**Questionnaire**

**UNCITRAL provisions on electronic commerce, end-to-end trade digitalization and paperless trade**

The Commission at its fifty-seventh session requested the secretariat to conduct a stocktaking exercise to examine all UNCITRAL legislative texts that referred to electronic aspects, including both UNCITRAL texts on electronic commerce and other texts that include provisions on the use of electronic means (A/79/17, para. 299). The Commission also requested a survey of the enactment of those texts and of the references to such texts contained in trade agreements, with a particular focus on supporting paperless trade.

The secretariat was requested to circulate a questionnaire inviting States to provide the information on the enactment or adoption of UNCITRAL texts on electronic commerce and to submit copies of their laws based on those texts, in particular those relevant to paperless trade. This questionnaire was prepared in response to that request. Responses will be compiled and analysed for reporting to the Commission at its fifty-eighth session and may be complemented by desk research.

The secretariat would be grateful if replies could be submitted no later than **17 March 2025** to allow sufficient time for their compilation and analysis.

The secretariat reserves the right to make information provided by States publicly available unless otherwise indicated by the respondent.

The questionnaire consists of three parts.

The first part deals with the features of the electronic transactions law, including whether it is based on UNCITRAL texts or the principles underpinning them.

The second part deals with provisions dealing with the use of electronic means contained in UNCITRAL texts other the texts dedicated to electronic commerce. Almost all areas of work of UNCITRAL contain such provisions, albeit to different extents.

The third part deals with provisions contained in trade agreements relevant for the adoption and implementation of UNCITRAL texts on electronic commerce.

**Information on the submitting entity**

State: Click or tap here to enter text.

Organization:Click or tap here to enter text.

First name:Click or tap here to enter text.

Last Name:Click or tap here to enter text.

Email:Click or tap here to enter text.

**Part 1 Legislative framework for electronic transactions and electronic signatures**

**1.A General features**

This section deals with the general features of electronic transactions law, including whether it is based on UNCITRAL texts or implements UNCITRAL electronic commerce principles (non-discrimination, functional equivalence, technology neutrality).

Electronic transactions may find legal recognition in a dedicated law, or in legal provisions scattered in different laws, or in judicial decisions. Alternatively, the legal status of electronic transactions may be uncertain, or may be limited to certain areas (e.g., payments) or certain technologies (e.g., based on encryption).

1. What is the legal status of electronic transactions?

Click or tap here to enter text.

2. If an electronic transaction law exists, is it technology-neutral?

Yes

No

3. Is the electronic transaction law based on UNCITRAL models?

Yes

No

4. If yes, does the law adopt UNCITRAL electronic commerce general principles? (Check all that apply.)

Technology neutrality

Functional equivalence between electronic and paper documents

Non-discrimination against electronic transactions

Party autonomy

Other (please specify): \_\_\_\_\_\_\_\_\_\_\_

5. If the law establishes functional equivalence between paper documents and electronic communications, for which form requirements?

Click or tap here to enter text.

6. Are there special rules for the use of electronic transferable records such as bills of lading?

Yes

No

7. Are there any special rules for the use of automation in contracts?

Click or tap here to enter text.

**1.B Electronic signatures and trust services**

Electronic signatures serve to identify the originator of an electronic communication and ascertain its intention with respect to that communication. However, legislative approaches may vary significantly, in particular, with respect to technology neutrality and the role of service providers. Moreover, certain types of electronic signatures, namely digital signatures based on public key infrastructure certificates, may provide additional assurance, for instance on the integrity of the data message and on time stamping.

Trust services are electronic services that provide assurance on the quality of data. UNCITRAL has provided guidance on the legal recognition of electronic signatures in the Model Law on Electronic Signature and in the Model Law on the Use and Cross-border Recognition of Identity Management and Trust Services. Electronic signatures are considered one type of trust service.

8. Does the law address electronic signatures?

Yes

No

9. Does the law require the use of a specific technology or method for electronic signatures?

Yes

No

10. Is the law based on UNCITRAL models?

Yes

No

11. Does the law foresee recognition of providers or services presumed reliable? (So-called “ex ante” approach to determining reliability.)

Yes

No

12. Does the law recognize foreign electronic signatures?

Yes

No

13. If yes, on which basis does the law recognize foreign electronic signatures?

Please specify:

Click or tap here to enter text.

