

Study on Blockchain with a Business Perspective

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Abstract - In the present scenario, business network is growing rapidly but their inefficiency in maintaining records degrades their process growth. Each user in a business network maintains their own record or a ledger of all the business activities related to themselves. This leads to the duplicity of records and time consumed to segregate data related to certain activity, in short, it's an expensive process.

Technology built to provide a solution is Blockchain. Blockchain works on the concept of shared ledger. Shared ledger means there is only one major ledger which is shared among all the members. Any changes done by any member can be viewed by all the members in the same ledger. This increases the efficiency of records and all the data can be viewed under a single roof.

Key Words: Blockchain, Bitcoin, Smart Contract, Shared Ledger, Application of Blockchain

1. INTRODUCTION

The idea of blockchain was written by Satoshi Nakamoto in 2008. Satoshi had a vision of decentralized ledger which supports peer to peer transaction with a perception to reduce the time and effort spent in maintaining records or any other assets which can be tangible or intangible. Tangible assets are all the assets which we can touch and feel like House, fiat. Intangible assets are all the assets which are virtual like cryptocurrency. The blockchain is made of two separate words block and chain. Every block consists of various records and these records are linked together in a form of chain using cryptography. In order to maintain the security level, we use a hashing algorithm which may vary for different blockchain. Each block has a hash id and the value of the hash id is saved in the consecutive block this makes it secure and tampered proof. All the block in the blockchain are immutable that means once an activity is recorded in the block it cannot be altered.

Blockchain can be for a private network example a firm, government organization or it can be a public network which can be accessed by all best example bitcoin. [1]

1.1 ADVANTAGES OF APPLYING BLOCKCHAIN TO TRADITIONAL BUSINESS NETWORK:

Consensus: One can decide who will validate the transactions in a blockchain.

Provenance: All data are in a ledger is traceable.

Immutable: Records in a block cannot be altered that means its tamper-proof.

Finality: Once the record is appended into the blockchain it can be viewed by everyone as it has a single ledger. This increases the trust value in a business.

Reduces cost

Saves time

Reduces risk

2. FEATURES OF BLOCKCHAIN

Shared Ledger:

A shared ledger is a single large ledger which stores all the transactions of a network and it cannot be tampered but can be viewed by everyone.

These ledgers are shared among all the members of the network. The members can have a replica of the record. One can add certain access permission to control what and when a person can access in a shared ledger.[3]

Smart Contracts:

Smart contracts are like terms and conditions that have to be followed for every transaction and activities. Smart contracts are auto executable programming codes which are executed automatically whenever any activity takes place. This puts an add-on protection to the blockchain. This concept is followed by Ethereum(a cryptocurrency).[3]

Privacy:

Even though the ledger is shared the privacy of the members are maintained. This is done with the help of cryptography and hashing. In a blockchain all the transactions are visible but the identity of the member is preserved.

Trust Value:

Blockchain builds a trust value among all the members. As it is assured that any data that is stored in the blockchain is immutable. All the assets that are added in the blockchain are verified and audited.

3. DIFFERENCE BETWEEN BLOCKCHAIN AND BITCOIN

Satoshi Nakamoto is the founder of both bitcoin and blockchain. There is a myth that bitcoin and blockchain are the same.

Bitcoin is an open source, unregulated digital currency. No one owns it but everyone can contribute in its enhancement and development. It has a public blockchain.

On the other hand, blockchain removes anonymity, unlike bitcoin. In a blockchain, we can select who can view or access it which is not possible in bitcoin as it is open to all. The blockchain is not only about cryptocurrency, it can also store assets.

Blockchain can have a public network or private network.

4. BLOCKCHAIN APPLIED IN BUSSINESS

1. Shared reference records:

Members of a business network need to store and share references records. All these data are forwarded to the centralized authority for verification and collection.

This leads to the creation of multiple records and inconsistency in data as multiple subsets can be created in a single organization.

A solution for this is that each member will update the data in the blockchain of the organization. There is a single view of the entire data and transactions.

Advantages:

Reduces data mishap.

All the changes done to the data are in real time.

2. Supply chain:

Keeping track of a single product is a complex method because each product can have multiple components. It is hard to manually track complete records of each component.

Blockchain can hold the complete data of the product under a single ledger which include each component details. That can be accessed by all the members related to the product.

Advantages:

Increases the trust value.

Increases transparency.

Reduces efforts and makes the process more simple.

3. Audit:

In an organization, records are stored from various location all over the world. Audits are conducted periodically in a large organization. Here each record is stored by a particular member in that location so, auditing can be difficult.

Blockchain can be used to collect all the record in a single ledger. The transaction can be monitored

easily and it is tampered proof. Maintains the privacy of all the records. This makes the process of auditing easier.

Advantages:

Lowers the cost of an audit.

Makes the process fast.

5. SCOPE FOR BLOCKCHAIN ADOPTION

Centralized body:

The higher organization builds the rule for various actions. Centralized authority play an important role in the acceptance of the technology.

They deal with all the risk which can occur in various circumstances and build regulations by considering these factors.

Eg: the world bank which controls and build regulations for all the subordinate banks

Industries:

Large industries take an initiative to grow their network with a better technology. This leads to the acceptances of blockchain technology.

By providing advice of future trending technology to various organization to build an awareness among the competitors/collaborators. As we know all the organization has only one motive that is to grow with the era.

For this, they encourage their employees in the organization to invest their time in learning new technology.

Market planner:

The financial sector is an all-time growing sector. Finance is all about buying/ selling assets.

This is the sector where blockchain can be adopted for more transparency, security, and privacy.

It would make asset transfer, much easier

6. CONCLUSIONS

This paper simply explains blockchain technology in detail. The features of the blockchain, the future of blockchain in a business network.

Uses of blockchain technology through an organizations perspective.

It clears the myth regarding blockchain and bitcoin. It concludes with the scope of blockchain in various sector.

REFERENCES

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BIOGRAPHIES

I am Pooja Anoj an MCA student and an active learner of the blockchain system. An enthusiast in the world of cryptocurrency and digital assets. A cryptocurrency blogger who covers exciting crypto news stories and crypto guides.