



UEFI White Paper

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1. Abstract

This technical white paper explains some of the features and future functionality within UDEFI ecosystem and real business behind the scene. The UDEFI ecosystem comprises several decentralized cores that are operating at the same time in parallel with high performance and efficiency. Imagine them collectively as a supercharged Intel multi-core processor and the difference is we are adding more cores constantly, hence it's limitless. The most important part is that the whole decentralized ecosystem is not only self sustainable and can grow very rapidly but also is powered and backed by real businesses core in the real world. It's one of the kind and there's nothing like this in the market. We will be explaining them in details in following sections. There is also a bigger picture UChain which encompasses a myriad of highly efficient cores. Imagine this, deem UChain as a motherboard of the computer and UDEFI ecosystem is built on top of that to accommodate the needs of disparate industry sectors.

Introduction

As we mentioned before the whole UDEFI ecosystem consists of many decentralized cores with each core interconnecting and communicating to one another. They are built and developed on top of UCHAIN which is a purely decentralized Chain with multiple layers technology combined with the decentralized database.

Within this decentralized architecture, we adopt two token mechanism namely UGG and UDC. The UGG is a token currently minted in the decentralized exchange. Whereas UDC(Universal Decentralized Coin) is used to pay for transaction fees and computational services. Users can send UDC to other users, and developers can write smart contracts that receive, hold, and send UDC.

2. Mining Mechanism

Within the UDEFI ecosystem both UGG and UDC serve different purposes.

- **UGG** - Decentralized exchange platform token: mined or minted in decentralized exchange through trading, swap and providing liquidity. The detail minting mechanism is explained in later section.
- **UDC** - Universal Decentralized Coin (UDC) is construed to be widely adopted within UChain system. The holistic system solution constitutes the state of art blockchain technology.

UDC has many purposes. Developers need the cryptocurrency, UDC, to create and run applications. UDC is used to pay for transaction fees and computational services. Users can send UDC to other users, and developers can write smart contracts that receive, hold, and send UDC.

Token UGG distribution plan and mining rules

Different Governance Rewards

There are two kinds of rewards:

- Staking Reward = Staking Balance x ARY x (N / 525600)

ARY -> Average return yield, a variable, typical number is 12%

N -> Variable denoting the number of minutes staked during a year (525600 mins)

- Swap Reward = AVG(daily_staking_reward/var_staking_ratio, swap_value/var_swap_ratio)

daily_staking_reward -> derived from daily staking reward which changes from time to time

var_staking_ratio -> an integer staking variable ratio in range of {5 ... 15} with default value set

to 10

swap_value -> face value for each swap or trade

var_swap_ratio -> an integer swap variable ratio in range of {500...10000} with default value

set to 1000

The detail of UGG block generator mechanism is elaborated in the appendix A at the end of paper.

Swap Trading Commissions

Swap Example	\$1,000.00	
0.30%	\$3.00	
0.05%	\$0.50	Revenue goes to project treasury wallet
0.20%	\$2.00	Liquidity Provider (in respective tokens)
0.05%	\$0.50	Revenue goes to project governance token pool

var_swap_fees is a variable denoting the swap trading commissions or fees with the default value set to 0.3%

Treasury Wallet

- Based on community voting %

- Convert x% of treasury wallet into UGG tokens in secondary market
- Distribute the UGG in proportional to stake holders
- UGG token holders can sell back in the market (to USDT or ETH, etc) or UGG tokenholders can stake UGG in the mining pool to earn more UGG

Withdrawal Fees

To protect the system from flash farmers there's **Withdrawal Fees** incurred from withdrawing funds out of liquidity pool.

The variable `var_withdraw_cost` is in range of 0.0% to 0.5% with the default setting being 0.3%.

The longer staking or lock-up period the lower the `var_withdraw_cost`.

3. Decentralized Exchange (UDEX)

We give UDEFI decentralized exchange a name, UDEX, which is an on-chain system of smart contracts on the Ethereum blockchain. The centralized exchanges normally use order book market making. A market maker no longer specifies which prices they are willing to buy or sell ETH at. Instead, UDEX pools everyone's liquidity together and makes markets according to a deterministic algorithm. This algorithm, known as an automated market maker (AMM), quotes prices to the end user according to some pre-defined rule set.