14. Does the law deal with other trust services, such as time-stamping and electronic seals?

time-stamping

electronic seals

Other Click or tap here to enter text.

**1.C Data retention and electronic evidence**

The legal effect of electronic records often depends on their evidentiary value, i.e. the ability to use those records before a court to substantiate a legal claim. This part is aimed at clarifying which retention and evidence rules apply.

15. Is electronic evidence admissible in judicial and other proceedings?

Yes

No

16. Does the law require or favour the use of specific trust services (e.g., qualified archival services) or specific service providers for data retention?

Yes

No

17. Is electronic evidence that is generated, stored or collected abroad admissible?

Yes

No

18. If yes, under which conditions?

Click or tap here to enter text.

**Part 2: Enactment of UNCITRAL texts on electronic commerce and other UNCITRAL texts containing provisions on electronic commerce**

UNCITRAL has prepared legislative texts enabling the use of electronic communications as well as legislative texts that mainly deal with matters other than electronic commerce (e.g., arbitration, procurement, etc.) that contain provisions enabling the use of electronic means. This part aims at taking stock of the uptake of these UNCITRAL texts. To facilitate responses, this part presents texts in a table format listed by subject areas.

Information on all UNCITRAL texts, including explanatory materials and travaux préparatoires, is available on the UNCITRAL website at <https://uncitral.un.org/en/texts>.

**2.A UNCITRAL texts on electronic commerce**

UNCITRAL texts on electronic commerce – as they have traditionally been referred to – provide the legal basis for the use of electronic transactions, including electronic communications, of contracts in electronic form, and of electronic signatures and other trust services. They are based on the fundamental principles of legal recognition (or non-discrimination), of technology neutrality and of functional equivalence.   
This section includes all UNCITRAL legislative texts on electronic commerce except the recently adopted Model Law on Automated Contracting.

| **UNCITRAL texts** | **Enactment of legislation based on or influenced by** | **Legislative reference** | **Legislative text (link/file)** |
| --- | --- | --- | --- |
| UNCITRAL Model Law on Electronic Commerce (1996) with additional article 5 bis as adopted in 1998 | Yes  No | Click or tap to enter a date. | Link:  Click or tap here to enter text.  File: email pdf to [uncitral@un.org](mailto:uncitral@un.org) |
| UNCITRAL Model Law on Electronic Signatures (2001) | Yes  No | Click or tap to enter a date. | Link:  Click or tap here to enter text.  File: email pdf to [uncitral@un.org](mailto:uncitral@un.org) |
| United Nations Convention on the Use of Electronic Communications in International Contracts (2005) | Yes  No | Click or tap to enter a date. | Link:  Click or tap here to enter text.  File: email pdf to [uncitral@un.org](mailto:uncitral@un.org) |
| UNCITRAL Model Law on Electronic Transferable Records (2017) | Yes  No | Click or tap to enter a date. | Link:  Click or tap here to enter text.  File: email pdf to [uncitral@un.org](mailto:uncitral@un.org) |
| UNCITRAL Model Law on the Use and Cross-border Recognition of Identity Management and Trust Services (2022) | Yes  No | Click or tap to enter a date. | Link:  Click or tap here to enter text.  File: email pdf to [uncitral@un.org](mailto:uncitral@un.org) |

**2.B UNCITRAL texts on international mediation and arbitration**

In the arbitration field, article 7, Option I of the UNCITRAL Model Law on International Commercial Arbitration (1985, with amendments as adopted in 2006) sets the requirements to achieve functional equivalence between written and electronic form of an arbitral agreement. In the mediation field, article 2, paragraph 2 of the United Nations Convention on International Settlement Agreements Resulting from Mediation (New York, 2018) and article 16 of the Model Law on International Commercial Mediation and International Settlement Agreements Resulting from Mediation, 2018, contain functional equivalence rules to satisfy the written requirement of settlement agreements with electronic means. In addition, functional equivalence rules for signatures may be found in article 4, paragraph 2 of the Convention and article 18 of the Model Law.

