WEMIX3.0 WHITE PAPER

v.1.12

WEMIX

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I. INTRODUCTION

WEMIX began this great journey with a solid vision to create a blockchain gaming platform servicing various games with their own tokenomics on the blockchain network. This was the beginning of WEMIX, the very cornerstone of the blockchain gaming era.

In August of 2021, the flagship title MIR4 was published on WEMIX platform to more than 170 countries across the globe as the world's first commercially successful MMORPG that implemented a blockchain technology in the form of tokenomics. This triggered an unprecedented paradigm shift in the gaming industry that bolstered the adoption of blockchain technology onto existing games. This is what we refer to as WEMIX2.0; the second phase in the lineage of WEMIX, leading the industry by pioneering a phenomenon known as P&E(Play-and-Earn).

The next evolution of WEMIX was to become more than a single platform. WEMIX3.0 is built as an experience-based, platform-driven & service-oriented mega-ecosystem designed to expand the experience cycle of the global community through easy-to-understand and comprehensible services devised through its native platforms. Facilitating the perfect environment for developers to build various projects and provide innovative solutions to the community.

II. OVERVIEW

1. WEMIX3.0, A WHOLE NEW APPROACH

The layer 1 Mainnet of WEMIX3.0 is an EVM based on the SPoA(Stake-based Proof of Authority) consensus mechanism. The new Mainnet provides the highest level of security, based on decentralized On-Chain Governance via 40 Node Council Partners(NCP), while still ensuring high TPS.

At the heart of WEMIX3.0, three key platforms are in place: WEMIX PLAY, the blockchain gaming platform, NILE, the DAO-powered NFT & Life platform, and WEMIX.Fi, a decentralized financial platform.

WEMIX$, the native stablecoin, is at all times fully collateralized by USDC. This native stablecoin protocol ensures price stability and will function as the store of value, unit of account, and medium of trade, positioning WEMIX$ as an effective currency within the WEMIX3.0 mega-ecosystem.

- EVM-compatible Public Chain

- Stake-based Proof of Authority(SPoA) Consensus

- 40 Highly Qualified Node Council Partners(Authorities)

- Max 4,000 TPS Throughput

- PMR (Permanent Minting Reward): 1 WEMIX per Block

III. WEMIX3.0 DESIGN

1. DESIGN

(1) ARCHITECTURE

1) WEMIX3.0 CLIENT NETWORK

WEMIX Blockchain Client Network is an implementation of WEMIX3.0 that keeps network data safe and accurate by validating every transaction in each block. WEMIX3.0 was created by forking go-Ethereum version 1.10.16, based on the Go language, and applying the London Hard Fork.
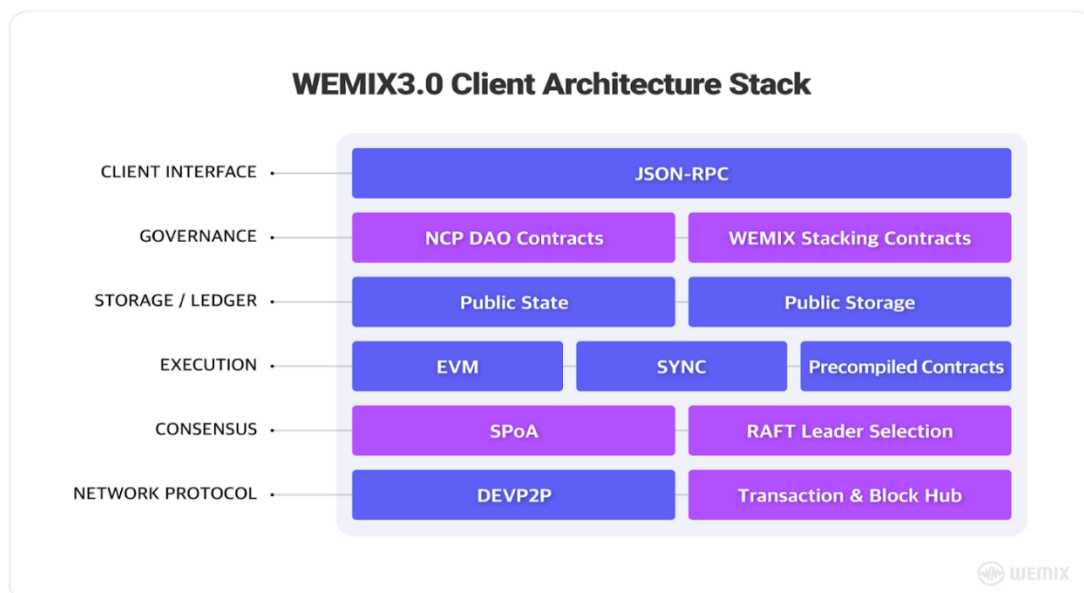
WEMIX3.0 Client has a layering system as shown in the figure above and achieved high-performance real-time performance by modifying Governance, Consensus, and Network Protocol elements in go-Ethereum.

