

BLOCKCHAIN

Blockchain is basically a growing list of transactions. To keep track of these transactions it uses a decentralised network of computers (nodes). Each node in the network keeps a record of all the transactions that have taken place and, in addition, works on confirming more transactions. The main advantage of a Blockchain is the ability to share data and digital currencies without requiring a basis of trust.



Someone requests a transaction



The transaction is broadcast to the network



The transaction gets verified and is added to a block



The new block is added to the existing Blockchain



The transaction is complete

BLOCKCHAIN IS:



PEER TO PEER

There is no need for a centralized third party to validate and oversee transactions.



OPEN SOURCE

The Blockchain is not based on any proprietary software.



TRANSPARENT

All transactions are public and therefore transparent to the entire network.



IRREVERSIBLE

Once a block is added to the chain, the transaction within it cannot be reversed.



BORDERLESS

Transactions are stored worldwide on participating nodes.



ALWAYS ON

Transactions are not dependent on the business hours of a service provider.

CRYPTOCURRENCY

Cryptocurrencies like Bitcoin, Ethereum and Ripple emerged as side products of Blockchain technology. In its simplest definition, cryptocurrencies are virtual currencies that are traded with on their own decentralised network. In a process known as mining, nodes in the network confirm transactions by solving mathematical puzzles. The owner of such a node receives a reward for confirming the transactions. The value of cryptocurrencies is extremely volatile, which has resulted in significant market speculation.

SMART CONTRACTS

The term 'Smart contract' describes computer programs which are capable of facilitating and enforcing agreements using Blockchain technology. The terms of this agreement are recorded in code as conditions and instructions. The program itself is recorded on the Blockchain, which makes it irreversible and censorship resistant. The program can also control Blockchain assets – i.e. it can store and transfer amounts of cryptocurrency. Its main goal is to enable two parties to trade without the need for a middleman.

SOCIAL IMPLICATIONS

Initiatives like Uber, Airbnb and Kickstarter proved that the sharing and crowdfunding economy is already a success. However, users still have to rely on these intermediaries. Blockchain enables peer-to-peer payments, which opens the door to direct interaction between parties. This has the potential to result in a truly decentralised sharing economy. There are many more applications for Blockchain technology, as the below examples illustrate.

SUPPLY CHAIN MANAGEMENT

Distributed ledgers provide an easy way to certify that the backstories of the things we buy are genuine.



ANTI-MONEY LAUNDERING & KYC

KYC (know your customer) costs could be reduced through cross-institution client verification, while increasing monitoring and analysis effectiveness.



INTELLECTUAL PROPERTY

Smart contracts can protect copyright and automate the sale of creative works online, eliminating the risk of file copying and redistribution.



NEIGHBOURHOOD MICROGRIDS

Blockchain enables the buying and selling of the renewable energy generated by neighbourhood microgrids.



BUSINESS SERVICES

There are many Blockchain development platforms in the market. Most platforms are open source and each platform has its own characteristics. Picking the right platform depends heavily on the use case. For instance, each platform can have different consensus mechanisms. There are multiple distributed ledger systems that offer these mechanisms, such as **Proof of Work**, **Proof of Stake** and **Proof of Elapsed Time**.

SUPPORT IN A DIGITISED WORLD

'Hype or serious revolution? We help you to shed some light and evaluate the potential of this technology for you.'

OUR SERVICE

Support tailored to your needs by a team of experts that will accompany you on your way to the digital future.

CONTACT



Roman Andermatt

Phone +41 44 444 58 50
roman.anderstatt@bdo.ch