

Bitcoin Basics

Bitcoin, Blockchain and Beyond

itBit
education



What is Bitcoin?

An Introduction to Digital Currencies

What is Digital Currency?



Digital currencies are decentralized mediums of exchange that are created and stored in a digital format. This is in contrast to fiat currencies which exist in physical form as paper dollars or metal coins and are issued by governments.

Digital Currency Origins

Digital currency is gaining widespread recognition as Bitcoin becomes more popular and widely accepted. However, the idea of digital monetary systems dates back to the early 1990s when several companies and programmers tried their hand at creating money meant to be exchanged virtually.

Many of these early currencies struggled to find their footing due to insufficient technology, poor security features, lack of adoption and a slew of other issues. The cryptocurrency segment of the digital currency universe was created in 2009 with the invention of Bitcoin.

Though you may have only heard of Bitcoin, in reality there are hundreds of digital currencies available around the globe. These currencies differ based on the type of algorithms used, number of coins that can be issued, network safety and anonymity and the overall acceptance and size of each currency system.





Why Bitcoin?

Examining Bitcoin's Strengths

Bitcoin Strengths



Stability Through Decentralization

The decentralized nature of Bitcoins eliminates the prospect of government control or ownership. Further, only a finite amount of bitcoin (21 million) is available. Thus, no governing body or entity can artificially manipulate bitcoin value through an increase or decrease in currency production or other means. This leaves bitcoin value largely to the laws of natural supply and demand economics.

Transparency

The blockchain is a permanent public record of all confirmed transactions that occur in the system and an integral part of the Bitcoin ecosystem. The blockchain helps promote order and transparency while prevent counterfeiting.

Bitcoin Strengths



Faster, Cheaper Payment Solution

Digital payments to individuals and merchants can occur at anytime and are processed faster with lower fees. This is due in large part to removing banks from the transaction processing equation.

These benefits extend to payments ranging from basic P2P transfers to remittances. Remittances are instantaneous and inexpensive, coming in at under 1% cost of transactions. With regards to cross-border business, FX fees are eliminated.

Privacy

Although all Bitcoin transaction details are stored publicly, the identities of the users involved remain relatively anonymous. It doesn't offer the complete anonymity of cash, but certainly a far more private experience than making online payments or transactions using debit or credit cards.



Bitcoin Basics

Obtaining, Storing and Using Bitcoins

How Do I Obtain Bitcoins?



There are four common ways bitcoins are obtained, ranging from simple transactions to complex mining methods.

Four Ways to Obtain Bitcoins

Transactions

Like any currency, Bitcoin can be obtained in exchange for goods and services rendered.

Bitcoin ATMs

Bitcoin ATMs are an increasingly popular solution for buying the digital currency because of their convenience and simplicity. Making a transaction at a bitcoin ATM is pretty straightforward. ATM users first verify their bitcoin wallet by scanning a QR code on their smartphone. They then insert cash into the ATM and submit to complete the transaction. The appropriate amount of bitcoins are then transferred to their wallet based on the current exchange rate.

Digital Currency Exchanges

Digital currency exchanges operate similarly to fiat currency exchanges, allowing investors to buy and sell Bitcoin at the current market rates. Bitcoins can be purchased using a variety of fiat currencies including the Euro, U.S. Dollar and many others.

Mining

Miners are the backbone of the Bitcoin ecosystem, providing services that help secure the network and keep it running smoothly (ex. Processing and facilitating transactions).

Miners are rewarded for their services with Bitcoin payments. Mining is a competitive process that requires specialized software and the ability to solve complex mathematical algorithms.

How Do I Store My Bitcoins?



What is a Bitcoin Wallet?

Selecting a wallet is a necessary step in owning and using bitcoins. Wallets are where your bitcoins are virtually stored and what you use to facilitate payments and transactions.

Hot vs. Cold Wallets



Hot Wallets

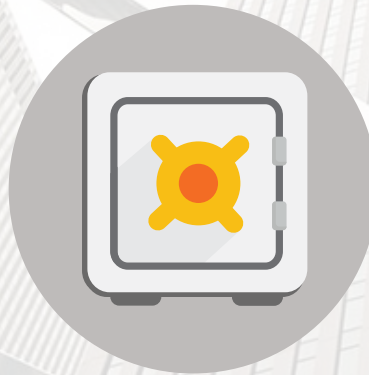
- Connected to the internet
- Allow for instantaneous transfer of funds
- Greater ease of use but more vulnerable to hacking



Cold Wallets

- Offline wallets that live on user's computer
- More secure, but payment process is more cumbersome

How Do I Keep My Bitcoins Safe?



Backup Wallet

Backup your wallet to your computer, external hard drive and/or the cloud.