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| **UNCITRAL texts** | **Enactment of legislation based on or influenced by** | **Legislative reference** | **Legislative text (link/file)** |
| UNCITRAL Model Law on International Commercial Arbitration (1985), with amendments as adopted in 2006 | Yes  No | Click or tap to enter a date. | Link:  Click or tap here to enter text.  File: email pdf to [uncitral@un.org](mailto:uncitral@un.org) |
| United Nations Convention on International Settlement Agreements Resulting from Mediation (New York, 2018) | Yes  No | Click or tap to enter a date. | Link:  Click or tap here to enter text.  File: email pdf to [uncitral@un.org](mailto:uncitral@un.org) |
| UNCITRAL Model Law on International Commercial Mediation and International Settlement Agreements Resulting from Mediation, 2018 | Yes  No | Click or tap to enter a date. | Link:  Click or tap here to enter text.  File: email pdf to [uncitral@un.org](mailto:uncitral@un.org) |

**2.C UNCITRAL texts on international payments**

UNCITRAL texts on international payments include the United Nations Convention on International Bills of Exchange and International Promissory Notes (New York, 1988), the United Nations Convention on Independent Guarantees and Stand-by Letters of Credit (New York, 1995) and the UNCITRAL Model Law on International Credit Transfers (1992). These texts do not contain provisions on the use of electronic communications but foresee the use of authentication methods that may involve the use of electronic means, including electronic signatures. Relevant provisions include article 5(k) of the Bills of Exchange and Promissory Notes Convention (on authentication methods used instead of a signature), article 7, paragraph 2 of the Independent Guarantees Convention (on authentication of an undertaking) and article 5, paragraph 2 of the Model Law (on authentication of a payment order).

19. Please provide information on any practice or experience with the above-mentioned authentication methods.

Click or tap here to enter text.

**2.D UNCITRAL texts on international transport of goods**

UNCITRAL work on the contract for international of carriage of goods and related matters includes the United Nations Convention on the Carriage of Goods by Sea (Hamburg, 1978) (the “ Hamburg Rules” ) and the United Nations Convention on the Liability of Operators of Transport Terminals in International Trade (Vienna, 1991) (the “OTT Convention”), and, later, the United Nations Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea (New York, 2008) (the “Rotterdam Rules” ). The Hamburg Rules and the OTT Convention contain provisions enabling the use of electronic signatures and electronic documents (see articles 1, paragraph 8 and 14, paragraph 3 of the “Hamburg Rules” and article 4, paragraph 3 of the OTT Convention).   
Moreover, the Rotterdam Rules, which are based on a medium-neutral approach that places on the same level paper-based and electronic documents, contain several provisions, including articles 8, 9 and 10, dedicated to the use of electronic means. These treaties have been used as models for domestic legislation.

20. Please provide information on any practice or experience with the enactment in national law of the above-mentioned provisions.

Click or tap here to enter text.

**2.E UNCITRAL texts on public procurement with provisions on electronic commerce**

The UNCITRAL Model Law on Public Procurement enables the use of electronic means of communication, transmission and recording of information in the various phases of the public procurement procedure, including a) tenders (articles 40 and 41); b) direct solicitation and communication of information between suppliers or contractors and the procuring entity (articles 7, paragraph 2, 16, subparagraph 1(d), 17, 18, paragraphs 6 and 9, 41, subparagraph 2(a), and 50 paragraphs 2 and 4; c) virtual meetings and d) submission of challenge proceedings (articles 64-69).   
Further, the enactment of specific provisions of the Model Law enables the use of procurement methods that requires the use of electronic means, namely a) electronic reverse auctions (articles 53-57) and b) electronic framework agreements (articles 58-62).

21. Please provide information on any practice or experience with the enactment in national law of the above-mentioned provisions.

Click or tap here to enter text.

**2.F UNCITRAL texts on security interests**

UNCITRAL texts on security interests include the United Nations Convention on the Assignment of Receivables in International Trade (New York, 2001) and the UNCITRAL Model Law on Secured Transactions (2016). Both texts contain a provision establishing functional equivalence between written and electronic form, which may be found in article 5(c) of the Convention and article 2(nn) of the Model Law.   
Moreover, the Model Law foresees the possibility of implementing the security interests registry in electronic form. This option may raise questions about the application of general electronic transactions law to the registry, or the adoption of dedicated provisions.

22. Please provide information on any practice or experience with the enactment in national law of the above-mentioned provisions.

