# BLOCKCHAIN AND BITCOIN FUNDAMENTALS: GLOSSARY OF KEYTERMS

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### 51% Attack

An attack on a blockchain where a single miner or a group of miners gains control of more than 50% of the hashing/computing power on a network's blockchain.

If this were to happen, this could enable them to create invalid transactions, deny valid ones and double spend.

### 21 Million

The total number of bitcoins which will ever be available. This limit of 21 million bitcoins is programmed into the protocol and can never be changed. It is projected that the last bitcoin will be mined sometime in the year 2140.

### **Address**

In Bitcoin, an address is used to receive and send transactions on the Bitcoin network. Addresses can be represented by a QR code or a string of alphanumeric characters. A Bitcoin address is mathematically related to the public key for a wallet, as it is the hashed version of that wallet's public key.

# Agreement Ledger

Agreement ledgers are distributed ledgers used by two or more parties to perform negotiations and reach agreement.

# **Altcoin**

A catch-all term for cryptocurrencies beyond Bitcoin such as Litecoin, Monero and Zcash among many others.

### **AML**

Anti-Money-Laundering or AML is a set of laws and regulations which have been designed to stop the process of generating money through illegal activities.

# **ASIC**

"Application Specific Integrated Circuit" (ASIC) chips are special type of computer chip designed to perform a specific task. In the context of Bitcoin, they are used by miners to process SHA-256 hashing problems in order to mine new bitcoins.

### **Bitcoin**

The name of the Bitcoin network upon which people transact in bitcoin. Not to be confused with the actual currency which is spelled in lowercase as bitcoin.

### bitcoin

A bitcoin is an asset of value that can be exchanged securely between two parties over the web, without needing a third-party like a bank, government or other organization. "bitcoin" with a lowercase b is the proper spelling for the cryptocurrency known as bitcoin. Whenever you write a certain amount of bitcoin, it should be spelled in lowercase, as in "I sent 5 bitcoins to my friend Bob."

# **Bitcoin Cash**

A cryptocurrency born out of the August 1st, 2017 hard fork in the Bitcoin blockchain. Bitcoin Cash increases the block size limit to 8 Megabytes (8 MBs) as well as implementing two new features: 1) Replay and wipeout protection which enables Bitcoin and Bitcoin Cash to co-exist as distinct and separate cryptocurrencies on separa blockchains, and 2) New SigHash Type - which is a new way of signing transactions. This new SigHash Type was implemented to further reduce the risk of conflicts between the Bitcoin main blockchain and the Bitcoin Cash blockchain.

# **Bitcoin Scripting Language**

All Bitcoin transactions have scripts embedded into its input and outputs which are written in a very simple programming language called Script. This Bitcoin scripting language is purposefully not Turing Complete and does not allow loops.

# **Block**

Transaction data is recorded on a Blockchain in files called Blocks. As new transactions are created and added to a Blockchain, they are grouped into Blocks and added chronologically to the end of the chain. Once a block is added to a Blockchain, it is added permanently, and can never be changed or removed.

# **Block Explorer**

A Block Explorer is a type of tool that can provide information on the contents of individual blocks and transactions that are found on a Blockchain.

# **Block Height**

The Block Height of a Block refers to how far along on a Blockchain a specific Block is found. A Block Height of 0 would imply that it is the first block on a Blockchain, also known as the Genesis Block.

### **Block Reward**

This is the reward given to a miner who has successfully hashed a transaction block. In Bitcoin, the current reward is 6.25 new bitcoins + all transaction fees from transactions in a block.

# Blockchain

A constantly growing ledger which keeps a permanent record of all the transactions that have taken place, in a secure, chronological and immutable way.

### **BTC**

The short currency abbreviation for Bitcoin. Much like USD stands for US Dollars and EUR stands for Euros.

