

Circular From NORTH**Date: 19 November 2019**

Can Blockchain Fit the E-bill?

The last few years have seen blockchain lauded as the solution to a number of problems for the shipping industry. Despite the hype, the buzz of blockchain technology in shipping shows no sign of fizzling out.

There are many projects in development using blockchain, from tracking the source of bunkers to providing a full documentation pipeline for trade transactions.

One application of blockchain technology in shipping concerns the bill of lading, and a number of companies have made significant progress in recent months. This brings with it the potential wider use of electronic bills of lading, perhaps eventually replacing traditional paper bills.

History of E-Bills

Electronic bills of lading have been in use for a number of years. In 2010, the International Group of P&I Clubs (IG) approved the Bolero and the essDOCS systems, before being joined by the e-title system in 2015.

When using these systems, it is very important that the correct version and user agreement is in use. To the extent liabilities arise because an electronic bill of lading has been used instead of a paper bill, cover is discretionary unless the governing Rule Book or User Agreement matches the titles set out in the latest IG circular and are unamended.

To date, the use of e-bills has not been widespread. The low adoption rates are attributed to number of reasons on top of the obvious cyber risk. These include its ability to function as a document of title, problems with transferability and the investment needed in new IT systems.

But the advent of blockchain could prove a renaissance for the e-bill. Recently, the Bolero electronic bill of lading was successfully used in a blockchain transaction. However, until there is further clarity on the legal status of e-bills in more jurisdictions, a significant barrier remains.

The future is already here

Recent success stories of trialling blockchain technology in bills of lading transactions include the Smart B/L from Cargo X, Wave and the Maersk-IBM partnership TradeLens.

The CargoX trial involved a shipment of garments from China to Slovenia. They report a bill of lading was successfully processed in minutes at a cost of US\$15 using a public blockchain network. The TradeLens system does not just limit itself to the bill of lading but the whole process of transactions and document control in the supply chain. When studying the need to improve the process, Maersk announced that a single shipment of avocados from Mombasa to Rotterdam involves 30 parties of over 100 people and 200 information exchanges. Their trials showed a time reduction of 40 percent and reduction of costs by thousands of dollars.

Blockchain benefits

Fintech (Financial Technology) companies have been understandably vocal in extolling the benefits of using blockchain for bill of lading transactions, typically claiming:

- Reduced delays in international trade through standardised practices.
- Transparency in trading and traceability.
- Reduced risk of fraudulent transactions and counterfeit products.
- Increased trust in accuracy and integrity of transactions through automated payment processes.
- Streamlined process for cargo claims that leads to lower costs.
- Better reassurance on the provenance of goods being traded.

Brakes on Blockchain

Shipowners should be mindful of the potential pitfalls in participating in any electronic system, including blockchain. Because of the hype, it is understandable that the shipping industry might think that blockchain is the solution to every issue. Not all companies will need blockchains, and not everything a company does will need to be put on a blockchain.

The legal framework protecting carriers who carry cargo under an original bill of lading is not suitable for electronic bills of lading and this problem is not solved by the use of blockchain technology. Whilst the International Group tries to assist the shipping community by periodically approving terms governing the use of electronic trading systems, the growth of new platforms and constant changes to user agreements means cover often remains discretionary.

Blockchain technology involves its own discrete legal issues, such as:

- Blockchain technology shares data across multiple jurisdictions, leading to potential issues concerning cross-border data protection issues and anti-trust rules.
- The legal efficacies of digital or smart contracts are still not fully tested under the law of contract.
- As blockchain technology is decentralised, and has no single controlling entity, it means liability would not be clear if the system were to fail.

Quick Guide to Blockchain

- Blockchain is a secure and decentralised shared database.
- The database is a digital tamperproof ledger of transactions.

- It is housed on a shared platform. There is no central point controlling the blockchain and it is stored across a network.
- Each transaction – whether it is a payment, a record or a contract agreement – is entered into a ‘block’.
- Every new block is linked to the last block to form a chronological ‘chain’.
- Transactions are verified through participants confirming changes with one another.

Source of Information: The North P&I Club

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