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Possible revisions to the UNCITRAL Model Law on Procurement of Goods, Construction and Services—issues arising from the use of electronic communications in public procurement

Note by the Secretariat

Addendum

[Chapters I through III are published in document A/CN.9/WG.I/WP.34]

Contents

	<i>Paragraphs</i>	<i>Page</i>
IV. Use of electronic communications in the procurement process	1-58	2
A. General remarks: stages of use of electronic means in the procurement process	3-7	2
B. Electronic publication of invitations to participate in specific procurement .	8-17	4
C. Electronic supply of solicitation or prequalification documents, and requests for proposals or quotations	18-21	6
D. Electronic submission of tenders, proposals and quotations	22-37	7
E. Form of other communications during the procurement process	38-43	11
F. Legal value of electronic documents used in or resulting from procurement proceedings	44-58	13



IV. Use of electronic communications in the procurement process

1. At its sixth session (Vienna, 30 August-3 September 2004), the Working Group noted that the main policy issues with regard to the use of electronic methods of communication under the UNCITRAL Model Law on Procurement of Goods, Construction and Services (hereafter “the UNCITRAL Model Procurement Law” or “the Model Law”)¹ were the following:

(a) Whether the law should permit or require procuring entities to use electronic communications by consent with suppliers or authorize either party to require electronic communications; and

(b) Whether those rules should attach conditions to the use of electronic means to safeguard the objectives of the procurement law, so as to prevent the electronic means chosen from operating as a barrier to access, to secure confidentiality, to ensure authenticity and security of transactions, and the integrity of data (A/CN.9/568, para. 30).

2. As regards the extent to which electronic communications (including the electronic submission of tenders) could be required or made mandatory, the Working Group had been informed that in the practice of a number of countries procuring entities were authorized to require bidders to use electronic means of communication in procurement proceedings (A/CN.9/WG.I/WP.31, para. 55). At its sixth session, the Working Group generally agreed on the desirability of approaching the issue in a flexible manner. There was broad agreement within the Working Group to the effect that suppliers should not be enabled to impose a particular means of communications on the procuring entity. As regards, however, the procuring entity’s right to require electronic communications, it was generally felt that it would be unwise to craft a rule that contemplated that possibility for all cases and circumstances (A/CN.9/568, para. 33). It was generally agreed that it would be useful to formulate provisions that expressly enabled and, in appropriate circumstances, promoted the use of electronic communications, possibly subject to a general requirement that the means of communication imposed by the procuring entity should not unreasonably restrict access to the procurement. Additional guidance and explanations on various options regarding the kind of means available and the controls that might be needed should be included in the Guide to Enactment (A/CN.9/568, para. 39).

A. General remarks: stages of use of electronic means in the procurement process

3. In considering the appropriate level of guidance that should be provided, the Working Group may wish to bear in mind the various stages of use of electronic communications in the procurement process in current practice. Recent studies on the use of electronic applications in the procurement process distinguish generally between two systems: electronic tendering and electronic purchasing systems.²

4. “Electronic tendering systems” are defined as systems developed to support “carefully regulated competitive bidding processes based on detailed bidding

documents and technical specifications.”³ Electronic tendering systems are said to be particularly suitable for procurement “of large public works, of production capabilities such as a power plant, of performance capabilities such as large information systems, or of sophisticated services such as design and management of virtual private communication networks. All these are documentation-heavy procurement transactions that require careful evaluation of quality aspects, customized contracts, and extensive services.”⁴ Electronic tendering systems may provide various types of support functions for the conduct of procurement proceedings, including: tender document preparation assistance through document templates; electronic publication; access control and protection of original documents; market research capabilities; process automation of all tasks involved in the tendering process, from preparation and clearance of bidding documents, to operational acceptance of goods or services procured; support of off-line processes such as pre-qualification of bidders, and evaluation of bids.⁵ Depending on the extent of use of information technology in a country, the systems may evolve through the following stages:

(a) *First stage*: In this stage, the use of electronic communications is essentially limited to making tender notices available through electronic means, such as Internet web sites. Such a system is not very complex technologically and requires minimum or no legislative change;

(b) *Second stage*: In this stage, invitations to prequalify and solicitation documents are made available electronically and may be either downloaded by suppliers from a designated website or are transmitted by e-mail upon request. In addition, a number of other actions may be carried out electronically, such as the online registration of suppliers and contractors and notices of impending business opportunities through electronic mail based on supplier profiles;

(c) *Third stage*: This stage involves conversion to full electronic processing and requires substantially more complex technology, operating capabilities and legal and regulatory infrastructure. In this stage, all pre-bidding steps are accomplished electronically—invitation to participate in the procurement, registration, supply of solicitation documents, clarifications, modifications to process or substance of the procurement. Furthermore, submission of bids, opening of bids, filing of minutes of the bidding session, recording of the award decision, reception and filing of complaints, and notice of disposition of complaints, may all be done electronically;

(d) *Fourth stage*: The last stage involves, in addition to the capabilities covered by the third stage, highly developed support and oversight functions, including functions such as settlement of transactions made through the procurement platform; advanced demand aggregation services (whereby the procurement platform operator identifies aggregation possibilities for public sector demand of particular goods or services and actively markets electronic auctions designed to capture associated economies of scale); or advanced buyer support services (whereby the procurement platform operator develops procurement profiles for individual government agencies, particularly for recurrent purchases, and custom tailors market research and transaction facilities that improve the efficiency and economy of those purchases).⁶

5. “Electronic purchasing systems”, which may include electronic catalogues, electronic reverse auctions and “dynamic purchasing”, in turn, are primarily

oriented towards discrete item or lot purchasing of standards products or precisely defined services. Their distinguishing characteristics are:

(a) They involve an electronic, legal equivalent of a physical marketplace where goods are figuratively displayed (electronic catalog) and buyers and sellers meet under rules of procedure enforced by the marketplace operator;

(b) They provide comparison facilities and electronic pricing mechanisms, but not contract formation facilities, as terms and conditions of contracts are typically pre-established.⁷

6. It is suggested that the flexibility contemplated by the Working Group for its work (see above, para. 2) would be best promoted by bearing in mind not only that States might be at varying stages in the use of electronic communications, but also that even within the same States different procuring entities may not be at the same level of sophistication as regards the use of information technology in the procurement process. It may be further useful to bear in mind that in any case this situation may rapidly change as more experience is gained and technology becomes more widely used, which is one of the reasons underlying the Working Group's wish for a flexible approach to the use of electronic communications in the procurement process. At the same time, however, the Working Group may also wish to consider the appropriate balance between concerns for preserving flexibility and advice that may be needed by States to move forward in the modernization of their procurement processes. An overly cautious approach that would refrain from providing concrete advice on measures to remove possible legal obstacles to the use of electronic communications might itself run counter to the aim of flexibility, since it would not support the efforts of those States that desire to widen the use of electronic communications in the procurement process.

7. The following sections deal with issues related to the use of electronic communications that may arise in connection with any of the first three stages of "electronic tendering systems", as described above (see above, para. 4). Legal issues related to the fourth stage of an electronic tendering system (see above, para. 4(d)), fall for the most part outside the scope of the UNCITRAL Model Procurement Law, as they relate to procurement planning and contract management. Issues related to the use of electronic reverse auctions, as an example of "electronic purchasing systems", are considered in a separate note (A/CN.9/WG.I/WP.35).