# **Byzantine Generals' Problem**

The Byzantine General Problem is also known as a "Coordinated Attack Problem", and it refers to the problems involved in coordinating the actions of multiple parties communicating over an unreliable link. In Bitcoin, this involves the fact that a malicious participant could attempt to add a fraudulent block of transactions to the blockchain. This problem is solved by the use of "Proof of Work" and the Blockchain keeping track of every single block of transactions previously added to the blockchain.

# Central Ledger

A ledger maintained by a central agency, as opposed to a decentralized ledger.

# Client

Software that runs on a computer such as a desktop or a laptop, or a mobile device. In Bitcoin, it can refer to the Bitcoin client running on a Node which connects to the Bitcoin network and processes transactions, or it could also refer to a Bitcoin wallet.

# **Colored Coins**

An early use of Bitcoin's Scripting Language that enabled the storing of small amounts of metadata on the Bitcoin blockchain inside transactions. Colored coins were used to represent and manage real world assets, and because they are running on the Bitcoin blockchain, they leveraged Bitcoin's immutability, permanence, ease of transfer and transparency among others.

# Confirmation

The process of verifying transactions on the network. In the case of Bitcoin, this is done through mining and proof-of-work. A transaction becomes confirmed when it is added to a block on the blockchain. Once transactions are confirmed, they cannot be reversed, and they prevent any possibility of double spending.

### **Consensus Point**

The moment, established as a moment in time or by the set number of records to be added to the

ledger, where peers meet and agree on the state of the ledger.

In Bitcoin, this is when several nodes, usually the majority of nodes on the network, all have the same blocks in their locally-validated best block chain.

### **Consensus Process**

In Bitcoin, the consensus process is commonly referred to as "emergent consensus" and was an invention by the creator of Bitcoin Satoshi Nakamoto. Emergent consensus is a decentralized process which develops from four different processes occurring independently across the network.

These processes are:

- 1. Verification of transactions by every full node.
- 2. Aggregating those transactions into new blocks by mining nodes along with the related, demonstrated proof-of-work.
- 3. Verification of the new blocks by every node and assembling into a chain.
- 4. Selection by every node of the chain with the most computation demonstrated through proof-of-work.

# **CPU**

Central Processing Unit (CPU) is the type of computer processor found in today's everyday computers. In the early days of Bitcoin, it was possible to use a regular computer and its CPU to mine for bitcoin, but at this point that process would be too slow and inefficient when compared with other hardware such as FPGAs, GPUs and ASIC powered miners.

# Cryptocurrency

Cryptocurrency, also written as crypto currency, is a type of digital asset designed as a medium of exchange. It uses cryptography to control the creation of additional units of the crypto currency, and to secure transactions.

# Cryptographic hash function

Cryptographic hash function is a hash function which takes an input, or message, and condenses it into an irreversible fixed-size alphanumeric string, or hash.

Per the hash definition, no two different inputs or messages should produce the same hash value. As a result, the hash generated from an input be regarded as a unique digital signature as it is practically impossible to duplicate.

If an algorithm produces the same result for different strings of text, the algorithm is not "collision free" and is vulnerable to being cracked.

# Cryptography

Cryptography, also known as cryptology, refers to the study and application of techniques used to transmit, protect and store information and communications in a secure and private way, in order to

avoid being intercepted by third parties.

### DAO / DAC

Decentralized Autonomous Organization (DAO), sometimes referred to as a Decentralized Autonomous Corporation (DAC) is an organization that is fully maintained on a blockchain, and is run through rules programmed as smart contracts on that blockchain.

In a decentralized autonomous organization, the organization runs automatically per the instructions and agreements that have been programmed into the smart contracts that establish how the organization should run.

# **DApp**

A decentralized application (DApp) is an application that runs on a decentralized peer-to-peer network, typically making use of a blockchain and smart contracts.

