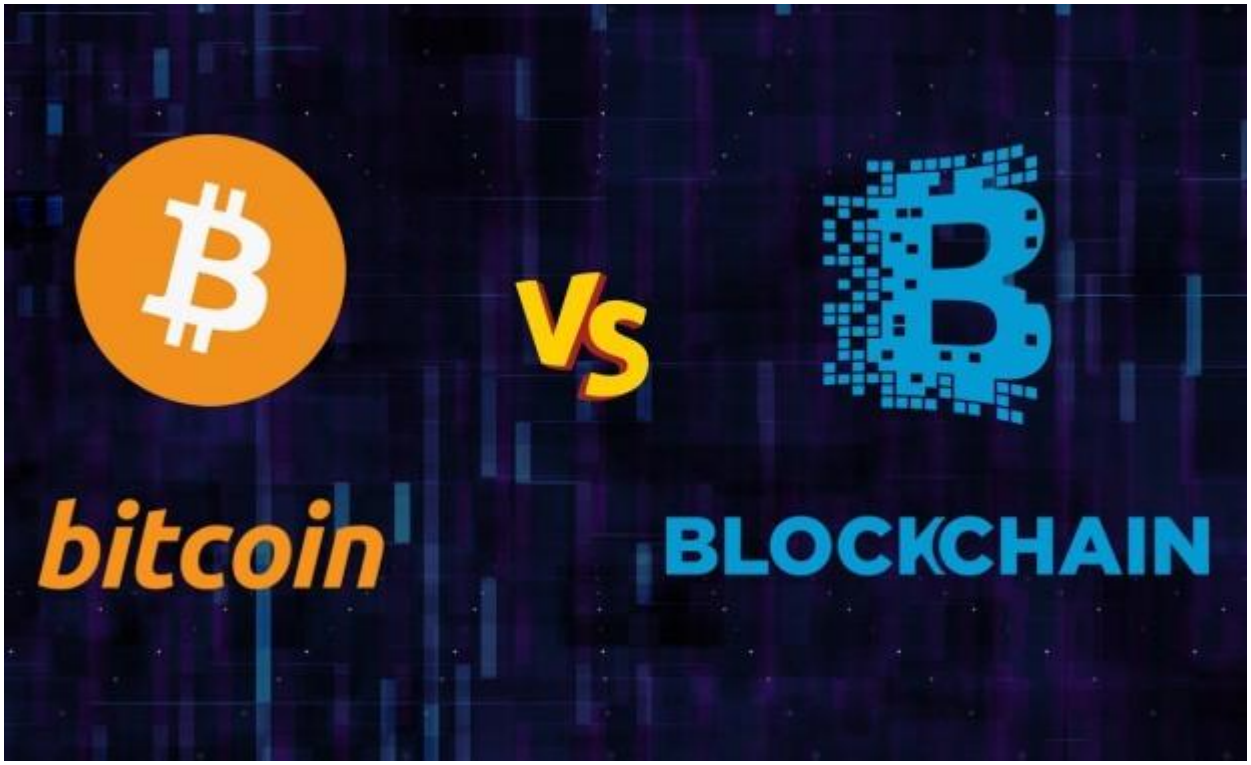
Bitcoin Vs Blockchain

1. Blockchain Vs Bitcoin



Cryptocurrency enthusiasts are familiar with the two terms "Blockchain" and "Bitcoin." These are two of the most typical terms in the cryptocurrency space. However, only a small fraction of the public can differentiate between the two terms. This article will take a look at both terms and highlight the differences between them.

What is Blockchain?

Blockchain technology is the backbone of the entire cryptocurrency industry. It is a distributed database or ledger technology that enables transactions between multiple parties. Transactions entered into the ledger are visible to all the computers, or nodes, that make up the blockchain network.

Through the advent of blockchain technology, people can now pool resources together and share valuable data. Furthermore, this can be done without compromising the integrity and security of the shared data or resources, since any information already stored on the blockchain cannot be easily altered. Thus, the stored pieces of information are impervious to changes, and their security guaranteed.

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Blockchain technology is the cornerstone on which several technologies, aside from cryptocurrency, are built. Distributed ledgers and smart contracts are two of the most versatile and multi-purpose blockchain-based technologies. The two technologies have had a huge positive impact in nearly all sectors , from insurance to healthcare, real estate to banking, and many more.

What is Bitcoin?

Bitcoin is the first digital currency built based on blockchain technology. It was invented by a group of anonymous people, or perhaps a single person, commonly referred to as Satoshi Nakamoto.

