



# Asia-Pacific Trade Facilitation Forum Roundtable on Cybersecurity, E-commerce and Trade Facilitation

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**Indian Experience**

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## **UN/ESCAP Framework Agreement on Facilitation of Cross-border Paperless Trade in Asia and the Pacific**

- The objective of the present Framework Agreement(FA) is to promote cross-border paperless trade by enabling the exchange and mutual recognition of trade related data and documents in electronic form and facilitating interoperability among national and sub-regional single windows and/or other paperless trade systems, for the purpose of making international trade transactions more efficient and transparent while improving regulatory compliance.
- Partner: UNCITRAL, UNCEFACT/UNECE, UNNExT
- FA open for signature since Oct.2016
- Developing/Land locked countries/LDCs,

**Need for secure cross border  
electronic transactions**

The diagram features a central title box at the top with a dashed blue border. A vertical dashed blue line descends from the left side of this box, branching into four horizontal dashed blue lines that connect to the left side of each of the four security pillars. Each pillar is represented by a blue horizontal bar with a trapezoidal shape on its right side, pointing towards the right. The background of the slide is light gray with a faint, large watermark of the United Nations emblem in the center.

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

## UNCITRAL led initiatives

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graph TD; A[UNCITRAL led initiatives] --> B[Model Law on e-Commerce]; A --> C[Model Law on Electronic Signatures];
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### Model Law on e-Commerce

Provides for equal treatment of paper-based and electronic information, technological neutrality and functional equivalence. The Indian Information Technology Act, 2000 is largely based on this Model Law.

### Model Law on Electronic Signatures

Technology neutrality ('electronic' signatures), trust-worthiness criteria, recognition of foreign certificates and e-signatures. The Indian Information Technology (Amendment) Act, 2008 and Regulations for Recognition of Foreign CAs are influenced by this Text.



## Applications and Considerations

Data filing,eLICENSE,eCOUNCELLING: User-Password/Secure Channel/Supporting Documents

Return Filing: Two Factor Authentication

ePAYMENT: Two factor Authentication(Low Value), Electronic Signature(High Value)

ePROCUREMENT: eSIGNATURE + Multi factor Authentication+ Encryption + Multi location Audit Trail

## **Electronic Signatures**

Indian IT Act is technology-neutral and can cover signatures based on various technologies and methods, however, such technologies and the manner in which these technologies are to be used is to be prescribed by the Central Government

## **Foreign Certificates**

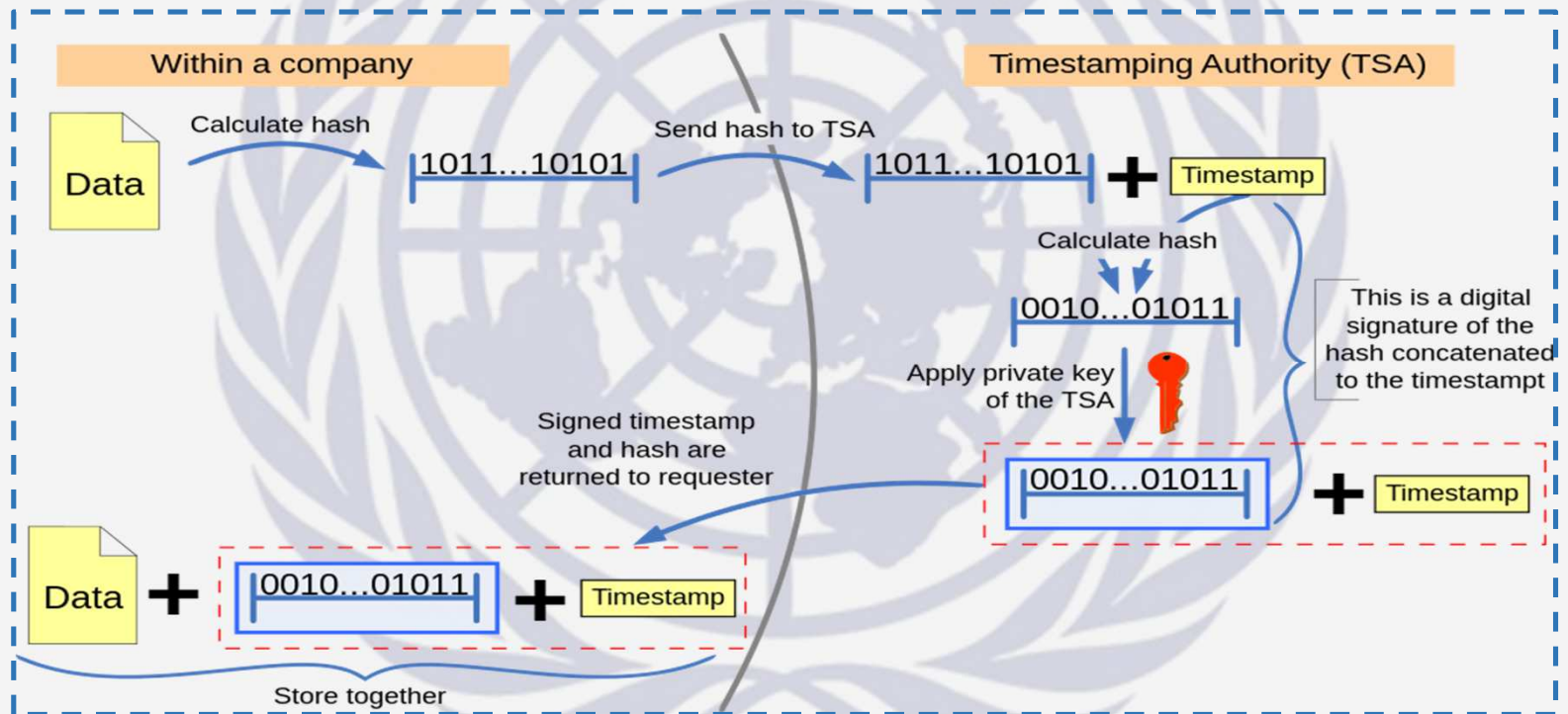
CCA can also recognize Foreign Certifying Authorities operating under a PKI Regulator, if:-

- The level of reliability of PKI environment of the country is at least equal that of India.
- The Controller (CCA) enters into a MoU with the PKI Regulator for Mutual Recognition of CAs.
- The Controller ,with previous approval of the Central Government, publishes the list of recognised CAs and the CA is included in such list.