# Dash

Dash is an open source cryptocurrency that offers instant and private transactions. Dash was rebranded from "Darkcoin" into "Dash" in 2015 as a short form of saying "digital cash"

# **DDoS**

Distributed Denial of Service (DDoS) is a type of cyber attack where multiple systems overwhelm the bandwidth and resources of a targeted system with a Denial of Service (DOS) attack. In the process, the target machine or network resource which is being attacked is rendered unavailable to its intended users.

### **Decentralization**

Decentralization is the process of spreading or distributing functions and power away from a centralized location or authority.

# **Decentralized Application**

A decentralized application (DApp) is an application that runs on a decentralized peer-to-peer network, typically making use of a Blockchain and smart contracts.

# **Difficulty**

In Bitcoin, the difficulty is measured by how difficult it is to find a hash below a given target. The difficulty level changes every 2016 blocks based on the time it took to find the previous blocks. The goal is to keep the time to process per block to 10 minutes and the difficulty level adjusts up or down as needed to achieve that schedule.

# **Digital Signature**

Digital signature is a term used to describe the marking or signing of an electronic document through the use of a technology known as public-key cryptography.

# Disintermediation

The process of reducing or eliminating intermediaries (i.e., "middle-men") between parties in a transaction. The fact that Bitcoin enables the exchange of value between two parties directly over the Internet without requiring the services of a bank or some other institution is an example of disintermediation.

# **Distributed Computing**

Distributed computing is an approach to computing in which components of a software system are distributed, or shared, among multiple computers. The goals of distributed computing are to improve efficiency and performance, as well as eliminate a single point of failure by sharing the tasks across multiple systems.

# **Distributed Ledger**

A distributed ledger, also called a shared ledger or replicated ledger, involves having a single set of data items which are replicated and shared across multiple sites. In Bitcoin, the Bitcoin blockchain serves as a distributed ledger as it contains all the transactions that have ever happened on Bitcoin, and it is across all the nodes that form the Bitcoin network.

# **Double Spending**

A form of attack in which a given set of currency is spent in more than one transaction. This is one of the key attacks that Bitcoin addresses through the use of **b**lockchain technology and distributed consensus.

### **ETF**

Exchange Traded Fund. An ETF is a security that tracks an index, commodity, bond or other assets. It is traded like a common stock on a stock exchange, hence the name exchange traded fund.

# Ether

The cryptocurrency transacted through the Ethereum platform.

### **Ethereum**

A decentralized blockchain platform that runs smart contracts.

### **Exahashes / Sec**

Hashes per second is a unit which represents the number of double SHA-256 computations performed in one second and is used to calculate the Bitcoin network's overall hash rate. An Exahash/Sec (EH/s) translates to 1 Quintillion Hashes per second. (1,000,000,000,000,000)

### **Faucet**

In Bitcoin, a faucet is a reward system, typically a website or an app, that issues rewards in the form of bitcoin. These rewards are very small, usually in the order of one or a few satoshi (0.00000001 bitcoin.)

# **Fiat Currency**

Fiat currency is a type of currency that is backed by a government that issues it. Currencies like the US Dollar, Euro, Yen and Yuan are all examples of fiat currency.

# **FinCEN**

FinCEN stands for Financial crime enforcement network. It is a bureau of the US Department of Treasury that supports the detection, investigation and prosecution of financial crimes both domestic and international.

### Fork

A divergence on a blockchain where the fork causes there to be two different versions of the blockchain. There are two types of forks: hard and soft.

### **FPGA**

Field Programmable Gate Arrays (FPGA) are a type of integrated circuit that can be configured after being built. Because of this, mining hardware manufacturers can purchase multiple FPGAs, configure them for mining and include them in their hardware. They can offer performance levels above CPU and GPU powered miners, and you can use multiple chips in a single miner.

### Full Node

In Bitcoin, any computer that connects to the Bitcoin network is called a node. However, a Full Node is a type of Node that fully enforces all the rules of Bitcoin and as a result can accept and validate transactions and blocks.

### **Genesis Block**

The first block on a blockchain. This is the first block of transactions created on a blockchain, and upon which all subsequent blocks and transactions are built upon.

