

Blockchain Bills?

Contactless cards and internet payments are well understood and in general use. They may never replace cash, but will soon supplant the cheque - the near obsolete bill of exchange. Likewise, though presently lagging several chapters behind, the less familiar concept of virtual currency might one day bring about similar revolution in the carriage of goods.

Bitcoin is a digital cash system. Developed in 2009, it is probably the best known of the two dozen main brands amid nearly 750 types of cryptocurrency. Increasingly widely used in lieu of conventional money, these online encryption-based devices use a database that is open to everyone but whose operative payment, receipt and other entries cannot be duplicated or changed. Access is by coded key and tamper-proof security provided by inbuilt validation and auditing. This is based on what is called *blockchain* (or distributed ledger) technology, by which transactions are performed and recorded such that they cannot be altered.

Wider uses of this innovation are probably imminent, for example in stock control and supply chain logistics, eliminating vast paperwork and costly administration, and recent trials might eventually bring it home to the bill of lading.

Such is *the* key document in international trade. It evidences the carriage contract and, on terms, the amount and condition of goods loaded and allows title to pass (often repeatedly) from a seller to a buyer. Its holder can demand outturn, and the carrier who complies validly discharges his obligation. So it must be quick to prepare, complete and accurate in its entries, swift in transit and secure from unauthorised alteration or falling into the wrong hands. A bill of lading sailing with the cargo and sent by tracked courier is slow to create, alter and sometimes to arrive, and can be faked, misappropriated, or simply lost in transit, offering many difficulties, creating much loss and delay and a sub-industry in letters of indemnity and related law.

By digitalising their paper forebears, electronic Bills of Lading (eBills) address these issues. Under common clausings parties agree to their use in place of traditional bills of lading, and consent to their legal effect being the same. But while eBills have become part of the solution, they remain part of the problem. They are near instantaneous in operation, and sealed from counterfeit, theft and diversion, but the security allowing that presently comes at a price that has limited their scope : they can operate only through a registry run by a proven agency, in effect a closed circuit. All involved must be equipped to use one of a very few approved electronic systems. If one is not, a paper bill of lading must be created and square one revisited.

Cryptocurrencies like Bitcoin work differently. No intermediary is involved. One needs only to download and use the encryption software. It is open to all. The enabling blockchain technology logs each participant and builds an unalterable series of commands and actions - a chain of individual blocks, each tied to all prior ones - that recent trials have shown can be used to create and use eBills instantly and securely. The vital advance is that the decentralised nature of the electronic platform

would mean that, if accepted into use, this new way of creating and handling eBills (and of course many other documents at the heart of commerce) would be available to everyone, simply online. There would be no need for all, or indeed any, to use a particular system to access the medium.

It is wholly understandable that, while promoting and seeking the many advantages of eBills, P&I Clubs restrict cover to transactions using (presently) one of only three approved mechanisms, and carriers stipulate likewise and for indemnity for losses that would not have arisen under a paper format. Precautions are needed, and rightly demanded, when using a comparatively new electronic ether within which vast sums can be moved at the press of a key.

In seeking to get eBills at last into shipping's mainstream, it should be possible to create (or perhaps interpret) laws to accommodate this new technology, and to fashion workable regulations, and in principle there would probably not be any great change among the current contractual structures. Perhaps, however, the development of blockchain here will be hampered by the very factor that should found general use - that it can be accessed by all, without using a pre-approved system.

Time only will tell whether, in adaptation to bills of lading, blockchain would pass the inevitably stringent tests such that the industry would release this crucial document to the limitless electronic seas. Meanwhile, all should monitor this evolution closely, continually consider the related issues and be ready to respond to developments.

Campbell Johnston Clark
59 Mansell Street
London
E1 8AN

www.cjclaw.com