Encrypt Data

Encrypt your data to add an extra layer of protection.

Cold Storage

Storing some or all of your wallet data offline ensures a greater level of security.

Update Software

Be diligent about updating your wallet software. Make sure you are always using the latest version of your wallet.

How Do I Use My Bitcoins?



Purchases

A growing number of merchants, large and small, are accepting bitcoin as a form of payment. Go buy yourself something nice!



P2P Payments

Take advantage of bitcoins' faster transfer times, lower fees and absence of transaction limits next time you make a payment. For micro-payments, the ability to use fractions of cents offers greater flexibility.



Investing

Bitcoins are frequently traded on digital currency exchanges.



Charitable Giving

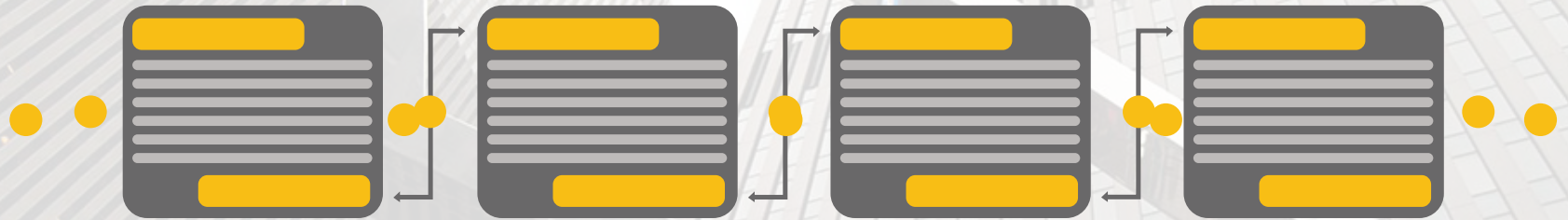
Bitcoins offer a faster and safer way to give to charities in the developing world and countries marred by social and political unrest.



Introducing the Blockchain

Reshaping the Financial Industry and Beyond

What is the Blockchain?



Blockchain technology is arguably the greatest triumph of the Bitcoin system. The blockchain is a constantly updated public ledger of all transactions that have occurred. It provides transparency across the Bitcoin system, allowing transactions to be processed in a decentralized, trustless manner.

Blockchain Primer

Why is it Important?



Validation

Transparency of public ledger serves to self-verify and record transactions between payment sender and recipient.



Mining

Miners confirm validity of blocks of transactions and add new transactions to the blockchain.



Security

Eliminates double-spending of bitcoins by ensuring codes used to identify each coin are unique and rejecting attempted payments if the coins have been previously spent.



Empowering Users

Eliminating traditional intermediaries for transaction validation and facilitation (ie. banks) creates new possibilities that extend beyond bitcoins.

Future Uses Beyond Bitcoin



Smart Contracts

Contracts, which once set up, are self-enforcing and self-executing. Eliminates the need for a third-party to judge the situation and execute the outcome.



Issuance of Securities

Issuing coins or tokens that represent claims on company ownership, future profits, merchandise, etc. These can be traded in a peer-to-peer manner with ledger-tracked ownership via blockchain technology.



Looking Ahead

Future Outlook for Bitcoin and Digital Currencies

Future Outlook



Mainstream Acceptance

- Technological advancements and innovations are empowering individuals.
- Bitcoin's core fundamentals are in-line with global social, political and technological trends favoring decentralization.
- The spread of Bitcoin exchanges and ATMs, coupled with increasing merchant acceptance, makes it easier than ever to obtain and use bitcoins.

Future Outlook



Regulations and Legislation

- Regulatory climate varies sharply from country to country.
- Governments still determining where digital currencies fit in the currency system. Consumers and institutions are waiting for resolutions.

Developing World

- Decentralized nature of bitcoin can promote socio-economic progress and security to under-banked nations with unstable fiat currencies.
- Reduction in remittance fees would be a game-changer in emerging nations.

About itBit

itBit is a global exchange offering institutional and retail investors a powerful platform to buy and sell bitcoin.

Built by Wall Street professionals, itBit is institutional-grade and 100% compliant within every jurisdiction it operates. The company's stringent compliance program ensures the highest level of customer security and protection.

Co-founded in 2012 by CEO Charles Cascarilla, itBit has offices in two key financial markets, New York and Singapore, which enables the exchange to serve global customers around the clock.



The itBit Advantage



Regulatory Compliance

- Fully compliant in all countries we operate
- Best-in-class AML/KYC program



Bank-Level Security

100% of customer bitcoins stored in offline cold wallets



Global Presence

- Around the clock customer support
- Multiple bank accounts worldwide



Financial Expertise

itBit's team has diverse market expertise across digital currency and financial industries



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