# Gigahashes / Sec

Hashes per second is a unit which represents the number of double SHA-256 computations performed in one second and is used to calculate the Bitcoin network's overall hash rate. A Gigahash/Sec (GH/s) translates to 1,000,000,000 hashes per second.

# **GPU**

Graphic Processing Unit (GPU). A type of electronic circuit which is used to perform visual display functions. The GPU typically renders images animations and video on a computer's screen.

GPU chips were used extensively by Bitcoin miners as they processed Bitcoin Proof-of-Work calculations faster than the previous CPU powered generation of hardware. GPU powered mining is almost non-existent anymore as Bitcoin mining difficulty has increased dramatically due to the release of ASIC powered Bitcoin Mining hardware.

# **Halving**

In Bitcoin, the process of halving involves the reduction by half of the reward paid out to Bitcoin miners. This halving process takes place once every 210,000 blocks or approximately four years, and is part of Bitcoin's predictable, transparent monetary policy which clearly spells out that there will only be a maximum of 21 million bitcoin ever produced. This halving process ensures that that objective is met.

# **Hard Fork**

A hard fork as related to a cryptocurrency blockchain such as Bitcoin, is a permanent divergence/split in the blockchain. Examples of hard forks include Bitcoin Cash, a hard fork of the Bitcoin blockchain and Bitcoin SV, a hard fork of the Bitcoin Cash blockchain.

Hard forks typically require a change in the protocol that runs the blockchain and are not backwards-compatible. In other words, nodes running older versions of the protocol client will not accept the new blocks on the fork and will require to be upgraded if they are to participate in the new blockchain generated by the hard fork.

This is different from a Soft Fork in which no-one is forced to update their software and non-upgraded transactions will still go through as normal.

# Hash

In cryptography, a hash is a type of hash function which takes an input and returns a fixed-size alphanumeric string. It is used to create a kind of "digital signature" which cannot be deciphered but will always give that result. An effective Hash function, such as SHA-256 which is the Hash function used by Bitcoin, has three qualities:

- 1. It is very easy to create a hash for a set of data.
- 2. It is extremely difficult (practically impossible) to reverse engineer and determine what was the original data that generated the hash.
- 3. It is extremely unlikely that different inputs may yield the same hash.

The process of generating a hash is called "Hashing".

# Hash Rate / Hashrate

Hash rate is the measurement of the processing power of the Bitcoin network.

# Hashing

Hashing is the act of generating a Hash. Hashing condenses an input into an irreversible fixed-length value. (See Hash)

# **Immutability**

The quality of an object to remain unchanged. In blockchain, immutability applies to the fact that once a block has been added to a blockchain, it cannot be changed.

# **IPFS**

InterPlanetary File System - A protocol designed to enable a permanent and decentralized method for storing and sharing files.

# **Key Management**

In Bitcoin, Key Management involves the managing of public and private keys to access bitcoin funds. Managing keys in bitcoin involves the proper use and protection of the various keys required to access and transfer funds.

# Kilohashes/Sec

Hashes per second is a unit which represents the number of double SHA-256 computations performed in one second and is used to calculate the Bitcoin network's overall hash rate. A kilohash/Sec (kH/s) translates to 1,000 hashes per second.

# **KYC**

"Know Your Customer" or KYC refers to the process of a business verifying the identity of its clients. KYC is also used when referring to the type of bank regulation which oversees these activities.

# Ledger

A ledger is a file which keeps a collection of financial accounts. In Bitcoin, the Bitcoin Blockchain acts as a ledger which keeps track of all the transactions that have taken place on the Bitcoin network.

### Litecoin

A type of open source cryptocurrency created in 2011. Although it has some similarities to Bitcoin, Litecoin is a different type of cryptocurrency altogether and it processes a block of transactions every 2.5 minutes instead of every 10 minutes.

