b). It was noted that, in any event, such a situation would be covered by the definition of "data message" under article 2 (a), thus falling under the scope of the Model Law. It was generally felt that the matter might need to be further discussed by the Commission and, possibly, by technical bodies involved in the development of EDI messages such as the Working Party on Facilitation of International Trade Procedures of the Economic Commission for Europe. It was also felt that the draft Guide should contain appropriate explanations regarding the definition of "EDI" under the Model Law.

"Information system" (paragraph 55)

52. The Working Group found the substance of paragraph 55 to be generally acceptable. As a matter of drafting, it was suggested that, in the second sentence, the words "an electronic mailbox" should be replaced by the words "could include an electronic mailbox". Another suggestion was that the final

sentence should be amended to indicate that the Model Law did not address the question of whether the information system was located on the premises of the addressee or on other premises, since location of information systems was not an operative criterion under the Model Law.

Article 3. Interpretation (paragraphs 56 to 58)

53. The Working Group found the substance of paragraphs 56 to 58 to be generally acceptable. It was suggested that paragraph 57 should indicate in more detail why the Model Law contained a reference to its "international source". It was stated that the Model Law, while enacted as part of domestic legislation, and therefore domestic in character, should be interpreted with reference to its international origin in order to ensure uniformity in the interpretation of the Model Law in various countries.

54. Another suggestion was that the draft Guide should indicate that, in interpreting the Model Law, proper attention should be given to international and local trade usages and practice.

CHAPTER II. APPLICATION OF LEGAL REQUIREMENTS TO DATA MESSAGES

Article 4. Legal recognition of data messages (paragraph 59)

55. The Working Group found the substance of paragraph 59 to be generally acceptable. The view was expressed that the draft Guide should explain in more detail: (1) the meaning of the words "solely on the grounds" in the Model Law; (2) that the provision under which information should "not be denied legal validity" should not be misinterpreted as establishing the legal validity of a message; and (3) that the principle that data messages should not be discriminated against meant that the Model Law was intended to eliminate disparity of treatment between EDI messages and paper-based documents. As a matter of drafting, it was suggested that the first sentence of paragraph 59 should read: "Article 4 embodies the fundamental principle that a data message should not be treated differently from paper, simply because of its form. It should be as valid, enforceable and effective as paper". It was also suggested that the second sentence should read: "It is not intended to affect any of the statutory requirements for 'writing' or an original, which are addressed in articles 5 and 7". Another drafting suggestion was that the draft Guide should reproduce the text of article 4.

Article 5. Writing (paragraphs 60 to 65)

56. The view was expressed that the draft Guide should explain in more detail: (1) the content of the deliberations of the Working Group that led to the adoption of the words "to be in writing or to be presented in writing" in article 5; (2) that article 5 was not intended to apply only where the law expressly required information to be presented "in writing" but also where a "document" or any other paper-based instrument was required; and (3) the content of the deliberations of the Working Group that led to the adoption of the words

"accessible so as to be usable for subsequent reference". In particular, it was stated that the use of the word "accessible" was meant to imply that information in the form of computer data should be readable and interpretable, and that the software that might be necessary to render such information readable should be retained. It was also stated that the word "usable" was not intended to cover only human use but also computer processing. As to the notion of "subsequent reference", it should be made clear that it had been preferred to such notions as "durability" or "non-alterability", which would have established too harsh standards, and to such notions as "readability" or "intelligibility", which might constitute too subjective criteria.

57. With respect to the use of the words "a data message satisfies that rule" in article 5, paragraph 1, the view was expressed that the draft Guide should make it clear that only a data message generated at the relevant time could be considered as satisfying the rule in question. It was stated that, in a paper-based environment, where a transmission was only valid if it was in writing, the date that it was put into writing was important. Similarly, in an electronic environment, where a transaction was concluded orally, and was only subsequently recorded in a data message, the requirement for writing should be satisfied only as from the date when the relevant data message was generated. Article 5, paragraph 1, should not have the effect that in such a case a subsequent data message could satisfy the requirement retrospectively. It was felt that the matter might need to be discussed by the Commission in the context of its review of article 5.

58. The view was expressed that the notion of "minimum standard" in paragraph 60 might need to be further explained in the draft Guide so as not to suggest that the Model Law encouraged enacting States to establish additional standards beyond the requirements of article 5. As a matter of drafting, it was suggested that the first sentence should read as follows: "Article 5 is intended to define the minimum standard to be met by a data message if it is to satisfy a requirement that information be in writing".

59. The Working Group found the substance of paragraph 61 to be generally acceptable.

60. With respect to paragraphs 62 and 63, a suggestion was made that the draft Guide should contain a reference to the integrity of the data message. It was stated that, to be covered by article 5, data messages should be kept unaltered in the form in which they were received. It was generally considered, however, that since the integrity of the message was not an operative criterion under the definition of "writing" in the Model Law, no reference to the integrity of the message should be introduced into the draft Guide.

