



General Assembly

Distr.: Limited
15 February 2006

Original: English

**United Nations Commission
on International Trade Law**
Working Group I (Procurement)
Ninth session
New York, 24-28 April 2006

Possible revisions to the UNCITRAL Model Law on Procurement of Goods, Construction and Services - drafting materials addressing the use of electronic communications in public procurement

Note by the Secretariat

Addendum

Contents

[Chapters I to III are published in A/CN.9/WG. I/WP.42]

	<i>Paragraphs</i>	<i>Page</i>
IV. Revisions from drafts presented at the eighth session of the Working Group	1-10	2
A. Functional equivalence of all methods of communicating, publishing, exchanging or storing information or documents	1	2
B. Guide to Enactment text addressing the use of electronic communications during the procurement process	2	2
C. Accessibility standards	3	7
D. Form of communications	4-5	7
E. Legal value of procurement contracts concluded electronically	6	11
F. Requirement to maintain a record of the procurement proceedings	7	12
G. Electronic submission of tenders, proposals and quotations	8	13
H. Electronic opening of tenders	9	13
I. Electronic publication of procurement-related information	10	13

V.06-51124 (E) 070306 070306

0651124

IV. Revisions from drafts presented at the eighth session of the Working Group

The text below shows the revisions to the drafting materials before the Working Group at its ninth session, as compared with the texts presented at the eighth session.

A. Functional equivalence of all methods of communicating, publishing, exchanging or storing information or documents

1. Proposed new text for the Model Law: new article 4 *bis*

“Article 4 bis. Functional equivalence of all [means][methods] of communicating, publishing, exchanging or storing information or documents

Any provision of this Law related to writing, to publication of information, to the submission of tenders in a sealed envelope, to the opening of tenders, to a record or to a meeting shall be interpreted to ~~include~~ incorporate [any means of such activity, including], electronic, optical or comparable means, [including, but not limited to,] electronic data interchange (EDI), electronic mail, telegram, telex or telecopy] provided that the means chosen complies with the [provisions of/accessibility standards set out in] article [4 ter].”~~the enacting State or procuring entity is satisfied that such use:~~

~~— (a) [Does not represent an obstacle to the procurement process] [uses means of communication generally available];~~

~~— (b) Promotes economy and efficiency in the procurement process; and~~

~~— (c) Will not result in discrimination among or against potential suppliers or contractors or otherwise substantially limit competition] [provided that the enacting State or procuring entity is satisfied that such use complies with the accessibility standards contained in article [*]].][with the inclusion of the list found in Variant A in the Guide to Enactment.] (A/CN.9/568, para. 13).~~

B. Guide to Enactment text addressing the use of electronic communications during the procurement process

2. General introductory remarks in the Guide to Enactment

“(i) ~~Introduction to p~~ Provisions introducing governing the use of electronic communications in the procurement process

(1) The UNCITRAL Model Procurement Law (1994 version) was adopted at a time at which the use of information technology and electronic communications was anticipated, but not yet widespread. Although some of its provisions may allow for the use of electronic communications and technologies in the procurement process, the Model Law was not primarily concerned with legal issues related to the use of these technologies, and a number of its provisions reflect a background of communications, record-keeping and evidentiary systems that were largely based on information recorded on paper. Examples include references to “documentary evidence” and similar concepts set out in articles 6 (2), 7 (3)(a)(iii), 10, 27 (c), 36, 38 (f) of the current 1994 Model Law, the rules on preparation, modification,

withdrawal, submission and opening of tenders, and the conclusion of a procurement contract.

(2) Since the adoption of the Model Law in 1994, the use of electronic communications and technologies in public procurement (which includes using electronic equipment for the processing, digital compression and storage of data that are transmitted, conveyed and received by wire, by radio, by optical or by other electromagnetic means) has increased rapidly, including the use of procurement methods based on the Internet, to which this Guide will refer generally as “electronic procurement”, ~~has increased rapidly~~. Electronic procurement has been observed to offer many potential benefits, including improved value for money from more rigorous competition in a broader procurement market, better information for suppliers and contractors and more competitive techniques, savings in time and costs, improved administration of contracts awarded, and, in some cases, improved compliance with rules and policies and fewer opportunities for corruption and abuse. Further, electronic procurement provides valuable opportunities to enhance public confidence and transparency in the procurement process. ~~UNCITRAL~~ The Commission therefore considered that the Model Law should make provision so as to enable the use of electronic procurement.