# **mBTC**

.001 BTC. One thousandth of a Bitcoin

# Megahashes/Sec

Hashes per second is a unit which represents the number of double SHA-256 computations performed in one second and is used to calculate the Bitcoin network's overall hash rate. A Megahash/Sec (MH/s) translates to 1,000,000 hashes per second.

# Merkle Root

The Merkle Root in a Bitcoin transaction block is a single hash that presents a digital fingerprint of all the transactions in that block of transactions. Every block header in Bitcoin contains a Merkle Root, which summarizes the contents of the entire block.

# **Merkle Tree**

A Merkle Tree, also known as a Hash Tree, is the structure built from the various cryptographic hashes in a blockchain. Since a hash generated from a certain input will always equal the same, and it will be different from any hash generated from a different input. A Merkle Tree is a very effective way to keep track that all the transactions that build the tree are accurate and haven't been tampered with.

### Microtransaction

Microtransactions are very small transactions, usually in the magnitude of a few pennies or less.

### Miner

A special type of node in a cryptocurrency network which processes and confirms transactions through what is called "mining."

# **Mining**

Mining in the context of cryptocurrency involves processing and confirming transactions of that cryptocurrency. This process requires solving advanced math problems of increasing difficulty. For performing these tasks, miners are typically compensated for their work in the form of the cryptocurrency they are mining for. This mining process is how new units of cryptocurrency are created and added to the system.

# **Mining Pool**

A mining pool is a mining approach where multiple miners pool their resources together to increase their overall hashing power, and then split equally the rewards they receive.

# **Mixing Service**

Mixing, also known as Tumbling, is a process which involves a third party in order to break the connection between a **cryptocurrency** address sending coins and the address**es** they are being sent to.

### Mt. Gox

A bitcoin exchange based in Tokyo, Japan started in July, 2010 which is the subject of one of the biggest scandals in Bitcoin history. By 2013, Mt. Gox was the world's leading Bitcoin exchange, handling 70% of all bitcoin transactions. The company ended operations and suspended trading in February 2014, when they announced that 850,000 bitcoins were missing (a value of over \$450 Million USD at the time) and that they were most likely stolen.

# Multisignature / Multisig

In Bitcoin, Multisignature is a type of technology which requires multiple parties to digitally sign a transaction before it can be accepted and processed. This is done to add additional security to these transactions.

### Node

In Bitcoin, any computer or device that connects to the Bitcoin network is called a node.

### Nonce

In the context of **bitcoin mining and** cryptography, a nonce is an arbitrary number that will only be used once. A nonce is typically a random number or a pseudo-random combination that is used as part of the authentication process to ensure that previous communications could not be used as part of a malicious attack.

# Non-Fungible Token (NFT)

A Non-Fungible Token (NFT) is a record stored on blockchain that certifies that a digital asset is unique and the ownership of that asset. NFTs can be used to represent digital assets such as images, audio, videos and other types of digital files. Each of those NFTs is unique from all others.

NFTs can also be used to track and represent the ownership and authenticity of physical assets including original artwork and creative pieces such as paintings and sculptures.

# **Orphan Block**

An orphan block is a valid block that is not part of the main blockchain. These can happen naturally when two miners produce blocks simultaneously or when an attacker tries to reverse transactions. V alid transactions which wind up in an orphan block are eventually returned for processing and wind up being successfully processed in a later block.

# **Paper Wallet**

In Bitcoin, a paper wallet is simply a document which contains the information necessary to access a certain amount of bitcoin.

### Peer-to-Peer / P2P

Peer-to-Peer computing is a type of computing architecture in which peers have the same privileges and authority, and can communicate and interact directly with one another.

# **Permissioned Ledger**

In a permissioned ledger, transactions can only be validated and processed by participants who are already recognized and have been authorized by the ledger. Permissioned ledgers are usually associated with private blockchains where an overarching entity determines who has permission to access the ledger.