B. Electronic publication of invitations to participate in specific procurement

8. Many states and entities now use electronic means to publish invitations for suppliers to participate in specific procurements (including those required to be published by law).⁸ At its sixth session, the Working Group recognized the value of electronic publications as a means to enhance transparency and competition and expressed the view that the Model Law should encourage the electronic publication of information that the Model Law currently required States to publish (A/CN.9/568, para. 21).

9. Article 24(1) of the UNCITRAL Model Procurement Law requires the publication of invitations to tender or invitations to prequalify in an official

publication specified by the enacting State when implementing the Model Law (such as an official gazette). In addition, under article 24(2), an invitation shall also be advertised in a “newspaper” or “relevant trade publication or technical or professional journal” of wide international circulation. The provisions of article 24 are incorporated by cross-reference to chapter III of the Model Law in article 46(1) (two-stage tendering) of the Model Law. Similar provisions exist in articles 37(1 and 2) (procurement of services), 47(2) (restricted tendering) and 48(2) (request for proposals). Generally, those other provisions give rise to the same types of issues that are raised in connection with article 24, which are discussed in the following paragraphs and apply, *mutatis mutandis*, to the context of those provisions as well.

10. Article 24 of the UNCITRAL Model Procurement Law implies paper means of publication. Statements in the Guide to Enactment alone setting out the benefits, desirability and possible methods of electronic publication, rather than further provisions in the UNCITRAL Model Procurement Law itself, may not be sufficient to promote electronic publication.

11. An apparently simple solution to allow for the electronic publication of invitations to tender might be to include in article 24 additional clarification similar to the one proposed for inclusion in article 5 (see A/CN.9/WG.I/WP.34, paras. 24-28) that may read “which may include by publication through publicly accessible electronic information systems”, with appropriate explanations in the Guide to Enactment. However, given the impact that the choice of the means of publication inevitably has on the potential group of suppliers, this type of minimal amendment is not likely to address the view expressed by the Working Group that the means of communication chosen by the procuring entity should not unreasonably restrict access to procurement proceedings and should not discriminate against and among suppliers (A/CN.9/568, paras. 34, 41 and 42). Indeed, it would be important to clarify whether and to what extent electronic publication would substitute for paper publication and under what circumstances they may or may not be used by a procuring entity.

12. The Working Group may therefore wish to consider what kind of additional provisions may be desirable to both enable use of electronic publications and prevent discrimination among suppliers. At its sixth session, the Working Group generally agreed that it would be useful to formulate provisions that expressly enabled and, in appropriate circumstances, promoted the use of electronic communications, possibly subject to a general requirement that the means of communication imposed by the procuring entity should not unreasonably restrict access to the procurement. (A/CN.9/568, para. 39).

13. In the light of the above, the Working Group may wish to consider that an enabling clarification along the lines suggested above (see above, para. 11) should be accompanied by a requirement that the means of publication should not compromise the general principle of accessibility, without, however, specifying the technical means to be used, with a view to preserving technological neutrality.⁹

14. The Working Group may therefore wish to consider the following amendments to articles 24, 37, 47, and 48 of the UNCITRAL Model Procurement Law:

(a) To clarify that the reference to “publication” may include optional or mandatory electronic publication. The Working Group may further wish to consider

whether a parenthetical reference in the text could indicate that enacting States could, where possible, insert a reference to a (specified) electronic medium;

(b) To establish conditions for the use of electronic publications so as to ensure that they are made in accessible electronic media; and

(c) Possibly requiring procuring entities to justify the use of electronic publications in the record of the procurement proceedings.

15. Proposed draft amendments to articles 24, 37, 47, and 48 that reflect the considerations set out above are contained in document A/CN.9/WG.I/WP.34/Add.2. The Working Group may wish to consider whether those amendments would adequately reflect its deliberations to date, and whether those amendments would suffice to accommodate the use of electronic publications or whether additional clarification would be needed. The Working Group may further wish to consider in due course, in connection with its consideration of possible improvements to the structure of the Model Law (see A/CN.9/568, paras. 123-126) whether those provisions could be combined in a single article that would apply, as appropriate, to all the various procurement methods contemplated in the Model Law.

16. Additionally, the Working Group may wish to consider whether the provision of detailed guidance would be required, either in the UNCITRAL Model Procurement Law or the Guide to Enactment, to cover, inter alia, such issues as flexibility as to the use of a publication medium, who should decide on a publication medium, whether the use of electronic publication only or the non-use of electronic means should be justified, upon what grounds such decisions may be taken, whether such a decision is to be open to review and who should bear the responsibility of an omission.

17. In domestic practice, there seems to be an interest in replacing paper publications entirely with electronic publications of procurement notices,¹⁰ although most countries seem to accept that paper-based and electronic publications may coexist during a certain transition period. In this connection, the Working Group may further wish to consider whether the Guide to Enactment should discuss possible factors to be taken into account by States in assessing when it is or becomes possible to migrate entirely to electronic publications, such as when a threshold of use of electronic communications has been reached.

C. Electronic supply of solicitation or prequalification documents, and requests for proposals or quotations

18. Article 26 of the UNCITRAL Model Procurement Law does not expressly deal with the form in which solicitation documents should be provided to suppliers, and contractors, and requires only that they shall be provided “in accordance with the procedures and requirements specified in the invitations to tender”. However, the reference in the same article to the “cost of printing” implies a paper form of solicitation documents. These provisions are incorporated by cross-reference to chapter III of the Model Law in articles 46(1) (two-stage tendering) and 47(3) (restricted tendering) and similar provisions are found in articles 7(2) (prequalification proceedings) and 37(4) (procurement of services). Article 25 (1)(f) of the Model Law, in its turn, requires invitations to tender to indicate “the means of

obtaining the solicitation documents and the place from which they may be obtained.” Arguably, these provisions are sufficiently neutral to accommodate provision of solicitation documents in electronic form. However, if words such as “document” and “place” are read in a narrow sense, those provisions might be construed to the effect that only solicitation documents printed on a tangible medium are covered by the Model Law.

19. Some countries expressly authorize procuring entities to transmit solicitation documents, including specifications, project description, draft contracts and other related information by electronic means, subject to a number of controls, such as that there must be a record of the date and time of transmission and receipt of the content of the transmission and that proper identification of originator and addressee be provided.¹¹ Another way of supplying solicitation documents that, depending on the technology supporting electronic procurement, may become widely used is the posting of documents on an accessible database or information system—such as a special web site—from which suppliers can download them. The invitation to tender may even incorporate those documents by reference, similarly to what commercial entities do in respect of general conditions of contract made available through the Internet.

20. For the avoidance of doubt, it may be useful to clearly state in article 26 of the Model Law that a procuring entity’s duty to provide the solicitation documents may be met by making those documents available through a publicly accessible electronic information system from which they can be downloaded or printed by the suppliers, a possibility which the laws of some countries already recognize.¹²

21. Proposed draft amendments to articles 7, 26 and 37 that reflect the considerations set out above are contained in document A/CN.9/WG.I/WP.34/Add.2. The Working Group may wish to consider them, as well as adding provisions on this matter in articles 48 through 50 of the Model Law, taking into account the flexible nature of the procurement methods contemplated in those articles. The Working Group may further wish to consider in due course, as has been suggested in connection with the proposed amendments to article 24 (see above, para. 15), combining such additional provisions in a single article that would apply, as appropriate, to all the various procurement methods contemplated by the Model Law.