61. As a matter of drafting, it was suggested that paragraph 63 should read as follows: "The purpose of article 5 is not to establish a requirement that, in all instances, trade data messages should fulfil all conceivable functions of a writing. Rather than focusing upon specific functions of a 'writing', for example, its evidentiary function in the context of tax law or its warning function in the context of civil law, article 5 focuses upon the basic notion of the information being reproduced and read. That notion is expressed in article 5 in terms that were found to provide an objective criterion, namely

that the information in a data message must be accessible so as to be usable for subsequent reference".

62. The Working Group found the substance of paragraph 64 to be generally acceptable.

63. With respect to paragraph 65, a concern was expressed that the recommendation to legislators to avoid blanket exclusions from the scope of the Model Law might be misinterpreted as interfering with legislative techniques that might differ from country to country. It was stated that certain legislators might wish to proceed by way of general or "abstract" exclusions of certain areas of law (a technique that might fall under the category of "blanket exclusions"), for example in the case where writing requirements served a warning function. Other legislators might adopt a more casuistic approach. While it was agreed that certain drafting changes might be needed, it was generally felt that the substance of the paragraph reflected the intent of the Working Group that article 5, paragraph 2, and similar provisions of the Model Law should not be used to overly narrow the scope of the Model Law. It was recalled that the main exceptions that had been envisaged in the preparation of the Model Law were in the field of bills of exchange and other negotiable instruments. It was suggested that the third sentence of paragraph 65 should read as follows: "The objectives of the Model Law would not be achieved if paragraph 2 were used to establish blanket exceptions, and the opportunity provided by paragraph 2 to do this should be avoided."

Article 6. Signature (paragraphs 66 to 73)

64. The Working Group found the substance of paragraphs 66 to 70 to be generally acceptable. It was suggested that the opening words of paragraph 70 should read as follows: "Paragraph 1 (b) establishes a flexible approach to the level of security to be achieved by the method of identification used in paragraph 1 (a). The method used in paragraph 1 (a) ...".

65. It was generally agreed that the Guide should clearly indicate that the list of factors provided in paragraph 71 was non-exhaustive and illustrative in nature. It was suggested that the words "factors to be taken into account" should be replaced by the words "factors that may be taken into account". As to the specific factors, it was suggested that "(1) the statute and relative economic size of the parties;" should be deleted, since technology available provided equal footing among users of modern communication techniques. It was stated in response that, while the economic size of the parties might not in itself be a relevant factor, their relative level of technical equipment still needed to be taken into account. It was suggested that the text should be redrafted as follows: "(1) the sophistication of the equipment used by each of the parties;". Another suggestion was that a reference to the nature of the message should be added to the list, to indicate that different procedures might be appropriate for different types of message.

66. The Working Group found the substance of paragraph 72 to be generally acceptable.

67. With respect to paragraph 73 a drafting suggestion was that the words "would typically" in paragraph 73 should be replaced by the word "may". Another suggestion was that the reference to agreements concluded between parties should be simplified to indicate that trading-partner agreements were also known as interchange agreements or communication agreements.

68. In the context of the discussion of article 6, a question was raised as to how the definitions of "originator" and "intermediary" in article 2 would interplay with article 6. The example was given of a message being sent on behalf of the originator by an agent, who would then be regarded as an intermediary under the Model Law. Should the data message contain the electronic signature of the intermediary, the conditions for the data message to be regarded as the functional equivalent of "writing" under article 6 would not be fulfilled. It was therefore suggested that the draft Guide or the Model Law itself should make it clear that the electronic signature of an agent could be regarded as a possible way of identifying the originator under article 6. It was stated in response that either the intermediary would simply forward the initial message, in which case the message would typically bear the identification of the originator, or the intermediary would send a new message reproducing the information contained in the initial message in a new message, in which case the intermediary would rightly be regarded as the originator of the second message. The view was expressed that, in order to achieve certainty in that respect, the definitions of "originator" and "intermediary" might need to be redrafted by the Commission.

69. Various suggestions were made as to how the draft Guide should clarify the relationships between the Model Law and the law of agency. One suggestion was expressly to mention that the Model Law was not intended to supplant the principles of agency that might be used to establish that a person other than the originator might be bound by the sending of a data message. Another suggestion was to explain that the words "on whose behalf" in the definition of "originator" were intended to deal not with the law of agency but rather with the situation in which a computer-generated message contained the identifying symbols of the originator. A further suggestion was to provide a series of examples illustrating the various possibilities with respect to the operation of article 6 in situations involving intermediaries and computer-generated messages.

70. As a possible further issue to be discussed in the context of article 6, it was suggested that the draft Guide should make it clear that the mere signing of a data message by means of a functional equivalent of a handwritten signature was not intended, in and of itself, to confer legal validity to the data message. Whether a data message that fulfilled the requirement of a signature had legal validity was to be settled under applicable law outside the Model Law. A further suggestion was that the draft Guide should indicate that possible agreement between originators and addressees of data messages as to the use of a method of authentication was not conclusive evidence of whether that method was reliable or not.