(3) However, ~~concerns have also been expressed that~~ controls on the use of electronic procurement may be needed to address ~~the relative novelty of electronic communications~~, possible discrimination where access to the necessary infrastructure may be lacking, issues of security, confidentiality and authenticity in electronic communications, and the impact of modern procurement methods on [other] ~~socio-economic~~ policy goals. The revisions to the ~~original~~ 1994 Model Law seek to address these concerns, and this Guide sets out the objectives of the revisions themselves.

(4) Although some of the issues raised by electronic procurement can be accommodated within the 1994 Model Law’s ~~existing~~ provisions (or through the interpretation of existing laws and rules, including as set out in the 1994 Guide to Enactment), ~~UNCITRAL~~ the Commission has revised the text of the Model Law so as to make appropriate provision or provide clarification where necessary and, where ~~possible~~ appropriate, to promote the use of electronic procurement as a means of enhancing the achievement of the objectives of the Model Law itself. The aim of the provisions is to ensure that all [means/methods] of communication are afforded equivalent status under the Model Law and that their use will be subject to appropriate safeguards such as that procuring entities, when selecting the means of communication for a procurement, [do not discriminate among suppliers and contractors][select means that are [generally][reasonably][commonly] available [and that are compatible [or interoperable] with those in common or general use]. It should be noted that these provisions are intended to apply to international and domestic procurement, so as to ensure non-domestic suppliers’ access to procurement markets even where there may be uneven availability of electronic infrastructure within the field of potential suppliers and contractors.

(ii) Interaction between legislation concerning electronic procurement and electronic commerce legislation

(5) Electronic procurement has a natural dependence on the existing level of use and regulation of electronic commerce in general. This Guide will also,

therefore, make reference to the interaction between the legislation governing electronic commerce and that governing procurement where appropriate. It will not be appropriate for a procurement law to govern electronic commerce generally in an enacting State, and for this reason, the Model Law will not address issues that fall to be treated as a matter of general electronic commerce law. However, provision is made where the procurement context requires additional measures (such as the submission of tenders). In the light of the above, enacting States may wish to ensure that their existing legislation governing the use of electronic commerce indeed provides adequate recognition of electronic communications, and that it addresses the issues set out in the following paragraphs. For ease of reference of enacting States, the solutions to the issues that UNCITRAL has provided in its main electronic commerce text (the UNCITRAL Model Law on Electronic Commerce (1996)) are also set out.¹

(6) One of the main ~~fetters on the requirements for the effective use of electronic communications is a legal obstacle that is uncertainty as to the legal recognition, validity or and enforceability of electronic communications generated in the contractual process. These obstacles may arise in requirements for “written” or “original” communications and documents, the formalities of contract formation and the admissibility of evidence in court (A/CN.9/568, para. 30 and A/CN.9/WG.I/WP.34/Add.1, para. 44).~~ Accordingly, the UNCITRAL Model Law on Electronic Commerce seeks to enable commercial transactions to be conducted electronically, by ~~removing these legal obstacles and so~~ providing certainty in the use of electronic communications, such that requirements for “written” or “original” communications and documents, the formalities of contract formation and the admissibility of evidence in court encompass both paper-based and electronic communications and documents.

