

## IBM, KPMG, Merck & Walmart to evaluate use of blockchain in pharma

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**The FDA pilot program explores innovative and emerging approaches for the tracing and verification of prescription products**



IBM, KPMG, Merck and Walmart have announced that the companies have been selected by the United States Food and Drug Administration (FDA) to be included in a program in support of the U.S. Drug Supply Chain Security Act (DSCSA) that addresses requirements to identify, track and trace prescription medicines and vaccines distributed within the United States.

The program is intended to assist drug supply chain stakeholders, including FDA, in developing the electronic, interoperable system that will identify and trace certain prescription drugs as they are distributed within the United States.

Craig Kennedy, Senior Vice President, Supply Chain, at Merck, which is known as MSD outside the U.S. and Canada said, “Our supply chain strategy, planning and logistics are built around the customers and patients we serve. Reliable and verifiable supply helps improve confidence among all the stakeholders—especially patients—while also strengthening the foundation of our business.”

Each company brings unique expertise to the project, which will create a shared permissioned blockchain network that allows real-time monitoring of products. The proposed network is intended to help reduce the time needed to track and trace inventory; allow timely retrieval of reliable distribution information; increase accuracy of data shared among network members; and help determine the integrity of products in the distribution chain, including whether products are kept at the correct temperature.

Karim Bennis, Walmart’s Vice President of Strategic Planning and Implementation, Health and Wellness said, “With successful Blockchain pilots in pork, mangoes and leafy greens that provide enhanced traceability, we are looking forward to the same success and transparency in the biopharmaceutical supply chain. We believe we have to go further than offering great products that help our customers live better at everyday low prices. Our customers also need to know they can trust us to help ensure products are safe. This pilot and U.S. Drug Supply Chain Security Act requirements will help us do just that.”

Blockchain is designed to establish a permanent record and may be integrated with existing supply chain and traceability systems.

Mark Treshock, IBM Global Solutions Leader for Blockchain in Healthcare & Life Sciences said, “Blockchain could provide an important new approach to further improving trust in the biopharmaceutical supply chain. We believe this is an ideal use for

the technology because it can not only provide an audit trail that tracks drugs within the supply chain; it can track who has shared data and with whom, without revealing the data itself. Blockchain has the potential to transform how pharmaceutical data is controlled, managed, shared and acted upon throughout the lifetime history of a drug.”

IBM, KPMG, and Walmart, the largest retailer in the U.S., have extensive experience in implementing blockchain solutions to help enhance the safety and traceability of products. Increasingly, customers are requesting more detailed information about products.

Arun Ghosh, KPMG Blockchain Leader said, “Blockchain’s innate ability within a private, permissioned network to provide an ‘immutable record’ makes it a logical tool to deploy to help address DSCSA compliance requirements. The ability to leverage existing cloud infrastructure is making enterprise blockchain increasingly affordable and adaptable, helping drug manufacturers, distributors and dispensers meet their patient safety and supply chain integrity goals.”

The pilot project is scheduled to be completed in fourth quarter of 2019, and results are expected to be published in an FDA DSCSA program report. At that time, the project’s participants will evaluate next steps.