2) WEMIX3.0 NETWORK STRUCTURE

The WEMIX blockchain network consists of three types of logical networks: BP, BN, and EN. These networks make up the Block Producer Network (BPN), Bridge Node Network (BNN), and End Node Network (ENN), respectively. The figure below shows the overall topology of the WEMIX Mainnet. An End Node Network (ENN) can be viewed as a perimeter network directly connected to a Bridge Node Network (BNN).
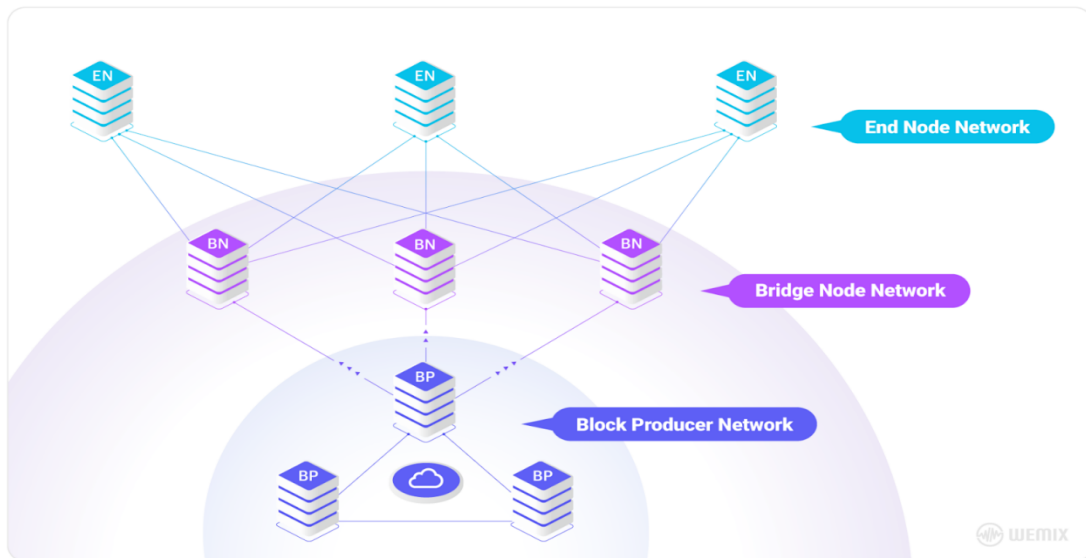
(A) Block Producer Network(BPN)

Since BPN applies RAFT(Reliable and Fault Tolerant) on the network, each BP must strictly meet the hardware and network resource requirements to perform the RAFT consensus mechanism with adequate performance. To support high-performance real-time service, BP's technical operations are all handled by WEMIX.

(B) Bridge Node Network(BNN)

The BNN primarily has the function of physically protecting the BPN from direct external attacks. Its primary function is to verify the valid transaction propagated from the End Node Network(ENN) and send it to the consensus node. Conversely, it is to confirm the block reproduced from the BPN and propagate it to the ENN. Also, some of the Bridge Nodes that exist in BNN provide the functions of Boot Nodes. All new nodes except Block Producer Nodes must download all block data generated so far from neighboring nodes connected to the P2P network in order to participate in the blockchain network. Boot Node is a service node always online and provides a Bootstrapping service that connects these new nodes participating

in the network to the P2P network by unconditionally performing P2P Hand Shaking. WEMIX conducts the corresponding operation of the network.