(7) The approach of the ~~UNCITRAL~~ Model Law on Electronic Commerce is to provide a general principle of functional equivalence in communications, such that electronic communications are afforded the same degree of recognition as traditional paper-based documents, so that both are universally legible, remain unaltered over time, are capable of reproduction (with each party holding a copy of the same data), can be authenticated by means of a signature, and are in a form acceptable to public authorities and courts. ~~The functions of documents, including communications, are more fully described in paragraph 16 of the Guide to Enactment accompanying that Model Law, which notes that they should, inter alia, fulfil the following functions: “to ... be legible by all; to provide that a document would remain unaltered over time; to allow for the reproduction of a document so that each party would hold a copy of the same data; to allow for the authentication of data by means of a signature; and to provide that a document would be in a form acceptable to public authorities and courts.”~~

(8) Articles 5, 6, 7 and 8 of the ~~UNCITRAL~~ Model Law on Electronic Commerce in material part provide for the functional equivalence of paper-based

¹ For the text of the Model Law, see *Official Records of the General Assembly, Fifty-first Session, Supplement No. 17 (A/51/17)*, annex I (also published in the *UNCITRAL Yearbook*, vol. XXVII:1996 (United Nations publication, Sales No. E.98.V.7), part three, annex I). The Model Law and its accompanying Guide to Enactment have been published as United Nations publication, Sales No. E.99.V.4, and are available in electronic form at the UNCITRAL website <http://www.uncitral.org/english/texts/electcom/ml-ecomm.htm>).

and electronic communications, addressing the “legal recognition of data messages [electronic communications]”, and the notions of “writing”, “signatures”, and “original”. The combined effect of these provisions, which should be read together, is that electronic communications have the same degree or legal recognition and validity as paper-based ones, so that they will not be denied legal effect, validity and enforceability solely on the grounds that they are electronic and not paper-based communications.

~~— (9) The UNCITRAL Model Law on Electronic Commerce addresses these issues as follows:~~

~~— (a) Article 5: “[I]nformation shall not be denied legal effect, validity or enforceability solely on the grounds that it is in the form of a data message”. The commentary to that article in the Guide to Enactment of the Model Law on Electronic Commerce notes that “article 5 merely indicates that the form in which certain information is presented or retained cannot be used as the only reason for which that information would be denied legal effectiveness, validity or enforceability. However, article 5 should not be misinterpreted as establishing the legal validity of any given data message or of any information contained therein”;~~

~~— (b) Article 6: “[w]here the law requires information to be in writing, that requirement is met by a data message if the information contained therein is accessible so as to be usable for subsequent reference.” The commentary notes that “article 6 is intended to define the basic standard to be met by a data message in order to be considered as meeting a requirement ... that information be retained or presented “in writing” (or that the information be contained in a “document” or other paper-based instrument)”; and~~

~~— (c) Article 8: “[w]here the law requires information to be presented or retained in its original form, that requirement is met by a data message if: (a) there exists a reliable assurance as to the integrity of the information from the time when it was first generated in its final form, as a data message or otherwise; and (b) where it is required that information be presented, that information is capable of being displayed to the person to whom it is to be presented.” The commentary explains that although the adjective “original” normally refers to documents of title and negotiable instruments, the provision may be needed in some jurisdictions in certain additional transactions.~~

(10) {The specific considerations arising when documents are signed electronically, and those arising in the conclusion of contracts by electronic means are addressed in the commentary to article 36 (“Acceptance of tender and entry into force of procurement contract”) below.} {As regards the electronic signature of documents, article 7 of the UNCITRAL Model Law on Electronic Commerce, provides as follows: “[w]here the law requires a signature of a person, that requirement is met by a data message if (a) a method is used to identify that person and to indicate that person’s approval of the information contained in the data message; and (b) that method is as reliable as was appropriate for the purpose for which the data message was generated or communicated, in the light of all the circumstances, including any relevant agreement ...”}

(11) Enacting States may also wish to issue regulations covering such matters as technical disruptions, disclaimers of liability and practical issues such as time zones, issue of receipts, etc.

(iii) Approach to enabling the use of electronic communications in the revised Model Law

(12) The Model Law addresses the use of electronic communications in the procurement process adopting the functional equivalent approach from the UNCITRAL Model Law on Electronic Commerce, but, as noted above, will not make provision for matters addressed in the general law of electronic commerce unless the procurement context requires additional provisions. Consequently, the Model Law does not address the following topics: the general legal recognition of electronic communications, what is meant by “writing”, what is an “original” document, electronic or digital signatures, the general admissibility and evidential weight of electronic communications, the formation, validity and operation of contracts, the attribution of electronic communications, and acknowledgements of receipt of electronic communications other than tenders.

