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Blockchain in the Investment Bank
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Content

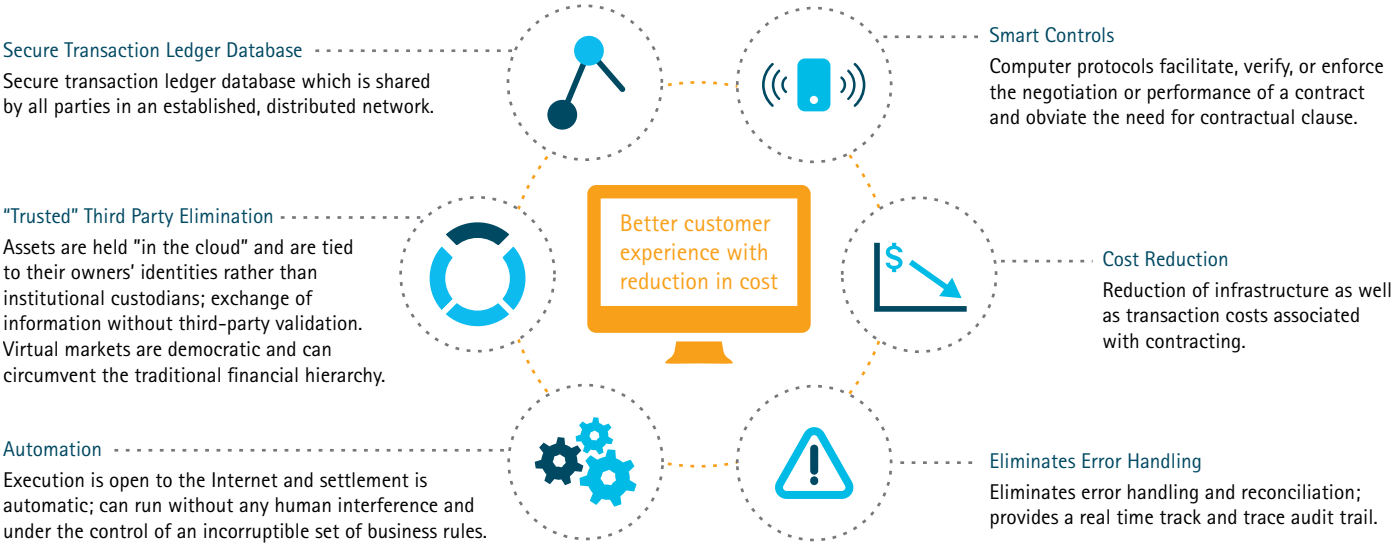
What does crypto technology mean for the investment bank?

Blockchain is a disruptive technology platform that uses cryptography and a distributed messaging protocol to create a shared ledger between trading counterparties. The idea is to allow for a simple transfer of asset ownership or more complex transactions using "smart contracts".

The data on the ledger is pervasive, persistent and creates a reliable "transaction cloud" as this transaction data cannot be lost or corrupted by any of the participants.

There are many possible applications of Blockchain technology in investment banking. Suggested use cases in testing mode include Know-Your-Customer and Anti-Money Laundering data sharing, trade surveillance, regulatory reporting, collateral management, trading, settlement and clearing. Blockchain thus has the potential to make trading processes far more efficient, to improve regulatory control and to eliminate unnecessary intermediaries.

It also has the potential of disrupting incumbent business models because of the changes in the figure below.



What are the key questions to be answered?

Technology decision makers will need to validate the following questions before looking at Blockchain and its use in an investment bank:

- Is there any regulatory framework to define a new industry standard?
- What are the new value drivers for market leadership in using the Blockchain technology?
- Can the ownership of a financial asset other than crypto currency be transferred using the distributed ledger concept with certainty and finality?
- Can a smart contract be programmed to execute the lifecycle events of a financial asset?
- Can that financial asset be legally enshrined in computer code as a smart contract, such that any legal dispute could be decided by way of how the code of the smart contract executes on a distributed network?
- Will counterparties need to be identifiable and linked to a legal entity?
- How will we establish a legal framework across both smart and traditional contracts?
- How is the ledger version controlled?
- Is there a marketplace to perform the transactions?
- Should access to the Blockchain be controlled or open?
- How do these marketplaces attract liquidity?
- What is the true potential to reduce the cost of execution?
- Are digital wallet and cold storage providers posing competitive threats to financial institutions by way of enabling individuals to be the custodian of their own crypto currency?
- How to remain competitive given the open source nature of the technology?
- Technical scalability. How can we be sure the infrastructure can be scaled to accommodate a mass market global transaction rate?
- How to integrate analytical tools in order to process, review and audit meta data from anonymous transactions following SEC Rule 613?

Accenture's current point of view

Blockchain technology was originally leveraged by cryptocurrencies whose popularity gave rise to the idea of Blockchains as a means of building consensus. To that end, there are many functions within capital markets and other industries which can be simplified and enhanced by the order and validation in a distributed ledger via Blockchains.