(C) End Node Network(ENN)

The outermost subnetwork, ENN, is an endpoint of the WEMIX network and consists of blockchain End Nodes that directly handle user services. Anyone can install and operate blockchain nodes.

(2) CONSENSUS

The SPoA consensus mechanism(algorithm) is a method of reaching consensus among trustless parties. Blockchain technology is used to determine whether a block is valid. A blockchain network's performance depends on the chosen consensus mechanism's performance and significantly impacts the usability of blockchain applications. Here, we will look at how WEMIX implemented a high-performance consensus process.

1) RAFT(RELIABLE AND FAULT TOLERANT) ALGORITHM

RAFT is a consensus method that ensures consistency of datastores on all nodes in the cluster by selected leader. Nodes participating in RAFT are either a Leader or a Follower; anyone can become a Candidate during a leader selection. A Leader must create and share data that needs to be synchronized with followers. A Leader announces the leader's existence by periodically sending a heartbeat message to all followers. Each follower randomly selects a timeout value for the leader's heartbeat, and if a heartbeat is received during the timeout period, the timeout will be reset. On the other hand, if they do not receive a heartbeat after the timeout, the follower changes its status to a candidate and participates in the leader selection. Conflicts occur if multiple nodes simultaneously participate in a leader selection, therefore the timeout is set according to random logic for backoff.

2) WEMIX3.0 CONSENSUS MECHANISM: SPoA

The WEMIX Blockchain is a public blockchain that realizes the high-performance real-time service. To reach this goal, block generation is stacked based on the voting of the authorized members in advance. Therefore, the basic consensus algorithm follows PoA. However, WEMIX exacts to stake more than a specific amount to give a substantial penalty for the malfunction of the elected authority on-chain. This WEMIX blockchain consensus method is defined as SPoA.

3) AUTHORITY

A consortium that performs the role as the miner of the PoW consensus mechanism, such as Bitcoin/Ethereum can be compared to the Authority participating in the consensus algorithm of the WEMIX Blockchain. The process of inclusion and exclusion to WEMIX Blockchain is determined by votes of the existing authority members.

- Proved identity

- Legally effective contract with WEMIX Foundation offline

- Disclosure of basic personal information

- Staked WEMIX to the system registry contract

After staking is confirmed, any of the existing authority members can propose to add a member to the governance contract. If more than 50% of the current authority members approve, they will be registered as a new Authority member.

When the Authority receives the transactions created by users, it verifies the transaction details and temporarily stores the transactions that have passed the verification in the mempool. When an Authority member is elected as a miner, it creates a block header including hash information of the previous block. This process is done automatically by software, and there is no need for the authority member to monitor the network status continuously. However, the authority member should be responsible for managing the firewall and private key of the account so that the computer generating the block is not used maliciously.

Voting, which can be processed in the On-chain Governance contract, is currently supported in the form of DApp by voting for or against and will support other types of votes in the future. Voting weight is proportional to the amount of staked WEMIX. If malicious behavior is detected, the responsible party can be forcibly disqualified from the Authority's voting, and the staked WEMIX is confiscated and may not receive block generation compensation.

The reason for the staking and reward system is to create a justification for all participating authority members to operate under the agreed protocol and to maintain the soundness of the WEMIX blockchain network autonomously.

4) MINER SELECTION

Taking Bitcoin's PoW as an example, a miner that generates a block header hash that satisfies the difficulty calculated by the protocol can generate and propagate blocks. Since there is no independent authority for block creation, blocks are created by mutual competition. For this reason, resources are inevitably wasted for block generation competition. Work that satisfies the difficulty condition must be proven, so the block generation time is given a physical constraint (BTC 10 min avg. ETH/15 sec). As a result, PoW has a scalability trilemma, and the introduction of PoS or sharding has been proposed and researched as a realistic solution to solve this problem. However, so far, no public blockchain has operated as PoS in a fully distributed manner.

The WEMIX Blockchain determined that providing the desired service in the public domain was impossible using methods such as PoW or PoS. Initially, consensus such as DPoS, PoA, and PBFT were considered methods, but the WEMIX Blockchain devised SPoA. This new Consortium consensus mechanism borrowed the advantages of DPoS and PoA as the most suitable consensus algorithm. SPoA is introducing the concept of staking to prevent inappropriate actions of the authority members who have formed the Authority and participated through transparent identity information and legal contracts.

