



Supporting implementation of the e-CMR protocol: the contribution of UNCITRAL texts

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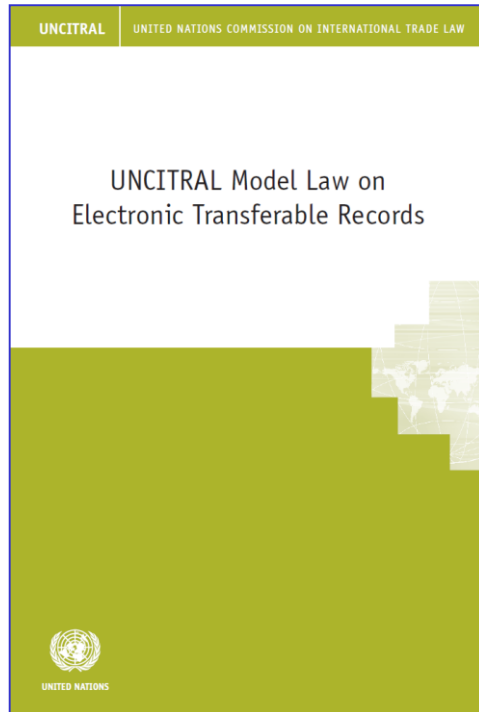
e-CMR and UNCITRAL texts: status

- Shared fundamental principles:
 - technology neutrality;
 - functional equivalence
 - non-discrimination against electronic means.
- Several provisions of the e-CMR protocol are based on UNCITRAL texts:
 - Art. 1 – definitions of “electronic communications” and “electronic signature”
 - Art. 2(2) – functional equivalence between paper and electronic consignment notes (ECN)
 - Art. 3(1) – presumption of reliability of electronic signatures;
 - Art. 4(2) – notion of “integrity” of ECN.

UNCITRAL recent developments

- UNCITRAL has continued its work on e-commerce legislation
 - Adoption in 2017 of the Model Law on Electronic Transferable Records
 - Specific regime for electronic transfer of transferable commercial documents
 - Ongoing discussion on the relevance of UNCITRAL texts for implementing paperless trade facilitation and e-commerce chapters in free trade agreements

UNCITRAL Model Law on Electronic Transferable Records (MLETR)



- Adopted in July 2017, the MLETR legally enables the use of electronic transferable records (ETR).
- ETR are electronic equivalents of documents or instruments incorporating the right to delivery of goods or payment of sums of money (bills of lading; bills of exchange; warehouse receipts; promissory notes).
- Technology-neutral and specifically compatible with the use of distributed ledgers.
- The MLETR may enable issuance of a single electronic record replacing transport, finance and customs documents.
- An ETR contains accurate, updated and complete information on the goods shipped and therefore is a valuable data source for single windows and paperless trade facilitation.

Fundamental features of the MLETR

- Technology neutrality:
 - compatible with registry-, token- and distributed ledger / blockchain based systems.
- Built around functional equivalence rules
 - does not affect substantive law and party autonomy as applicable to the corresponding document or instrument
- All that may be done on paper is possible with an ETR
 - amendment, reissuance, division and consolidation, issuance in multiple originals.
- No additional information requirements, but possible to insert dynamic information if so wished
 - smart contracts / fintech enabler.
- ETR may circulate by delivery or delivery + endorsement
 - Anonymity for the purpose of chain of transfer is possible.

How can the MLETR support e-CMR implementation?

- The MLETR may clarify and simplify the legal implementation of the e-CMR
- MLETR management systems may handle also non-transferable documents (e.g. straight bills of lading)
- Consignment notes may not fit in the definition of transferable documents and instruments, but share the same concerns:
 1. Uniqueness / singularity;
 2. Control;
 3. Originality / integrity.
- The MLETR provides advanced legal solutions to each issue

General issues

- Technology neutrality extends to system architecture and economic model
- MLETR and ECN management systems may be based on **registry, token** or **distributed ledger**
 - Each solution has advantages and disadvantages
 - Parties are free to choose the preferred business solution (Article 5(1) e-CMR)
- Operators may fall under different regimes:
 - Monopoly
 - License
 - Accreditation
- The e-CMR itself is the basis for mutual legal recognition
- Importance of interoperability to enable reuse of data (upstream and downstream)

