Evolving Global Trade

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Evolution in Global Trade

- Market conditions have evolved
  - eCommerce platforms digitalize more data
  - Greater insight into supply chain with increased reliance on digital platforms
- Traditional transactional data model not sustainable
  - New data sets being requested by customs administrations to help assess risk and facilitate release of goods
  - Data sets include large objects, such as images and digitized documents
  - Larger size data combined with increased volume of data being submitted as customs agencies gain more insight into a digitalized supply chain put significant strain on current model

Current Process

- **Traditional Methods**
  - Traditional Messaging: transacting large data sets via email or attachments
  - Electronic Data Exchange: utilize an agreed upon electronic format, such as XML or JSON, to share data electronically
    - Real-time: small files containing specific transactional data shared as they occur
    - Periodically: large files containing a group of data to accommodate regulated products (e.g. CITES certificates)
  - Increased demand in additional data sets and larger volumes of transactions make traditional methods difficult to sustain
- No longer just a standards problem, also a compute and efficiency standard as large amounts of data are sent from trade entities to customs agencies on a transaction-by-transaction basis

Possible Solution

- US CBP 21st Century Customs Framework
  - Re-define customs/trade responsibilities to accommodate both traditional and emerging trade actors
  - Employ intelligent enforcement
  - End-to-end supply chain transparency to enhance data centric decision making

- Distributed Ledger Technologies
  - Enhanced, immutable visibility into areas of supply chain that currently have no data transacted
  - Eliminates need for transactional processing, changes current model

What Can We Do?

- Leverage work already done at WCO around standardization of trade data
  - Use WCO to harmonize additional data sets identified as customs organizations get expanded insight into global supply chain
  - Move away from transactional model, use same standards to guide “ledger entries” in distributed data sharing model to harmonize description of goods, etc…
- Supplement with W3C standard on Decentralized Identifiers (DID’s)
  - New type of identifier that enables verifiable, decentralized digital identity
  - Necessary to establish immutability of identity in distributed data model
  - https://www.w3.org/TR/did-core/