5) REWARD DISTRIBUTION

Existing consensus algorithms have a structure in which the subject who created the block takes both the block reward and the collected fee. For this reason, in systems that are not based on competition, such as DPoS and PoA, the most critical problem to solve is to divide the Authority of block creation fairly. However, this constraint increases the message to and from Block Producers (BPs) who need to process transactions at high speed, and when traffic is stacked in the queue, frequent changes to the leader to evenly divide the opportunity for block generation cause failure to achieve the best performance. To compensate for these shortcomings, SPoA is designed so that no matter which of the authority members creates a block, a reward may be given in proportion to the amount of WEMIX staking stored in the authority member. The authority member who created the block must include the block reward distribution in the block header. If it violates the set rules (i.e., recorded in the governance contract), the block is not propagated by other authorities.

Block Reward	1+alpha WEMIX/block
Minting	1
Collected Transaction Fees	Alpha(variable)

All accounts that receive rewards (one per member) are registered by voting, except for the governance coin base account, which distributes the first system contracts to the governance contract, and the authority member generating the block updates the balance state of the accounts. The calculation result is reflected in the root hash value of Patricia Trie.

6) BLOCK GENERATION

The governance contract determines the interval between block creation of the WEMIX Blockchain. BP has the logic of generating blocks at a set time (1 sec. of the initial set value) to ensure activity and block finality, regardless of transactions in the mempool. The block creation interval is the value of a variable that can be changed by permission voting.

7) BLOCK VERIFICATION

When a block generated by a miner is propagated to a network through p2p, each full node (including an authority member) receiving the block must self-verify and determine its validity. Authority nodes verify whether the block is generated by a member selected as the miner, the reward is customarily distributed, and transaction details are reflected in the state of the entire system. After the verification, the authority nodes spread the blocks to the neighboring nodes.

The non-authority full node that receives this propagation checks whether the signature of the member included in the header is correct and verifies the transaction details. When it is determined that the transaction recorded in the block is generated according to the rule, it stores the block on the local disk and propagates it to neighboring nodes.

When verifying the propagated block, there are two things that all full nodes must verify first before proceeding with the above process: Miner_Limit and Max_Consecutive_Blocks.

Miner_Limit is defined as follows. When a specific member is determined as a Miner in RAFT, an epoch that can create a block is given, and the purpose of this epoch is to prevent it from being given continuously. All blocks are valid only when the following Miner_Limit is satisfied.

Miner_Limit = floor(SIGNER_COUNT / 2) + 1 (Number of consecutive epochs out of which a miner may only occupy one)

Max_Consecutive_Blocks is the maximum number of consecutive blocks the same Miner can create in an epoch. This value is a variable introduced to limit the height of a diverged block when a hacker attacks the network. In WEMIX3.0, Max_Consecutive_Blocks is 1.

2. WEMIX3.0 GOVERNANCE

1) ON-CHAIN GOVERNANCE

(A) 40 WONDERS

40 Node Council Partners (NCP) will become the foundation of a new Web3 life built on WEMIX3.0 by contributing to the development and growth of the mega-ecosystem while providing impenetrable security on our new layer 1 Mainnet. We call these NCPs as WONDERS.

These WONDERS will be the authority members chosen to represent the interests of the WEMIX community as a whole via governance.

(B) STAKING

WEMIX staking is one of the prerequisites to becoming an authority member. Each Wonder is required to stake 1,500,000 WEMIX to their allocated validator node. As official council members and

representatives of the community, Wonders are then given full authority over consensus and access to Mainnet parameters through governance.

The Staking method is possible by sending WEMIX while calling a predefined function to the governance contract known at the system level. In Stage#1, even if Staking is completed, an entity cannot become a member unless an official contract and identity disclosure with the WEMIX blockchain foundation is made. WEMIX can only stake through the Governance DApp, and voting can change the minimum/maximum amount that can be staked. The amount of locked WEMIX Staking determines Voting Power, and whether to lock/unlock the Staked WEMIX depends on the voting result. Once locked, WEMIX can be opened and retrieved by voting after the default Locking Period. Suppose it renounces its Authority as an Authority or is deprived of its authority due to the detection of malicious acts. In that case, the Locked WEMIX of that Authority will be forfeited to the Reward Pool. In Stage #1, all participating authorities must stake 1,500,000 WEMIX equally. Therefore, the minimum/maximum is 1,500,000 WEMIX, and all authorities have the same voting power.

