Ultra Pro Blockchain

NATIVE & UTILITY COIN

White Paper

1. Motivation : -

UltraPro Blockchain aims in providing a blockchain system that with higher degree of centralization and control with faster network confirmations and Security. The purpose of the new blockchain and DEX is to create an alternative marketplace for issuing and exchanging digital assets in a decentralized manner.

2. What is UltraPro : -

ULTRA PRO is an innovative solution to bring programmability and interoperability to Blockchian. ULTRA PRO relies on a system of PoA consensus that can support shorter block time and lower fees. The most bonded validator candidates of staking will become validators and produce blocks. The double-sign detection and other slashing logic guarantee security, stability, and chain finality.

3. Ethereum Compatibility : -

The first practical and widely-used Smart Contract platform is Ethereum. To take advantage of the relatively mature applications and community, UltraPro chooses to be compatible with the existing Ethereum mainnet. This means most of the dApps, ecosystem components, and tools will work with us and require zero or minimum changes; UltraPro node will require similar skills to run and operate. The implementation should leave room for UltraPro to catch up with further Ethereum upgrades.

4. Consensus Algorithm :-

UltraPro Blockhain uses Proof of Authority as Consensus Algorithm. In a PoA consensus algorithm, a limited number of approved nodes, known as validators or authorities, are granted the right to create new blocks and validate transactions.

These validators are typically selected based on their reputation, identity, or stake in the network. PoA aims to provide faster transaction processing times and scalability compared to other consensus algorithms like Proof of Work (PoW) or Proof of Stake (PoS). It's worth noting that the effectiveness and security of a consensus algorithm depend on the specific context, network requirements, and underlying blockchain architecture. Different blockchain platforms may employ their own consensus algorithms or variations of existing ones to suit their particular needs.

5. Performance and Scalability:

PoA algorithms can offer faster transaction processing times and higher throughput compared to more decentralized consensus algorithms like Proof of Work (PoW) or Proof of Stake (PoS). Since a limited number of approved authorities validate transactions and create blocks, the consensus process can be quicker, enabling a higher transaction volume.

6. Trusted Validators:

PoA blockchains rely on a predefined set of approved authorities or validators who are trusted entities. These validators are typically known and vetted by the network participants, which can be beneficial in scenarios where trust and reputation play a crucial role. This model is suitable for permissioned or consortium blockchains where the network participants are known and have established identities.

7. Reduced Energy Consumption:

PoW consensus algorithms, such as the one used in Bitcoin, require significant computational power and energy consumption. In contrast, PoA blockchains do not rely on resource-intensive mining operations, making them more energy-efficient and environmentally friendly.

8. Governance and Compliance:

PoA blockchains offer more control and governance over the network. The authorities or validators have the power to enforce compliance with regulatory frameworks and consensus rules. This is advantageous in situations where legal or compliance requirements need to be met.

9. Resistance to Sybil Attacks:

By limiting the authority to a fixed set of known validators, PoA blockchains can mitigate the risk of Sybil attacks. Sybil attacks occur when an attacker creates multiple identities to gain control over the network. Since the validators in a PoA blockchain are pre-approved, it becomes difficult for an attacker to gain control by creating numerous identities.

10. What can I do with ULTRA PRO : -

The purpose of the new blockchain and DEX is to create an alternative marketplace for issuing and exchanging digital assets in a decentralized manner.

You can:

- Send and receive UPRO

- Issue new tokens to digitalize assets, and use ULTRA PRO as underlying exchange/transfer network for the assets

For developers, you can also:

ULTRA PRO, UPRO boasts smart contract functionality and compatibility with the Ethereum Virtual Machine (EVM). The design goal here was to leave the high throughput of ULTRA PRO intact while introducing smart contracts into its ecosystem.

Because UPRO is EVM-compatible, it is launched with support for the rich universe of Ethereum tools and DApps. In theory, this makes it easy for developers to port their projects over from Ethereum. For users, it means that applications like MetaMask can be easily configured to work with UPRO. Seriously – it's just a matter of tweaking a couple of settings. Check out Use MetaMask for ULTRA PRO to get started.

