

Field article of the issue

What is Blockchain Technology?



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Introduction

Blockchain is a group of blocks linked together using a cryptographic hash function of previous blocks, transaction data and time stamp. They are also decentralized or distributed ledgers. Decentralized application removes the middle man and becomes easier to communicate through around the world with direct interaction and advantages are transparency, reduce failure, remove barriers, reduce the cost of transaction, prevent censorship, trust and irreversible. Blockchain are mainly three types they are public (permission less), private (permissioned private) and consortium (permissioned public).

In October 2008, Satoshi Nakamoto[2] is an unknown person or group of people, they are invented Blockchain technology to build bitcoin. Blockchain technology open a new path way of digital transaction, smart contracts, Internet of Things (IOT), security services, public sectors and other reputation systems because of immutability, tampered free, trust and reliability.

Block structure in Blockchain

Blockchain contains series of blocks and it includes the transaction history of each block. Figure 1 shows the architecture of blockchain.

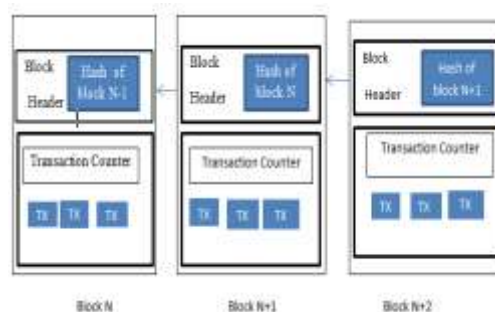


Figure 1:Blockchain structure

Blockchain consists of series of blocks and each block has hash of previous block hash.

Figure 2 shows the structure of a block.

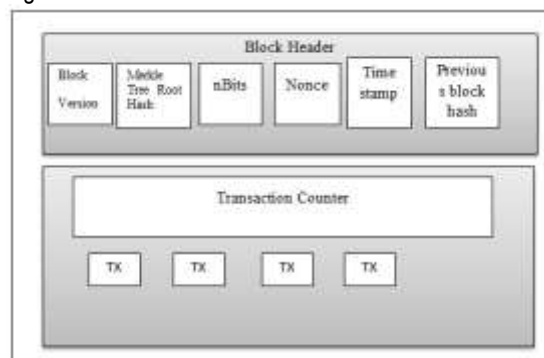


Figure 2 : Block structure