D. Electronic submission of tenders, proposals and quotations

22. Article 30(5)(a) of the UNCITRAL Model Procurement Law provides that tenders must be submitted “in writing, signed and in a sealed envelope”. Those provisions are incorporated by cross-reference to chapter III of the Model Law in articles 46(1) (two-stage tendering) and 47(3) (restricted tendering), and similar provisions are implied in articles 45 (procurement of services) and 48(6) (request for proposals).

23. Article 30(5)(a) and its corresponding provisions elsewhere in the Model Law do not contemplate the submission of tenders through electronic means. However, paragraph (5)(b) of the same article provides that without prejudice to the right of a supplier or contractor to submit a written, signed tender in a sealed envelope, 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”.

24. Thus, article 30(5)(b) can be read as offering procuring entities the option to allow the submission of tender by electronic means. Nevertheless, two questions need to be considered in connection with this provision:

(a) Whether the current wording is sufficient to ensure the functional equivalence between written, signed tenders in a sealed envelope and electronic tenders (see below, paras. 25-33); and

(b) Whether a procuring entity could contemplate the submission of tenders by electronic means only (see below, paras. 34-37).

1. Conditions for functional equivalence between electronic and written tenders

25. As regards question (a), it appears that the legislative intention of article 30(5)(b) is indeed to make it possible for a supplier to submit a tender electronically if the supplier so wishes and the procuring entity has admitted this possibility. However, the Working Group may find it nevertheless useful to elaborate on the conditions for functional equivalence. Arguably, the reference to a form that “provides a record of the content of the tender” would generally meet the criteria for functional equivalence between a data message and a writing under article 6 of the UNCITRAL Model Law on Electronic Commerce,¹³ since the notion of “record” usually implies a medium that contains information which is “accessible” in a manner that makes it “usable for subsequent reference”.¹⁴

26. However, it appears that the words “a similar degree of authenticity, security and confidentiality” might be too general to offer sufficient guidance as to what conditions need to be met by electronic tenders in order to be recognized as having the same legal value as tenders submitted in writing, signed and in a sealed envelope. Already at the time of adoption of the Model Law, it was recognized that additional “rules and techniques” might be needed, for instance “to guard the confidentiality of tenders and prevent ‘opening’ of the tenders prior to the deadline for submission of tenders”.¹⁵

27. This question is closely related to the issue of controls over the use of electronic communications, in particular as regards security, confidentiality and authenticity of submissions, and integrity of data, which the Working Group considered at its sixth session. At that time, the Working Group recognized that efficient and reliable electronic procurement systems required appropriate controls as regards security, confidentiality and authenticity of submissions, and integrity of data, for which special rules and standards might need to be formulated. There was general agreement within the Working Group that the following principles provided a good basis for the formulation of specific rules, standards or guidance on the matter:

(a) The means of communication imposed should not present an unreasonable barrier to participation in the procurement proceedings;

(b) The means used should make it possible to establish the origin and authenticity of communications;

(c) The means and mechanisms used should be such as to ensure that the integrity of data is preserved;

(d) The means used should enable the time of receipt of documents to be established, when the time of receipt is significant in applying the rules of the procurement process;

(e) The means and mechanisms used should ensure that tenders and other significant documents are not accessed by the procuring entity or other persons prior to any applicable deadline;

(f) That the confidentiality of information submitted by, or relating to, other suppliers is maintained (A/CN.9/568, paras. 41 and 42).

28. A number of regional¹⁶ or domestic¹⁷ procurement systems that allow for the electronic submission of tenders contemplate security requirements that are largely similar to those tentatively endorsed by the Working Group, or at least some¹⁸ of them.

29. It should be noted, however, that most of the above principles already apply—or should apply—to paper-based procurement procedures—for example, the principle that tenders should be authentic or should remain confidential during the tendering procedure. Therefore, at its sixth session, the Working Group was invited to carefully consider the need for any specific additional standards or rules, and to take into account the extent to which the relevant background law, such as general laws on electronic commerce and electronic signatures, already addressed the issues that the proposed principles were concerned with. Another view was that if the Working Group intended to formulate legislative guidance that enabled use of electronic communications in the procurement process without mandating it, it would be useful to spell out in the Model Law itself the conditions under which electronic communications should be used (A/CN.9/568, paras. 43 and 44).

30. It appears that the rationale for suggesting a cautious approach concerning controls over electronic communications is the concern that procurement legislation should avoid creating different standards depending on the means of communications used. It should be noted, however, that the novelty of electronic communications may prompt legislators to formulate specific rules for what is perceived as a particular problem caused by the use of new technologies in procurement. Indeed, a number of countries have already enacted legislation that specifies certain standards to be used in electronic communications aimed at ensuring that those communications provide the same level of reliability that is generally assumed to exist in the case of paper-based communications.¹⁹ These general rules are in some cases supplemented by detailed regulations.²⁰

31. The Working Group may wish to consider that the aim of avoiding double standards for electronic and paper-based communications may be best served by developing general rules that would spell out requirements that under the current text of the UNCITRAL Model Procurement Law are assumed to apply as a matter of course for paper communications (for example, requirements as to the authenticity of bids and other documents), but would make it clear for the avoidance of doubt that they also apply to electronic communications. The Guide to Enactment might then provide further guidance on best practices to ensure compliance with those

requirements in the case of electronic communications, which might draw on existing domestic regulations and rules on the matter.

32. It is suggested that such an approach, which is reflected in a draft provision in document A/CN.9/WG.I/WP.34/Add.2 (draft article 30 *bis*), would be consistent with the general agreement, at the sixth session of the Working Group, that any guidance on this matter should be formulated in a manner that covered all means of communication, giving a general idea on the controls that were needed, and should not be overly prescriptive (A/CN.9/568, para. 45).

33. Another matter related to the conditions for functional equivalence between written tenders submitted in a sealed envelope and electronic tenders is the manner of opening tenders. Article 33(1) of the UNCITRAL Model Procurement Law provides that tenders “shall be opened at the time specified in the solicitation documents as the deadline for the submission of tenders [...], at the place and in accordance with the procedures specified in the solicitation documents.” Article 33(2) provides further that “all suppliers or contractors that have submitted tenders, or their representatives, shall be permitted by the procuring entity to be present at the opening of tenders.” While article 33(1) seems to be sufficiently broad to accommodate any system for opening tenders, article 33(2) suggests the physical presence of suppliers and contractors at a given place and time. Some countries have introduced enabling provisions that contemplate opening of tenders through an electronic information system that would automatically transmit the information that is usually announced at the opening of tenders.²¹ The Working Group may wish to consider including a provision that would enable procuring entities to use electronic communications as a substitute for tender opening in the presence of suppliers and contractors. Proposed additions to article 33 are contained in document A/CN.9/WG.I/WP.34/Add.2.