You can:

•	Send and receive UPRO

•	Explore the transaction history and blocks on the chain, via UPRO SCAN, API and node RPC interfaces.

Developers can also:

•	Issue new tokens to digitalize assets

•	Run a full node to listen to and broadcast live updates on transactions, blocks, and consensus activities

•	Develop wallets and tools to help users use Dapps

11. Token Economy :-

A token protocol on UPRO (PRO20) which is compatible with ERC20. It extends ERC20 and contains more interfaces, such as getOwner and decimals. You can easily Deploy tokens on UPRO chain. The full details on how to create and deploy tokens on UPRO chain is full described in the below URL :

https://docs.ultraproscan.io/smart-chain/developer/issue-PRO20.html

12. How to Run a Full Node on UltraPro :-

Fullnodes Functions

- Stores the full blockchain history on disk and can answer the data request from the network.

- Receives and validates the new blocks and transactions.

- Verifies the states of every accounts.

Supported Platforms

We support running a full node on Mac OS Xand Linux.

Suggested Requirements

Fullnode

- VPS running recent versions of Mac OS X or Linux.

- 4 cores of CPU and 8 gigabytes of memory (RAM).

- A broadband Internet connection with upload/download speeds of 5 megabyte per second

Steps to Run a Full Node

Download upro_mainnet.json and static-nodes.json from https://github.com/ultraproblockchain/UPRONetwork

wget https://raw.githubusercontent.com/ultraproblockchain/UPRONetwork/master/upro_mainnet.json

wget https://raw.githubusercontent.com/ultraproblockchain/UPRONetwork/master/static-nodes.json

wget https://raw.githubusercontent.com/ultraproblockchain/UPRONetwork/master/geth

Make node folder

mkdir node

Initialize the Node

./geth --datadir ./node init upro_mainnet.json

Copy the static-nodes.json to node/geth

Run the Nodes

./geth --datadir node --syncmode 'full' --gcmode=archive --port 40605 --http --http.port 3545 –ht

13. Blockchain Details :--

Network Name : Ultra Pro Chain

RPC URL : https://mainnet-rpc.ultraproscan.io

Chain ID : 473861

Currency Symbol : UPRO

Block Explorer URL : https://ultraproscan.io/

14. Wallet Support :-

Any Ethereum Wallet that supports Custom Network will support UPRO. Here are a few most used Wallets

1) Metamask
2) Coinbase Wallet
3) Trust Wallet
4) Trezor

15.How to Contribute to UltraPro Documentation Project : -

Your contributions to the ULTRA PRO will help build a fast and secure decentralized digital asset exchange.

We want to make it as easy as possible to contribute changes that help the ULTRA PRO grow and thrive. There are a few guidelines that we ask contributors to follow so that we can merge your changes quickly.

Getting Started

- Make sure you have a GitHub account.

- Create a GitHub issue for your contribution, assuming one does not already exist.

- Clearly describe the issue including steps to reproduce if it is a bug.

- Fork the repository on GitHub.

Minor Changes

Documentation

For small changes to comments and documentation, it is not always necessary to create a new GitHub issue. In this case, it is appropriate to start the first line of a commit with 'doc' instead of an issue number.

Finding things to work on

The first place to start is always looking over the current GitHub issues for the project you are interested in contributing to. Issues marked with [help wanted][help-wanted] are usually pretty self-contained and a good place to get started.

Of course, feel free to create a new issue if you think something needs to be added or fixed.

Making Changes

*   Create a topic branch from where you want to base your work.

*   This is usually the master branch.

*   Please avoid working directly on the master branch.

*   Make sure you have added the necessary tests for your changes and make sure all tests pass.

16. Conclusion :

In conclusion Ultra Pro Blockchain is a type of consensus algorithm that offers certain benefits in terms of performance, governance, and trusted validation. It is particularly suitable for use cases where a higher degree of centralization and control is desired. The key advantages of a UltraPro blockchain include faster transaction processing, higher scalability, reduced energy consumption, resistance to Sybil attacks, and the ability to enforce compliance and governance.