

Blockchain Expo and IoT Tech Expo Global 2017: Day 1

BLOCKCHAIN EXPO

23-24 January 2017
London Olympia

- 1) On January 23, Fung Global Retail & Technology attended the first day of the Blockchain Expo, an event held in conjunction with the IoT Tech Expo Global 2017 in London. The focus of the first day at the conference was the use of the blockchain in smart contracts and payments.
- 2) Smart contracts can automate the execution of simple, repeated contracts without the need for mediating third parties, making the process safer, cheaper and faster. However, they are unlikely to replace more sophisticated one-off contracts.
- 3) The blockchain is revolutionizing electronic payments by making it possible for two parties to process a payment without the need for a mediator. Banks and credit card companies are embracing the change and collaborating with tech companies that use blockchain to see how they can profit from this new way of executing transactions.

On January 23, Fung Global Retail & Technology attended the first day of the two-day Blockchain Expo, a conference being held in conjunction with the IoT Tech Expo Global 2017 in London. The two events focus, respectively, on blockchain and IoT technology trends and developments and their application in industries ranging from e-commerce to logistics to finance and banking. The focus of our visit on day one of the event was the blockchain's use in enabling the execution of smart contracts and peer-to-peer (P2P) payments.

Smart Contracts: The Future of Contracts?

A blockchain is a digital public and decentralized ledger on which transactions are recorded. The technology enables the enforcement of smart contracts, which are computer protocols (sets of rules through which computers communicate among themselves) that enable the verification and enforcement of contracts. Smart contracts can automate the execution of simple, repeated contracts (such as the booking of an Uber car service or the buying of a book online) without the need for a mediating third party, making the process safer, cheaper and faster.

At the Blockchain Expo, a panel on smart contracts management and innovation featured speakers from Microsoft and law firm Osborne Clarke. The panel discussed how, with smart contracts, the execution of the contract is embedded in a code that is sent through the blockchain. Anyone, at any time, can read and check the terms of the contract, since the blockchain is public. The code on the blockchain is immutable, which makes the transaction safe—it cannot be forged.

The concept of smart contracts was developed in the 1990s, but only with the advent of the blockchain were they able to be implemented, as the technology solved the problem of trust between parties (the blockchain makes it impossible for a code to be used twice). With the blockchain, it is possible, for example, to automatically enforce, without human intervention, an insurance policy claim according to certain criteria (such as

adverse weather conditions). The terms of the claim (the adverse weather, in our example) can be incorporated in a data feed on the blockchain.

However, developers are still working on ways to inject into the blockchain the real, outside world data related to the event that will enable the contract to self-execute. Using software such as Oracle, which can verify and transmit the information related to the event, presents the risk of relying on one party for the functioning of the system. (What if Oracle gets hacked?) So, developers at companies such as Microsoft and SmartContract.com are working on decentralized Oracle models that require more than one party to verify that the event has actually occurred.

Smart contracts are unlikely to replace sophisticated, dynamic physical contracts, which need to be prepared by lawyers working on one-off cases such as large corporate acquisitions. They can, however, make the execution of ordinary contracts safer, cheaper and faster.

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A blockchain is a digital public and decentralized ledger on which transactions are recorded.

2 PRIMARY APPLICATIONS OF BLOCKCHAIN

1 SMART CONTRACTS
Smart contracts can automate the execution of simple, repeated contracts without the need for mediating third parties, making the process safer, cheaper and faster. Examples include the booking of an Uber car service or the buying of a book online.

2 PAYMENT
Blockchain makes it possible for two parties to process a payment without the need for a mediator.

**The Blockchain P2P Payment Revolution**

Blockchain is the technology that supports cryptocurrency transactions, so one of its most natural applications is payment processing. The second panel we attended at the conference was on P2P payments and the blockchain mobile payments revolution. The panel included representatives from nanopayment firm SatoshiPay and remittance transfer service Cashaa, both of which use the blockchain to provide their services.

The blockchain represents a revolution in electronic payments. Traditionally, a third party (a bank or credit card firm) was needed to process a transfer, but with the blockchain, the two parties to the transaction can transfer the money with no need for a mediator, reducing time and cost.

As with smart contracts, this is possible with P2P payments because the blockchain is a decentralized public ledger on which transactions are immutable. They can be verified at any time, by anyone, so participants in a transaction have no reason to mistrust the documentation or the other party. The blockchain makes the traditional third party (the mediator that provides the trust in a non-blockchain electronic transaction) redundant.

According to the panelists, banks and credit card firms were initially hostile toward blockchain technology, as it threatened their traditional position as third-party mediators in transactions. Now, however, they are very interested in blockchain-enabled P2P payments and are looking to collaborate with tech companies working on the technology. For example, credit card firm Visa started a partnership with SatoshiPay to explore the potential applications of blockchain technology.

Regulations may be an issue in the future. The principles of the European Union's General Data Protection Regulation, which will be enforced in 2018 in the member states, will make it more difficult for anyone to access transaction data on the blockchain at any time. However, it seems that regulators want to adopt a sensible approach on the matter, as they see the potential of the new technology. For instance, the German parliament has invited SatoshiPay to consult on regulations of P2P payments in Germany.



FLASH REPORT

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