The digital coin was created to circumvent existing conventional payment systems, and spare users from the numerous challenges they have to contend with when transacting through the regular banking system. For instance, it supports fast payments and attracts lower fees in comparison with other payment platforms, such as banks and its intermediaries.

As the first (and the most popular) cryptocurrency, Bitcoin has a wide range of applications. Aside from its everyday use as a mode of payment, it is also one of the most traded coins, with the largest market capitalization running into billions of dollars. As of 2nd February 2021, a bitcoin (BTC) sells for over US$35,000 in the cryptocurrency market. It is commonly seen as a good store of value, so much so that people have nicknamed it "digital gold".

Unlike fiat currencies issued by the government and hence, are controlled by a centralized entity (the Central Bank), Bitcoin is a decentralized cryptocurrency that is not under the control of any single group or individual. This is aside from the lower transaction fees it attracts, unlike international remittance through fiat currencies that attract huge fees.

The connection between Bitcoin and blockchain is probably one of the reasons why people who are new to the cryptocurrency community mix these terms up and use them interchangeably. Notably, they are two distinct terms with different meanings and areas of application.

The differences between Bitcoin and Blockchain:

1. Blockchain is a technology on which Bitcoin and other digital currencies are built.

2. Bitcoin is a cryptocurrency that is usable as a means of exchange or store of value, while Blockchain is not a digital currency, but is instead a technology on which digital currencies are built.

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3. While Bitcoin is restricted to serving as a means of exchange and trading, Blockchain has multiple uses. Through smart contracts, the Blockchain technology can be adopted in practically all global market sectors to alter their conventional mode of operation.

4. Bitcoin is a decentralized cryptocurrency built on a public P2P network, while there are public and private blockchains. These are operated under different rules.

5. An interesting fact is that the underlying principle behind Bitcoin is anonymity: the transactions are recorded and made public, but they are linked only with an electronic address. Whatever you buy with Bitcoin cannot be traced specifically to you. On the other hand, blockchain promotes transparency, since a public blockchain can allow anyone to trace any transaction stored within its network.

Now you should be clearer on the difference between Blockchain and Bitcoin so you never get confused over the two terms again.

2. What Is Bitcoin?

Once a novelty known only to tech enthusiasts, cryptocurrencies has now become a global

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phenomenon, with celebrities and tech personalities endorsing its use. More recently, rapper Akon launched his own cryptocurrency, "Akoin" and has detailed plans to build a $6 billion "smart city" powered by the cryptocurrency in Senegal. Underneath this trend is a question that has been repeatedly raised in the media: "What is Bitcoin?"

Bitcoin is a completely virtual form of money. In other words, it is a kind of digital currency and most notably, the first known cryptocurrency in the world. It employs a decentralized network with no central administrator, and is usually sent from one user to another user on what is known as a peer-to-peer boundary-free network.

People can send Bitcoins, or even a fraction of one, to the digital wallet of another user. By doing so, the transaction is recorded in a public list called the blockchain, which makes it possible to trace the history of every single transaction made using Bitcoin. This solves the problems of people spending coins that they do not own, making copies or undoing transactions.

At present, Bitcoin can be exchanged for fiat currencies, other cryptocurrencies, services, and products, and has been seen to be accepted as a medium of exchange for many organizations. A study by the University of Cambridge in 2017 estimated that most of the 2.9 to 5.8 million unique users making use of cryptocurrency wallet were using Bitcoin for their transactional needs.

With its increased prominence, more and more investors are adding Bitcoin into their existing portfolio. However, its volatility has made many regulatory agencies issue alerts concerning its safety.

Origin of Bitcoin

Bitcoin went live in 2009 after the creation of a whitepaper on Bitcoin in 2008. No one can be categorically credited with the invention of Bitcoin; however, Bitcoin’s creator is associated with a pseudonym, Satoshi Nakamoto. While different persons have claimed the identity of Satoshi Nakamoto, no one has been credibly proven to be the real deal.

Unit of Bitcoin

A Bitcoin is divisible to 8 decimal places (i.e., 100 millionths of 1 Bitcoin), and its smallest unit is known as a Satoshi, or a sat. It is named after the pseudonym of the speculated inventor, Satoshi Nakamoto. Thus, a Satoshi to 1 Bitcoin ratio is 100 million Satoshis to 1 Bitcoin, thus 100 million sats make 1 Bitcoin.

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Security of Bitcoin

Bitcoin is essentially powered by a pool of nodes or computers that runs on Bitcoin's code and blockchain. A blockchain can be understood as a group of blocks. In every block, there is a series of transactions.

It is near impossible for someone to hack the Bitcoin network because all the computers operating the blockchain contain the same list of blocks and transactions, and can view the new blocks being packed with the latest Bitcoin transactions.

