

BCT

MetaMask is a popular cryptocurrency wallet that allows users to store and manage their digital assets, including Ethereum and other Ethereum-based tokens. It is a browser extension that can be added to Google Chrome, Firefox, Brave, and Edge. MetaMask also has a mobile app for iOS and Android devices.

MetaMask works by connecting to the Ethereum blockchain and storing a user's private keys. Private keys are used to sign transactions and authorize actions on the blockchain. MetaMask also stores a user's public address, which is used to receive cryptocurrency payments.

When a user wants to send or receive cryptocurrency, MetaMask creates a transaction and signs it with the user's private key. The transaction is then broadcast to the Ethereum blockchain, where it is verified and added to the blockchain.

A **transaction** is a transfer of cryptocurrency from one address to another. Transactions are broadcast to the Ethereum blockchain and are verified by miners before they are added to the blockchain.

Transactions contain the following information:

- The sender's address
- The recipient's address
- The amount of cryptocurrency being transferred
- A fee paid to the miners who verify the transaction

A smart contract is a self-executing contract with the terms of the agreement between buyer and seller being directly written into lines of code. The code and the agreements contained therein exist across a distributed, decentralized blockchain network. The code controls the execution of the terms of the contract

There are many reasons to use smart contracts. Here are a few of the most common:

Increased security: Smart contracts are stored on the blockchain, which is a distributed ledger. This means that the contract is tamper-proof and cannot be changed without the consent of all parties involved.

Reduced costs: Smart contracts can automate many of the tasks that are currently performed by lawyers, brokers, and other intermediaries. This can save businesses a lot of money in legal and transaction fees.

Smart contracts are written in **solidity language**, solidity is statically typed, supports inheritance, user defined data types, libraries etc.

