## **HSBC** and Bank of America Merrill Lynch use Hyperledger Project for blockchain-based trade finance

The banks plus Infocomm Development Authority of Singapore proves Letter of Credit transactions can be executed on blockchain.

By Ian Allison

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Bank of America Merrill Lynch, HSBC and the Infocomm Development Authority of Singapore (IDA) are using a blockchain prototype to streamline the paper-heavy world of global trade. The consortium used the Linux Foundation open source Hyperledger Project blockchain fabric, supported by IBM Research and IBM Global Business Services.

The application mirrors a paper-intensive Letter of Credit (LC) transaction by sharing information between exporters, importers and their respective banks on a private distributed ledger. This then enables them to execute a trade deal automatically through a series of digital smart contracts, said a statement.

The proof of concept shows potential to streamline the manual processing of import/export documentation, improve security by reducing errors, increase convenience for all parties through mobile interaction and make companies' working capital more predictable.

The consortium now plans to conduct further testing on the concept's commercial application with selected partners such as corporates and shippers.

Ather Williams, head of global transaction services, Bank of America Merrill Lynch, said: "We are continuously looking for ways to simplify and improve transaction processing for our clients. Blockchain has reshaped our thinking on how to make transaction processes more efficient and transparent for all parties. The success of this proof of concept is a significant development towards digitising trade transactions, potentially resulting in considerable benefits to the supply chain process."

Vivek Ramachandran, global head of product for HSBC's trade finance business, said: "Many people are talking about the theory of Blockchain, but for the first time we can start to see how this technology might be used to solve the real world challenges our customers face. It's really exciting to have a valid proof of concept. Letters of Credit are an important part of the trade system, but they are based on 20<sup>th</sup> century technology, not 21<sup>st</sup>. Our challenge is to take this from concept to commercial use; making it quicker and easier for businesses to connect with new suppliers and customers at home and abroad."

Khoong Hock Yun, assistant chief executive of IDA Singapore's Development Group, added: "A letter of credit or LC conducted on Blockchain enables greater efficiencies and visibility in trade finance processes, benefitting multiple parties across its value chain. With participation of more members, greater impactful benefits will be realised by the trade ecosystem. As part of the Smart Nation journey, partnerships and the adoption of such innovations can help transform the banking and finance sector."

Trade finance processes are typically time and labour intensive, involving multiple documents and checks to reduce risk and provide assurance to sellers, buyers and their banks. A Letter of Credit (LC), or Documentary Credit, is essentially a guarantee provided by a bank that a seller will receive payment from a buyer once certain conditions are met; for example once the seller can provide proof that they have shipped the buyer's goods.

With this concept, each of the four parties involved in an LC transaction - the exporter, importer and both of their banks - can visualise data in real time on a tablet and see the next actions to be performed. Each action in the workflow is captured in a permissioned distributed ledger, giving transparency to authorised participants whilst encrypting confidential data.