Click or tap here to enter text.

**2.G Case law**

The uniform interpretation of UNCITRAL texts is a key element in achieving commercial law harmonisation. For that reason, UNCITRAL has set up the Case Law on UNCITRAL Texts (CLOUT database), which also contains cases on UNCITRAL texts on electronic commerce.   
The understanding of how UNCITRAL texts listed in this questionnaire are applied will greatly benefit from access to additional court decisions or arbitral awards implementing their provisions.

23. Please provide references to decisions interpreting UNCITRAL texts listed in this questionnaire. If available, please send the full text of the decision in the original language (and a translation in any of the official UN language, if possible) to [uncitral@un.org](mailto:uncitral@un.org).

Click or tap here to enter text.

**Part 3: References to UNCITRAL texts in trade agreements**

This part examines the relationship between trade agreements and UNCITRAL texts on electronic commerce. References to UNCITRAL texts in trade agreements are increasingly common. Such references may help promoting legal harmonisation through the adoption and implementation of those agreements. Trade agreements may be plurilateral, regional, or bilateral. They may deal with a range of topics – in which case the relevant provisions may often be found in chapters on electronic commerce or paperless trade – or exclusively with digital trade matters.

This part is structured into three sections to reflect the three main methods used to link UNCITRAL texts on electronic commerce and trade agreements.

**A. Reference to UNCITRAL Electronic Commerce Texts**

The first section maps instances when trade agreements explicitly refer to UNCITRAL texts, such as the Model Law on Electronic Commerce (1996), the United Nations Convention on the Use of Electronic Communications in International Contracts (2005), or the Model Law on Electronic Transferable Records (2017). It also aims to clarify whether these references are legally binding or not (best efforts clauses, exhortative clauses, etc.).

**B. Reference to UNCITRAL General Principles**

The second section seeks to measure the inclusion of UNCITRAL fundamental principles, such as non-discrimination, technology neutrality and functional equivalence, as general principles underlying trade agreements. It also assesses whether these principles are adopted as stand-alone provisions or embedded within broader commitments.

**C. Incorporation of UNCITRAL Provisions**

The third section focuses on individual provisions based on those contained in UNCITRAL texts, such as the inclusion of the principle of legal recognition or of technology neutrality. It aims to identify the articles in which these provisions are incorporated.

24. Has your jurisdiction entered into trade agreements of any type that include provisions pertaining to e-commerce, digital trade, or paperless trade?

Yes  
 No

25. If yes, please list the trade agreements.

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| Title of the agreement | Parties | Year signed | Status | Other comments |
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26. If available, please send the link to the webpage where the treaty is published or send the file to: [uncitral@un.org](mailto:uncitral@un.org)

**3.A Reference to UNCITRAL Electronic Commerce Texts**

27. Does any trade agreement explicitly refer to UNCITRAL texts?

Model Law on Electronic Commerce (1996)

Convention on the Use of Electronic Communications in International Contracts (2005)

Model Law on Electronic Transferable Records (2017)

Other (please specify): Click or tap here to enter text.

28. Are these references binding (e.g., “shall comply”) or non-binding (e.g., “should consider”)?

Binding  
 Non-binding

29. Please list the agreements where such references are made:

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| Title of the agreement | Parties | Year signed | Status | Other comments |
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**3.B Reference to UNCITRAL General Principles**

30. Does any trade agreement refer to UNCITRAL electronic commerce general principles? (Check all that apply.)

Technology neutrality

Functional equivalence between electronic and paper documents

Non-discrimination against electronic transactions

Party autonomy (specifically, in the choice of electronic signature methods)

Other (please specify): \_\_\_\_\_\_\_\_\_\_\_

31. How are these principles operationalized in the trade agreements? (Optional: Provide examples or text references.)

Click or tap here to enter text.

32. Please list the agreements incorporating these principles:

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| Title of the agreement | Parties | Year signed | Status | Other comments |
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**3.C Incorporation of UNCITRAL Provisions**

33. Do trade agreements include specific articles influenced by UNCITRAL texts?

Yes  
 No

34. If yes, please specify:

Click or tap here to enter text.

35. Please list the agreements where these articles are incorporated:

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| Title of the agreement | Parties | Year signed | Status | Other comments |
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End of the questionnaire.