Article 5 e-CMR

Article 5 e-CMR lists a number of elements essential for ECN management:

- (a) The method for the issuance and the delivery of the electronic consignment note to the entitled party (**singularity / control**);
- (b) An assurance that the electronic consignment note retains its **integrity**;
- (c) The manner in which the party entitled to the rights arising out of the electronic consignment note is able to demonstrate that entitlement (transfer of **control**);
- (d) The way in which confirmation is given that delivery to the consignee has been effected (effects of transfer of **control**);
- (e) The procedures for supplementing or amending the electronic consignment note (**integrity**); and
- (f) The procedures for the possible replacement of the electronic consignment note by a consignment note issued by different means (**integrity / singularity**).

Singularity / uniqueness

Need to ensure that only one ECN is issued for each shipment and to prevent multiple claims for the same goods.

Article 5 e-CMR refers to “the method for or the issuance and the delivery of the electronic consignment note to the entitled party”.

Moreover, in case of change of medium, there is the need to ensure that only one CN or ECN is in circulation (unless parties wish and are allowed to do otherwise).

Control

Need to ensure that the ECN circulates only among intended parties by adopting a reliable method for issuance and circulation of the ECN.

Article 5 e-CMR refers to “the method for ... the delivery of the electronic consignment note to the entitled party”; and “the manner in which the party entitled to the rights arising out of the electronic consignment note is able to demonstrate that entitlement”.

Delivery of CN in a paper-based environment corresponds to transfer of control over the ECN in an electronic environment.

Integrity

Need to ensure that the ECN reliably records all the information required for issuing a CN (“static integrity”) as well as all the relevant information inherent to its life cycle (“dynamic integrity”).

Article 5 e-CMR refers to “an assurance that the electronic consignment note retains its integrity”; “the procedures for supplementing or amending the electronic consignment note” and “the procedures for the possible replacement of the electronic consignment note by a consignment note issued by different means”.

Usually, conversion takes place from electronic to paper: metadata may be preserved but not converted.

Article 10 para. 1 MLETR: functional equivalence of transferable documents or instruments

1. Where the law requires a transferable document or instrument, that requirement is met by an electronic record if:
 - (a) The electronic record contains the **information** that would be required to be contained in a transferable document or instrument; and
 - (b) A reliable method is used:
 - (i) To identify that electronic record as **the** electronic transferable record;
 - (ii) To render that electronic record capable of being subject to **control** from its creation until it ceases to have any effect or validity; and
 - (iii) To retain the **integrity** of that electronic record.

Article 10 para. 2 MLETR: dynamic integrity

2. The criterion for assessing integrity shall be whether information contained in the electronic transferable record, **including any authorized change that arises from its creation until it ceases to have any effect or validity**, has remained complete and unaltered apart from any change which arises in the normal course of communication, storage and display.

Article 11 para. 1 MLETR: control as functional equivalent of possession

Where the law requires or permits the **possession** of a transferable document or instrument, that requirement is met with respect to an electronic transferable record if a reliable method is used:

- (a) To **establish exclusive control** of that electronic transferable record by a person; and
- (b) To **identify** that person as **the person in control**.

(Article 11 para. 2: transfer of control = delivery)

Other information-related issues

- Article 5 MLETR: permits inclusion of additional information (i.e. metadata):
 - Goes beyond article 4(1) e-CMR
- Article 18 MLETR on replacement of an electronic transferable record with a transferable document or instrument:
 - Inclusion of a statement indicating a change of medium;
 - the electronic transferable record shall be made inoperative and cease to have any effect or validity;
 - metadata may be preserved but cannot be inserted in a paper-based document;
 - Implements article 5(1)(f) e-CMR.

Conclusions and way forward

- The MLETR provides valuable guidance for e-CMR implementation
- Different ways to make that link explicit:
 1. A guidance note to illustrate relevant issues may be prepared and adopted
 2. MLETR provisions may be incorporated in contractual agreements of ECN management system operators
 3. Countries who adopt the MLETR may extend its application to the ECN
 - This would ensure convergence of TR and ETR management, which is cost efficient and promotes data reuse