(C) VOTING

The WEMIX Blockchain(governance contract) stores system variables that can be changed by voting and have functions related to the participation, withdrawal, and replacement of authority members. Each Authority will have Voting Power in proportion to the amount of Staking, and each vote will be passed where more than 50% of the total amount of Staking WEMIX is obtained during the Voting Duration(1-7 days).

Only the Authority member can apply for the following voting. Voting duration can be determined within the minimum/maximum value range at the time of application and is designated as the minimum value when not specified. Voting starts and ends when a member votes for the first time in the application list and runs for the maximum voting duration. Even within the voting duration, if more than 50% of opinions are raised, voting ends, and follow-up work is carried out. Only one vote is conducted at a time; As a result, if voting is already underway, new voting cannot be initiated.

The Voting types supported by the current version are as follows. Voting results are reflected based on block number, and voting results completed in block number 'n' are valid from block number 'n+1'.

- Authority member(add): When the voting for adding an authority member passes by a majority vote, the staking amount of the member is locked and included in the authority member.

- Authority member(withdrawal): Voting for processing the authority member's withdrawal (penalty), unlocking only the specified amount when applying, and sending the rest to the governance address.

- Authority member replacement(address change): When passing through voting to replace an existing authority member or change node information, if it is the same address, change the node information; if it is a different address, lock the new member's staking amount, and unlock the existing member's staking amount. However, if you change your own node information (including voting address) in your staking account, the corresponding information will be changed immediately without voting.

- Governance Contract Address(change): Change the address when passing through voting to upgrade the existing Governance Contract.

- Voting Duration(Minimum): The default is one day for voting to change the minimum voting period value. When passing, the minimum voting period is changed.

- Voting Duration(Maximum): The default value is seven days for voting to change the maximum voting period value. When passing, the maximum voting period value is changed.

- Authority member staking(Minimum value): Change the minimum staking WEMIX quantity value when passing through voting, which changes the minimum number of staking WEMIX quantity when participating as a member.

- Authority member staking(Maximum value): Change the maximum staking WEMIX quantity value when passing through voting, which changes the maximum number of staking WEMIX quantity when participating as a member.

- Block generation time: The default is 1 second for voting to process changes to the block creation time. When passing, the block creation time is changed.

- Block reward amount: The default value is 1 WEMIX/block as voting to determine the number of new WEMIX created for each block. When passing, WEMIX PMR (Permanent Minting Reward) is changed.

- Block reward distribution method: Voting to determine the transaction fee and the distribution rate of the newly created WEMIX, the default is 40% block producer, 10% staking compensation, 25% ecosystem, and 25% maintenance. The distribution rate, ecosystem, and maintenance distribution address are changed when passing.

- MaxPriorityFeePerGas: Voting to handle changes in MaxPriorityFeePerGas. Once passed, the MaxPriorityFeePerGas will change.

2) OFF-CHAIN GOVERNANCE

If the foundation needs a hard fork, such as a "change of protocol", and explicit agreement of the council is required, the NCP agreement process is carried out using an Off-Chain service such as https://snapshot.org/. Although the service is Off-Chain governance, the foundation can change the blockchain protocol based on the agreement of the explicit council because it receives more than half of the council's signature and performs voting.

IV. MEGA ECOSYSTEM

1. DISTINCT CHARACTERISTICS OF WEMIX3.0

WEMIX Blockchain Ecosystem (the "Ecosystem")" is an experience-based, platform-driven, and service-oriented mega-ecosystem enabling various DApps to be built and operated within the scope of WEMIX3.0's design (the "Mainnet") and three native platforms (the "Platforms").

(1) EXPERIENCE-BASED

The foundation of WEMIX3.0 and its mega-ecosystem is based on accumulation of experiences gained while providing blockchain game services to millions of gamers within the WEMIX gaming community. Key components of the WEMIX3.0 mega-ecosystem stems from understanding and acknowledging the needs and wants of our community members, focused on expanding their experience cycle through on-chain services and solutions.