The idea is fully realized in an improved "Constant Product Market Maker Model" design. This AMM has a particularly desirable feature where it can always provide liquidity, no matter how large the order size nor how tiny the liquidity pool. The new AMM is capable of keeping most of the slippage revenue in the pool by maintaining a healthy balances for different swap directions. When a swap happens, a market maker does not automatically apply the invariant algorithm and displays the new prices for upcoming trades. The AMM improves exchange rates for arbitrage traders slowly, over approximately a 5-minute time period. As a result, arbitrageurs will be able to collect only a portion of slippage, while the rest will remain in the pool shared among liquidity providers. High competition among arbitrageurs would not allow them to wait for the point at which the price would maximize their profit. By such a delay in price updates, the market maker would create a highly competitive environment for arbitrageurs forcing them to perform trades at less profitable prices, which in turn would add value to the liquidity providers' side. We also initially utilizes 0.3% Swap Fee which can be lowered all the way down to 0% in the future as a way to provide more competitive prices to the market.

We introduce Referral Fee to incentivize integrations with wallets and other services that increase trading volume and additional income for liquidity providers. Referral Fee is only charged when the referral wallet is specified in transaction arguments.

Referral Fee is fixed and is equal to 5% of income earned by liquidity providers on the trade. So the initial 0.3% swap fee will be split to 0.015% going to referral and 0.285% going to liquidity providers. Additional profits generated by balances are also split in the same ratio with 5% going to referral. Referral Fee does not introduce additional pressure on the price and rewards external actors who contribute to the protocol by providing trading volume.

4. UChain

With the global application and popularization of blockchain technology, blockchain technology itself is constantly evolving and improving. At present, there are hundreds of technologies derived from blockchain technology in the world, such as privacy protection technology and lightning network, sharding technology, side chain technology, cross-chain transaction technology, distributed storage technology, etc.

Blockchain is a revolutionary decentralized collaboration technology. UChain creatively proposes a unique hierarchical network organization model in combination with the characteristics of decentralization, which solves the existing blockchain technology in a deeper level. Problems such as low transaction efficiency, limited scalability of consensus, and high systemic risk. It is different from traditional blockchain technology. In addition to retaining the necessary security features of the existing blockchain technology, it combines the complex needs of social networks and is suitable for realizing self-organizing institutions and corresponding economic and social system models.

In addition, in order to solve that the current blockchain technology can only record transaction data but cannot record file content, UChain will develop a set of smart contracts (that is, a decentralized file storage system) for the prototype based on IPFS technology to make up for the existing shortcomings of the blockchain system in file storage, combining the permanent storage of files with the non-tampering features of the blockchain, can be widely used in scenarios such as copyright protection and identity certification. UChain is a hierarchical distributed network architecture. Each layer is named L1, L2, L3, L4..., which logically is a tree structure. The traditional public block chain is continuously extended on a main chain, and a chain structure is formed by referring to the previous block through subsequent blocks. Polkadot introduces parallel chains to achieve cross-chain transactions and improve transaction efficiency, but its essence is still a serialized structure.

The technical architecture of the UChain directly discards the serialization scheme of blockchain technology, but combines mesh P2P and serial chain technologies to form a domain-based hierarchical three-dimensional network structure, which can not only effectively improve transactions Efficiency, but also improved security, especially greatly improved scalability, can achieve a high degree of system autonomy.

In this tree-like accounting model, the leaf nodes are the most direct consensus layer. Each leaf node can be regarded as an independent blockchain network, which can use different consensus protocols and different transaction models. Each non-leaf node is an independent network, which controls the lower-layer ledger. The top L1 can be considered as the largest global ledger, which holds the largest data set.

This three-dimensional hierarchical accounting model is superior to the planar accounting model realized by the existing blockchain technology, avoiding large-scale broadcasting of the entire chain system and greatly improving accounting efficiency. At the same time, if the real accounting service node on each leaf node wants to launch an attack, it must collude with the superior and the superior node to successfully implement the attack.

Of course, the most important thing is that each leaf node is an independent blockchain network, and the entire network can be formed by address fragmentation. Each leaf node can have its own accounting system completely independently, and the consensus protocol can also be used. Free customization, such as the method of charging fees (completely free or appropriate), whether there is an access mechanism, etc.

In this hierarchical model, the transfer settings are also very flexible. As the most advanced node in the UChain, L1 has the entire network ledger and participates in the verification of the entire network accounting. For the transfer of high importance, the L1 node can be required to participate in the verification. For small-value transfers, you only need to verify on the leaf nodes. For transfers of ordinary security level, you can require higher-level nodes to participate in verification together. This can achieve a fine-grained verification management mechanism.

UChain achieves the complete decentralization by adopting both decentralized database storage system and multi-layered blockchain architecture. On top of that the system avails the developers and users the greatest flexibility to build a fully decentralized APP such as content streaming, social media, DeFi, and among many other exciting APPs. Among a few wonderful traits of UChain are the faster TPS and much greater tolerance to network attacks owing to its multi-layered architecture. Also, the cross chain capabilities allow the UChain to communicate with many other chains like Ethereum, Polkadot, etc.