2. Optional or mandatory nature of electronic tenders

34. Article 30(5)(b) of the UNCITRAL Model Procurement Law specifically provides for the right of a supplier to submit a tender by the “usual” method set out in article 30(5)(a), namely in writing, signed and in a sealed envelope. According to the Guide to Enactment of the Model Law, this is an “important safeguard against discrimination in view of the uneven availability of non-traditional means of communication such as [Electronic Data Interchange (EDI)]”.²² Consequently, it appears that suppliers cannot be required to submit a tender electronically and may insist on using traditional means of communication for that purpose.

35. In some countries, it appears that procuring entities have the right to choose when tenders may be submitted electronically²³ and, if so, whether or not tenders may be submitted in paper form as well, which in some countries is generally admitted unless the invitation to tender states otherwise.²⁴ However, in those countries suppliers are not allowed to switch from one medium to the other or to use both media to submit tenders or parts thereof.²⁵ A somewhat different approach is taken by countries in which procuring entities are allowed to accept the submission of tenders electronically but do not seem to have the power to prescribe electronic submission,²⁶ with the consequence that suppliers seem to retain the right to choose between submission of tenders in paper form, by electronic means, or in electronic form stored on a tangible medium.²⁷ Lastly, some countries require procuring

entities to accept tenders and other documents submitted electronically, as long as they are authenticated with methods prescribed by the law.²⁸

36. It would appear that the latter approach is more in line with the Working Group's general desire to treat the issue in a flexible manner (A/CN.9/568, para. 33). However, the Working Group may also wish to bear in mind that certain methods of procurement (such as electronic reverse auctions) are nearly always conducted by electronic means only.²⁹ It is indeed an essential element of those procurement methods that all suppliers are required to submit their bids by electronic means only. Accordingly, once the conditions for use of any such special procurement method are met, the procuring entity must have the right to refuse to accept bids submitted by other means. Another aspect which the Working Group may also wish to consider is that, even for procurement methods which do not by their nature require the use of electronic communications, the procuring entity might have a legitimate interest, for purposes of economy or efficiency, to take advantage of fully or partly automated devices for receiving and processing tenders, such as a specially designated portal or Internet web site. In some countries the law indeed encourages the use of fully automated systems for receiving and processing tenders to which otherwise the ordinary tendering rules apply.³⁰

37. In view of the above, the Working Group may wish to consider adding a provision to the UNCITRAL Model Procurement Law, possibly as a new paragraph to the current article 30, whereby procuring entities would be given the right to indicate whether they will accept the submission of tenders by means other than "in writing, signed and in a sealed envelope" (that is, by electronic means) and, if so, whether or not tenders may be submitted in paper form as well. Such a provision may further state that tenders in paper form are deemed to be acceptable unless the invitation to tender states otherwise, in which case the suppliers would have to follow the instructions given by the procuring entity. The Working Group may further wish to consider whether a procuring entity should be required to justify the choice of electronic tenders only. Proposed amendments to article 30, reflecting some of the above considerations, are contained in document A/CN.9/WG.I/WP.34/Add.2.

E. Form of other communications during the procurement process

38. Article 9(1) of the UNCITRAL Model Procurement Law provides that, subject to any requirement of form specified by the procuring entity when first soliciting participation, communications are to be in a form that "provides a record of the content of the communication." Although this article might be interpreted as allowing the procuring entity to require the use of electronic communications, the deliberations of the Working Group at the time of the preparation of the Model Law indicate that the original intention was contrary to that.³¹

39. Article 9(3) states further that the procuring entity shall not discriminate against or among suppliers on the basis of the form in which they transmit or receive communications. At the sixth session of the Working Group, it was pointed out that, in certain circumstances, a requirement for use of electronic communications in a given case might effectively result in discrimination against or among suppliers if the means used to engage in electronic communications were not

reasonably accessible to potential suppliers (A/CN.9/568, para. 34). There was also broad agreement that the rule in article 9(3) did not necessarily require all suppliers to use the same methods for communication with the procuring entity (A/CN.9/568, para. 35).

40. It would appear, therefore, that the Working Group would envisage a general rule in article 9 that would authorize procuring entities to communicate with suppliers and contractors by electronic means, but would give contractors the right to choose between electronic communications and paper-based communications, where such alternative existed. Nevertheless, the Working Group may wish to consider how such a provision would relate to the conduct of those procurement methods that, by their very nature, require fully automated processes, or cases where the procuring entity might have a legitimate interest, for purposes of economy or efficiency, to use only fully or partly automated devices for communicating with suppliers and contractors (see above, para. 36).

41. Apart from communications sent individually to suppliers and contractors, the Working Group may wish to consider the form of notices and other communications that the procuring entity may be required to send to all bidders, such as, for example, an addendum to the solicitation documents under article 28(2) (similar provisions may be found in articles 40(2), 48(5) and 49(2)), invitations to meetings convened under articles 28(3) and 40(3), and notices of the extension of deadlines for submission of tenders under article 30(4). Those communications may be sent to the electronic addresses provided by the suppliers and contractors. Depending on the technology used by the procuring entity, it may however appear more expeditious to post those notices and documents on an accessible database or information system—such as a special web site—from which suppliers can download them (see above, para. 19). Some countries already recognize that possibility.³² The Working Group may wish to consider the desirability of including a provision in article 9 of the Model Law to the effect that a procuring entity's duty to provide certain notifications to suppliers and contractors may be met by publishing the notice in a publicly accessible electronic information system from which they can be downloaded or printed by the suppliers. Proposed draft amendments to article 9 are contained in document A/CN.9/WG.I/WP.34/Add.2.

42. Another issue for the Working Group's consideration relates to the conduct of meetings with suppliers or contractors and the manner of handling requests for clarifications of solicitation documents and responses thereto. Article 28(1 and 2) of the Model Law deals with requests for clarification of the solicitation documents, the manner in which the procuring entity shall respond to any such request and modifications to the solicitation documents. It requires the procuring entity to communicate the clarification and modifications "to all suppliers or contractors to which the procuring entity has provided the solicitation documents." Those provisions are incorporated by cross-reference to chapter III of the Model Law in articles 46(1) and 47(3) and similar provisions are found in articles 40(1 and 2), 48(5) and 49(2). It appears that those provisions are drafted in a technologically neutral manner and do not prescribe any particular form of communication. The Working Group may therefore wish to consider that the possible use of electronic communications for the purposes of those articles might be covered by the general provisions on the form of communications under amended article 9.

43. The situation may be more complex in connection with paragraph 3 of articles 28 and 40, which address meetings with suppliers or contractors, insofar as the word “meeting” usually suggests the physical presence of persons at the same place and time. Some countries have introduced enabling provisions that authorize procuring entities to dispense with the requirement of an actual meeting, as long as it is possible for the procuring entity and the suppliers to establish some other form of simultaneous communication, such as by using teleconferencing facilities.³³ The Working Group may wish to consider including a provision that would enable procuring entities to use electronic communications as a substitute for face-to-face meetings with suppliers and contractors. Proposed draft amendments to articles 28 and 40 reflecting the above considerations are contained in document A/CN.9/WG.I/WP.34/Add.2.

F. Legal value of electronic documents used in or resulting from procurement proceedings

44. In addition to the legal issues set out in paragraphs 8-43 above, enacting States may be interested in ensuring that procurement contracts concluded electronically within their domestic systems are fully enforceable, and that electronic communications and documents exchanged during the procurement process will not be devoid of legal value, including evidentiary value in administrative review or court proceedings.