(13) The provisions presented in this revised Model Law set out that any requirement for writing, publication of information, the submission and opening of tenders, for a record or ~~to a meeting~~ in the Model Law itself can be met by using any forms means of electronic communication, electronic or otherwise, to the same effect. (In the context of a meeting, using electronic communications means that the participants can follow and participate in the proceedings by electronic means of communication.) ~~It does not provide that such communications are of themselves legally valid, a matter that~~ Although the legal validity of such communications will should be explicitly provided for in an enacting State’s general electronic commerce legislation. ~~However,~~ the procurement context requires specific and additional provision in areas such as regarding the submission of tenders under the provisions of articles 27 (h), (q), (r), and (z), 30, 31 (2) and 33 of the ~~current~~ 1994 Model Law [update cross references]. In such cases, the reasons for the need and objectives of the provisions are set out in the relevant section of this Guide (~~A/CN.9/WG.I/WP.34, para. 13, A/CN.9/575, para. 11~~)[insert cross references].

(14) The revised Model Law also, where appropriate possible, encourages (but does not generally require) the use of electronic communications and technologies in public procurement. However, the procuring entity may require the use of electronic communications in the procurement process under articles [4 *ter* and 9], and electronic procurement is required (~~A/CN.9/575, para. 10, A/CN.9/568, para. 33~~), ~~though such use is required save~~ in the case of [cross reference to electronic procurement, such as electronic reverse auctions and dynamic purchasing systems].

(15) The use of electronic communications raises issues of authenticity, confidentiality and integrity of communications, documents and data, as noted above. Enacting States [will also] [may] wish to consider the extent to which their domestic electronic commerce law provides adequate controls over communications that could be generated in the procurement context. This topic is further addressed in the sections of this Guide addressing the form of communications (under article 9 of the 1994 Model Law) and the submission of tenders by electronic means (under article 30 of the 1994 Model Law).

(16) The principle of flexibility in method of communicating, based on functional equivalence, applies not only to general communications in procurement, but equally to the publication of opportunities and procurement-related information,

the exchanging of information concerning procurement, the submission and opening of tenders, holding pre-tender conferences, the maintenance, storage and dissemination of information and documents (including the record of the procurement proceedings required under article 11 of the Model Law), and the conclusion of contracts. Accordingly, proposed article [4 ter] is drafted in broad fashion, so as to cover all aspects of the generation, transfer and storage of information in communications and documents, and the controls and accessibility standards described in the preceding paragraphs should apply equally to these broader notions.”

C. Accessibility standards

3. Proposed new text for the Model Law: new article 4 *ter*

“Article 4 *ter*. Accessibility standards

The procuring entity shall ensure that ~~its use of any~~[means/method] of ~~communication communicating, for publishing, exchanging or storing information or documents, or of holding a meetings, during the procurement process and of submission and opening of tenders,~~

~~—(a) Shall not [[unreasonably] discriminate] [result in [unreasonable] discrimination] among or against potential suppliers or contractors or otherwise [substantially] limit competition.~~

[possible additions]

Shall not represent an obstacle to the procurement process; and

~~shall use that the [means/methods] of communication shall be [generally] [reasonably][commonly] available [and compatible [and interoperable] with those in common or general use].”~~

~~—(b) Should promote economy and efficiency in the procurement process; and~~

~~—(c) Shall not result in discrimination among or against potential suppliers or contractors or otherwise substantially limit competition.~~

D. Form of communications

4. Proposed revisions to article 9 of the Model Law

“Article 9. Form of communications

[new paragraph (1)] Documents, notifications, decisions and other communications [referred to in this Law] between suppliers or contractors and the procuring entity shall be provided, submitted or effected by the means of communication specified by the procuring entity when first soliciting the participation of suppliers or contractors in the procurement proceedings, provided that the procuring entity shall in each case comply with the [provisions of/accessibility standards set out in] article [4 *ter*].