Also, under the governance of the community, UChain is an open public chain ecology. Anyone can use our code to start their own transaction chain. Anyone can also build applications on the transaction chain through smart contracts.

In terms of the openness of data accounts, as an open source and open high-performance transaction public chain, UChain has its own blockchain browser, and all transactions in the distributed ledger are clear and checkable. Through the data layering design, UChain reduces the cost of blockchain data, and the transaction fee is very low, which improves the efficiency of use and supports the landing of large-scale applications.

As a high-performance public chain specially optimized for transaction scenarios, UChain will provide up to 10,000 TPS while mainstream DAPPs can be ported to it without cost and enjoy higher performance.

5. Decentralized Video Streaming

Decentralized Video Streaming APP targets the live and short video content streaming through UChain network. In essence, it combines multi-layered UChain and decentralized distributed database storage system collectively.

6. DEFI APP

Decentralized finance APP can be implemented on the our multi-layered UChain. Most of the DAPPs running off UChain require a bulletproof Oracle system.

Currently we use a third party world-renowned Chainlink's oracle system with our own oracle system as a back up. In the future we'll deploy our own decentralized oracle system.

7. Current Risks and Risk Mitigation Strategies

Current risks

There are several risks in the current architecture, as UDEFI ecosystem is still an experimental system and complex systems require both empirical observations and theoretical analysis. Empirical observation and theoretical analysis ensure the mechanism design aligns incentives for all players.

Risk mitigation strategies

As a decentralized ecosystem, all the cores implemented now and in the future will need access information such as price feeds from outside world through a reliable and secure oracle system. Currently we are using a 3rd party oracle system such as Chainlink to ensure the total decentralization and utmost security. In the future we will deploy our own fully decentralized oracle system.

We also placed special and novel design mechanism into smart contract coding such as utilizing private key, toggling the threshold and follow the different states of chain of command to minimize the fund losses in the event of attack or security breach.

8. Future Planning

ROAD MAP

UDEFI is total solution that's about to revolutionize the entire financial system, and take it by storm.



Token Models

UDEFI Ecosystem Token (UGG) Issuance

Total Number: 10,000,000

Test Phase Minting: 3,000,000

The UGG token will be used throughout entire UDEFI Ecosystem

UGG	Distribution	
6,500,000	65%	Entire Ecosystem
1,500,000	15%	Private Sale
120,000	1.2%	Public Sale
1,160,000	11.6%	Team members
320,000	7.2%	Marketing

Private Sale: 20% vested at the start of exchange launch, then the rest of 80% is evenly distributed throughout the following 8 months.

Public Sale: No lock up period.

Team Members: Divided into 10 months evenly distributed, after 6 months in the lock.

The UGG tokens are minted in two phases: The first phase is the test phase (10 days) which proves that the system operates correctly followed by the second phase operating fully and properly.

Financial Risk and Disclaimer

The information contained in this Referral Memo or White Paper (hereinafter referred to as the 'Memo' or 'Referral Memo') is for potential purchasers to know and evaluate UGG. Potential purchasers should not evaluate UGG with only reference to the content of this memo, and we strongly recommend potential purchasers to conduct their own research. This project does not authorize anyone to provide any other information or other assurances about this project or UGG, and any unofficial information should not be adopted. This project is a private placement of an individual subject and does not in any way constitute an act of raising funds to the public in the form of securities. The release of UGG has been in compliance with the relevant registration authorities and exemptions for disclosure.

This referral memo is only a brief introduction to the project information and does not constitute any form of securities sales, nor is it a promotional document for the promotion of securities trading.

Anti-Money Laundering Regulations (AML)

The purchasers agree that when purchasing UGG, he/she will not participate in any form of money laundering, illegal exchange of funds and other illegal laws through UGG and its derivatives (if any). The purchaser should be aware that he/she will be prohibited from trading, redeeming and disposing of their UGG, assuming these actions are directly or indirectly involved in money laundering activities.

Incubation & Partnership

The UDEFI project is incubated by ATL Capital Limited both focusing on blockchain project incubation and real business incubation. The ATL Capital adopts an entirely new venture model designed to scale blockchain community and help transition blockchain projects into the business world. The ATL Capital also has a lot of connections with real estate developers in US, India and Southeast Asian countries such as Philippines.



Also, UDEFI partners with X21 and Moonrock Capital on various aspects of project growth.



X21 Digital is a Blockchain Advisory and Investment firm dedicated to helping mainly blockchain startups accelerate their growth and exposure in the industry. They focus on giving the most optimal strategic advice and guidance, to shortcut our clients and partners' path to success.



Moonrock Capital is a Blockchain Advisory and Investment Partnership based in London and Hamburg. They believe Blockchain technology and cryptocurrencies will drastically change the way industries and markets operate on a global scale. Therefore, They are dedicated to helping young startups and more established projects accelerate their growth and thrive in this industry.