45. As discussed below, some of these issues may be suitable for regulation by specific provisions in government procurement law. However, a number of issues will require appropriate treatment in other legislation.

1. Procurement contracts and electronic signatures

46. Articles 27(y) and 38(u) refer to a “written” procurement contract. Article 36(2)(a) and (b) provides that the solicitation documents may require the supplier or contractor whose tender has been accepted to “sign a written procurement contract” conforming to the tender, in which case the contract must be signed within a reasonable period of time after the notice of acceptance of the tender is dispatched to the supplier or contractor.

47. In domestic practice, some countries authorize the notice of acceptance of a tender to be sent electronically.³⁴ In principle, it should be possible for a procuring entity in a country where the law does not create obstacles to the legal recognition of contacts negotiated through electronic means to accept electronically executed procurement contracts. However, countries may also wish to prescribe the manner in which the parties will sign or otherwise authenticate a procurement contract concluded electronically.³⁵

48. The options available to the Working Group seem to be essentially the following:

(a) Whether the UNCITRAL Model Procurement Law should expressly allow for the execution of a procurement contract by electronic means and, if so, whether it should also refer to the possibility for the enacting State to prescribe

procedures for signing or authenticating a procurement contract concluded electronically; or

(b) Whether the matter should be left for other legislation of the enacting States, in which case the Guide to Enactment might briefly set out the relevant issues.

49. In accordance with article 6 of the UNCITRAL Model Law on Electronic Commerce, “where 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.” Article 11 of that Model Law provides further that “where a data message is used in the formation of a contract, that contract shall not be denied validity or enforceability on the sole ground that a data message was used for that purpose.” As regards signature requirements, article 7 of the UNCITRAL Model Law on Electronic Commerce provides that, where the law requires a signature of a person, that requirement is met in relation to 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.” The reliability requirement set forth in this provision is further elaborated in article 6(3) of the UNCITRAL Model Law on Electronic Signatures,³⁶ which provides that an electronic signature is considered to be reliable if:

“(a) The signature creation data are, within the context in which they are used, linked to the signatory and to no other person;

“(b) The signature creation data were, at the time of signing, under the control of the signatory and of no other person;

“(c) Any alteration to the electronic signature, made after the time of signing, is detectable; and

“(d) Where a purpose of the legal requirement for a signature is to provide assurance as to the integrity of the information to which it relates, any alteration made to that information after the time of signing is detectable.”

50. An apparently simple solution to the issue of electronic signatures might be to incorporate in the UNCITRAL Model Procurement Law provisions along the lines of article 7 of the UNCITRAL Model Law on Electronic Commerce or article 6(3) of the UNCITRAL Model Law on Electronic Signatures. However, as noted earlier, the nature and purpose of those other texts differ from those of the UNCITRAL Model Procurement Law and the solutions they contain may not be immediately transposable to the latter’s context (A/CN.9/WG.I/WP.34, paras. 7-13). Furthermore, the type of authentication methods that a procuring entity is capable of accepting may be limited for various reasons, including concerns over the appropriate level of reliability and availability of supporting technology. Lastly, issues related to the interoperability of information systems, both among public bodies in the enacting State, as well as within a given region, suggest that enacting States should have broad latitude in determining which methods of authentication they would accept in the procurement process.³⁷

51. Another matter that the Working Group may wish to consider is the entry into force of a procurement contract. Article 36(4) of the UNCITRAL Model

Procurement Law provides that a procurement contract enters into force when the notice of acceptance of the tender “is dispatched to the supplier or contractor that submitted the tender, provided that it is dispatched while the tender is in force.” The notice is dispatched when “it is properly addressed or otherwise directed and transmitted to the supplier or contractor, or conveyed to an appropriate authority for transmission to the supplier or contractor, by a mode authorized by article 9.” Article 15 of the UNCITRAL Model Law on Electronic Commerce, which deals with time and place of dispatch and receipt of data messages, provides that the dispatch of a data message occurs “when it enters an information system outside the control of the originator or of the person who sent the data message on behalf of the originator.” Although this provision does not expressly require the data message to be “properly addressed”, this requirement is implicit in article 15.

52. It appears therefore that article 36(4) of the UNCITRAL Model Procurement Law is drafted in a technologically neutral manner and could in its current form satisfactorily accommodate electronic transmissions of notices of acceptance, in particular in conjunction with any general requirement that the Working Group may wish to make that a system for the exchange of electronic communications in the procurement process should provide adequate means for determining the date and time of dispatch and receipt of communications, documents and tenders (see above, para. 27).

53. A draft proposal for general enabling provisions in article 36 along the lines suggested in paragraph 48, option (a) above, is contained in document A/CN.9/WG.I/WP.34/Add.2.

2. Record of procurement proceedings

54. Article 11 of the UNCITRAL Model Procurement Law requires the procuring entity to maintain a record of the procurement proceedings containing, at a minimum, certain information, and makes provisions on the extent to which that information shall be accessible to interested persons. The Model Law itself does not prescribe the form of the record and does not seem to prevent a procuring entity from maintaining the record in electronic form.

55. Article 10 of the UNCITRAL Model Law on Electronic Commerce provides that, where the law requires that certain documents, records or information be retained, that requirement is met by retaining data messages, provided that the following conditions are satisfied: (a) the information contained therein is accessible so as to be usable for subsequent reference; (b) the data message is retained in the format in which it was generated, sent or received, or in a format which can be demonstrated to represent accurately the information generated, sent or received; and (c) such information, if any, is retained as enables the identification of the origin and destination of a data message and the date and time when it was sent or received.

56. To the extent that this provision only establishes general criteria, without specifying the means that may be used to satisfy its requirements, it seems that article 10 of the UNCITRAL Model Law on Electronic Commerce could provide a useful basis to enable electronic records of procurement proceedings, if the Working Group wishes to include a provision on the matter.

57. In the event the Working Group may find it desirable to include such a provision in the UNCITRAL Model Procurement Law, it may also find it useful to provide that regulations to be issued under article 4 of the UNCITRAL Model Procurement Law may establish procedures for maintaining and accessing electronic records, including measures to ensure the integrity, accessibility and, where appropriate, confidentiality of information. Clarification to that effect may be necessary in view of the relationship between the “integrity” of electronic information and the means used to “authenticate” that information (e.g. electronic signatures), and the close link between retention of records on procurement proceedings and the overall policy in the enacting State for retention of records of public bodies. This may include consideration of complex issues such as interoperability of record retention systems, period of retention (also in view of technology changes), privacy protection and security of electronic records.³⁸

58. Draft amendments to article 11 of the UNCITRAL Model Procurement Law are contained in document A/CN.9/WG.I/WP.34/Add.2.

