TCP4ED

(Trusted Communication Platform for Electronic Documents)

◆ Parts
  • Part 1: Fundamentals ← liaison w/ ISO TC46/SC11 (Record management)
  • Part 2: Applications ← liaison w/ ISO/IEC JTC1/SC38 (Cloud)

◆ Status
  • (Nov, 2013 : Berlin meeting) New Work Item Proposal
    → Adopted as NWI of WG1
  • (Aug, 2014) Working draft v.1 of submission by KATS
  • (Oct, 2014 : Seoul/Incheon meeting) New Work Item Discussion
  • (Next step) CD Ballot
Goal

“TCP4ED”

legally provable way of dematerialization

Paper-based hybrid way

Open network

Closed network

Legal liability

De-mail

Bolero

VAN

#mail

PReM

Peppol

ISO 15000

ISO 9735 (EDI syntax)

ISO 15000 ebXML

IETF OASIS

AS/2,3 Web service, SOA

proprietary

standard

Goal

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(Platform)

- **Definition** -
  
  **Framework** (Oxford definition)
  - The parts of a building or an object that support its weight and give it shape
  - The structure of a particular system

  **(Computing) Platform** (Oxford definition)
  - the type of computer system or the software that is used;

  **(computing) platform** (wiki definition)
  - whatever pre-existing environment a piece of software is designed to run within, obeying its constraints, and making use of its facilities
TCP4ED

1. Scope...

A trusted communication model among concerned parties
- Legal liability
- Roles and responsibilities
- Quality assurances

Certificate of trusted communication (Dematerialization)
- The proofs of electronic communications

The platform system
- Architecture
- Protocol
- Service models
- Interface of distributed system and or mobile
**TCP4ED**

**2. Definition...**

**Communication** (defined by UNCITRAL)
Any statement, declaration, demand, notice or request, including an offer and the acceptance of an offer, that the parties are required to make or choose to make in connection with the formation or performance of a contract

**Electronic communication** (defined by UNCITRAL)
Any communication that the parties make by means of electronic documents

**Trusted communication** (defined in TCP4ED)
Any qualified communication that can provide the evidential admissibility about electronic communication in a trustworthy manner

**Trusted communication platform** (defined in TCP4ED)
A platform enabling communication of electronic documents on legal liability by open architecture on open network
**TCP4ED**

3. Trusted communication

**Legal considerations (legal evidence)**
[UNCITRAL 2007, United Nations Convention on the Use of Electronic Communications in International Contracts]

(1) Non-repudiation of the communication parties’ identity
- as reliable as appropriate for the purpose created or communicated in all the conditions related to business agreements
- can be proven by itself by functionality of identity authentication and electronic communication, together with other evidence

(2) Proof of communication context
- Time of dispatch (leaving)
- Time of receipt
- Place at which the originator has its place of business

(3) Original form of communicated contents (intention of parties)
- Where a method exists to secure the integrity of information from its creation
- Where the information has been capable of its use
4. Trusted Communication Model

How to manage the trustworthiness between concerned parties required to trusted communication

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5. Overview of TCP4ED

- Five requirements (technology+management+legal aspect)

  (1) Security
      - Document level/network level/E2E (between nodes)

  (2) Authentication
      - Verify about trusted communication (context)

  (3) Accountability
      - Communication evidence

  (4) Reliability
      - Chain of trust (quality) from any risks

  (5) Portability
      - Trusted services under cloud environment
5. Architecture...

TCP4ED

Transmitting Client → transmitting server → receiving server → Receiving client

identity directory

evidence repository

Certificate of trusted communication
6. Proofs of trusted communication (Dematerialization)