This is one of the concepts that make Bitcoin transactions secure, making it almost impossible to hack as it will take a hacker with about 51% of the computing capacity that comprise Bitcoin to make any sort of modifications to the network.

As of May 2020, its computing capacity was estimated at 47,000 nodes or computers worldwide and continues to grow every day. While extremely unlikely, even if an attack happens, the Bitcoin nodes, or individuals who are part of the Bitcoin network through their computers, would possibly fork to a new blockchain, thus neutralizing the negative effort.

Bitcoin Generation

New Bitcoins are created approximately every ten minutes by miners, individuals who generate the transactions on the blockchain and are rewarded by their efforts by receiving these newly-minted Bitcoins. These miners are the decentralized authority entrenching the Bitcoin network's credibility, and are the ones guaranteeing its security via the proof-of-work consensus mechanism.

The targeted release amount of Bitcoins is 21 million, and as of July 2020, there are about 3 million Bitcoins yet unmined. In this fashion, Bitcoin has set the release rate ahead of time in its decentralized system, unlike fiat currency, whereas centralized banks release a currency at a certain targeted rate to maintain price stability. This explains the unique volatility of Bitcoin.

Conclusion

Bitcoin is widely considered as the first cryptocurrency in the world, and was invented by a group of individuals or a single individual whose identity still remains a mystery. The digital currency is generated and released into circulation via the process of mining by miners all over the world.

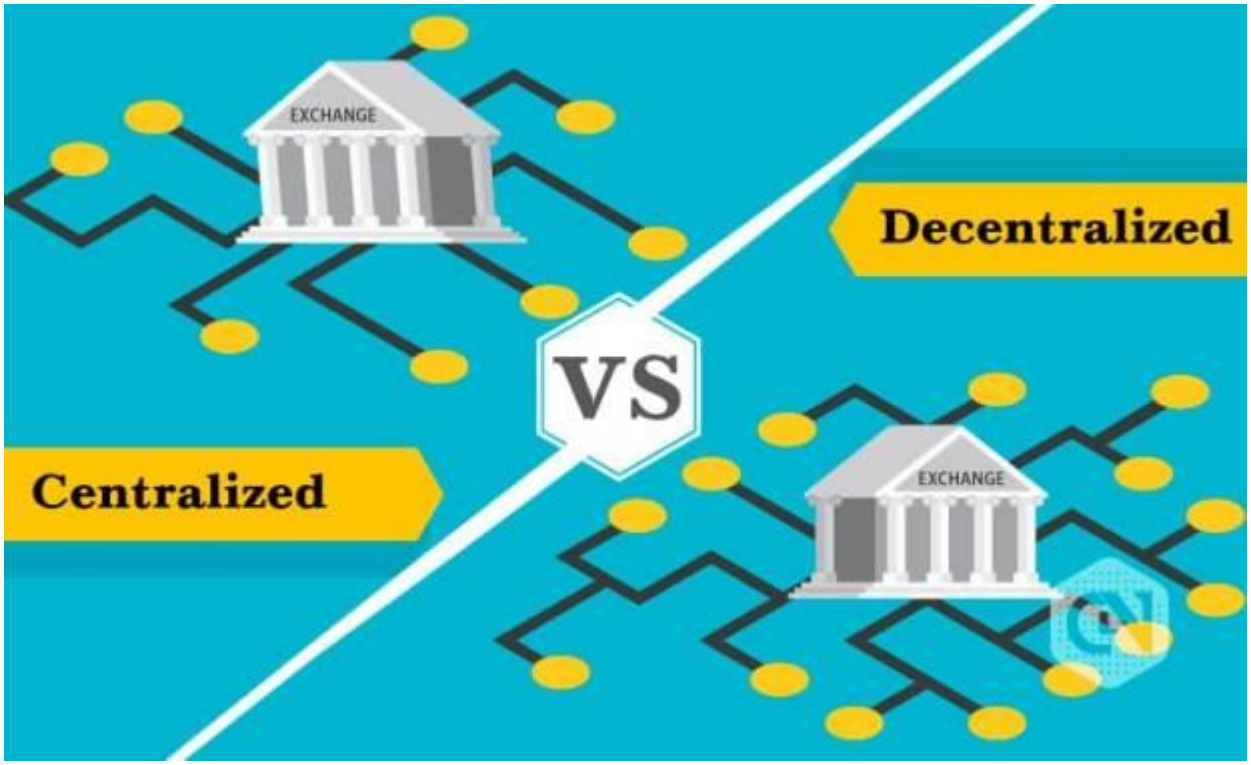
Hence, this unique generation process and a decentralized blockchain network have doubly

strengthened the security of transactions with Bitcoin.

