Case Study: Supply Chain with Blockchain

Enabling the conveyance of traceability data on tuna using Global Standards 1 (GS1)’s Electronic Product Code Information Services (EPCIS) XML schema.

Use Case Tested
This pilot validated traceability in a canned MSC Skipjack Tuna supply chain that featured blockchain with consumer-facing traceability from catch, to transshipment, to landing, to shipment to cold storage and processing, to shipment to retail.

Challenges
Mixing of product from multiple catch events during a single fishing trip and even from multiple trips at the transshipment or processor stage makes 1:1 resolution of a lot of tuna cans back to a single vessel difficult, even with a mass balance approach.

Next Steps
Defining acceptable levels of mixing to occur at the processing stage via mass balance approach, as well as label printing best practices when resolvability back to a single vessel is not aligned with batch lots at the processor.

Methodology
Traceability data was collected a retail partner in the GDST, using their end-to-end blockchain traceability solution. GDST mapped blockchain-derived data onto their basic universal list of Key Data Events (KDEs) to confirm utility of proposed interoperability framework.

The advantages of EPCIS are that it is designed to be used to represent visibility data within the supply chain and is well-suited for housing traceability data through its Critical Tracking Events (CTEs). Many supply chain partners, especially processors, distributors, and retailers used GS1 standards of identification and data sharing, including EPCIS. The file was developed through the collection of historical traceability data, translation to EPCIS, and testing with retail partners and their respective solution providers.

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The Global Dialogue on Seafood Traceability (GDST) (also referred to as the Dialogue) is an international, business-to-business platform established to advance a unified framework for interoperable seafood traceability practices. The Dialogue brings together a broad spectrum of seafood industry stakeholders from across different parts of the supply chain, as well as relevant civil society experts from diverse regions.

The Dialogue is catalyzing the development of interoperable practices that will:
- Improve the reliability of seafood information
- Reduce the cost of seafood traceability
- Contribute to supply chain risk reduction
- Contribute to securing the long-term social and environmental sustainability of the sector.

traceability-dialogue.org

Participants

Get involved

Is your company involved commercially in the seafood supply chain?
Would you like to participate in the Dialogue?

Please fill out our application form or contact us:

Thomas Burke tburke@ift.org   |   Frank Terzoli frank.terzoli@wwfus.org

Applying is understood as an expression of interest in active participation, but does not create any commitments. Registered participants will receive invitations to on-line and in-person meetings of Dialogue working groups, and will be kept fully informed of the Dialogue process. Registration does not commit any participating organization or individual to attend meetings or to endorse the final Dialogue results.