BLOCKCHAIN: WHEN ACCURATE TRACKING, TRACING AND RECORDING MATTER

This Q&A takes a look at what role will blockchain technology play as manufacturers settle in to a new norm.

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Perhaps the best part about covering technology is the opportunity to learn about innovations as they occur. Some (most actually) never get the opportunity to shine whether its lack of an immediate business case, inadequate funding or the inability to attract and more importantly capitalize on the hype.

Blockchain is one technology that has seen some hype (most notably around cryptocurrency) and has displayed staying power as manufacturers in strategic production industries have recognized meaningful benefits in what it offers. Should be interesting to see the role in plays in today's new environment.

I recently had the opportunity to connect with VAI CIO Kevin Beasley to discuss the key role blockchain technology can play in helping firm up the pharmaceutical supply chains, especially as we work our way out of the pandemic.

IW: What do companies need to know about implementing blockchain?
Beasley: Blockchain and Enterprise Resource Planning (ERP) integration will make a difference in the pharma supply chain. Due to regulations and rising consumer requirements, ERP software will need to be integrated to blockchains to access supply chain data and create an electronic system of records for any company. In the pharmaceutical industry, track and trace is essential to all parts of the supply chain to comply with the 2013 Drug Supply Chain Security Act (DSCSA) law, which issues guidelines to identify and trace particular prescription drugs as they are distributed in the United States.

Blockchain has emerged as a potential solution to improve the industry's tracking capabilities, as it can create an electronic record of expiration dates and more, which is vital in helping to protect consumers from exposure to stolen, contaminated or counterfeit drugs. Cloud-based ERP solution providers should have applications for customers that have track and trace, supply and demand planning, and route management, that can integrate blockchain with an ERP system and help with pharmaceutical compliance, or any other type of blockchain that arises in the future.

IW: What are the challenges in using blockchain for this crisis?
Beasley: While blockchain is ideally suited to track something like COVID-19, companies must have a system in place that can store the various data points. During times such as this, the

challenge would be whether the data is captured and able to be implemented into a blockchain. For example, is the data being captured so that products, shortage, and demand can be tracked? Companies should look to use technology such as cloud and mobile computing, that enable work from home (WFH) capabilities, and blockchain-ready enterprise applications.

As blockchain technology pushes more to the forefront, COVID-19 has shown some vulnerabilities in our supply chains. Blockchain can provide the opportunity to boost efficiencies and traceability, while also strengthening trust across a range of stakeholders. With supply chains currently struggling to adapt, we need to take steps to ensure our global supply chains are more resilient in the face of unexpected events such as a pandemic, and buyers and sellers need to rethink their approach in anticipation of future events. Blockchain networks could be the answer.

IW: How can manufacturers apply this experience to their operations going forward?

Beasley: Manufacturers will want to be able to get the history and traceability of individual components from its suppliers. For certain products such as food and pharmaceutical, recording supply chain information like temperature, humidity, expiration dates and ingredient or component origins is crucial.

When they record information about a product, combined with any supplier information available, this gives manufacturers a full history to that product, enabling them to have full insight into where a product came from, and they can see what components were added where, and when. This then gets passed upstream to distributors and retailers who should also record touches and any other information regarding that product. Consumers subsequently get a full view of the components in that particular product. In this manner, full transparency is passed along across the entire supply chain, from manufacturers, to distributors and retailers, and ultimately to consumers.