Wallets

A wallet is a method to store private keys which allow participants to spend digital currency on a blockchain network.
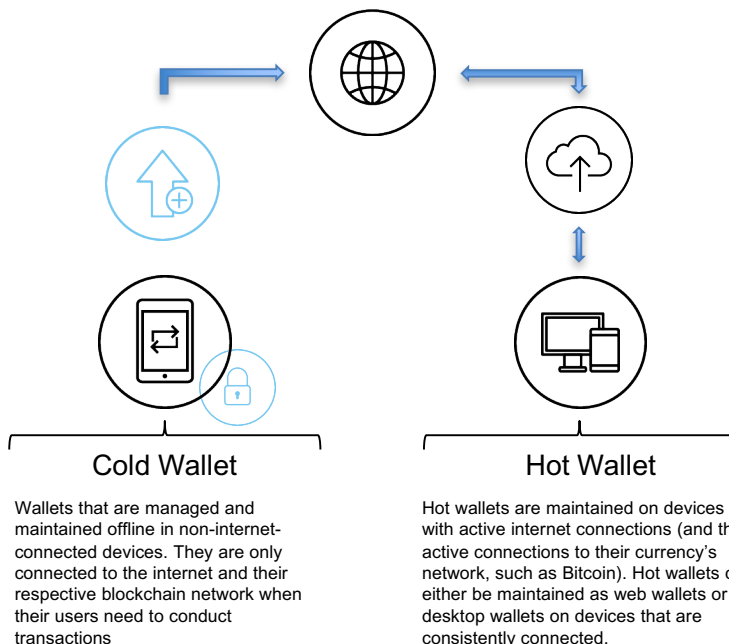
Examples on this page are illustrated with Bitcoin examples, though there are similarities with Ethereum and other types of cryptocurrencies.

How it Works

Wallets used in blockchain technologies may be compared to a traditional bank account. They allow network participants to receive, store and send digital currencies to other participants

- **Private Keys** – a secret piece of data that proves your right to spend digital currency from a specific wallet through a cryptographic signature

- **Cryptographic Signature** – a mathematical mechanism that allows someone to prove ownership without revealing private keys

- **Cold Wallet**– a wallet that has its private keys stored offline and thus is less susceptible to theft

- **Hot Wallet**– a wallet that has its private keys stored online and thus is more susceptible to theft

Wallet Architecture Example

Cold Wallet

Wallets that are managed and maintained offline in non-internet-connected devices. They are only connected to the internet and their respective blockchain network when their users need to conduct transactions

Hot Wallet

Hot wallets are maintained on devices with active internet connections (and thus, active connections to their currency's network, such as Bitcoin). Hot wallets can either be maintained as web wallets or as desktop wallets on devices that are consistently connected.

Four Main Types of Wallets

Desktop Wallet

This type of wallet is installed directly on a desktop computer and provide the user with complete control over the wallet in a fixed location

Mobile Wallet

This type of wallet is installed via an app on a smartphone. It carries the same functions as a desktop wallet while overcoming the handicap of a desktop wallet

Web Wallet

Leverages web wallet providers to store private keys online. Coinbase and Blockchain are popular web wallet providers

Hardware Wallet

Physical devices that can hold private keys electronically and facilitate payments. The number of hardware wallets is currently very limited and are still in the development phase