



# Demystifying the Digital Wallet

Part 2 – How Digital Currency Works



# Demystifying the Digital Wallet

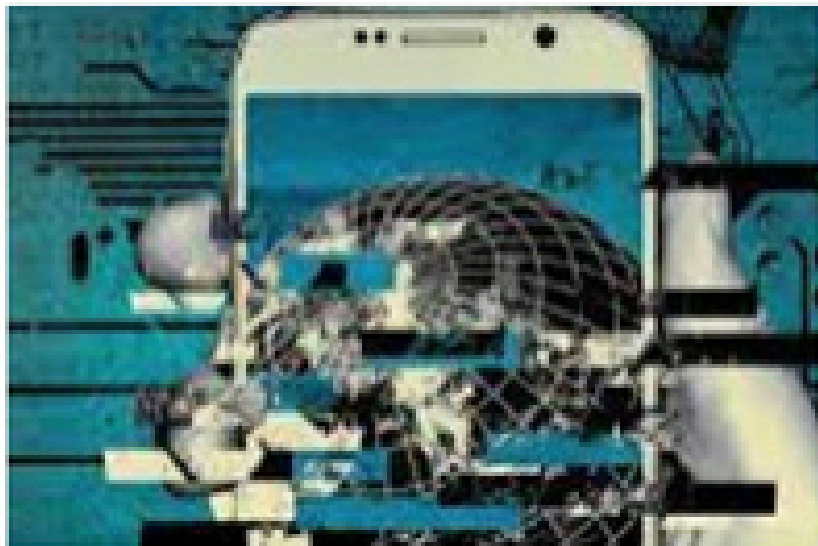
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# Digital Wallet Functionality

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The digital wallet does not hold assets. The digital wallet provides the following functionality:

- Holds cryptographic keys resident in the wallet
- Submits signed transactions to the blockchain
- Generates and stores private “signing” keys for each of the account’s addresses on one or more blockchain
- Monitors the blockchain for:
  - Transaction confirmations
  - Deposited funds
  - Balances

# Digital Currency

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Digital currency is any form of money or payment that exists only in electronic form.

Digital currency lacks a tangible form such as a bills, checks, or coins.

Digital currency is accounted for and transferred using electronic codes.

# Digital Currency Categories

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Digital currencies, which are centered on distributed ledger technology (DLT), can be divided into three categories:



- **CRYPTOCURRENCIES:** a digital currency that uses encryption techniques to control the creation of monetary units and verify the transfer of funds. Since their inception they have suffered from highly volatile prices, limited scalability and issues in governance and regulation.



- **CENTRAL BANK DIGITAL CURRENCIES (CBDCs):** essentially the digital form of a fiat currency, which is issued and regulated by the monetary authority of a country or region.



- **STABLECOINS:** While stablecoins share many of the features of cryptocurrencies, they seek to avoid the high levels of volatility associated with these digital currencies by linking the value of the coin to a pool of assets, thereby stabilizing the coin.

## Types of Cryptocurrency – Bitcoin, Ether

Bitcoin was created in 2009 as an open-source software. The author of the whitepaper that established this digital currency was under the pseudonym Satoshi Nakamoto.

Using blockchain technology, Bitcoin allows users to make transparent peer-to-peer transactions. All users can view these transactions; however, they are secured within the blockchain. While everyone can see the transaction, only the owner of that Bitcoin can decrypt it with a “private key” that is given to each owner.



Ethereum proposed to utilize blockchain technology not only for maintaining a decentralized payment network but also for storing computer code that can be used to power tamper-proof decentralized financial contracts and applications. Ethereum applications and contracts are powered by Ether, the Ethereum network’s currency.

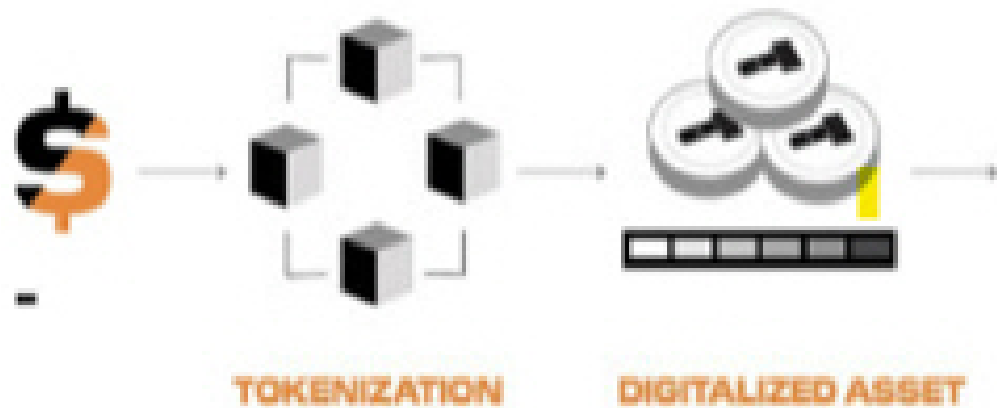
Ether and bitcoin are similar in many ways:

- Each is a digital currency traded via online exchanges and stored in various types of cryptocurrency wallets.
- Both tokens are decentralized, meaning that they are not issued or regulated by a central bank or other authority.
- Both make use of the distributed ledger technology known as blockchain.

Note: As of Nov. 2021, there are more than 10,000 cryptocurrencies in existence.

# Tokenization

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The concept of digitalizing ownership rights, in a process known as “tokenization”.

A digital token references someone’s right to property or delivery of an asset.

Ownership changes are recorded on an unalterable, shared digital ledger called a “blockchain,” the infrastructure underlying cryptocurrencies like Bitcoin and Ethereum.

# Blockchain – Digital Ledger

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Blockchain is a system of recording information in a way that makes it difficult or impossible to change, hack, or cheat the system.

A blockchain is essentially a digital ledger of transactions that is duplicated and distributed across the entire network of computer systems on the blockchain.



## Conclusions - Key Takeaways

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A digital wallet is a secure facilitator between BNYM and our clients to withdrawal, transfer and monitoring of addresses managed by BNYM on behalf of our clients.

**Now that you have completed this module, you should be familiar with the following:**

- Digital currency as any form of money or payment that exists only in electronic form
- Digital currency lacks a tangible form such as a bills, checks, or coins
- Digital currency is accounted for and transferred using electronic codes