~~—(1)-(2) Subject to other provisions of this Law and any requirement of form specified by the procuring entity when first soliciting the participation of~~

~~suppliers or contractors in the procurement proceedings, documents, notifications, decisions and other communications [referred to in this Law] to be submitted by the procuring entity or administrative authority to a supplier or contractor or by a supplier or contractor to the procuring entity shall be in a form that provides a record of the content of the communication and is accessible so as to be usable for subsequent reference.~~

~~— (1) bis. The procuring entity may stipulate in the solicitation documents the form that all communications with suppliers or contractors shall take, provided that the means of communication chosen by the procuring entity shall comply with the accessibility standards contained in [article 4 bis or 5 bis].~~

~~— (1) ter. The procuring entity may stipulate in the solicitation documents that tenders submitted under article 30 must be submitted in electronic form [, provided that the means of submission chosen by the procuring entity shall comply with the accessibility standards contained in article [article 4 bis or 5 bis].~~

~~— (1) quater. Without prejudice to the right of a procuring entity to stipulate the form of communications in the solicitation documents, the procuring entity shall not discriminate against or among suppliers or contractors on the basis of the form in which they transmit or receive documents, notifications, decisions or other communications.~~

~~— (2)-(3) Communications between suppliers or contractors and the procuring entity referred to in articles 7 (4) and (6), 12 (3), 31 (2) (a), 32 (1) (d), 34 (1), 36 (1), 37 (3), 44 (b) to (f) and 47 (1) [update for revisions to Model Law] may be made by a means of communication that does not provide a record of the content of the communication provided that, immediately thereafter, confirmation of the communication is given to the recipient of the communication in a form which provides a record of the confirmation and is accessible so as to be usable for subsequent reference.~~

~~— (3) The procuring entity shall not discriminate against or among suppliers or contractors on the basis of the form in which they transmit or receive documents, notifications, decisions or other communications.~~

~~— (1) ~~quinquies~~. (4) The procurement regulations ~~may~~ shall establish measures to ensure accessibility of communications and non-discrimination among suppliers or contractors so as to give effect to the [provisions of/accessibility standards set out in] article [4 ter], and may establish measures to ensure the authenticity, integrity, accessibility and confidentiality of communications, and ~~to ensure~~ the interoperability of the systems used to transmit and receive them.”~~

5. Guide to Enactment text addressing article 9 of the Model Law

“Article 9. Form of communications

(1) Article 9 is intended to provide certainty as to the required form of communications between the procuring entity and suppliers and contractors provided for under the Model Law. The essential requirement, subject to other provisions of the Model Law, is that a communication must be in a form that provides a record of its content.

(1) bis [Article 4 ter] of the Model Law enables the procuring entity to select the means of communication to be used in a particular procurement, and the

“accessibility standards” (which apply equally to all means of communication, be they electronic, paper-based or other means) attach conditions to that choice, so as to safeguard the objectives of the Model Law (including that the means of communication chosen should not operate as a barrier to access). The provisions of this article require the choice as to the form of communications to be set out in the solicitation documents, and refer to a single choice of communications for each procurement (and not for each supplier or contractor). The solicitation documents may, however, provide alternative means of submission for identified documents or classes of documents that cannot be submitted in means of communication chosen (such as tender securities, complex drawings, and formal certificates of incorporation, payment of taxes, etc., which (at the time of writing) are not generally available in electronic form).

(2) Obviously, article 9 does not purport to answer all the technical and legal questions that may be raised by the use of EDI or other non-traditional methods of communication in the context of procurement proceedings, and different areas of the law would apply to ancillary questions such as the electronic issuance of a tender security and other matters that are beyond the sphere of “communications” under the Model Law.

(3) In order to permit the procuring entity and suppliers and contractors to avoid unnecessary delays, paragraph (2) permits certain specified types of communications to be made on a preliminary basis through means, in particular telephone, that do not leave a record of the content of the communication, provided that the preliminary communication is immediately followed by a confirming communication in a form that leaves a record of the content of the confirming communication.