Article 7. Original (paragraphs 74 to 77)

71. The Working Group found the substance of paragraphs 74 to 77 to be generally acceptable. Various views and suggestions were expressed with respect to possible additions to the current text.

72. One view was that the words "a rule of law" in the opening words of article 7 might need to be further explained in the draft Guide as encompassing not only statutory law but also judicially created law and other procedural law. Another view was that, in certain common law countries, the words "a rule of law" would normally be interpreted as referring to common law rules, as opposed to statutory requirements. The draft Guide should make it clear that the words "a rule of law" were intended to encompass those various sources of law.

73. It was suggested that the draft Guide should explain in more detail the meaning of "endorsement" in article 7, paragraph 2 (a). It was stated that the term "endorsement" had in many countries a technical meaning in the field of negotiable instruments, which should not be confused with the meaning of the term in the context of EDI and related means of communication.

74. As to the words "complete and unaltered" used in article 7, paragraph 2 (a), it was also considered that additional guidance should be provided. The draft Guide should describe the various changes that would normally affect a data message during its transmission and indicate, for example, that, where a message went through a certification process, all elements corresponding to that process should not necessarily be retained. It was also suggested that a parallel should be drawn in the draft Guide between electronic messages and paper-based original documents. In the case of paper, it was not uncommon for information regarding certification or endorsements to be appended to the paper document, without affecting its nature as an original document.

75. With respect to the words "the time when it was first composed in its final form" in article 7, paragraph 1 (b), it was suggested that the draft Guide should explain that the provision was intended to encompass the situation where information was first composed as a paper document and subsequently transferred on to a computer. In such a situation, article 7, paragraph 1 (b), was to be interpreted as requiring assurances that the information had remained complete and unaltered from the time when it was composed as a paper document onwards, and not only as from the time when it was translated into electronic form. Another suggestion was that the Guide should also illustrate the situation where several drafts were created and stored before the final message was composed. In such a situation, article 7, paragraph 1 (b), should not be misinterpreted as requiring assurance as to the integrity of the drafts.

76. With respect to article 7, paragraph 3, it was generally considered that the Guide should include provisions along the lines of paragraph 65, warning legislators that the objectives of the Model Law would not be achieved if article 7, paragraph 3, were used to establish blanket exceptions.

77. As to the specific paragraphs of the draft Guide, it was suggested that the following text should be added to paragraph 75:

"Examples of documents that might require an 'original' are trade documents such as weight certificates, agricultural certificates, quality/quantity certificates, inspection reports, insurance certificates, etc. While such documents are not negotiable or used to transfer rights or title, it is essential that they be transmitted unchanged, that is in their 'original' form, so that other parties in international commerce may have confidence in their contents. Using paper, these types of document are usually only accepted if they are 'original' to lessen the chance that they have been altered, which would be difficult to detect in copies. Various technical means are available to certify the contents of a data message to confirm its 'originality'. Without this functional equivalent of originality, the sale of goods using EDI would be hampered by requiring the issuers of such documents to retransmit their data message each and every time the goods are sold, or forcing the parties to use paper documents to supplement the EDI transaction."

78. The following was suggested as a separate paragraph to be added after paragraph 77:

"Paragraph 2 (a) sets forth the criteria for assessing integrity, taking care to except necessary additions to the first (or 'original') data message such as endorsements, certifications, notarizations, etc. from other alterations. As long as the contents of a data message remain complete and unaltered, necessary additions to that data message would not affect its 'originality'. Thus when an electronic certificate is added to the end of an 'original' data message to attest to that data message's 'originality', or when data is automatically added by computer systems at the start and the finish of a data message in order to transmit it, such additions would be considered as if they were a supplemental piece of paper with an 'original' piece of paper, or the envelope and stamp used to send that 'original' piece of paper."

79. As a matter of drafting, various suggestions were made. In paragraph 74, it was suggested that the sentence beginning "In addition, article 7 is necessary since ..." should read as follows: "Although in some jurisdictions the concepts of 'writing', 'original' and 'signature' may overlap, the Model Law approaches them as three separate and distinct concepts". In paragraph 75, it was suggested that the words "not intended primarily" should be replaced by the words "not intended only". In paragraph 76, it was suggested that the second sentence should either be deleted or be put in the active voice.

Article 8. Admissibility and evidential value of data messages (paragraphs 78 to 80)

80. The Working Group found the substance of paragraphs 78 and 79 to be generally acceptable. It was stated that the "best evidence rule" embodied in article 8, paragraph 1 (b), was not known in all common law jurisdictions and that paragraph 78 should be amended to reflect that situation.

81. Doubt was expressed as to the need for paragraph 80. It was stated that article 8, paragraph 3, was sufficiently clear in stating that, in case an

original was required by custom or practice, a document would not be given less evidential weight merely because it was in the form of a data message. As to the second sentence of paragraph 80, it was stated that while parties might require an original in contracts, the evidential weight of such an original was settled in article 7 and not in article 8, paragraph 3. After discussion, the Working Group decided to delete paragraph 80.

