Supply Chain Damage Tracking on the blockchain DApp

By Steven Schwab

Current Problem

Globally, E-Commerce organizations deliver billions of dollars of damaged products to customers. Delivering damaged products leads to unhappy customers, time spent troubleshooting mishaps, and time spent investigating which party is liable in a complex global supply chain. Currently, each party in a supply chain has an independent system for tracking goods. In the E-Commerce world, the E-Commerce companies centralized systems are the source of truth for assigning blame and all other parties have to rely on and trust this data source for information on damaged goods.

Idea & Value Proposition

Use a blockchain to record every time a product moves from one party to another and use IoT x-ray scanners to determine if a product is damaged. Identifying the source of damage saves time because it pinpoints where in the supply chain a product was damaged. By using 3rd party sensors, no party can falsely accuse another party of being responsible for damaging a product. Damaged products can also be caught sooner in the product journey and will improve the customer experience because customer will not receive damaged products. The IoT sensors will catch and log if a product is damaged and will prevent the damaged product from continuing on its journey. Parties can then use the data to improve certain areas in their logistics to reduce damages and save money in the long run.

Why blockchain is useful for this?

A blockchain is useful to solve the product damage problem because every time a new party receives a product the transaction will be recorded. Having a record of which party was responsible for a product's damage would reduce the time to trace where and when a good was damaged, who was responsible for the damage, and who ultimately needs to pay and to whom. With a blockchain, each change of ownership is recorded on chain and coupled with IoT 3rd party devices increases the transparency and trust of the supply chain.