



Security and legal aspects of cross-border paperless trade

# Trust in the Electronic Environment

National workshop on cross-border paperless trade facilitation and  
emerging technologies

**Nepal**

Tahseen Ahmad Khan  
takhan@meity.gov.in

# Outline

- FA & other international initiatives
- National initiatives (Indian) which Nepal can leverage
- UN/CEFACT initiatives which Nepal can leverage

# Securing electronic transactions

- AUTHENTICATION : Reliable identification of sender/recipient of data
- CONFIDENTIALITY : Protection of data from undesired disclosure.
- INTEGRITY : Prevention of undesired creation, modification or deletion of data
- NON-REPUDIATION: Committed transactions cannot be denied



# I. FA & other international initiatives

# A. Electronic transactions and signatures law

## 1. Electronic transactions legal issues, including:

### 1 (a) Legal recognition of electronic communications

- What are the conditions for the recognition of the legal validity of electronic communications?
- Do laws establish requirements for functional equivalence between paper-based documents and electronic communications? Do they recognize electronic communications as directly meeting requirements for documents, writing, signature, etc.?

### 1 (b) Legal issues related to identity management and trust services, including electronic signatures

- Are there laws that inhibit technological neutrality by mandating or favouring the use of specific technologies or business solutions for e-communications to be given legal effect?
- Do laws address how identification, authorization and authentication are carried out in an electronic environment?

## A. Electronic transactions and signatures law

- For all the questions above, are those laws applicable to all electronic communications or transactions or only to some business sectors or categories of documents or users?
- In particular, are there special rules for specific types of electronic documents such as bills of lading (transferability), manifests, certificates of origin, invoices, phytosanitary certificates, etc.?

### 2. Regulatory/legal requirements for data retention and electronic archiving

- Are there laws requiring preservation of stored information?
- Do they prescribe a minimum data retention period or a maximum retention period?
- Do they clearly apply to electronically stored data? If so, are there rules to ensure its integrity while stored and its accessibility to anyone with sufficient cause to inspect it?

### 3. The admissibility of electronic evidence, for example in judicial and enforcement proceedings

- Is electronic evidence admissible in judicial and administrative/regulatory proceedings?
- If so, are there special rules for collecting or producing electronic evidence or for ordering the disclosure of electronic evidence?

## A. Electronic transactions and signatures law

- Is a distinction made between evidence for criminal proceedings and for civil proceedings?
- Is electronic evidence generated, stored or collected abroad admissible in judicial and administrative/regulatory proceedings? Are the rules about such “foreign” evidence different from those applicable to other kinds of “foreign” evidence?

## B. Laws regarding paperless trade and single window systems

### 1. Laws relating to the establishment of a single window system/paperless trade system

- What legal instruments are used or need to be enacted to authorize or to establish the single window system and a paperless trading environment?
- Is there a national or coordinating agency to promote the domestic paperless trading environment (e.g., a single window system committee)? If so, does it have government and private representatives on it?
- Is there a dedicated budget to establish the single window system (or paperless trading platform)?

### 2. Legal aspects relating to information security

#### 2 (a) Laws and regulations on information security and data confidentiality

- Do the national laws mandate information security standards?
- Do the national laws protect the confidentiality of electronic transactions/information?



## B. Laws regarding paperless trade and single window systems

- Are there laws about cybercrimes, i.e., crimes using a computer (or other information and communication technologies) or targeting a computer or a network, such as unauthorized access to computers, introducing malware, interfering with proper operations, etc.?

### 2 (b) Laws and regulations relating to data accuracy and integrity when such data are shared for cross-border paperless trade systems

- Are there national laws/regulations establishing requirements for the accuracy and integrity of data submitted and processed for paperless trade? Are these laws of general application or specifically directed at paperless trade?
- Do these laws impose obligations on persons submitting such information and require processes to ensure correct attribution? Do they apply equally to paper and electronic communications? Are they consistent with the authentication and identity management rules mentioned earlier?

### 2 (c) Laws and regulations for accessing and sharing information and data between and among government agencies

- Are there agreements or policies for the sharing of data between government agencies within the country? Are there limits on such sharing based on personal privacy or commercial confidentiality?

## B. Laws regarding paperless trade and single window systems

### **3. Service-level agreements and memorandums of understanding on paperless trade operations, e.g., operation of single window systems (service level agreements may be applicable for matters such as availability, reaction time, processing time, etc.)**

- Are there **service-level agreements** or memorandums of understanding governing paperless trade operations? Who are the parties and what is their legal authority for making these agreements or memorandums of understanding?
- If yes, what level of service is expected from paperless trade service providers?
- What level of service is expected from single window system operators?

## C. Cross-border aspects

### 1. Existing bilateral or regional agreements for cross-border paperless trade data exchange, including e-commerce and paperless trade facilitation provisions in regional trade agreements

- Is the country party to an **international agreement**, such as a regional trade agreement or a bilateral trade facilitation agreement, that requires or favours the **legal recognition of electronic messages exchanged across the border**?
- Is the **country party to an international agreement** providing legal recognition of electronic messages exchanged across the border?
- Are there arrangements that provide for **mutual recognition** of electronic messages and transmitted information? If yes, is mutual recognition granted on a bilateral or multilateral basis?
- Does the country recognize **foreign electronic signatures and certificates**? If so, on what basis?
- Are national laws relevant to paperless trade facilitation based on international models (e.g., United Nations Commission on International Trade Law (**UNCITRAL**), Council of Europe, Organization for Economic Cooperation and Development, etc.)?

## C. Cross-border aspects

### 2. International standards/guidelines

- Do participants in cross-border trade use or rely on standards/regulations/guidelines for the exchange of electronic messages? United Nations Centre for Trade Facilitation and Electronic Business **recommendations 14, 33, 35, 36, 37 and 38** on legal issues raised by cross-border interoperability are examples of such guidelines.
- **Have international legal standards/regulations/guidelines** been incorporated into a country's legal framework for its cross-border paperless trade? If so, how? Does the incorporation of such rules at the domestic level also affect cross-border activity?

### 3. Existing bilateral or multilateral technical/operational agreements

- Are there technical or operational agreements which provide for the **unilateral or mutual recognition of electronic messages**? **Examples: China-Netherlands, ASEAN, PAA, EEC, EU, FA etc.**

## C. Cross-border aspects

### 4. Other international legal instruments, regulations and standards relevant to enabling the use of data for cross-border paperless trade

- Which other laws may be relevant to cross-border paperless trade facilitation? For example, bilateral or multilateral agreements on cybercrime and the taking of electronic evidence abroad.

## II. National initiatives (Indian) which Nepal can leverage

- **Mutual recognition** of Electronic/Digital Signature/certificates (having compatible technical and legal framework)
- Digital ID Initiative
- eSIGN Initiative
- Verifiable Credentials & Digital Locker Initiative
- Electronic Payments initiative

### III. UN/CEFACT initiatives (<https://unece.org/trade/uncefact>)

- Blockchain for Trade Facilitation
- IoT for Trade Facilitation
- Digital ID for Trade Facilitation
- Cross-border inter-ledger exchange for Pref. CoO (to adopt more doc)
- AI for Trade Facilitation
- Verifiable Credentials for Cross-border Trade Facilitation etc.
- Transfer of MLETR compliant titles (eBill of Lading)



Thanking you  
[takhan@meity.gov.in](mailto:takhan@meity.gov.in)