Notes

- ¹ For the text of the Model Law, see *Official Records of the General Assembly, Forty-ninth Session, Supplement No. 17* and corrigendum (A/49/17 and Corr.1), annex I (also published in United Nations Commission on International Trade Law, *Yearbook* (hereafter “*UNCITRAL Yearbook*”) vol. XXV:1994 (United Nations publication, Sales No. E.95.V.20), part three, annex I; available in electronic form from <http://www.uncitral.org/english/texts/procurem/ml-procure.htm>).
- ² See Eduardo Talero, *Electronic Government Procurement: Concepts and Country Experiences*, World Bank Discussion Paper (September 2001), paras. 30-40 (available at [http://wbln0018.worldbank.org/OCS/egovforum.nsf/c3c9b2819079a45d852569bc007722a0/e5596442988ccfd85256af5006af56a/\\$FILE/ATTUQ5LL/egpdiscpaperdraft16.pdf](http://wbln0018.worldbank.org/OCS/egovforum.nsf/c3c9b2819079a45d852569bc007722a0/e5596442988ccfd85256af5006af56a/$FILE/ATTUQ5LL/egpdiscpaperdraft16.pdf)). See also Elaine Curran, Andrea Bernert, Anke Wiegand, *Electronic Procurement in the Public Sector: Factsheet on Latest Developments in E-procurement in the EU and its Member States* (available at http://www.eic.ie/downloads/e_procurement.pdf). The results of this survey are confirmed by the examples of current practice in various European countries (see <http://europa.eu.int/ida/en/chapter/197>).
- ³ Talero, *ibid.*, para. 31.
- ⁴ Talero, *ibid.*
- ⁵ Talero, *ibid.*, para. 33.
- ⁶ Talero, *ibid.*, para. 106.
- ⁷ Talero, *ibid.*, para. 35.
- ⁸ Argentina (<http://onc.mecon.gov.ar>),
Australia (Western) (<https://www.tenders.gov.au/federal/index.shtml>),
Brazil (<http://www.comprasnet.gov.br/>),
Canada (http://www.merx.com/Services/AboutMERX/English/MK_SiteMap.asp?FLASH=Yes),
Chile (http://www.chilecompra.cl/portal/centro_informaciones/fr_ley_compras.html),
the European Union (<http://ted.publications.eu.int/official/Exec?Template=TED/home&DataFlow=XMLRead.dfl&Path=staticDefault.xml&Lang=EN>),
France (<http://djo.journal-officiel.gouv.fr/MarchesPublics/>),
Mexico (<http://web.compranet.gob.mx/>),
the Philippines (<http://www.procurementservice.net/Default.asp>),

Singapore (<http://www.gebiz.gov.sg/>),
 United Kingdom (<http://www.supplyinggovernment.gov.uk/opportunities.asp>),
 United States (<http://www.fedbizopps.gov/>).

- ⁹ Domestic laws on electronic publications in procurement often provide such a requirement. In France, for example, invitations to tender may be published in an “information network” (“*raiseau informatique*”) from which “any interested person” should be able to download the invitation and related documents (see *Décret n° 2002-692* du 30 avril 2002, article 2, *Journal officiel*, No. 103, 3 May 2002, p. 8064). A similar requirement exists in Austria, where § 3(1) of the *Verordnung der Bundesregierung betreffend die Erstellung und Übermittlung von elektronischen Angeboten in Vergabeverfahren (E-Procurement-Verordnung)* requires the procuring entity to choose the means of communication for the transmission of electronic offers and the electronic address to which they shall be transmitted “in a non-discriminatory manner” (*Bundesgesetzblatt für die Republik Österreich*, 28 April 2004, part II). In Sweden, chapter 6, § 2a, of the Act on Public Procurement (SFS 1992:1528) provides that procuring entities may publish invitations to tender in “simplified procedures” in an “electronic database that is open to the public or some other form of notification that can ensure effective competition” (unofficial English translation available at <http://www.nou.se/loueng.html>). In the United States, procuring entities must ensure “that any notice of agency requirements or agency solicitation for contract opportunities is provided in a form that allows convenient and universal user access through a single, Government-wide point of entry” (United States Code Service, title 41, chapter 7, section 426(c)(4) (41 U.S.C.S., § 426 2004)).
- ¹⁰ “Permitting electronic notice of business opportunities [...] as a substitute for the currently required paper publication [...] is key to agencies’ ability to realize the efficiencies in electronic processes that justify agency investments in these processes” (United States, Interim Rule of 16 May 2001, *Federal Register*, vol. 66, No. 95 (66 FR 27407)). In Chile, article 24 of the *Reglamento de Ley n° 19.886 de Bases sobre Contratos Administrativos de Suministro y Prestación de Servicios (Decreto n° 250*, of 9 March 2004) already requires all procuring entities to publish invitations to participate in procurement through the electronic tendering system. Article 62 of the *Decreto* admits tendering in paper form only in exceptional circumstances (available at http://www.chilecompra.cl/portal/centro_informaciones/). (The *Decreto* defines “Information System” as “an information system for public procurement and electronic contracting [...] which is composed as software, hardware and electronic communications and support infrastructure that allows to conduct procurement”).
- ¹¹ Spain, Real Decreto 1098/2001 (*Reglamento general de la Ley de Contratos de las Administraciones Públicas*), of 12 October 2001, article 80, paragraph 2 (*Boletín oficial del Estado*, No. 257, 26 October 2001, p. 39252, available at <http://www.boe.es/boe/dias/2001-10-26/pdfs/A39252-39371.pdf>).
- ¹² For example, article 2 of *Décret 2002-692* of France, which governs the dematerialization of procurement procedures, provides that “interested persons” must be able to “consult and download to their computer the rules of the [procurement] proceedings.” It provides further that “interested persons, in a tendering proceeding and invited suppliers in a restricted tendering or negotiated procedure shall also have the right to consult and download to their computer the invitation to tender and the solicitation documents,” provided that they advise the procuring entity as to “name of the supplier, the name of the person downloading the document and an address allowing for electronic communication with acknowledgement of receipt” (see above, note 9). A similar provision—albeit less detailed—exists in Lithuania, where article 22(1) of the Law on Public Procurement (Law No. IX-1217, of 3 December 2002), stipulates that a procuring entity may provide the supplier with contract documents “upon supplier’s request”, “together with the invitation to tender” or “by placing on the Internet or using other electronic means” (English translation of the text is available with the Secretariat). In Mexico, article 31 of the *Ley de Adquisiciones, Arrendamientos y Servicios del Sector Público* provides that solicitation documents shall be made available at the address indicated by the procuring entity as well as by electronic means of publication established by the Government (available at

<http://www.funcionpublica.gob.mx/unaopspf/doctos/adquisiciones/leyadq.doc>.

