What Are Different Blockchain Technologies?

Bitcoin

- Bitcoin is a globally known cryptocurrency and digital payment system. It was the first decentralized digital currency whose ledger is maintained by blockchain openly.
- Bitcoin is an implementation of blockchain distributed ledger technology and the transactions in bitcoin blockchain takes place directly between users, without an intermediary.
- Bitcoin is an permissionless, meaning nobody owns or regulate bitcoin but everybody can participate in the network.
- There are no physical Bitcoins, just balances stored on a public database that everyone has open access to, which is checked by a vast amount of processing power along with all Bitcoin transactions.
- Bitcoins are not distributed or funded as an asset by any banks or govts.

Ethereum

- Ethereum is also an open source software platform, based on Blockchain technology that enables developers to build and deploy decentralized applications. It was initiated by Vitalik Buterin in late 2013.
- It offers a decentralized virtual machine aka Ethereum Virtual Machine (EVM) which can execute scripts using a global network of public nodes.
- Development for Ethereum was funded by an online public crowdsale during July-August 2014, by selling the Ethereum value token (Ether).
- It allows us to create and run Smart Contracts and Distributed Applications (DApps) without any downtime, fraud, control, or intervention by a third party.
- Ethereum is not just a framework but also a programming language running on a blockchain that lets developers create and publish distributed applications.

NEO

- NEO was initially called AntShares (ANS) which was launched in 2014, founded by Da Hongfei and Erik Zhang. Antshares rebranded itself as NEO on June 22, 2017.
- NEO is a smart economy for the distributed network.
- Apart from the NEO cryptocurrency itself, it has another crypto-token called “GAS” for creating transactions and connecting with the different systems.
- The core of the NEO feature set revolves around instruments that allow developers to deploy and scale smart contract applications on the NEO blockchain efficiently.
- The goal of the project after its rebranding to NEO from Antshares in 2017 is to realize a "smart economy" through the use of blockchain technologies and smart contracts to issue and control digitized assets.

Hyperledger

- Hyperledger is a multi-project, open source blockchain platform created by Linux foundation.
- It is a global collaboration, hosted by The Linux Foundation, including leaders in finance, banking, Internet of Things, supply chains, manufacturing, and technology.
- Hyperledger acts as an operating system for marketplaces, data-sharing networks, micro-currencies, and decentralized digital communities.
- It has the potential to vastly lessen the expense and complications in getting things done in the real world.
- It serves as a neutral home for various distributed ledger frameworks including Hyperledger Fabric, Sawtooth, Indy, as well as tools like Hyperledger Caliper and libraries like Hyperledger Ursa.

EOS

- EOS is the leading open-source blockchain platform that enables transparency in transactions at the speed and scale needed to solve real-world challenges.
- EOS is an operating system for marketplaces, data-sharing networks, micro-currencies, and decentralized digital communities.
- EOS blockchain is aiming to become a decentralized operating system which can support industrial-scale decentralized applications.
- EOS does not require any transaction fees.
- It claims to have the ability to conduct millions of transactions per second, and it runs on DPOS consensus algorithm.

Corda

- Corda is a distributed ledger open source platform for businesses. It is among the most sophisticated platforms to enable the implementation of enterprise blockchain applications.
- It is not a blockchain and also not a native cryptocurrency.
- Nodes here are arranged in an authenticated peer-to-peer network with no message broadcasting.
- Corda is not stuck to any particular consensus algorithm, as one Corda network may contain multiple notaries that provide their guarantees using a variety of different algorithms.
- Corda promises that the data is only exchanged with parties who have a 'need to know' information. It was designed to add transparency and confidence, while preserving privacy and protection with ongoing interactions.

Quorum

- Quorum is an open-source, permissioned implementation of Ethereum supporting transaction and contract privacy.
- It is an enterprise-focused version of the Ethereum Blockchain, developed by J.P. Morgan. It is an ideal application for high speed and high throughput processing of private transactions.
- It is a fork of the 'geth' public ethereum client with many changes in protocol level to support business needs. It is a hybrid of public and private ledger technology. It uses multiple consensus algorithms to maintain the network.
- Quorum has many business functions, which are listed below, relative to public ethereum:
  - Transaction privacy
  - Multiple pluggable consensus mechanisms suitable for enterprise use cases
  - Enterprise-grade permissions management (access control) for network nodes and participants
  - Hybrid public-private chain network

Tabular Representation

Characteristics	Bitcoin	Ethereum	Hyperledger	Corda	Quorum
Programming Language	C++	Solidity(JavaScript,C++, Python)	Golang, Java	Java, Kotlin	Solidity
Administration	Decentralized P2P Network	No administration	Linux Foundation	R3 Consortium	J.P Morgan
Smart Contracts	No Smart Contracts	No legal binding	No legal binding	Legally binded	Legally binded
Consensus Algorithm	Proof-of-Work	Proof-of-Work/ Proof-of-Stake	PBFT	Based on notary nodes	RAFT Istanbul BFT
Scalability	Scalability issue exists	Scalability issue exists	Increased with transactions	Highly scalable	Highly scalable
Privacy	Issue with privacy protection	Issue with privacy protection	Identity management service	Identity management service	Identity management service
Currency	Bitcoin	Ether	No native cryptocurrency	No native cryptocurrency	No native cryptocurrency

Blockchain Council

THANK YOU!

Any Questions?

Visit

community.blockchain-council.org

Mail Us

hello@blockchain-council.org