Simplifying and Securing CrossBorder eCommerce

Overview

As nations extend their border controls and goods regulatory oversight, the significance of transparency within the Supply chain has never been more pronounced. Blockchain technology, emerging as the vanguard of identity, trust, security, and visibility, is poised to usher in a transformative era for Global Trade Operations. This transformation promises enhanced efficiencies while simultaneously reducing both time and financial expenditures.

Blockchain's applicability spans a multitude of scenarios within the Supply chain, encompassing tasks such as tracking shipments, verifying product origins, sharing Trade documents, facilitating Supply chain financing, and much more. Given the extensive advantages it brings and the wide-ranging scope of applications, the question is not whether but when blockchain will be integrated into customs and border services. This document concentrates on elucidating the advantages of employing Blockchain Logistics, particularly in the domain of Customs bonded warehouse operations.

Definition or Use Case

1. Blockchain, the new gatekeeper of identity, trust, security and visibility, is set to revolutionize global trade operations, increasing efficiencies while cutting time and costs.
2. Blockchain can be applied to a myriad of use cases across the Supply chain, including Shipment tracking, Product provenance, Trade documents sharing supply chain.
3. It can be implemented in Customs and Border services.

Opportunity

Retailer's products are shipped to the destination country in bulk by LSPs (Logistics service providers) under Customs bond based on anticipatory sales in that country LSPs (Logistics service providers) manage the inventory in the bonded warehouse until it is sold. Goods are de-bonded and delivered when a sales order is received from an online shopper.

Constraints

Some of the constraints include gaps in the visibility of shipment status due to partnerships between logistics service providers in different geographies, longer transit time that hampers competitiveness with local retailers, and varying customs duties and taxes that increase the landed cost of a cross border e-commerce product. Other challenges include the inability to provide value-added services such as collect on delivery, returns and tax reversals, facilitating secure payments between retailers and buyers and ensuring trust while goods are in transit.

Challenges

Challenges in Customs Bonded Warehouse Operations Are as follows :

- Reporting
- Entry Filing
- Inspection
- In-bond
- Putaway
- Storage
- Security
- De-bond
- Customs Audit
- Bond to Bond transfer
- Value added Services

Security:

Ensuring security of the cargo while in storage and during transportation.

Compliance and documentation:

Maintaining accurate documentation for audit by customs authorities. Examples: warehouse entry, storage, transfer, debonding, duty payment, damages, liquidation, remanufacturing, discrepancies and abandonment.

Visibility:

Ensuring goods are transported between bonded warehouses using a bonded carrier, enabling total visibility into goods while in storage and in transit.

Fraud:

Enabling trustworthiness when using the services of third-party customs bonded warehouse operators.

Solution

Here are the ways blockchain-enabled bonded warehouse services can help address the challenges faced by LSPs (Logistics service providers).

I. Mitigating Fraud

A key feature of blockchain is that it decentralizes system management and authorization to a network of computers. This means blockchain can effectively prevent one or several colluding individuals from overriding controls, or illicitly changing or deleting official system records. There is also no possibility of issuing fake receipts as all documents are validated and verified by the parties participating in the consensus mechanism.

II. Improving Compliance

Compliance with customs rules, regulations, and documentation becomes simple and hasslefree with IT systems underpinned by a blockchain platform.

- Transactions like cargo in-bonding, inspection, storage, de-bonding, and so on are visible in real time to customs officials as well as retailers, enabling them to proactively analyze information and take action.
- Recording actions and their outputs immutably in a blockchain creates an audit trail for regulators to verify compliance.
- Smart contracts can be used to pay customs duties as soon as the de-bonding process is completed, ensuring accurate payments and mitigating news and penalties.

III. Reducing Reconciliation Issues

The visibility and consensus provided by blockchain helps mitigate disputes among parties, including those related to inventory reconciliation, charges levied, service level agreements, billing and so on, thereby significantly reducing time and costs.

IV. Improving Security

Blockchain can ensure security both in terms of authorized personnel access to the warehouse as well as securing of goods in storage. Digital identity management combined with tags or sensors affixed to pallets can ensure that access is provided only to authorized personnel and any cargo tampering is recorded and alerted by the blockchain platform.

V. Enhancing Customer Experience

In most cases, the estimated duty is prepaid by the consignee to the shipper and excess duty paid is seldom communicated or refunded back. Blockchain provides consignees with visibility into all charges and duties actually paid, creating additional value to the consignee.

Conclusion

Disputes relating to HTS classification by Customs brokers can easily be resolved using Machine learning (ML) solutions to auto-classify the commodities and log the information into Blockchain shared ledgers.This will help reduce misinterpretations by customs brokers and provide an accurate view for the release of shipments.

Similarly, various trade documents such as Certificates of Origin, Free Trade Agreements, Product Qualification, Permits and so on, can be issued on the Blockchain to establish their authenticity and reduce paperwork.