Data Ownership and Trusted Networks in Practice

TRUST IN TRADE: ENABLING SECURE AND SEAMLESS DATA SHARING IN DIGITAL TRADE

Trust has been the foundation of trade for centuries, evolving from personal exchanges to complex international supply chains. It is now embedded in codes, certifications, policies, and protocols, ensuring seamless alignment across multiple stakeholders and geographies.

Digitalisation offers the potential to eliminate paper-based processes, improving efficiency and reducing costs but more than automating processes, it redefines how trust is built and shared. The Digital Standards Initiative (DSI) is leading efforts to create a secure, interoperable digital trade ecosystem, ensuring trust mechanisms remain robust.

The aim is to enable end-to-end digitalisation across supply chains, using common frameworks for data standards and electronic records. Data would be generated once, tagged at the source, and securely shared with authorised parties. Each stakeholder would access only relevant information while maintaining full visibility into its authenticity and traceability.

Two critical pillars support this transformation: harmonising trade data and ensuring seamless data flow. The Key Trade Documents and Data Elements (KTDDE) framework, introduced in 2024, maps the core data requirements of 36 key trade documents, providing guidance for globally interoperable standards. The next step involves addressing interoperability challenges, ensuring smooth integration with corporate data processes.

Beyond data harmonisation, stakeholders must align on technology principles for managing and securing digital records. The Trust in Trade report, published by DSI in 2023, outlines essential elements for digital trust: secure document and data transfer, verification, authentication, and protection.

A digital trade ecosystem must ensure that every digital interaction is verifiable, accountable, and auditable. This follows the Zero Trust Architecture principle of "never trust, always verify." A new "trust supply chain" is emerging, providing secure data exchange across global trade networks. Public Key Infrastructure (PKI) encryption will ensure security and legal protection across decentralised trade ecosystems.

Achieving this vision requires advances in software, hardware, PKI infrastructure, and organisational capabilities. While private, high-security networks will continue to play a role, scalable, open networks must become the long-term solution.

A significant milestone in this transition is the secure transfer of electronic transferable records (ETRs)—the digital equivalent of paper-based trade documents. In October 2024, DSI and the Digital Governance Council in Canada released a technical framework establishing key requirements for reliable ETR transmission:

- **Singularity:** Ensuring only one original ETR exists, functionally equivalent to its paper counterpart.
- **Integrity:** Protecting documents from unauthorised modifications.
- **Exclusive Control:** Ensuring only the designated holder has authority.

This open-source framework, developed in collaboration with industry stakeholders, will evolve to meet the needs of global trade, with a third-party certification process possibly introduced.

Despite progress, many freight forwarders remain in early stages of eBL adoption. The recent FIT Alliance survey found 70% still rely solely on paper BLs, compared to 49.2% of total respondents who have adopted eBLs fully or partially.

While digitalisation offers cost savings, efficiency, and data security, it requires a strong legal foundation. Aligning national laws with the Model Law on Electronic Transferable Records (MLETR) is critical. FIATA and freight forwarders, through the FIT Alliance and national advocacy, play a pivotal role in driving regulatory change and ensuring trade is ready for the digital future.

The transition to digital trade is inevitable. Industry engagement today will determine success tomorrow. ∎

Pamela Mar, Managing Director, International Chamber of Commerce Digital Standards Initiative