Article 9. Retention of data messages (paragraphs 81 to 84)

82. The Working Group found the substance of paragraphs 81 and 82 to be generally acceptable. As a matter of drafting, it was suggested that in paragraph 81, the words "supplementary rules for" should be replaced by "rules supplementing" and that the word "merely" should be deleted from paragraph 82.

83. With respect to paragraph 83, a number of suggestions were made. One suggestion was to explain that information, in order to be legible, might need to be deciphered, compressed or decompressed. Another suggestion was to make it clear that article 9, paragraph 1 (c), should not be understood as imposing an obligation to retain transmittal information additional to the information contained in the data message when it was generated, stored or transmitted. Yet another suggestion was that it should be explained that the acknowledgement of receipt of a data message was a separate message that did not need to be retained. As to article 9, paragraph 2, which provided that transmittal information not necessary for the identification of a data message (e.g., communication protocols) did not need to be retained, the suggestion was made that further clarification was needed.

84. As to paragraph 84, the suggestion was made that it should be amended to read as follows: "In practice, storage of information, and especially storage of transmittal information, may often be carried out by someone other than the originator or the addressee, such as an intermediary. Nevertheless, it is intended that the person to whom the obligation to retain certain transmittal information attaches cannot escape meeting that obligation simply because, for example, the communications system operated by that other person does not retain the required information. This is intended to discourage bad practice or wilful misconduct. Paragraph 3 provides that in meeting its obligations under paragraph 1, an addressee or originator may use the services of any third party, not just an intermediary".

CHAPTER III. COMMUNICATION OF DATA MESSAGES

Article 10. Variation by agreement (paragraphs 85 and 86)

85. The Working Group found the substance of paragraphs 85 and 86 to be generally acceptable. It was suggested that the draft Guide should explain more clearly that the provisions of chapter II could be varied either by bilateral or multilateral agreements between parties, or by systems rules agreed to by the parties.

Article 11. Attribution of data messages (paragraphs 87 to 92)

86. The discussion focused on the substance of article 11. Doubts were expressed as to the usefulness of article 11, paragraph 1. It was stated in response that article 11, paragraph 1, contained a useful reminder of agency law principles that existed outside the Model Law. In that respect, paragraphs 87 and 88 of the draft Guide should elaborate on article 5 of the UNCITRAL Model Law on International Credit Transfers, from which article 11 was inspired. It was also stated that it should be made clear in the draft Guide that article 11, paragraph 1, was not intended to displace the domestic law of agency. As to article 11, paragraph 2, it was suggested that the last sentence of paragraph 89 should be amended to clarify, possibly by way of examples, that the addressee should benefit from the presumption that the message received was that of the originator if the addressee could show that it followed an agreed procedure of authentication. The reason the presumption applied was neither that the procedure was reasonable nor that the chances were that it was the originator's fault that someone unauthorized had learned how to authenticate the data message. Another suggestion was that article 11, paragraph 3, needed further clarification. As a matter of drafting, it was suggested that the last sentence should be deleted from paragraph 90.

87. The view was expressed that article 11, paragraph 4, was defective in that it provided for a rebuttable presumption that the content of a message was that received by the originator, a presumption which was predicated on the determination that an error in the content or an erroneous duplicate actually existed. It was therefore suggested to postpone elaborating on article 11, paragraph 4, until the Commission had an opportunity to consider and finalize it. The prevailing view, however, was that any explanation in the Guide as to article 11, paragraph 4, could be useful to the Commission in its future deliberations. In that connection, it was suggested that the draft Guide should explain that article 11, paragraph 4, was intended to deal with two separate situations, namely error in the content of a data message and erroneous duplication of a data message. For example, the draft Guide should make it clear: (1) that both situations could result from either an error by the person composing a message or from an error in transmission; (2) that, in case of an erroneous duplication of a data message, which message was the correct one would be a matter of context; (3) that it was irrelevant to know whether error or duplication resulted from a fault, since the situation was dealt with by way of a presumption; and (4) that exceptions to that presumption depended on whether the addressee knew or should have known of the error or erroneous duplication of the message.

88. In addition, it was pointed out that the Guide should explain the intent and the purpose of article 11 by referring to one of the primary questions arising in the use of electronic communications, namely the question as to who bears the risk of erroneous messages. In order to achieve that result, the suggestion was made that the Guide should include language along the following lines: "This article assigns responsibility for erroneous or unauthorized data messages. However the consequences of such data messages are to be determined under the applicable law. Standing alone this article is somewhat incomplete, but when read in conjunction with the applicable law, its use would be clearer. For example, when a data message is presumed to be that of the originator, the

applicable law would determine the effect of that presumption. While the assignment of presumptions is something that most legal systems can do quite readily, the new procedures of electronic commerce would create confusion in attempting to equate them to existing usages. This article will fill that gap."