~~3 bis. The revised article 9 of the Model Law provides that the procuring entity may choose the method by which it will communicate with suppliers or contractors in the procurement process. The objective of this provision is to afford the procuring entity the option of insisting on a particular means of communication, such as electronic means, without having to justify its choice. However, that option is subject to two elements of control: first, that the means of communication chosen must serve the objectives of the Model Law (that is, those objectives set out in the preamble to the Model Law) and, secondly, that the means of communication do not operate as a barrier to access to procurement (the “accessibility standards” described in paragraphs ** above, which will apply to any means of communication chosen). In this regard, the revised paragraphs (1) bis, (1) ter and (3) have been included so as to strengthen the safeguards contained in the article against discriminatory or otherwise exclusionary practices by the procuring entities (A/CN.9/575, para. 33). The obligation on the procuring entity to be satisfied that the accessibility standards are met will be open to review under article 54, and the requirements of the record of the procurement proceedings to be maintained pursuant to article 11 will enable the procuring entity’s decision and how it was arrived at to be reviewed.~~

~~— 3 ter. Paragraphs (1) bis and (3) are also designed to ensure that suppliers and contractors do not have the right to insist on any particular means of communication with a procuring entity, that no such right can be construed (A/CN.9/575, para. 33).~~

~~— 3 quater. The proposed text as regards paragraph 1 ter has been inserted in order to provide for the electronic submission of tenders, currently prohibited under~~

~~article 30 of the Model Law (see, further, A/CN.9/568, para. 32 and A/CN.9/WG.I/WP.34/Add.1, paras. 22-37).~~

(3) ~~quinquies-bis~~. ~~The proposed n~~New paragraph ~~(+3)~~ ~~quinquies~~ has been inserted so as to draw the attention of enacting States that:

(a) There should be appropriate procedures and systems to establish the authenticity of communications;

(b) The means used to send and receive electronic communications should be sufficient to ensure that the integrity of data is preserved;

(c) The confidentiality of information submitted by or relating to other suppliers is maintained;

(d) The tools or systems used to send and receive electronic communications are fully compatible (or interoperable);

(e) The means used to send and receive electronic communications should enable the date and, where relevant, the time of receipt of documents to be established. ~~if~~ The time of receipt is significant in applying relevant for the application of the rules of the procurement process ~~(to, for example, the submission of requests to participate and tenders/proposals); and~~

(f) The means used to send and receive electronic communications should be secure, that is, they ensure that tenders and other significant documents cannot be accessed by the procuring entity or other persons prior to any deadline, to prevent procuring entities' passing information on other tenders to favoured suppliers and to prevent competitors from gaining access to that information themselves ~~(security) (A/CN.9/568, para. 41).~~

(3) ~~sexiens-ter~~. As regards electronic communications, items (a), (b) and (c) of the preceding paragraph fall to be addressed in general electronic commerce law, and as noted in paragraph [cross refer to general guidance section] above, enacting States [may/will] wish to consider the extent to which their existing laws provide adequate controls over the communications that may be generated in the procurement process, whether further regulation is needed, and whether to make reference to the need for such controls in their procurement regulations. ~~One~~ ~~For~~ ~~example, in domestic legislation requires the heads of procuring entities before using electronic commerce to~~ "should ensure that ~~the [entity's]~~ their systems are capable of ensuring authentication and confidentiality commensurate with the risk and magnitude of the harm from loss, misuse, or unauthorized access to or modification of the information²."

(3) ~~quater-septiens~~. Items (d), (e) and (f) require procurement-specific solutions, arising most notably in connection with the submission of tenders electronically, and are addressed in paragraphs [cross reference] below.

(3) quinquies Enacting States may wish to permit procuring entities to charge for any proprietary systems (such as software) required for communications for a particular procurement, but should ensure that procuring entities may not use a charging facility to levy disproportionate charges or to restrict access to the procurement."