- ¹³ 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 web site <http://www.uncitral.org/english/texts/electcom/ml-ecomm.htm>.
- ¹⁴ Article 6(1) of the UNCITRAL Model Law on Electronic Commerce reads as follows: “Where 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.”
- ¹⁵ Guide to Enactment of the UNCITRAL Model Law on Procurement of Goods, Construction and Services, remarks to article 30, para. 3. For the text of the Guide to Enactment, see document A/CN.9/403, reproduced in the *UNCITRAL Yearbook*, vol. XXV:1994 (United Nations publication, Sales No. E.95.V.20), part three, annex II.
- ¹⁶ For instance, Annex XXIV of Directive 2004/17/EC of the European Parliament and of the Council of 31 March 2004 coordinating the procurement procedures of entities operating in the water, energy, transport and postal services sectors (*Official Journal of the European Union*, No. L 134, 30 April 2004, p. 1), provides that devices for the electronic receipt of tenders, proposals or quotations must at least guarantee, through technical means and appropriate procedures, that: (a) electronic signatures relating to tenders, requests to participate and the forwarding of plans and projects comply with national provisions adopted pursuant to Directive 1999/93/EC [*N.B. this Directive established a community framework for electronic signatures*]; (b) the exact time and date of the receipt of tenders, requests to participate and the submission of plans and projects can be determined precisely; (c) it may be reasonably ensured that, before the time limits laid down, no one can have access to data transmitted under these requirements; (d) if that access prohibition is infringed, it may be reasonably ensured that the infringement is clearly detectable; (e) only authorized persons may set or change the dates for opening data received; (f) during the different stages of the contract award procedure access to all data submitted, or to part thereof, must be possible only through simultaneous action by authorized persons; (g) simultaneous action by authorized persons must give access to data transmitted only after the prescribed date; (h) data received and opened in accordance with these requirements must remain accessible only to persons authorized to acquaint themselves therewith.
- ¹⁷ For instance, under the Austrian regulations on electronic procurement, electronic tenders are subject to a number of controls, including compliance with “encryption and decryption method or methods” specified by the procuring entity in the solicitation documents, which must “correspond to state-of-the-art strong encryption standards”. The procuring entity must also ensure that “the decryption of tenders cannot occur before the end of the deadline for submission of tenders”. Furthermore, the time of delivery of offers shall be “documented by a time-stamp and shall be immediately confirmed to the offeror”. Lastly, tenders submitted electronically must be filed in such a way that their authenticity, integrity and confidentiality is guaranteed; no unauthorized access can occur until they are opened; and any attempted access until opening can be traced (*E-Procurement-Verordnung 2004* (see above, note 9), §§ 4-7). In France, the procuring entity must “ensure the security of the transactions through an information network accessible to all candidates in a non-discriminatory manner.” The procuring entity must further “take the necessary measures to ensure the security of the information relating to the candidates and their offers” and “that the information remains confidential.” For this purpose, the procuring entity may “require the candidates to equip their files with a security system such that their applications and tenders cannot be opened without their agreement” (*Décret n° 2002-692 du 30 avril 2002* (see above, note 9), articles 7 and 8).
- ¹⁸ In Sweden, a contracting entity may allow a tender to be submitted by “electronic transmission or in some other manner provided that it ensures that the contents of the tender shall not be

disclosed before it is opened as prescribed in Article 7” (Act on Public Procurement (see above, note 9), chapter 6, § 5 and similar provisions may be found in chapter 1, § 19). The German procurement regulations (*Verdingungsordnung für Leistungen*) do not contain a discrete catalogue of security requirements for electronic tenders. However, amendments introduced in various provisions to accommodate electronic tenders expressly reflect most—if not all—of the principles of the EU Directives. Thus, when tenders are received electronically, the procuring entity must ensure “that the content of the tender will only be accessible after the expiration of the deadline for its submission” (§ 18). Electronic tenders must be “marked accordingly and kept safely” (“*unter Verschluss*”) (§ 22) (*Bundesanzeiger*, 20 November 2002, No. 216a). The German Decree on the Award of Public Contracts (*Verordnung über die Vergabe öffentlicher Aufträge*) provides in its § 15 that procuring entities must ensure the confidentiality of electronic tenders, which must be signed with a qualified electronic signature in accordance with the German Law on Electronic Signatures (*Signaturgesetz*) and remain encrypted until the end of the deadline for submission of tenders (*Bundesgesetzblatt*, I 2001, p. 110). In Lithuania (see above, note 12, article 23(7)), tenders may be submitted electronically provided that “the electronic means employed ensure that the contracting authority or other suppliers will access the contents of the tenders only after the expiry of the period fixed for receipt of tenders”, the tender “contains all information requested in the contract documents” and that “upon submission of the tender by electronic means, the supplier immediately forwards a confirmation of the submitted tender by non-electronic means, or provides the contracting authority, by non-electronic means, with a certified copy of the tender”. A similar requirement is provided in article 27 of *Ley de Adquisiciones, Arrendamientos y Servicios del Sector Público* of Mexico, which provides that tenders submitted electronically shall use technology that ensures the confidentiality and inviolability of the information and that an agency of the Government shall provide certification services to support the electronic identification methods used by suppliers and contractors (see above, note 12).

- ¹⁹ E.g. within the European Union, Austria (see note 9 above), France (*ibid.*), Germany (see note 18, above), Spain (see note 11, above). In the United States, sect. 4.502 of the Federal Acquisition Regulations requires the heads of procuring agencies before using electronic commerce to “ensure that the agency 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 information” (available at <http://www.arnet.gov/far/loadmainre.html>). In the Philippines, government electronic procurement systems (G-EPS) are subject to a number of general requirements set forth in sect. 8.1.2 of the Implementing Rules and Regulations of Republic Act No. 9184 (available at [http://www.neda.gov.ph/references/RAs/Approved%20IRR-A%20of%20R.A.%209184\(July%2011,%202003\).pdf](http://www.neda.gov.ph/references/RAs/Approved%20IRR-A%20of%20R.A.%209184(July%2011,%202003).pdf)), including that the Bid Awards Committee “shall have complete control of the bidding process” and “sole authority to open bids”, that the systems must be “virus-resilient and must provide sufficient security” such as “firewall and encryption devices”, that they must provide for the use of electronic signatures “and other current electronic authentication devices” and have “sufficient redundant back-up facilities.”
- ²⁰ For example, sect. 9 of the Implementing Rules and Regulations of Republic Act No. 9184 of the Philippines (see note 19, above), which provides as follows:

“9.1.1 *Security*—The G-EPS shall be protected from unauthorized access or interference through the incorporation of security features such as, but not limited to, firewalls. Period tests shall be conducted to ensure that the system cannot be breached.

“9.1.2 *Integrity*—The G-EPS shall ensure that no person, including the system administrator or chairperson and members of the [Bid Awards Committee], shall be able to alter the contents of bids submitted through the system or read the same ahead of the stipulated time for the decryption or opening of bids. For this purpose, bids submitted through the G-EPS shall be sealed through electronic keys. The authenticity of messages and documents submitted through the G-EPS shall also be ensured by the use of electronic signatures.

“9.1.3 *Confidentiality*—The G-EPS shall ensure the privacy of parties transacting with it. For this purpose, no electronic message or document sent through the system shall be divulged to third parties unless such electronic message or document was sent after the sender was informed that the same will be made publicly available. The G-EPS shall protect the intellectual property rights over documents, including technical designs, submitted in response to Invitations to Apply for Eligibility and to Bid.

“9.1.4 *Audit Trail*—The G-EPS shall include a feature that provides for an audit trail for on-line transactions, and allows the Commission on Audit (COA) to verify the security and integrity of the system at any time.

“9.1.5 *Performance Tracking*—The performance of manufacturers, suppliers, distributors and consultants shall be tracked to monitor compliance with delivery schedules and other performance indicators. Similarly, the performance of procuring entities shall be tracked to monitor the settlement of their obligations to manufacturers, suppliers, distributors, contractors and consultants.”