Foreign CAs not operating under a PKI Regulator need to apply to the CCA for recognition

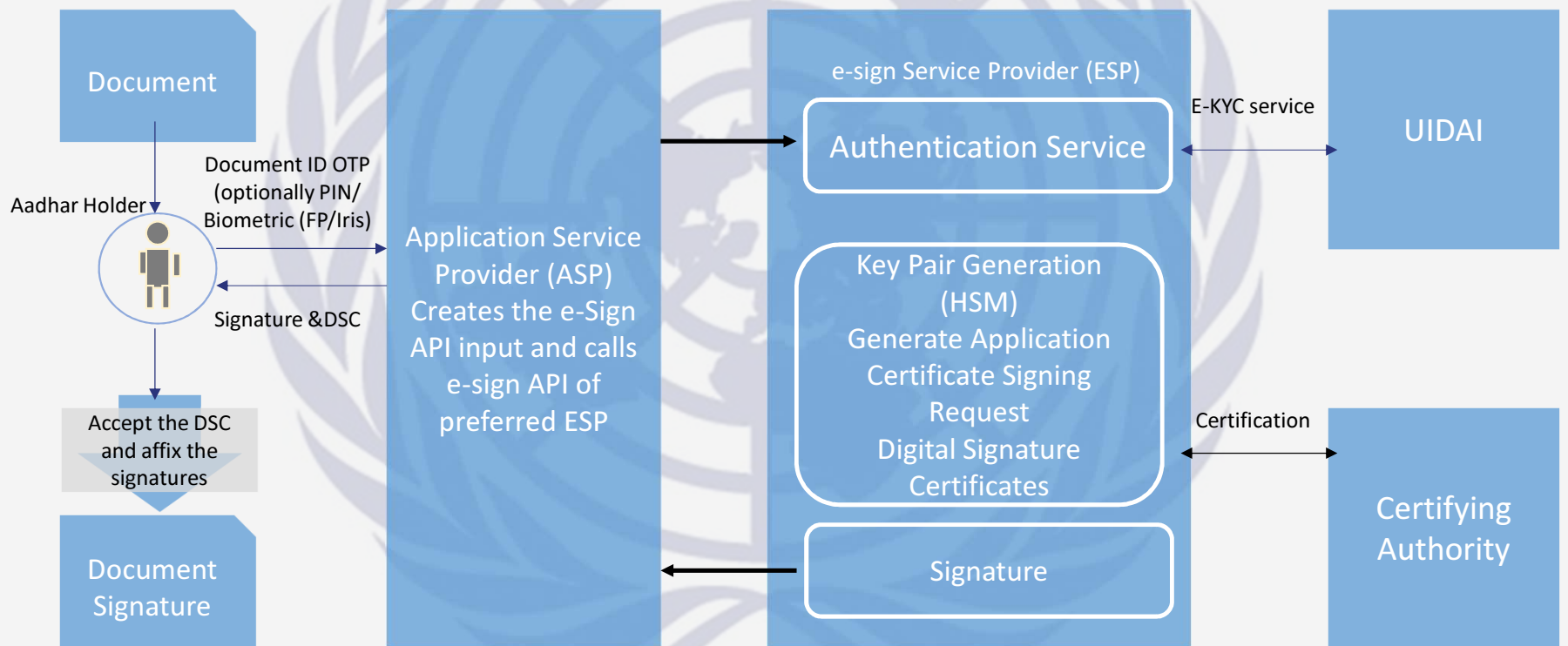


# Trusted Time-stamping



Legally valid proof of existence of a document at a particular time.  
User submits hash of the document. TSA adds a Timestamp and signs it.  
Privacy is maintained as only the hash of the document is made available to TSA(CA).

# e-Sign



HSM – Hardware Security Model  
OTP – One Time Password  
ESP eSign Service Provider

ASP – Application Service Provider  
eKYC – electronic Know Your Customer  
DSC – Digital Signature Certificate

FP – Finger Print  
UIDAI – Unique Identification Authority of India





## Way Forward

Enabling domestic legal environment for electronic commerce/electronic authentication/electronic signature, in a member state, preferably based on UNCITRAL model law

Enabling domestic legal environment for mutual recognition

MOU among member states for mutual recognition

MoU among member states for levels of Authentication and Security.

FA to facilitate above



## **Expectations from FA and other International Institutions**

Facilitate mutual recognition at Sub-regional, Regional and Global levels

Facilitate creation of institutional framework to achieve mutual recognition. This will also address electronic interoperability and mutual recognition, audit, audit trail etc.

Above need be achieved in collaboration between UNESCAP, UNCITRAL and UNCEFACT/UNECE.

The United Nations logo, featuring a world map surrounded by olive branches, is centered in the background. A semi-transparent blue rectangle is overlaid on the logo.

**THANK YOU**