



Mutual legal recognition of electronic communications and electronic signatures and paperless trade facilitation: challenges and opportunities

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1. Trade facilitation

- Trade facilitation aims at simplifying procedures and controls relating to movement of goods.
- The goal of trade facilitation is to reduce direct and indirect trade costs.
 - benefits for professional end users and consumers.
- At a policy level, more cross-border trade = economic development.
- No prejudice to border control but mutual reinforcement.
- Information and communication technology helps trade facilitation through concepts such as paperless trade and electronic single window facilities.



2. The intersection of policy, law and technology

- Paperless trade often understood as a technological process:
 - This is not sufficient.
- Paperless trade requires first high-level consensus on policy decisions.
- A sound legal framework is needed to enforce laws, regulations and contractual agreements.
- The legal framework may include:
 - laws/statutes;
 - implementing decrees and regulations;
 - voluntary standards (co-regulation);
 - contractual provisions (e.g. on the terms of the Single Window service).



3. Paperless trade

- Notion built around trade facilitation in customs operations through electronic single windows:
- The fundamental commercial transaction is **B2B**.
- Submission of information related to import/export is a **B2G** national transaction.
- A cross-border single windows is based on a **G2G** international electronic exchange.
- Key challenge: re-use information from **B2B** transaction
 - It has the best data quality (timely, complete, accurate).
- This would reinforce regulatory functions, too, by facilitating submission of all trade-related data.
- To do so, we need to encourage **B2B** data flows.

4. Establishing an enabling legal environment

- Goal: no barrier to all electronic exchanges (B2B, B2G and G2G).
- Pre-existing law (contract law, customs code, etc.) is not touched.
- Application of same legal principles to private and public sector to the maximum extent possible.
- Relevant factors include:
 - Political commitment;
 - Technological: single window architecture, e-signature or authentication methods;
 - Cultural: prevailing economic model and legal tradition;
 - Legal: legal tradition; attitude towards regulation vs. enabling laws.



5. Does size matter?

- Elements that may affect e-commerce law include:
 - Legal tradition;
 - Level of governance / rule of law institutions.
- In general, e-commerce law is independent of:
 - Size (in territory or population);
 - Level of ICT penetration.
- However, the level of development may have an impact on the ability to build capacity and disseminate awareness in the private sector, civil service and the judiciary.



6. Legal topics relevant for paperless trade

- General e-transactions legal principles
- E-contracting
- Authentication / security (e-signatures, IdM)
- Privacy and data protection
- Data retention and archiving
- Cybercrime, electronic evidence

- Legislation specific to Single Window operations
- Liability of SW facility operator
- Service Level Agreements on SW operations
- SW data sharing agreements



7. The legal environment: the private side

- B2B exchanges fall under the scope of commercial law.
- The overarching principle of commercial law is “freedom of contract”.
- One consequence is that parties are free to choose content and technology of their electronic exchanges.
- B2B e-commerce laws are often based on uniform texts (UNCITRAL).
 - When so, they are similar.
- This facilitates mutual legal recognition of electronic exchanges and, therefore “legal interoperability”.

8. The legal environment: the public side

- Electronic single windows perform also border control and fiscal functions.
- Compliance with those functions is mandatory on private parties.
- Therefore, they usually fall under the scope of customs law, which is a branch of public / administrative law
- One consequence is that parties are required to adopt certain electronic formats and technologies.
- That request may imply additional costs.
- SW standards are not yet necessarily uniform.
- This hinders mutual legal recognition of electronic exchanges.

9. The legal environment: reconciling private and public side

- In successful cases, B2B laws are applied to the public sector to the fullest extent possible.
- Limited number of provisions needed to address technology requirements.
- Transition to paperless environment offers an occasion to review and reengineer processes and streamline existing laws.



10. Legal Foundation #1: e-transactions law

- Establishes general principles applicable to all electronic transactions:
 1. non-discrimination
 2. functional equivalence
 3. technological neutralityIdeally, regardless of the nature of the subject involved (public or private)
- First defined in UNCITRAL model laws



11. Principle of non-discrimination

“A communication shall not be denied validity on the sole ground that it is in electronic form.”

- May need an explicit statutory provision with respect to customs operations
- Once the law allows the submission of electronic information, and the infrastructure is in place, an adequate corporate culture is needed (in-house training, etc.)



12. Principle of technological neutrality

“Legislation shall not impose the use of or otherwise favour any specific technology.”

- Open to future developments.
- Possibility to have detailed provisions on technology requirements in implementing regulations.
- Many Single Window facilities set requirements for the submission of data in a certain manner, including the use of certain authentication technologies (PKI-based).
 - Is this always needed? This might deter business buy-in (additional costs) and mutual recognition (national encryption standards).
 - Distinguish data submission and data storage/analysis, professional and occasional users, etc.



13. Principle of functional equivalence

“Purposes and functions of paper-based requirements may be satisfied with electronic communications, provided certain criteria are met.”

- For instance, the “writing” requirement is met if the electronic communication is accessible for future reference
- Functional equivalent notions should be set forth in the general law on electronic transactions.
- As a result, all references to “writing”, “original” and “signature” in customs law are satisfied according to the requirements of the electronic transactions law.

14. Legal Foundation #2: e-signatures

- Number of different approaches for electronic signatures
 - In the same jurisdiction:
 - private vs. public sector;
 - in different branches of the public sector.
 - Across borders.
- Choices often driven by security concerns, not by e-commerce and trade facilitation
- Excessive costs and systems redundancy led to Federated Identity Management
- Cross-border recognition of electronic signatures on a technology-neutral basis is mandated by Free Trade Agreements.
- Bilateral mutual recognition of e-signatures is rare.
- At the multilateral level, see article 9(3) UN Electronic Communications Convention.

15. Cyber security: seeking a balance

- Cyber security is a leading concern for both private and public sector
- Should not hinder the use of electronic communications
 - Differentiate among users, operations
- PKI can provide several services: origin, integrity, time-stamping
 - However, PKI has not yet delivered as expected
- Some loopholes lie outside the IT system
 - E.g., off-line identification of entities to be authenticated.



16. Other priority legal issues

- Increasing attention for protection of databases, emerging common technical standards
- Additional concerns about taking of evidence in investigations and admissibility in criminal and other proceedings
 - especially in cross-border context
- SW is based on exchange of commercially-sensitive data
 - duty to keep confidentiality remains unchanged
- Electronic systems can be more or less secure than paper-based ones, depending on architecture and operating standards

17. Concrete steps for legislative action

- Usually, laws are passed individually and not as omnibus e-commerce legislation.
- Laws on electronic transactions, electronic signatures and cybercrime are common.
 - They can be easily drafted based on international standards (UN Electronic Communications Convention, CoE Budapest Convention)
- Laws on e-evidence, data retention and archiving are less common
 - However, sound legislative models may be found
- Privacy and data protection laws are the least adopted
 - There is still no global standard in the field, though regional trends are emerging.
- See the UNCTAD Global Cyberlaw Tracker for specific country information.

18. For more information:

- UNCITRAL website: www.uncitral.org
- UNCTAD Global Cyberlaw Tracker:
http://unctad.org/en/Pages/DTL/STI_and_ICTs/ICT4D-Legislation/eCom-Global-Legislation.aspx
- UN NExT website: <http://unnex.unescap.org>
- ESCAP Electronic Single Window Legal Issues: A Capacity-Building Guide:
<http://www.unescap.org/resources/electronic-single-window-legal-issues-capacity-building-guide>

Thank you for your attention.