(2) PLATFORM-DRIVEN

WEMIX3.0 features three native platforms designed to individually function as its own thematic ecosystem while collectively creating a synergetic interconnected mega-ecosystem that will offer a complete on-chain life experience to all community members within WEMIX3.0.

These platforms are: ⓐWEMIX PLAY(P&E Games), ⓑWEMIX.Fi(DeFi), and ⓒNILE(DAO, NFT, Life). The native platforms will provide necessary solutions and services for other DApps and projects to become onboarded with ease and effectively facilitated within the WEMIX ecosystem.

(3) SERIVCE-ORIENTED

One of the fundamentals of the WEMIX3.0 ecosystem is the service-oriented nature of the WEMIX blockchain. Through a variety of DApps and services, WEMIX3.0 aims to accommodate members of the ecosystem. By providing intuitive, convenient, and easy Web3 services, WEMIX3.0 achieves the mass adoption of blockchain technology which is quite often considered as unapproachable by the public.

VI. WEMIX3.0 TOKENOMICS

1. MINTING

WEMIX, native coin of WEMIX mega-ecosystem, is used as a medium of exchange and payment method within WEMIX Mainnet. A total of one billion WEMIX has been issued already in WEMIX 1.0 & 2.0 stages and will be minted in accordance with PMR as explained below.

(1 billion + alpha) WEMIX being issued at the Genesis Block (i.e., block 0) are coins being created in advance for the transfer of all WEMIX Classic tokens existing in Cypress.

When the Governance setting is completed after the Genesis block's creation, one WEMIX is newly issued for every block, through Permanent Minting Reward (PMR). Minted 1 WEMIX is distributed for every block according to the table below defined in the Governance.

Therefore, 86,400 WEMIX coins are created on a daily basis and automatically distributed to the addresses defined in the on-chain governance.

WEMIX is a cryptocurrency based on the ERC (Ethereum Request for Comment)-20 standard and is equipped with transferability (via bridge to other eth chains).

Ethereum previously priced transaction fees using a simple auction mechanism, where users send transactions with bids("gas prices") and miners choose transactions with the highest offers to generate the block.

Although this mechanism may work in some systems, such as Bitcoin or Ethereum, where limited resources are acquired only through auctions, this leads to several sources of inefficiency, such as a mismatch between the volatility of transaction fee levels and the social cost of transactions and needless delays for users.

(1) EIP-1559 & GAS PRICING

EIP-1559 is a dynamic transaction pricing mechanism applied in Ethereum London Hard-fork. This mechanism resolves network congestion algorithmically by burning a part of the block's transaction fee and adjusting the maximum gas usage of a block up and down by a 1/1024 scale.

WEMIX3.0 uses SPoA, a consensus algorithm capable of high-capacity, high-speed processing. It can support up to 3.5 times the block size of Ethereum(default block gas limit: 105,000,000) and 1/12 times the block generation time of Ethereum(default time: 1 second). In a way, unlike Ethereum, it may be a reasonable option for WEMIX3.0 to use a fixed gas price policy determined by the Governance.

However, fixing the gas price in the policy causes a problem. It may also affect the gas price for controlling DDoS attacks on the network according to the price volatility of the native coin WEMIX. Of course, it is possible to change the fixed gas price by on-chain Governance, but it cannot be dealt with promptly and involves the risk of impairing the safety of the network.

Therefore, in WEMIX3.0, we applied the EIP-1559 protocol with the following conditions to protect the network from DDoS attacks and excessive transactions generated by the bots.

In WEMIX3.0, the Base Fee and the CurrentGasTarget are calculated per block by the following equations:

< Base Fee and CurrentGasTarget >

$$BaseFee_{h+1} = BaseFee_h(1 + \frac{baseFeeMaxChangeRate}{100}(\frac{GasUsed_h - GasTarget}{GasTarget}))$$

The baseFeeMaxChangeRate(default: 55%) in the above formula is fixed but can be adjusted through the Governance.

Also, to prevent the Base Fee from becoming infinite and all WEMIX being used as transaction fees, the maximum value of BASE_FEE, maxBaseFee(default: 50,000Gwei), has been set. This value can also be adjusted through Governance.