However, it has come under criticism for being used for illegal transactions, the massive amount of electrical energy used by miners, theft from exchanges, and its high volatility in prices.

That saying, many organizations have accepted Bitcoin as a means of exchange for products and services, while exchanges offer trading and currency conversion to fiat or other cryptocurrencies. Looking ahead, the future of Bitcoin and cryptocurrencies is bright, and their momentum seems to be unstoppable.

3. Centralized Vs Decentralized



Difference Between Centralized and Decentralized Exchanges

With the plethora of cryptocurrency exchanges flooding the crypto space, it can become confusing settling for a reputable one. Cryptocurrency exchanges are grouped into two categories - centralized and decentralized exchanges. Such a grouping may further exacerbate your confusion if you don't know what either type of exchange means.

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This article will explore the differences between centralized and decentralized exchanges, evaluating the pros and cons of each to find out which is considered a better option for traders. Before we dive deeper, let's define what a crypto exchange is.

What Is a Cryptocurrency Exchange?

A cryptocurrency exchange is a marketplace for buying and selling different cryptocurrencies. While most exchanges provide traders with popular cryptocurrencies such as Bitcoin, Ethereum and Tether, they also have their unique rules and regulations which traders must comply with.

There are different yardsticks to identify a genuine crypto exchange - from regulations, payment methods, asset classes to customer support and trading pairs. Ensure that you have checked the boxes in all of these areas before settling for a crypto exchange.

Now that you know what a crypto exchange is, let's dive into the differences between centralized vs. decentralized exchanges.

What Are Centralized Exchanges?

Centralized exchanges are marketplaces where buyers and sellers meet to exchange cryptocurrencies, but with a third-party or middleman monitoring the transactions and holding the coins in custody on behalf of the parties involved. Transactions on centralized exchanges are not fully backed on the blockchain. Plus, to use a centralized exchange, you would have to submit your personal details for scrutiny via a process known as "Know Your Customer" (KYC).

If you are operating as a company (either as a buyer or seller), they would require your certificate of incorporation to be accepted. The more documentation that you submit for verification, the higher your withdrawal limit would be. As a verified trader on a centralized exchange, you can reach out to the customer support desk for help if you forget your password or experience technical glitches.

Centralized exchanges offer fiat currency pairs in most cases, and at stable prices. They are popular among investors and traders. Examples of centralized exchange include Coinbase, Binance, and Huobi, and much more.

What Are Decentralized Exchanges?

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Decentralized exchanges or Dex operate in a similar manner to the centralized exchange, only that no third-party or middleman is monitoring the transactions and holding the crypto asset on behalf of both the buyers and sellers. Decentralized exchanges permit P2P trading and use proxy tokens, assets, or even escrow system.

So, how do these two exchanges differ?

Centralized vs. Decentralized Cryptocurrency Exchanges

This section will examine the distinction between centralized vs. decentralized exchanges in terms of their control, security, popularity, fees, and features.

#1. Control

The control of your trading account remains the responsibility of the third-party custodian in a centralized exchange. However, in a decentralized exchange, you are in charge of your own account and digital assets. Account control is one of the reasons why decentralized exchanges are gaining traction among crypto traders.

#2. Security

In terms of security, decentralized exchanges are more secure than centralized exchanges. Hackers may find it easier to prey on centralized exchanges to steal the digital assets of traders or investors, as several cases of token loss have occurred in time past on different centralized exchanges. To tackle security breaches, some centralized exchanges are now offering decentralized accounts to their crypto traders.

On the other hand, since there is no third-party management overseeing the entire system, it becomes difficult for hackers to penetrate decentralized exchanges.

#3. Popularity

Today, centralized exchanges are more prominent and known among crypto traders, and the reason why is not hard to figure out-they entered the crypto space first. For decentralized exchanges, they are far behind in popularity even though they offer better protection in accounts and wallets over their centralized counterparts.

#4. Fees

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Centralized crypto exchanges charge higher fees for their services. While these fees vary from one centralized exchange to the other, the fees are nowhere near what you would pay using decentralized exchanges.

#5. Features

Centralized exchanges have more features than the decentralized counterparts, which contributes to their increased popularity too. For instance, on a centralized exchange, you can use portfolio management tools, perform margin trading, and use trading automation on your trades-all features that are lacking on decentralized exchanges.

Final Thoughts

With the increased adoption of cryptocurrencies, centralized vs. decentralized exchanges is becoming a hot topic these days. We believe with this article, you now understand the differences between centralized and decentralized exchanges.