

Cali Technology Solutions

# R&D / Product

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# Blockchain

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<https://www.cali.global/>

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## Definition

BLOCKCHAIN is a type of distributed ledger technology (DLT) that consists of a growing list of records, called blocks, that are securely linked together using cryptography

### TYPES OF BLOCKCHAIN VALIDATION:

- PROOF OF STAKE (POS)
- PROOF OF WORK (POW)
- PROOF OF USEFUL WORK (POUW)

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## PROOF OF STAKE (POS)

is a cryptocurrency consensus mechanism for processing transactions and creating new blocks in a blockchain. A consensus mechanism is a method for validating entries into a distributed database and keeping the database secure. In the case of cryptocurrency, the database is called a blockchain—so the consensus mechanism secures the blockchain.

- With proof-of-stake (POS), cryptocurrency owners validate block transactions based on the number of staked coins.
- While PoW mechanisms require miners to solve cryptographic puzzles, PoS mechanisms require validators to hold and stake tokens for the privilege of earning transaction fees.
- Proof-of-stake (POS) is seen as less risky regarding the potential for an attack on the network, as it structures compensation in a way that makes an attack less advantageous.
- The next block writer on the blockchain is selected at random, with higher odds being assigned to nodes with larger stake positions.

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## PROOF OF WORK(POW)

Proof of work describes a system that requires a not-insignificant but feasible amount of effort in order to deter frivolous or malicious uses of computing power, such as sending spam emails or launching denial of service attacks.

- Proof of work (PoW) is a decentralized consensus mechanism that requires members of a network to expend effort solving an arbitrary mathematical puzzle to prevent anybody from gaming the system.
- Proof of work is used widely in cryptocurrency mining, for validating transactions and mining new tokens.
- Due to proof of work, Bitcoin and other cryptocurrency transactions can be processed peer-to-peer in a secure manner without the need for a trusted third party.
- Proof of work at scale requires huge amounts of energy, which only increases as more miners join the network.
- Proof of Stake (POS) was one of several novel consensus mechanisms created as an alternative to proof of work.

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## **PROOF OF USEFUL WORK (POUW) [OUR APPROACH]**

In a Proof of Work (PoW) blockchain, the chain is secured by miners performing randomized calculations in parallel in a race to come up with the correct answer. These calculations, while useful for securing the chain, serve no real-world purpose and are often a target for criticism of blockchain technology as the power consumption required to perform this proof of work can be extensive.

Proof of Useful Work (PoUW) is the solution to this. It is an alternative approach that aims to replace excessive usage of hash functions with tasks that bring additional real-world benefit, e.g. supporting scientific experiments that rely on computationally heavy simulations.

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## **DECENTRALAND MANA**

### **DEFINTION**

Decentraland is a 3D virtual reality platform where users can create and monetize content and applications. Decentraland is based on the Ethereum blockchain and aims to establish a network owned by its users and provides an immersive experience

### **NET WORTH**

Decentraland took place on 18 August 2017, where the project managed to raise \$24 million  
The market cap from NFT multiverse Decentraland is \$892.22M.

### **USE CASES**

Virtual Reality

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## **THE SANDBOX**

### **DEFINTION**

The Sandbox is a community-driven platform where creators can monetize voxel ASSETS and gaming experiences on the blockchain

### **NET WORTH**

The current market cap of The Sandbox is \$1,730.97M.

### **USE CASES**

Decentralized Gaming Ecosystem

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## **FLUX**

### **DEFINTION**

Flux is the new generation of scalable decentralized cloud infrastructure. Simply develop, manage, and spawn your applications on multiple servers at once. Ready for Web 3.0, DApps.

### **NET WORTH**

The current market cap of Flux is \$201.31M.

### **USE CASES**

Cloud Computing  
Decentralized Application



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## **FLUX**

### **DEFINTION**

NuNet is a computing framework that provides globally distributed computing power and storage for decentralized networks, by connecting the owners of data and computing resources with computational processes in demand of these resources.

### **NET WORTH**

The current market cap of NuNet NTX is \$11.03M

## **USE CASES**

Decentralized Computing

## RoadMap