- ²¹ In Chile, for example, article 33 of *Decreto n° 250*, of 9 March 2004 (see above, note 10) provides that the opening of tenders shall be effected through an “Information System”, which shall automatically release and open the tenders at the date and time provided in the solicitation documents.” It provides further that “the Information System shall ensure certainty as to the date and time of opening and shall allow the tenderers to know at least the following conditions of the remaining tenders: (a) identity of tenderer; (b) basic description of good or service tendered; (c) initial and global price of tender; (d) identification of tender security, if any”.
- ²² Guide to Enactment, remarks to article 30, para. 3.
- ²³ In Germany, for example, § 15 of the *Verordnung über die Vergabe öffentlicher Aufträge* (see above, note 18) provides that procuring entities “may authorize the submission of tenders in other forms than in writing per post or in person”.
- ²⁴ In Austria, § 68 of the *Bundesgesetz über die Vergabe von Aufträgen (Bundesvergabeengesetz 2002—BvergG)* provides in paragraph 1 that tenders can be submitted electronically “as far as the procuring entity has at its disposal the technical and further conditions”. The procuring entity must give notice, at the latest with the invitation of tenders, as to whether electronic tenders are admitted and, if so, which are “the authorized method for encoding and decoding as well as the authorized formats for documents and communication.” If the procuring entity “has made no declaration on the possibility to deliver offers electronically, the delivery of offers by electronic means is not permitted.” Paragraph 2 provides further that if the submission of tenders by electronic means is admitted, “the invitation to tender must state whether tenders can be delivered only electronically or whether they can be submitted either electronically or in paper form.” If the procuring entity has made no declaration on this, the delivery of offers is allowed either by electronic means or in paper form (*Bundesgesetzblatt* Nr. 99/2002).
- ²⁵ Austria, *Bundesvergabeengesetz 2002*, § 68, paragraph 3: “If the delivery of offers by electronic means is permitted, the bidders that have delivered an electronic offer may not make an offer or parts of an offer in paper form. The foregoing does not apply to parts of offers such as [documentary evidence require by the law] as far as these parts of the offer are not available electronically” (see above, note 24).
- ²⁶ According to article 3 of *Décret n° 2002-692* of France, the procuring entity “may accept the submission of applications to prequalify or tenders by electronic means”, and the decision to do so, along with “the modalities for the electronic submission of applications to prequalify or tenders must be indicated in the invitation to prequalify or invitation to tender or, for negotiated procedures, in the letter of invitation.” (see above, note 9).
- ²⁷ This is the case, for example, in France where article 5 of the *Décret n° 2002-692* provides that suppliers “shall choose between electronic submission of their applications and tenders, on the one hand, and their submission on paper form or on electronic form stored on a physical

medium on the other hand” (see above, note 9).

- ²⁸ This is the case, for example, in Argentina (see *Decreto 1023/2001 con las modificaciones introducidas por los Decreto Nros. 666/2003 y 204/2004 y por la Ley 25.563. Régimen General. Contrataciones Públicas Electrónicas. Contrataciones de Bienes y Servicios. Obras Públicas. Disposiciones Finales y Transitorias* (available at http://onc.mecon.gov.ar/paginas/inicio/Decreto_delegado_1023_2001.doc), article 21.
- ²⁹ Only a few countries admit auctions outside the context of electronic procurement. One of them is Brazil, where the matter is regulated in *Lei n° 10.520*, of 17 July 2002 (available at https://www.planalto.gov.br/ccivil_03/Leis/2002/L10520.htm).
- ³⁰ The Implementing Rules and Regulations of Republic Act No. 9184 of the Philippines (see above, note 19), for example, not only require all procuring entities to “post all procurement opportunities, results of bidding and related information” on a government electronic procurement system, or G-EPS (sect. 8.2.1), but mandates them to “fully use the G-EPS” (sect. 8.3.1). The Rules provide further that G-EPS “may support the implementation of e-Bid submission processes, which includes creation of electronic bid forms, creation of bid box, delivery of bids submissions, notification to supplier of receipt of bids, bid receiving and electronic bid evaluation. This facility shall cover all types of procurement for goods, infrastructure projects and consulting services” (sect. 8.2.4.3).
- ³¹ See, for example, the views of Australia and Canada on article 9 of the draft Model Law that can be found in A/CN.9/376 and Add.1 and 2 (reproduced in the *UNCITRAL Yearbook*, vol. XXIV: 1993 (United Nations publication, Sales No. E.94.V.16), part two, I, D (available at <http://www.uncitral.org/english/yearbooks/yb-1993-e/yb-1993-index-e.htm>); see also A/CN.9/371 (published in the same volume of the *UNCITRAL Yearbook*, part two, I, A), paras. 82-90.
- ³² For example, sect. 8.4 of the Implementing Rules and Regulations of Republic Act No. 9184 of the Philippines (see above, note 19), which provides as follows:
- “8.4.2 Requests for clarification from bidders may be sent electronically [...]. To be binding on bidders, clarifications and amendments to the Invitation to Apply for Eligibility and to Bid and to the bidding documents shall be in the form of Supplemental/Bid Bulletins which shall be posted in the G-EPS bulletin board.
- “8.4.3 The Supplemental /Bid Bulletins mentioned [above] as well as all other notices to be made [...] to the bidders or prospective bidders shall be posted in the G-EPS bulletin board and sent electronically to the e-mail address indicated in the bidder’s registration.”
- ³³ For example, sect. 8.4 of the Implementing Rules and Regulations of Republic Act No. 9184 of the Philippines (see above, note 19), which provides as follows:
- “8.4.1 Pre-bid conferences shall be conducted in accordance with Section 22 [hereof]: *Provided, however*, that the requirement for face-to-face bidding conferences may be replaced once videoconferencing or similar technology becomes the norm in business transactions in the country. Procuring entities with videoconferencing capabilities that have manufacturers, suppliers, distributors, contractors and/or consultants that also have videoconferencing capabilities may conduct their pre-bidding conferences electronically.”
- ³⁴ United States Code Service, title 41, section 253 b (c) (41 U.S.C.S. § 253b (2004)): “The award of a contract shall be made by transmitting, in writing or by electronic means, notice of the award to the successful bidder. Within 3 days after the date of contract award, the executive agency shall notify, in writing or by electronic means, each bidder not awarded the contract that the contract has been awarded.”
- ³⁵ In Austria, § 100 of the *Bundesvergabegesetz 2002* (see above, note 24) provides in paragraph 1 that notice of award can be sent to suppliers and contractors electronically. However, § 102, paragraphs 1 and 2, contemplate the execution of the procurement contract through the

exchange of paper documents by registered mail tenders, while paragraph 3 of that provision only authorizes the Federal Government to issue regulations on “contract execution” (“*Vertragsabschluss*”) by electronic means, including regulations to guarantee the confidentiality, authenticity and integrity of data transmitted electronically by means of secure electronic signatures, as well as their confidentiality.” Rules on the authenticity and integrity of electronic tenders are contained in regulations issued recently (*E-Procurement-Verordnung 2004*, see above, note 9). Although the regulations do not expressly refer to the execution of the procurement contract, the same requirements would arguably apply.

³⁶ 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>).

³⁷ See Christine Kirchberger and Jon Ramón y Olano, *Issues of Security and Interoperability in Electronic Public Procurement* (manuscript available with the Secretariat).

³⁸ For a discussion of the wide range of issues related to electronic records, see John T. Ramsay, *IT Governance, SOX and Other Acronyms*, June 2004 (available at <http://www.gowlings.com/resources/publications.asp?pubid=1005>).