Seizing the potential opportunity, banks and venture capitalists have begun investing in Blockchain technology to leverage financial assets. The view is that counterparty risk needs to be minimized, settlement times reduced, contractual term performance improved and transparency for regulatory reporting increased.

A number of announcements have been made by companies investing in the space, both directly and by taking stakes in existing start-ups, i.e. research and development labs. Examples include investments in Ripple, LedgerX, Coinbase, as well as UBS's announced creation of an innovation lab at Level39 – but this is just the beginning[1]. Accenture believes that, although the potential of the technology is only just emerging, Blockchains will become the critical backbone of the future capital markets infrastructure.

In terms of a go-to-market strategy, we see an intermediary stage of investment banks running private (permissioned) Blockchain solutions. This is until regulation or legislation catches up to the Blockchains, where capital markets players are confident in the types of services they can offer on a public (permissionless) Blockchain. Examples could be externally interacting digital wallets and exchanges. The initial impacts will likely be related to asset classes where there is no central trading and/or clearing mechanism, such as FICC derivatives derivatives, syndicated loans and private investments. Ultimately the ability to settle currency, equity, and fixed income trades almost instantaneously through permissioned distributed ledgers may create an even greater opportunity for banks to drive efficiency and potentially create new asset classes.

The other near term impact of Blockchain technology adoption for distribute ledgers will likely be the adoption of smart contracts as counterparties agree on contractual terms via computer protocols. Transactions where nodes can monitor and detect contracts for changes of ownership and contract rules would be greatly enhanced in terms of efficiency as many contractual clauses could be automated and security enhanced.

While the technical execution via various existing Blockchain platforms seems to be confirmed for various financial instruments, a number of questions as listed above remains to be evaluated. Accenture believes that the potential effect of leveraging Blockchain technology within the capital markets industry will be significant if the existing legacy technology, operations and infrastructure landscape within the established capital markets players is considered. The number of applications within outside banks will be reduced as the Blockchain transaction contains all relevant information for the successful transfer of assets and/or related contracts.

From Accenture's vantage point, the maturing Blockchain landscape has the opportunity to be a tremendous source of innovation which requires further due diligence for defining industry standards with regards to settlement, counterparty and other transactional risks involved. We favor regulation at the point of entry/exit to cryptocurrency networks (digital currency wallets and digital currency trading exchanges) in a way that secures transactions but doesn't stifle the innovation. We believe an agile approach allowing regulatory evolution in parallel to the maturing innovation offering will be key to maintaining that balance between security and future mass market Blockchain scalability.

1. https://www.cbinsights.com/blog/financial-services-bitcoin-investors/; http://www.coindesk.com/ubs-to-research-blockchain-technology-in-london-lab/

How Accenture can help

Accenture can help to assess the Blockchain technology evaluation process by setting up technical sandbox "proof of concepts" in an agile "Hot House" approach. Agile proof of value means testing actual technology concepts in a near-reality technical environment, failing fast and working around a hypothesis-based collaborative approach.

A "Hot House" provides the mechanism to quickly explore an idea and promote early delivery through rapid prototyping leveraging our Accenture Technology Lab capabilities.

We may simulate the lifecycle of a financial instrument in a smart contract executed over a distributed ledger and demonstrate the specific technology or operations impacts of Blockchain which are to be measured by defined KPI's. Accenture can also perform analysis of how to integrate this new technology seamlessly with the existing infrastructure.

Relevant Accenture experience

The combination of Accenture's capital markets technology experience in corporate bonds settlement and clearing, use case-applied Blockchain technology innovation driven out of our Technology Labs, and access to a network of alliances and FinTech technology providers may offer clients an excellent subject matter advisor foundation.

Crypto currency and Blockchain technology experience

In our Accenture Technology Labs, we are working with a number of Blockchain technology companies for innovative solutions to leverage distributed ledgers within capital markets. While there are many initiatives being explored, we would value the opportunity to showcase our technical and conceptual capabilities for virtual corporate bond issuance.

Additionally, in collaboration with crypto currency start-ups, Accenture has been developing a digital payment architecture, various use cases and technical prototypes. We can help our clients that are thinking about exploiting crypto currencies to understand the competitive environment while also helping to identify how to embed crypto currencies into their as-is operating models and IT systems, as well as the implications and change impact of doing so.

Accenture is a partner of the FinTech Innovation Lab in New York, London and Hong Kong (www.fintechinnovationlab.com) and is collaborating with a range of innovators whose knowledge and expertise we can tap into during the course of our projects.

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About Accenture

Accenture is a global management consulting, technology services and outsourcing company, with more than 323,000 people serving clients in more than 120 countries. Combining unparalleled experience, comprehensive capabilities across all industries and business functions, and extensive research on the world's most successful companies, Accenture collaborates with clients to help them become high-performance businesses and governments. The company generated net revenues of US$30.0 billion for the fiscal year ended Aug. 31, 2014. Its home page is www.accenture.com.

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