89. Several concerns were expressed with regard to the suggested wording. One concern was that the wording suggested was not accurate in that article 11 assigned responsibility not only for erroneous messages but for all messages. Another concern was that the suggested wording was adding a function that article 11 was never intended to perform. It was said that the purpose of article 11 was not to assign responsibility. It dealt rather with attribution of data messages by establishing a presumption that under certain circumstances a data message would be considered as a message of the originator, and went on to qualify that presumption in case the addressee knew or ought to have known that the data message was not that of the originator. It was also said that the first sentence of paragraph 91 of the draft Guide was not correct because article 11, paragraph 4, dealt only with a presumption as to the content of the message. It was generally felt that the matter might need to be considered by the Commission in the context of its review of the Model Law.

Article 12. Acknowledgement of receipt (paragraphs 93 to 96)

90. It was suggested, at the outset, that additional information should be provided in the draft Guide as to the reasons why a provision on acknowledgement of receipt was needed in the Model Law. It was also suggested that the additional paragraph should contain: (1) a description of the use of acknowledgements of receipt in the context of EDI; (2) an enumeration of the ways in which acknowledgements of receipt might be required, for example, in communication agreements or in individual data messages; and (3) a comparison between the use of acknowledgements in the context of EDI and the parallel use of acknowledgement of receipt in the context of paper-based communications, particularly the system known as "return receipt requested" in postal systems. It was generally agreed that the draft Guide should briefly mention the variety of procedures available under the general rubric of "acknowledgement", ranging from a mere acknowledgement of receipt of an unspecified message to an expression of agreement with the content of a specific data message. In that connection, it was suggested that the draft Guide should make it clear that the provision contained in article 12, paragraph 5, corresponded to a certain type of acknowledgement, for example, an EDIFACT message establishing that the data message received was syntactically correct. It was also suggested that the draft Guide should point out that variety among acknowledgement procedures implied variety of the related costs.

91. With respect to paragraph 93, it was generally felt that the explanations contained in the last sentence needed to be further developed. It should be made clear that article 12 did not deal with the legal consequences that might flow from sending an acknowledgement of receipt, apart from establishing receipt of the data message. It was suggested that the following example should be given in the draft Guide: where an originator sent an offer in a data message and requested acknowledgement of receipt, the acknowledgement of receipt simply evidenced that the offer had been received. Whether or not sending that

acknowledgement amounted to accepting the offer was not dealt with by the Model Law but by contract law outside the Model Law.

92. The view was expressed that the draft Guide should point out that the procedure described under article 12, paragraph 4, was purely at the discretion of the originator. It was suggested that the following example should be included in the draft Guide: where the originator sent a data message which under agreement between the parties had to be received by a certain time, and the originator requested an acknowledgement of receipt, the addressee could not deny the legal effectiveness of the message simply by withholding the requested acknowledgement.

Article 13. Formation and validity of contracts (paragraphs 97 to 100)

93. The Working Group found the substance of paragraphs 97 to 100 to be generally acceptable. It was suggested that paragraph 97 of the draft Guide should emphasize the need for a provision on formation of contract in the Model Law. The need for such a provision resulted from the doubt that might exist in many countries as to the validity of contracts concluded through the use of computer because the data messages expressing offer and acceptance might be generated by computers without immediate human intervention, thus raising doubts as to the expression of intent by the parties. Another reason for such uncertainty was inherent in the mode of communication and resulted from the absence of a paper document. As a matter of drafting, it was suggested that the word "restates" in paragraph 98 should be replaced by the word "reinforces".

Article 14. Time and place of dispatch and receipt of data messages (paragraphs 101 to 107)

94. It was generally felt that the draft Guide should further explain the reasons why article 14 had been introduced into the Model Law. Article 14 resulted from the recognition that, for the operation of many existing rules of law, it was important to ascertain the time and place of receipt of information. The use of electronic communication techniques made those difficult to ascertain. It was not uncommon for users of EDI and related means of communication to communicate from one State to another without knowing the location of information systems through which communication was operated. In addition, the location of certain communication systems might change without either of the parties being aware of the change. The Model Law was thus intended to reflect the fact that the location of information systems was irrelevant and set forth a more objective criterion, namely, the place of business of the parties. In that connection, a suggestion was made that the draft Guide should expressly indicate that article 14 had not been intended to establish a conflict-of-laws rule.

95. A proposal was made to make it clear in the draft Guide that, in the context of the Model Law, the concept of dispatch referred to the commencement of the electronic transmission of the data message. It was generally considered that this explanation would be appropriate because "dispatch" was a term that

had already an established meaning in most jurisdictions. It was agreed that the draft Guide should make it clear that the rule on dispatch was intended to supplement national rules on dispatch and not to displace them.