< Range of Base Fee >

$$1wei \leq BaseFee_n \leq maxBaseFee$$

In the formula below, gasTargetPercentage(default: 30%) and PreviousGasLimit(default: 105,000,000) are subject to change by governance voting but are always the same unless changed by Governance.

< Gas Target >

$$CurrentGasTarget = PreviousGasLimit \times (\frac{gasTargetPercentage}{100})$$

WEMIX3.0 users can generate transactions using the fixed gas price maxPriorityFeePerGas(default: 100Gwei) value and the variable gas price BaseFee(default: 1Gwei) value recorded in the latest block. This algorithm is compatible with all wallets that support EIP-1559.

(2) DISTRIBUTION PLAN

Distribution percentage has not been revised from previous WEMIX1.0 & 2.0 stages. 10% will be distributed through private sales and utilized in initial stage of WEMIX growth. 7% will be utilized for marketing for platform vitalization. Another 9% will be allocated over a three-year period to members of WEMIX team who have contributed to or are likely to contribute to successful vitalization of WEMIX platform, and the remaining bulk of 74% will be used for supporting the long-term growth of the ecosystem.

DISTRIBUTION

USAGE

(3) PERMANENT MINTING REWARD

A new WEMIX will be minted per block and will be used as a reward as below.

Minting Reward Distribution	
NCPs	40%
WEMIX Staker	10%
Eco-system	25%
Maintenance	25%

2. WEMIX$

(1) WEMIX$

WEMIX$ is a secure stablecoin issued on the Mainnet with 100% collateralized USDC reserved in the Treasury. The native stablecoin protocol is designed to constantly maintain 1:1 volume peg to the reserved USDC in the Treasury by minting and burning WEMIX$ according to the Treasury volume. In doing so, the price stability of WEMIX$ is achieved and allows expansion and contraction of the total WEMIX$ volume based on the state of the ecosystem.

The following are the key components which function as a means of maintaining the value of WEMIX$.

1. Treasury: Securely stores USDC as collateral against the total supply of WEMIX$.
2. MINT: Component in which WEMIX$ is minted and burned accessible only through AMA.
3. DIOS: Stability protocol designed to function as an equilibrium that maintains the price balance between WEMIX$ and USDC through TIP/TOP.
4. Authorized Mint Access(AMA): AMA is an automated access authority granted solely to the DIOS protocol to mint/burn WEMIX$ to match the total supply of the reserved USDC in the Treasury.
5. Master Liquidity Pool (MLP): Main liquidity pool for WEMIX$/USDC.
6. Blockade: Stability mechanism to tentatively(for a block) halt MLP access if WEMIX$ and USDC price deviation increases.

(2) DIOS PROTOCOL

DIOS(Dollar In and Out Stabilizer) protocol prevents depegging of WEMIX$ using dual(TIP and TOP) protocols.

TIP(Treasury In Protocol)
Demand of WEMIX$ will grow along with the growth of the ecosystem and depegging will likely happen with WEMIX$ value rising in USDC/WEMIX$ Master Liquidity Pool. In this case, DIOS will activate TIP and MINT contract will trade WEMIX$ with USDC in MLP. Here, stabilization arbitrage will occur since a single WEMIX$ value will be higher than a single USDC. USDCs that have been traded will be transferred to the Treasury, from where additional WEMIX$ equivalent to the occurred arbitrage will be issued and transmitted to DIOS Reward Pool.

TOP(Treasury Out Protocol)
Should, for some reason or for a vicious attack, the demand for WEMIX$ decreases due to downscaling of the ecosystem, USDC/WEMIX$ MLP will witness depegging of WEMIX$ value dropping. When TOP is activated, Treasury will emit USDC and will trade the USDC with WEMIX$ in MLP. Here, because a single WEMIX$ value will be lower than a single USDC, 1 USDC will be able to obtain more than 1 worth of WEMIX$. This much of WEMIX$ will be sent to MINT and burnt while the left WEMIX$ will be transferred to DIOS Reward Pool as an arbitrage. Therefore no matter what, total supply of WEMIX$ and total volume of USDC in the Treasury will remain equal.

TIP & TOP exchange rate
As for TIP & TOP, when the gap between MLP exchange rate exceeds a certain percentage, smart contract will automatically attune the exchange rate so that it would retain 1. TIP & TOP will be facilitated in a way that it does not generate loss considering extra fees and slippage. Certain variables may be changed in accordance with market situations.