### **Private Blockchain**

A blockchain managed by a centralized authority in which the participants and contents are

determined and overseen by that centralized entity.

# **Private Key**

A private key in the context of Bitcoin is a secret alphanumeric key which corresponds to a Bitcoin wallet, and which can authorize bitcoins to be spent from that wallet.

# **Proof of Stake**

Proof of stake is an algorithm used by some cryptocurrency blockchain networks to achieve distributed consensus and prevent double spending. It is different from Proof of Work in that rather than basing the odds of successfully mining a new block on the amount of work performed and the computational power of a miner - it focuses instead on the amount of cryptocurrency the miner holds.

# **Proof of Work**

Proof of work is the algorithm used by Bitcoin and several other cryptocurrencies to achieve distributed consensus and prevent double spending.

# **Public Blockchain**

A public blockchain is a blockchain that anyone can read and transact in. Bitcoin is an example of a public blockchain as anyone can read the contents of the blockchain, and send transactions.

# **Public Key**

A public key in the context of Bitcoin is an alphanumeric key which corresponds to a Bitcoin wallet and can be shared with others. It is mathematically related to the Bitcoin address to the corresponding wallet as a Bitcoin address is a hashed version of the public key.

# **Pump and Dump**

The fraudulent practice of encouraging investors to buy certain asset as a way to increase the price artificially, and then selling one's own share at the inflated price. Pump and Dump is usually referred to what are commonly known as "scamcoins."

# **QR** Code

A two dimensional barcode which can be used to store and retrieve information. In Bitcoin, QR codes are regularly used to represent and share Bitcoin addresses. This enables an easy way to share a Bitcoin address with others.

### Race Attack

A type of attach to the Bitcoin network where multiple conflicting transactions are sent to the

network in rapid succession with the objective of causing a double spend.

# **Replicated Ledger**

A replicated ledger, also called a shared ledger or distributed ledger, involves having a single set of data items which are replicated and shared across multiple sites. In Bitcoin, the Bitcoin blockchain serves as a distributed ledger as it contains all the transactions that have ever happened on Bitcoin, and it is replicated across all the nodes that form the Bitcoin network.

### Satoshi

0.0000001 BTC. The smallest unit of Bitcoin possible. There are 100,000,000 Satoshis in 1 bitcoin.

### Satoshi Nakamoto

Satoshi Nakamoto is the author of the white paper "Bitcoin: A Peer to Peer Electronic Cash System". As of today, no one knows who Satoshi Nakamoto is or even if he is one person or a group of people.

# Scamcoin

A catch-all term for cryptocurrencies that are designed to "get rich quick" and eventually disappear taking away all the funds invested in them.

# Scrypt

Scrypt is an algorithm system used by Litecoin and other cryptocurrency miners to authenticate blocks of transaction data.

# Segregated Witness (SegWit)

Segregated Witness, also known as SegWit for short, is a change that was implemented in Bitcoin on August 1st to address several perceived deficiencies in Bitcoin, including a 1 MB limit Block size.

### **SHA-256**

A type of Secure Hash Algorithm (SHA), published by the National Institute of Standards and Technology (NIST) and used by Bitcoin and other cryptocurrency miners to authenticate blocks of transaction data. SHA-256 generates a fixed size 256-bit (32-byte) hash that is almost unique. A SHA-256 Hash is a one way function which cannot be decrypted back.

### Sidechain

In Bitcoin, a sidechain is a blockchain where bitcoins can be moved back and forth from the main chain, to be used for specific needs.

### Silk Road

An online marketplace launched in 2011 which was used for illegal activities such as selling drugs. Part of a hidden area of the Internet commonly known as the Darknet, Silk Road was shut down by the FBI in 2013. It is famous in the history of Bitcoin as many transactions on the site were done using Bitcoin.

# **Smart Contracts**

Smart Contracts, also known as Smart Code or Smart Property, are computer protocols that can act as a contract. A Smart Contract can handle autonomously the enforcement and fulfillment of a contract without needing a third party to oversee that the contract is executed.