96. A view was expressed that it might be useful to explain in the draft Guide whether dispatch under article 14, paragraph 1, should be interpreted as occurring: "only"; "at the latest"; or "among other possibilities" at the time when the data message entered an information system outside the control of the originator. It was stated that, in view of the possible delays in transmission of the message, the originator should have the option to prove that the message had been dispatched even if it had not reached the information system of the addressee. In addition, it might be impossible for the originator to prove the time at which a data message had entered an information system outside its control. The prevailing view was that there should be no need for the Model Law to envisage such an option, since article 14, paragraph 1, was focused on the data message leaving the sphere of control of the originator. In addition, audit trails would normally make it possible to establish the time at which a given message had entered any computer system. The Working Group agreed that article 14 was intended to cover only situations where data was transmitted electronically. Should the transmission involve other means of transmission, for example, delivery of diskettes by courier, another rule might be needed. It was suggested that the matter might need to be further clarified by the Commission when reviewing article 14. It was pointed out that the application of article 14 was subject to contrary agreement by the parties. It was suggested that the draft Guide might appropriately encourage parties to conclude such agreements, particularly when using hybrid transmission methods.

97. As regards the notion of "designated information system", it was generally agreed that the draft Guide should contain more detailed explanations. For example, the mere indication of an electronic mail or telecopy address on a letterhead or other document should not be regarded as express designation of one or more information systems. By "designated information system", the Model Law was intended to cover a system that had been specifically designated by a party, for instance in the case where an offer expressly specified the address to which acceptance should be sent.

98. With respect to article 14, paragraph 5, it was generally agreed that the draft Guide should make it clear that the use of the Model Law for determining the place of receipt or dispatch under administrative, criminal or data-protection law was not intended to be precluded. The draft Guide should indicate that article 14, paragraph 5, by its own force, did not apply to such areas of law.

99. A number of suggestions of a drafting nature were made. In the second sentence of paragraph 101, the words "If dispatch occurs where" should be replaced by the words "If dispatch occurs when". The last sentence of paragraph 102 should read as follows: "In such a situation, receipt is deemed to occur when the data message is retrieved by the addressee". In paragraph 103, the word "usable" should be replaced by the words "intelligible or usable". In paragraph 105, the words "but rather" should be replaced by the word "and". In paragraph 107, the reference to the "presumed place of receipt" should be replaced by a reference to "deemed place of receipt". In the third

sentence of that paragraph, the word "presumption" should be replaced by the words "irrebuttable presumption". In the fourth sentence, the words "distinguishing between the place of receipt of a data message and the place reached by that data message" should be replaced by the words "to introduce a deemed place of receipt as distinct from the place actually reached by that data message".

III. FUTURE WORK

A. Incorporation by reference

100. The Working Group had before it two proposals for a draft provision on incorporation by reference, one submitted by the observer for the International Chamber of Commerce (A/CN.9/WG.IV/WP.65) and another submitted by the United Kingdom of Great Britain and Northern Ireland (A/CN.9/WG.IV/WP.66).

101. The Working Group engaged in a general debate as to whether the issue of incorporation by reference should be addressed in the Model Law on Legal Aspects of Electronic Data Interchange and Related Means of Communication or in the context of future work. The view was expressed that there was a need to include a provision in the Model Law in order to remove the uncertainty existing in many legal systems as to whether such terms as clauses of trading-partner agreements or possible E-TERMS to be developed along the lines of INCOTERMS could be incorporated in a data message by means of a mere reference in a data message. In support of that view, it was stated that incorporation by reference was of particular importance to EDI in view of the need to abbreviate messages for reasons of economy or to use codes for reasons of machine-processability. As to the possible relationship between the kind of provision suggested for inclusion in the Model Law and existing contract law, it was stated that a provision in the Model Law should not interfere with the applicable contract law. To that effect, it was suggested that the additional provision should be limited to addressing the question whether terms were incorporated but not deal with the question whether the terms incorporated were legally binding. The suggested provision, which was said to be in line with the functional-equivalent approach taken by the Working Group in preparing the Model Law, would be aimed at expanding the application of the existing rules on incorporation by reference in a paper environment to encompass incorporation by reference in an electronic environment.

102. The prevailing view, however, was that the issue was not mature for inclusion in the Model Law and deserved further study. It was stated that both proposals presented to the Working Group needed to be further clarified on a number of issues, such as what terms would be incorporated and in what circumstances. In addition, it was stated that both proposals might appear as interfering with general rules of contract law. Moreover, it was stated that incorporation by reference in an electronic environment did not need to be addressed in the Model Law since it raised essentially the same issues as incorporation by reference in a paper-based environment, which were dealt with by general contract law. Finally, it was said that a provision distinguishing between incorporation by reference in paper-based and EDI communications would

be inconsistent with the approach followed thus far by the Working Group, which was aimed at ensuring "media-neutrality".

103. The Working Group then turned to discuss the forms that future work on incorporation by reference could take. One view was that incorporation by reference should be considered as a separate future topic. That view did not attract sufficient support. It was generally thought that incorporation by reference did not raise such a range of issues that it could justify a separate consideration of the topic in the context of future work. Another view was that the issue should be addressed in the context of future work on negotiability of rights in goods. While that view received considerable support, a concern was expressed that it might be inappropriate to limit the scope of possible provisions on incorporation by reference to the area of documents of title. After discussion, the Working Group decided that the discussion of incorporation by reference should be reflected in the draft Guide to enactment of the Model Law. It was agreed that the issue of incorporation by reference might need to be further considered in the context of future work (see para. 117 below).

