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BUSINESS | LOGISTICS REPORT

IBM Pushes Blockchain into the Supply Chain

IBM's new service will help companies test online ledger technology to track high-value goods as they move through supply chains

Everledger, which tracks diamonds from the mine to the store, is one of the first users of IBM's new blockchain platform aimed at the supply chain. *PHOTO: BLOOMBERG NEWS*

By KIM S. NASH

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International Business Machines Corp. said Thursday it has launched a platform for companies to test "blockchain" record-keeping technology in their supply chains.

The service is an attempt to expand the use of blockchain beyond the financial services industry, where the technology underpins the bitcoin digital currency and is used by banks and exchanges to track financial transactions. While firms such as Nasdaq Inc., Depository Trust & Clearing Corp., J.P. Morgan Chase & Co. and Bank of America Corp. are experimenting with blockchain, only a handful of companies, including Toyota Motor Corp., have explored using it to monitor their supply chains.

A blockchain is a data structure that makes it possible to create and share a digital ledger of transactions. It uses cryptography to allow anyone granted access to add to the ledger in a secure way without the need for a central authority. Once a block of data is recorded on the blockchain ledger, it's extremely difficult to change or remove.

Proponents say these traits make blockchain well-suited for logging and monitoring large amounts of data, such as short-term loans or the millions of parts coursing through the aviation industry's supply chain.

IBM's new service lets supply chain customers build and test blockchains in a secure cloud using a version of the company's LinuxOne system. The service is aimed at companies that need to track high-value items through complex supply chains.

One of the inaugural clients is Everledger, which helps companies track the provenance of diamonds, allowing buyers to screen for stones mined in regions where forced labor is common or where proceeds from previous sales were used to fund violence.

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Everledger is building systems to record the movement of diamonds from mines to jewelry stores and has been using various blockchain tools, including Bitcoin's ledger. Everledger is testing IBM Blockchain for a global rollout possibly by the end of the year, said CEO Leanne Kemp.

Today, many diamond transactions rely on paper, which can be altered or forged, Ms. Kemp said. "It's a 150-year-old industry that trades in trust."

By creating a permanent record that can't be altered, blockchain is well-suited for tracking diamonds and other goods where buyers want to know the origins and previous owners, said Bill Fearnley Jr., a research director at International Data Corp.

"Valuable assets of any kind could be tracked better, with an unerasable history, on a blockchain," he said.

IBM is working to establish itself as a force in the blockchain business, developing code and hosting labs where customers can experiment with blockchain software.

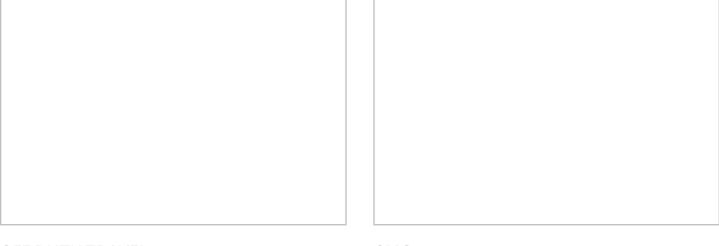
Supply chain is the most likely application for the technology after financial services, said Jerry Cuomo, IBM's vice president for blockchain.

Suppliers may also be starting to feel pressure to try blockchain systems, Mr. Fearnley said.

"Financial services firms are in the middle of how things are bought and paid for. When they embrace a technology, others must follow to continue doing business with them,"

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