### Soft Fork

A soft fork is a change to the software protocol where only previously valid blocks and transactions are made invalid. Since old nodes will recognize the new blocks as valid, a soft fork is backwards compatible.

# **Solidity**

Solidity is a high-level contract language, similar to JavaScript, which is used to develop smart contracts. Solidity is used to compile code for the Ethereum Virtual Machine and it is also compatible with RSK among others.

# **SPV**

Simplified Payment Verification. In Bitcoin, it is a method used to verify transactions that have been included in a block without having to download the entire block.

# Stale shares

Stale shares are shares that are sent after a block of transactions has already been solved. In other words, stale shares have been sent in late and are no longer valid.

# **Sybil Attack**

A Sybil Attack is a malicious attack on a network that involves creating very large number of pseudonymous identities in order to gain a large influence on that network. The attack is named after the main character in the book "Sybil" who suffers from multiple personalities. This is one of the security vulnerabilities specific to peer-to-peer decentralized networks.

### **Taint**

In Bitcoin, "taint" refers to the level of association of a bitcoin between an address and earlier addresses which have had transactions of that bitcoin. In other words, given that the Bitcoin blockchain keeps a permanent record of every single transaction ever done, it is possible to know the source and trajectory of a bitcoin throughout its history. The taint of that bitcoin can be measured as it relates to the different addresses it comes in contact with.

### **Terahashes / Sec**

Hashes per second is a unit which represents the number of double SHA-256 computations performed in one second and is used to calculate the Bitcoin network's overall hash rate. A Terahash/Sec (TH/s) translates to 1 Trillion Hashes per second. (1,000,000,000)

### **Testnet**

An alternative blockchain that is used exclusively for testing purposes.

### **TOR**

A type of free software that is used to hide the location and browsing habits of the person using it. The name TOR is short for the original name of the software "The Onion Router"

# **Transaction Block**

Transaction data is recorded on a Blockchain in files called Blocks. As new transactions are created and added to a Blockchain, they are grouped into Blocks and added chronologically to the end of the chain. Once a block is added to a Blockchain, it is added permanently, and can never be changed or removed.

### **Transaction Fee**

In Bitcoin, transaction fees are fees processed and received by the bitcoin miner who successfully generates a new transaction block on the Bitcoin blockchain.

### **Trustless**

In the context of Bitcoin, Trustless means that the ability to trust in the Bitcoin network does not depend on the intentions of any particular party. Instead, Bitcoin can be trusted because it relies on the network itself, not on a particular party which could be malicious.

### **Tumbler**

A Tumbler, also known as a Mixer, is a service which involves a third party in order to break the connection between a Bitcoin address sending coins and the address they are being sent to.

# **Turing Complete**

A Turing Complete language is language that can encode any computation that can be conceivably carried out, including infinite loops. The Ethereum Virtual Machine and RSK are both Turing Complete.

# **uBTC**

.000001 BTC / One microbitcoin

# **Vanity Address**

In Bitcoin, a Vanity Address is a custom address that can be assigned to your Bitcoin address. Much like getting vanity plates for a car, a Vanity Bitcoin address provides a customized option where people can send you Bitcoin.

# Wallet

In cryptocurrency, a wallet is a secure digital application used to store, send and receive digital currencies such as Bitcoin, Litecoin and others.

# **XBT**

The ISO 4217 unofficial currency code for Bitcoin, sometimes used instead of BTC.

# Zcash

A decentralized cryptocurrency that offers a high degree of privacy by requiring a key to view the sender, recipient and value of transactions.

# **Zero-confirmation transaction**

A zero-confirmation transaction is a transaction that has not been confirmed by any nodes on the network. Zero confirmation transactions do not yet reside on a block and instead are waiting in the memory pool of miners. As such, until a block is mined which includes that transaction, it is said to have zero confirmations.

# **NOTES**

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