104. It was stated that, in addition to reflecting the discussion reported above, the guide to enactment of the Model Law could elaborate on a number of points. One such point was that there was a perception among practitioners that the issue of incorporation by reference was more complex in EDI than in a paper-based environment, for example because the number of communications involved was larger and terms incorporated by reference might be more difficult to ascertain if they were in the form of data messages. There also existed a perceived need among practitioners for specific provisions dealing with incorporation by reference in the context of electronic communications. Another point was that, in view of the number of data messages involved in a particular contractual relationship conducted through EDI, the problem known as the "battle of forms" was particularly likely to arise in the context of electronic communications. Yet another point was that incorporation by reference in an electronic environment could involve not only contractual terms but also codes used in abbreviating data messages.

105. As to the context in which incorporation by reference could be discussed in the guide to enactment of the Model Law, a number of views were expressed. One view was that it could be discussed in the context of article 4, the purpose of which was to ensure equality of treatment between EDI and paper-based communications under all rules of law applicable outside the Model Law, including existing rules on incorporation by reference. Another view was that the issue could be addressed in the Guide in the context of the discussion of article 13.

B. Negotiability of rights in goods

106. The Working Group had before it two brief notes discussing negotiability and transferability of rights in goods in an EDI context, one submitted by the United Kingdom of Great Britain and Northern Ireland (A/CN.9/WG.IV/WP.66) and another submitted by the United States of America (A/CN.9/WG.IV/WP.67).

107. It was noted that the functions of bills of lading that might be affected by the use of EDI communications included those of serving: (1) as a receipt for the cargo by the carrier; (2) as evidence of the contract of carriage with regard to its general terms and the particular details of vessel, loading and discharge ports, and nature, quantity and condition of the cargo; and (3) as a document giving the holder a number of rights, including the right to claim and receive delivery of the goods at the port of discharge and the right to dispose of the goods in transit.

108. The first two functions could be easily performed by EDI since the receipt for the cargo and information about the contract of carriage could be given by means of data messages such as the UN/EDIFACT messages. However, the third function (as document of title) raised difficulties in an EDI environment since, in the absence of a single piece of paper, it was difficult to establish the identity of the exclusive holder to whom the carrier could deliver the goods without running the risk of being faced with a claim by another party for misdelivery. In that regard, the Working Group noted that a central problem in the use of EDI bills of lading was to guarantee the singularity, or uniqueness, of the message to be relied upon by the carrier for delivering the goods. While any data message could probably be rendered unique through the use of cryptography, the possibility that the message might be fraudulently or mistakenly multiplied could not be excluded. The Working Group noted that solutions to that problem might be found in security, time-stamping or similar techniques or through a central registry in which the holder could register its rights.

109. The Working Group also noted that work on negotiability and transferability of documents of title in goods by EDI means could include establishing a preliminary list of areas of commercial practice to be covered, validating of agreements for negotiability and transferability of rights in goods through EDI, establishing criteria for parties to be holders in due course for the transfer of rights in goods or subsequently to negotiate such rights through EDI, determining the effect of negotiation of documents of title in EDI, establishing default rules for allocation of risk and electronic registries. With regard to electronic registries, it was noted that they could be governmental, central, and private. The purpose, the access, the administrator, the costs, the insurance, the allocation of risks and the security could vary depending on the nature of the registry.

110. The Working Group engaged in a general debate, with a view to identifying the scope of possible future work and issues that could be addressed. With regard to the scope of future work, one suggestion was that the work should cover multimodal transport documents of title since they essentially fulfilled the same functions and raised similar issues. Another suggestion was that, while work could include transport documents of title in general, particular emphasis should be paid to maritime bills of lading since the maritime transport area was the area in which EDI was predominantly practised and in which unification of law was urgently needed in order to remove existing impediments and to allow the practice to develop.

111. In support, it was pointed out that EDI messaging was currently restricted to the exchange of information messages in the North Atlantic maritime routes

and could not develop without the support of a legal regime that would validate, and provide certainty about, transport documents in electronic form. For example, it was stated that there was a need to facilitate delivery of the cargo at the port of discharge without production of a paper bill of lading, which was often necessary for a number of reasons. One reason was that the cargo might reach the port of discharge before the documents necessary for delivery. Another reason was that often the buyer had to receive delivery and sell the cargo in order to be able to pay the price of the cargo and the freight. In addition, it was stated that there was a need to remove the legal uncertainty as to who bore the risk of the cargo not corresponding to its description when discharged. It was pointed out that usually the shipper provided the description of the goods and the bill of lading included a disclaimer that the description was that of the shipper; such disclaimer clauses were not always valid. Moreover, it was stated that there was a need to establish a functional equivalent replicating the uniqueness of the paper bill of lading, which was essential for its function as a title document.