E. Legal value of procurement contracts concluded electronically

6. Proposed revisions to Guide to Enactment addressing article 36 of the Model Law

“Article 36. Acceptance of tender and entry into force of the procurement contract

(1) *bis*. Articles 27 (y) and 38 (u) of the Model Law refer to a “written” procurement contract, and article 36 (2)(a) and (b) provide that the solicitation documents may require the supplier or contractor whose tender has been accepted to “sign a written procurement contract”. ~~[, which may be signed in the traditional manner, or electronically].~~ ~~[Enacting States [may/will] wish to ensure that their existing legislation recognizes procurement contracts that are executed electronically.]~~

(a) Electronic contracting

(1) *ter*. ~~The solution provided by the UNCITRAL electronic commerce texts, found in a~~ Article 11 of the Model Law on Electronic Commerce ~~does not seeks to interfere in the general rules of contract formation. Rather, its stated aim is “to promote international trade by providing increased legal certainty as to the formation and conclusion of contracts by electronic means (even if offer and acceptance are generated by computers). It deals not only with the issue of contract formation but also with the form in which an offer and an acceptance may be expressed. In certain countries, [the provision] ... might be regarded as merely stating the obvious, namely that an offer and an acceptance, as any other expression of will, can be communicated by any means, including data messages. However, the provision is needed in view of the remaining uncertainties in a considerable number of countries as to whether contracts can validly be concluded by electronic means. Such uncertainties may stem from the fact that, in certain cases, the data messages expressing offer and acceptance are generated by computers without immediate human intervention, thus raising doubts as to the expression of intent by the parties. Another reason for such uncertainties is inherent in the mode of communication and results from the absence of a paper document.” Article 11 itself provides that “[w]here a data message [electronic communication] is used in the formation of a contract, that contract~~ The provisions state that a contract shall not be denied validity or enforceability on the sole ground that it was concluded using electronic communications a data message [electronic communication] was used for that purpose.

(b) Electronic signatures

(1) *quater* ~~In practical terms, e~~Enacting States ~~[may/will]~~ also wish to prescribe the manner in which the parties will sign or otherwise authenticate a procurement contract concluded electronically, in accordance with their laws on electronic commerce. Some States may have requirements for digital or other authenticated forms of electronic signatures in electronic commerce, which may be applied to procurement provided that they do not operate so as to restrict access to the procurement.

(1) *quinqüens* ~~The solution provided by the UNCITRAL electronic commerce texts is found in a~~ Article 7 of the Model Law on Electronic Commerce and the

~~Model Law on Electronic Signatures² The Guide to Enactment text discussing the latter article notes that its aim is to promote reliance on electronic signatures for producing legal effect where such electronic signatures by providing that they are functionally equivalent to handwritten signatures. The provisions themselves address the issue of state that an electronic signature of documents using the principle of functional equivalence, by providing that: “[w]here the law will meet a requirement of law for a “signature” of a person, that requirement is met in relation to a data message if :-[the signature} is as reliable as was would be appropriate for the purpose of the relevant electronic communication in the circumstances, for which the data message was generated or communicated, in the light of all, including any relevant agreement.”~~

F. Requirement to maintain a record of the procurement proceedings

7. Guide to Enactment text addressing article 11 of the Model Law

“Article 11. Record of procurement proceedings

(1) One of the most important ways to promote transparency and accountability is to include provisions requiring that the procuring entity maintain a record of the procurement proceedings. A record summarizes key information concerning the procurement proceedings. It facilitates the exercise of the right of aggrieved suppliers and contractors to seek review. That in turn will help to ensure that the procurement law is, to the extent possible, self-policing and self-enforcing. Furthermore, adequate record requirements in the procurement law will facilitate the work of Government bodies exercising an audit or control function and promote the accountability of procuring entities to the public at large as regards the disbursement of public funds.

