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Transportation Industry Shifting Gears with Blockchain

[TECHNOLOGY, TRANSPORTATION & LOGISTICS](#)

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How the logistics and transportation industry is evolving with the help of shared distributed-ledger technology Blockchain, and the potential roadblocks ahead.

POISED FOR A TRANSFORMATION

Peter Drucker once said, "Efficiency is doing better what is already being done," but as technology continues to develop, that makes the practice of efficiency a moving target.

The business of moving freight is littered with inefficiencies from purchase order to delivery. The industry is ready for a transformation, and there's a lot on the table. According to the American Trucking Association, nearly 71% of the nation's freight is moved by trucks. The industry generates \$738.9 billion in gross revenues and ships over 10.55 billion tons of domestic freight. Blockchain may be just the shipment the industry has been waiting for.

THE ROAD AHEAD

Blockchain technology uses timestamped digital records, or "blocks," to make changes to its digital ledger. Those so-called "blocks" are immutable, secure, trackable and incorruptible. This means that when a transaction updates within the Blockchain, there's no question about who, what, where or when that change occurred. This is why the technology is often referred to with profound regard.

The Blockchain solution thrives when transparency of data is a key requirement. In transportation, many distinct parties have vested interests in following certain transactions, so data transparency is a key part of the process. The more parties involved in a transaction, the more Blockchain can flourish. Thus, the benefits of the technology are well-founded.

Education around Blockchain has become somewhat mainstream of late. As a result, acceptance is far more common today than just a few years ago, and the industry has taken notice. A consortium of stakeholders known as BiTA (Blockchain in Transport Alliance) is now in place. Their stated mission is to develop and establish industry Blockchain standards and collaboratively identify efficiencies. There are already over 1,000 applicants, with members including such industry luminaries as UPS, FedEx, Salesforce, SAP, Uber, GE, Penske, JD Logistics and Polaris.

FUELING CHANGES

Given the conventional nature of current business activity, Blockchain's potential impact is exponential, with processes able to occur in a far more fluid manner. Consider these benefits:

- Transparency – all stakeholders maintain access and knowledge to transactions in real time
- Instantaneous Payments and Digital Contracts
- Immutable Information and Record Maintenance – assurance that data is complete and accurate for organizations, auditors and regulators
- Traceability – distributors could trace shipments to its source in real-time
- Increased Monitoring Efficiency – through use of IoT (Internet of Things)
- Delivery Efficiency – a digital roadmap of routes and contracts embedded within the Blockchain that can trigger payments instantly upon delivery
- Historical Performance Tracking – better tracking of cargo and vehicle services
- Reduced Administrative and Processing errors

POTENTIAL ROADBLOCKS

There are but a few keystones that still need to be in place before we can put the pedal to the metal. Suppliers, shippers and brokers alike will need to accept and embrace the technology for its capabilities. That includes maintaining the security of the Blockchain, which must be cultivated from its inception and closely monitored. BiTA plans to vet data sources, payments, contracts and insurance, but that will not be enough. There needs to be a large ecosystem of interconnected partners to allow the technology to reach its full potential.

Data elements will need to be consistent for ease of understanding. Failure to put in place a comprehensive set of standards may lead to inconsistent interpretation. Fortunately, BiTA is on top of things; they plan to release their first iteration of standards this summer.

Summarizing, Kenneth Craig, vice president of McLeod Software and BiTA charter member notes, "The concept of deploying Blockchain in trucking systems is only in its infancy. When fully adopted, Blockchain has the potential to revolutionize the shipment and transaction process."

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