112. Other suggestions were to address all documents of title covering tangible goods (e.g., warehouse receipts), or all documents of title covering tangible and intangible goods, or all negotiable (or even non-negotiable) instruments. In opposition to those suggestions, it was pointed out that covering such a broad range of documents would complicate work since the functions of the respective documents were different, which would make the elaboration of specific rules necessary.

113. After discussion, it was agreed that future work could focus on EDI transport documents, with particular emphasis on maritime electronic bills of lading and the possibility of their use in the context of the existing national and international legislation dealing with maritime transport. After having established a set of rules for the maritime bills of lading, the Working Group could examine the question whether issues arising in multimodal transport could be addressed by the same set of rules or whether specific rules would need to be elaborated.

114. The Working Group then turned to a discussion of possible issues that could be addressed in the context of future work on maritime bills of lading. A number of issues were mentioned. One issue was to ensure the uniqueness of an electronic bill of lading that would allow its "holder" to dispose of the cargo in transit by electronic means while protecting the carrier from the risk of misdelivery. A number of possible ways to address that issue were suggested, including private keys to be used in communications from party to party, electronic certificates, smartcards and registries. With regard to registries, it was pointed out that a legal regime would need to be devised addressing issues, such as subject of registration, parties that could register, parties that would have access to the registry and towards whom the registration could produce effects, confidentiality, accuracy and completeness of the information registered, liability for errors and effects on third parties.

115. Another issue was the definition of the holder in an EDI environment. It was pointed out that in a paper context the holder was defined on the basis of physical possession of the paper bill of lading and was protected against good faith acquisition of rights in the goods by third parties in that possession of

the bill of lading functioned as notice to third parties. In an EDI environment, where possession is not possible, the holder might be protected by other means (e.g., registration, use of public and private key sets) or might not be protected at all. Another issue involved the rights and obligations of the holder and the issuer of EDI transport documents (e.g., right of the holder to give instructions in transit and obligation of the issuer to receive and execute those instructions). It was pointed out that, in a paper-based environment, the rights of a holder were based on three principles: (1) the bill of lading was conclusive evidence of title in the goods only after endorsement (conclusive evidence rule); (2) the endorsee was the only party entitled to claim delivery of the cargo at the discharge point; and (3) only the endorsee was entitled to instruct the carrier to vary the contract and make another endorsement. In this respect, it was stated that negotiability needed to be studied in the context of trade law, security law and transportation law. It was explained that property would not be of use if acquired under trade law but effectively lost under transportation law because no right of stoppage or control could be exercised.

116. In addition, it was pointed out that the holder could have a right to possess the goods, a property right in the goods, or a right to receive delivery of the goods arising from a sales contract. It was explained that from the point of view of the carrier the most important question was who had possessory title in the goods, in other terms, to whom should the carrier deliver the goods. Yet another issue was the allocation of liability among the shipper, carrier, consignee and, possibly, a registry.

117. Other issues suggested for study were: the effects of transfer of EDI transport documents on third parties (e.g., when transfer is effective towards the carrier, third parties in the chain of endorsees, third parties not shown in the EDI bill of lading); the rights of the rightful holder in case of a wrongful transfer of the goods and the rights of the transferee in case its title proved to be defective (subject to other parties' rights); timeliness of transfer in an EDI environment; relative priority among multiple claimants of the same cargo; timeliness of messages (e.g., some messages related to precontractual terms might create rights and obligations); incorporation by reference; issues of security (principles of identification, authentication, integrity, non-repudiation) designed to promote negotiability in an open EDI environment. It was stated that the issues of security should be considered with respect to a broad range of issues regarding negotiability. In connection with its discussion of security issues, in particular the use of cryptography, the Working Group agreed that possible future work by UNCITRAL should not affect mandatory rules of national legislation adopted for public policy reasons in certain States to restrict the use of cryptography or the export of cryptography-related techniques.

118. After discussion, the Working Group requested the Secretariat to prepare a background study on negotiability and transferability of EDI transport documents, with particular emphasis on EDI maritime transport documents, taking into account the views expressed and the suggestions made with regard to the scope of future work and the issues that could be addressed. A number of other topics were suggested for inclusion in the study, including a report on the potential problems for the use of EDI in maritime transport under existing

international instruments and a report on the work undertaken by other organizations in related areas of work. In that connection, the view was expressed that work undertaken within CMI, or the BOLERO project, were aimed at facilitating the use of EDI transport documents but did not, in general, deal with the legal effects of EDI transport documents. It was stated that particular attention should be given in the study to the ways in which future work by UNCITRAL could bring legal support to the new methods being developed in the field of electronic transfer of rights.

Notes

1/ Official Records of the General Assembly, Forty-sixth Session, Supplement No. 17 (A/46/17), paras. 314-317.

2/ Ibid., Forty-seventh Session, Supplement No. 17 (A/47/17), paras. 140-148.

3/ Ibid., Forty-ninth Session, Supplement No. 17 (A/49/17), para. 201.