(1) *bis*. Article 11, however, focuses on the accessibility and availability of information forming the record, and does not contain requirements as to the form of the record, nor the conditions to be in place for a record to be maintained in any particular format electronically (A/CN.9/575, para. 45). The “accessibility standards” set out in [article 4 ~~bis~~ or 5 ~~bis~~ter], however, require the procuring entity, when maintaining the record, to select a means of storage of information that will enable the information concerned to be and remain accessible until the time for review under article 52 of the Model Law has elapsed even as technologies advance, and to be non-discriminatory. Further, enacting States [may/will] wish to pass regulations that ensure that record retention systems are fully compatible (or interoperable), and that they allow each communication in the procurement process to be verified, such that the traceability (sender, recipient and time and duration) of each communication can be established (and automatic data processing or calculations can be reconstituted) ~~-(traceability)~~. Further, the regulations may address whether access to the record and contract documents should be recorded and

² For the text of the Model Law, see *Official Records of the General Assembly, Fifty-sixth Session, Supplement No. 17 (A/56/17)*, annex II. The Model Law and its accompanying Guide to Enactment have been published as United Nations publication, Sales No. E.02.V.8, and are available in electronic form at the UNCITRAL web site (<http://www.uncitral.org/english/texts/electcom/ml-elecsig-e.pdf>).

any data protection issues that would arise, to ensure the integrity and security of data, and confidentiality of communications and information, as more fully set out in [cross reference to ~~commentary~~ appropriate paragraph of the Guide.] The provision in [paragraph 1(b) bis] requiring the procuring entity to record the means of communication chosen in the record of the procurement proceedings is included so as to enable the procuring entity's decision and its compliance with the "accessibility standards" contained in [articles 4 *ter* and 9] to be reviewed under article 52 if necessary.~~to article 9 above.]~~"

G. Electronic submission of tenders, proposals and quotations

8. Proposed revisions to the text of article 30 of the Model Law

"Article 30. Submission of tenders

(5) (a) A tender shall be submitted in the form specified in the solicitation documents, provided that the means of submission chosen by the procuring entity shall comply with [the provisions of/accessibility standards set out in] article [4 *ter*] when choosing the means of submission in writing, signed and in a sealed envelope or in any form specified in the solicitation documents;

~~(b) Without prejudice to the right of a supplier or contractor to submit a tender in the form referred to in subparagraph (a), a tender may alternatively be submitted in any other form specified in the solicitation documents that provides a record of the content of the tender and at least a similar degree of authenticity, security and confidentiality;~~

~~(e) (b) The procuring entity shall, on request, provide to the supplier or contractor a receipt showing the date and time when its tender was received."~~

H. Electronic opening of tenders

9. Proposed revisions to the text of article 33 of the Model Law

"Article 33. Opening of tenders

(4) Where the procurement proceedings were conducted electronically in accordance with [insert provisions dealing with electronic communications, reverse auctions and other fully automated procedures, if any], suppliers or contractors shall be deemed to have been permitted to be present at the opening of the tenders in accordance with the requirements of article 33 (2) if they are allowed to follow the opening of the tenders [simultaneously/instantaneously/through the electronic means of communication used by the procuring entity]."

~~(5) Where suppliers or contractors are permitted to follow the opening of the tenders through electronic means of communication used by the procuring entity in accordance with the requirements of article 33 (4), they shall be deemed to have been permitted to be present at the opening of tenders in accordance with the requirements of article 33 (2).~~

I. Electronic publication of procurement-related information

10. Proposed revisions to the text of article 5 of the Model Law

“Article 5. Public accessibility of [legal texts] [procurement-related information]

The text of this Law, procurement regulations and all administrative rulings and directives of general application in connection with procurement covered by this Law, ~~and all amendments thereto, as well as any other documents and information required to be published [or being published under this Law]~~ and all judicial decisions on the application thereof shall be promptly made accessible to the public and systematically maintained.

~~[(2) Any further information, such as regarding forthcoming opportunities, internal controls or guidance, that an enacting State or procuring entity chooses to publish shall be promptly made accessible to the public [and systematically maintained].]~~

[possible additions]

[[An enacting State may choose to make accessible to the public additional information regarding internal controls, guidance or other information.]]

[All other documents and information that this Law requires to be published shall be promptly made accessible to the public and systematically maintained].

[The procurement regulations shall provide for the media and manner of publication of information under this Law.]”