UDEFI team and expert consultants

**CEO - Dr. Shin,
D.Ed**



- Founding Partner Ultrafund Capital
- Former Fenox General Partner forBlockchain Fund
- More than 15 years of startups and investors matchmaking.
- Organizer of 50,000+ members meetupgroups.

PhD Columbia University

BS University of California, Berkeley

Interviewed by U-Channel TV, Blog Talk Radio, Tech Crunch Radio, Nigeria Financial Radio, World Talent Economy Forum...etc.

Spoke on major stages such as Block World, Malta Blockchain Summit 2018, AI Show Biz etc.

LinkedIn: <https://www.linkedin.com/in/gazillionaire/>

CMO - Brian Spire



- Co-FOUNDER IWBLLC
- CEO BL Holdings LLC
- COO MGCLLC
- CEO Inspiring Empire LTD
- Bayberry Capital Funds Crypto Currency and CBD & cannabis specialist
- Previous CEO GTO Design Studio LLC
- GGU law School
- Over the last decade Spire has had Partnerships or
- co-ventures with Disney, McDonalds, Coca-Cola, Warner Brothers, DC Comics, Marvel, Star Wars, Hasbro among many others on Products, Branding and Distribution of Products.

Advisory Team

Lester Lim



Founder of X21 Digital. Incubates and supports promising projects via his marketing experience & vast connections within the blockchain ecosystem. Strategic Advisor to MahaDao & Finxflo, etc.

- He's a veteran digital marketing entrepreneur and a leader in startup incubation. He has operated multiple million-dollar digital marketing and ecommerce businesses, and is currently one of the most sought after incubators to lead the funding rounds for blockchain startups.
- Lester and his investors network have invested tens of millions of dollars in the most promising blockchain startups since 2017.
- A widely respected Strategic Advisor, Blockchain Startup Investor & Incubator, and Digital Marketing Strategist working out of Singapore. Being a believer in value add, leverage and creating synergy, he specializes in helping projects position themselves to succeed long term. He supports them via his experience and vast connections within the blockchain ecosystem.

Technical Team

James Liu

Ph.D., Computer Science, **George Institute of Technology**

25 years of software architecture design experience, strong software system design background, familiar with the underlying architecture design of the blockchain; proficient in various systems and programming languages.

Appendix A

UGG Block Generator

UGG Block (N UGG tokens/block/second, assume 1 block per second, each block corresponds to N UGG tokens) Generator generates N (input 0-12, adjustable) UGG tokens per second. It has four input signals (N, Toggle_OnOff, Standard_LiquidityPool_Size, Reward_Threshold) from the parameter configuration center (here is Oracle):

A. Toggle_OnOff - Turn on or turn off the UGG Block Generator. When it is off, UGG will not be generated, that is, jump to the following condition "B"

B.Subtotal_Reward = Staking_Reward + Swap_Reward

Block_Reward is the Ugg tokens generated by block generator

Standard_LiquidityPool_Size is an input variable from Oracle

LiquidityPool_Size is an internal variable for the size of each liquidity pool

Reward_Threshold is an input variable from Oracle

N(the number UGG generated every second) is greater than Reward_Threshold by default

if ((LiquidityPool_Size/Standard_LiquidityPool_Size)>1) then

LP_Weight <= 1;

else

LP_Weight <= LiquidityPool_Size/Standard_LiquidityPool_Size;

/*The above determines the liquidity pool weight ratio for generating block UGG. */

Adjusted_N = LP_Weight*N; /*N according to real-time pool_size*/

Adjusted_Reward_Threshold = LP_Weight*Reward_Threshold; /*Reward_Threshold that changes according to the real-time pool_size*/

if (LP_Weight == 1) then

Block_Reward <= Adjusted_N /*input to local smart contract*/

else if ((Subtotal_Reward >= Adjusted_N) || (Subtotal_Reward >= Adjusted_Reward_Threshold))

then

Block_Reward <= 0;

else if (Subtotal_Reward <Adjusted_Reward_Threshold) && (Subtotal_Reward >= (0.5*Adjusted_Reward_Threshold)) then

Block_Reward <= 0.125*Adjusted_Reward_Threshold;

else if (Subtotal_Reward <(0.5 * Adjusted_Reward_Threshold)) && (Subtotal_Reward >= (0.25*Adjusted_Reward_Threshold)) then

Block_Reward <= 0.25*Adjusted_Reward_Threshold;

```
else //Subtotal_Reward <(0.25*Adjusted_Reward_Threshold)
    Block_Reward <= 0.5*Adjusted_Reward_Threshold;
Total_Staking_Reward = Block_Reward + Staking_Reward;
Swap_Reward is still Swap_Reward;
```