BLOCKCHAIN
**METARIUM**
More fast more cheap

## METARIUM LITEPAPER 1.0

**BACKGROUND**

METARIUM empowers users and enable their projects with advanced blockchain and smart contract technologies. METARIUM provides a modular and flexible blockchain technology platform that enables developers, entrepreneurs, enterprises, and individuals to quickly adopt and realize blockchain and smart contract technologies. Together these communities will help form a new era in blockchain and a new economic ecosystem.

In the blockchain network, due to different application scenarios and different design objectives each blockchain system adopted different sets of consensus algorithms. Each consensus algorithm is not perfect and has its own advantages and limitations. A blockchain solves the problem of transferring trusted information and value over untrusted channels, while the consensus mechanism solves the problem of how to reach consensus in the distributed network of nodes.

Cross-Chain interoperability of Smart Contracts through our "cross-chain contract gateway" is one of the most powerful benefits of the METARIUM platform. We simplify the arduous and costly bridging process, eliminate the need for redundant Smart Contracts on multiple chains, and enable multi-linked data and asset exchange.

Our "cross-chain contract gateway" enables businesses and entrepreneurs to take advantage of new product features, multi-chain access, and advanced blockchain technologies without the need for a middleman.


**PUBLIC CHAIN**

Public chains use an open protocol that also sets chain performance requirements, that ends up restricting which nodes can join and participate in the blockchain. So how to make blockchain more accessible? Decentralization is key to the public verifiability of data in the blockchain; A blockchain network without enough nodes and scattered "verifiers" is prone to centralization and can be easily controlled by just a few people, then how to ensure the safety of the blockchain assets?

**CONSENSUS**

Blockchain technology USES a set of consensus-based mathematical algorithms to establish a network of "trust" between machines, so as to create brand new credit system through technical endorsement rather than centralized institutions. Blockchain technology USES a set of consensus-based mathematical algorithms to establish a network of "trust" between machines, so as to create brand new credit system through technical endorsement rather than centralized institutions.

People who try to solve all problems with a layer of blockchain solution often fail to consider an important question: Although a public chain can reach a global consensus and be publicly verifiable, does all information need to verified by all people? Do people's transactions need to vetted by people from all over the world?

We just need to make the most critical information available for everyone to verify and secure. However, Layer 2 can exactly meet such requirements: we put a lot of work into the "Off Chain," and only submit the most important content to the "On Chain" for verification, and Layer 1 can guarantee the security of Layer 2.

METARIUM's proprietary oBFT consensus algorithm is a hybrid consensus algorithm that incorporates PoS (Proof-of-Stake), LON (Light Oracle Network), VRF (Verifiable Random Function), and BFT (Byzantine Fault Tolerance).

**DECENTRALIZED APPLICATIONS**

DApps USE smart contracts to communicate with the underlying blockchain. Imagine a future smart contract library with a large number of contract templates that can be used for a variety of purposes. We're already seeing this happen with the smart contract platform that Ethereum builds on using Solidity. However, few are aware that Bitcoin also allows deployment of intelligent contracts. Bitcoin has a built-in programming language called Script and this is used instead Solidity. Solidity is a basic programming language for writing smart contracts on Ethereum. Solidity is a turing-complete programming language that enables more complex contracts than Bitcoin Scripts.

METARIUM will use a set of common intelligent contract protocols to shield users from having to manage the development details and technological differences among various public chains. These protocols can help to extract and provide a unified interface as needed in various application scenarios.

**METARIUM ECOSYSTEM**

To support METARIUM project to be long last in the future we already have plan to make METARIUM ECOSYSTEM which contains following items below:

- METARIUM BLOCK EXPLORER
- METARIUM WALLET
- METARIUM DEX
- METARIUM STAKING POOLS
- METARIUM MARKETPLACE
- METARIUM API OPEN FOR DAPP/WEB3 DEVELOPER