BLOCK CHAIN

THE FUTURE IN TRANSPORTATION

RUAN, BLOCKCHAIN IN TRANSPORT ALLIANCE DEVELOP BLOCKCHAIN STANDARDS IN TRANSPORTATION

Anyone who even moderately consumes media in any format has likely heard of blockchain technology and how it can revolutionize the way data is shared. Blockchain is a topic of consideration across all industries — including transportation.

Transportation transactions — like orders, payments, fuel records, shipment tracking — are complex. At each point in the process, each participant in the transaction has their own view of what's happening via their own digital ledgers.

Multiple ledgers can lead to error and inefficiency — and open up the potential for fraud. Blockchain reduces the complexity by creating a decentralized digital ledger across many nodes. Nodes are distributed across a network and carry out a variety of tasks. Everyone on the blockchain — from the shipper to carrier to receiver (and all the individuals included therein) — shares a common view of a ledger. They can see all details of a transaction from start to finish.

WHEN A TRANSACTION OCCURS, IT'S PUT INTO A BLOCK, THEN EACH BLOCK IS CONNECTED TO ONE BEFORE AND AFTER IT. THE TRANSACTIONS ARE BLOCKED TOGETHER IN AN IRREVERSIBLE CHAIN—A BLOCKCHAIN—THAT CAN'T BE ALTERED RETROACTIVELY.

The result is a type of distributed ledger that can be shared and accessed by anyone with the appropriate permissions. The information held on a blockchain exists as a shared and continually reconciled database.

Need an example? Consider collaborating on a Word document or spreadsheet. To share it with another party, you send it, ask the party to make revisions, then they send it back to you. You are essentially locked out of editing it until you receive the other party's revisions. In this process, both parties risk losing track of versions and not having the latest data if the other party hasn't sent you revisions. Now think about working with Google Docs or Microsoft Teams. Multiple parties have access to the same document at the same time, and they can all make changes at the same time that are visible to all parties. Blockchain is like Google Docs. Everything on the blockchain exists on a shared database.

Don and Alex Tapscott, authors of the Blockchain Revolution say, "The blockchain is an incorruptible digital ledger of economic transactions that can be programmed to record not just financial transactions but virtually everything of value."

The freight transportation industry is still determining how to use blockchain.

Hundreds of carriers — including Ruan — have joined BiTA, the Blockchain in Transport Alliance. "BiTA was formed by experienced technology, transportation, and supply chain executives to create a forum for the development of blockchain standards and education for the freight industry. BiTA's goal is to bring together leading companies in the freight technology industries that have a vested interest in the development of blockchain technology," according to the association's website.

"Ruan joined BiTA because we are excited to be part of the conversation about the development of blockchain standards in transportation," said Ruan's Director of Application Development Nehru Cheddie. "The possibilities blockchain holds for transparency and visibility, efficiency gains, and reducing auditing needs are truly compelling within such a complex industry."

In addition, Ruan's six-person internal Blockchain Forum meets bi-weekly to educate the membership on blockchain technology. The team is working to deploy a prototype blockchain in the first quarter of 2019 to prove out the technology.