

(c) Tying it all together: the wager for transportation and logistics companies

Transportation and logistics are the backbone of international trade. The sector constitutes a fertile ground for blockchain implementation due to the high number of actors involved. Not surprisingly, ports, as well as transportation and logistics companies are actively investigating the potential of Blockchain, in combination with the IoT, in the hope of cutting costs and enhancing processes, and for some, with the declared ambition of developing trade platforms that could connect all actors along the supply chain, from shippers to customs authorities and banks, in an attempt to digitalize international trade. The development of such platforms could not only significantly impact the transportation and logistics sector itself; it could profoundly transform international trade in goods.

Potential benefits of this technology for the transportation and logistics sector are arguably wide-ranging and include helping to track ships and trucks, optimizing loading capacity, reducing administrative and coordination costs, increasing transparency in prices, ownership and in the entire transportation chain, accelerating payments through the use of smart contracts, enhancing security and reducing fraud, and simplifying claim settlement by creating an immutable record of freight history. International shipments are usually handled by various companies along the way. Having all relevant shipping information shared with authorized partners in real-time on a secure blockchain that guarantees that any data added has not been tampered with, can significantly improve coordination, accelerate processes and cut costs. One of the key benefits that Blockchain offers when it comes to transportation and logistics is the possibility of enhancing collaboration between the various companies involved, while at the same time allowing them to retain control of sensitive information and of who knows what and when.

These potential benefits are leading an increasing number of companies in the sector to develop blockchain applications. Shipping and logistics company NYK (Nippon Yusen Kabushiki Kaisha), for example, is participating in a consortium to develop a blockchain-based trade-data-sharing platform that aims to improve the logistics of its supply chain. The consortium, formed by NTT Data Corp. of Japan, comprises 14 companies from various sectors involved in international trade, including banking, insurance, integrated logistics, and import and export. Another example is Marine Transport International (MTI), a freight forwarder based in the United Kingdom and the United States, which carried out a successful pilot project based on their public Blockchain Container Streams system. According to MTI, the project demonstrated that the logistics industry would see improved connectivity, efficiency and security thanks to Blockchain (Marine Transport International (MTI), 2017). In the Republic of Korea, Hyundai Merchant Marine Co.