DIOS Reward Pool is a contract where arbitrages occurred through DIOS are stored in WEMIX$. It will be distributed to stakers in DIOS Staking, which is one of the Staking Services.

Blockade

Blockade is a stability mechanism solely applied in MLP, that controls the market volatility of WEMIX$. If the exchange rate of USDC-WEMIX$ in MLP fluctuates more than 5%, blockade will be triggered and the following steps will be carried out:

1. Only DIOS is authorized to access MLP
2. DIOS will proceed with Automated Market Operation (AMO) until the fluctuating exchange rate of the pool returns to its original value of 1. After the stabilization of the exchange rate, the pool will resume permission-less trading for all the participants.

Reward Pool

Accrued seigniorage (WEMIX$) as a result of the DIOS protocol operation is stored in the reward pool. Participants of DIOS Staking can claim their rewards in WEMIX$ upon unstaking. The stakers will be given points which can be converted into multiplier points. With multiplier points, participants can expand their rewards by compounding the staking amount with Multiplier Points(MP). Since more points are given to the early stakers, the system incentivizes and encourages early participation.

VII. ROADMAP

Our ultimate goal is decentralized technology and democratized governance. To achieve this, we will introduce a multi-phase democratized governance where the community is empowered to impact the 40 authority node governance structure through a delegated staking module.

This is the fundamental principle of our governance roadmap, a means to illustrate true democratization through adoption of meritocracy based on the ecosystem contribution.

Phase 01: DAO-centric governance through WONDERS consisting of 40 NCPs

Node Council Partners, also known as WONDERS, are 40 selected members who operate secured validating nodes for the WEMIX3.0 Mainnet.

40 WONDERS are constituted by Technology Sponsors that contribute to the secure operation and innovation of WEMIX3.0, and Ecosystem Sponsors that contribute to the establishment of the experience cycle created through the on-chain/off-chain ecosystem via WEMIX3.0.

Each NCP must stake 1.5M WEMIX, and the PMR (Permanent Minting Reward) is distributed automatically to NCP (40%), Stakers (10%), Eco fund (25%) and Maintenance (25%).

WEMIX Grand Staking will become available to the community which will yield the 10% Staking Reward allocated through the PMR. However, staking participants for the WEMIX Grand Staking may not withdrawal from the staking pool prior to the implementation of Phase 2.

Phase 02: Transition into a free, unlimited competitive staking with 40 NCPs as a basic governance system

Upon Phase 2 launch, 1.5M fixed WEMIX Staking per validator node, which encourages active contribution of NCPs to the ecosystem, will be abolished and transformed into competitive staking.

The initial distribution ratio of the PMR will be changed with the discontinuation of 10% staking reward allocated to WEMIX Grand Staking participants in Phase 2. The 40% PMR allocated as NCP reward will be increased to 50%.

In doing so, WEMIX Grand Staking participants may then choose to delegate their stake volume to any of the 40 validator nodes, effectively increasing the chosen node's total staked shares above the median; generating increased reward rate for the node and community members that are participating in the delegation.

This method will stimulate active participation of the community in the governance, but if any imposed action by the node operator is regarded as malicious or harmful to the ecosystem, the governance oversight program will confiscate total staked assets of the node's assets.

This phase is expected to become operational within the first half of 2023 but may be adjusted in accordance with the status of WEMIX3.0.

Phase 03: Complete and final installation of a democratized governance through decentralized technology of WEMIX3.0 supporting open and voluntary node participation

Validator node operation by 40 selected authority partners known as, WONDERS, will be discontinued and the governance module will shift into an open & autonomous node participation system where anyone can become the validators of WEMIX3.0 based on staking volume.

Based on the total WEMIX staking volume per node, the top 40 nodes will be periodically selected to validate transactions, transforming from an SPoA model into a PoS model.

A slashing policy will be implemented to enforce fair operation of validator nodes, especially in the event of willful collusion against the interests of the ecosystem but also possible result of a misconfiguration of the node. Slashing will penalize the node by removing a portion of its existing stake and is irreversible.

Democratized governance is completed at this stage, and the Mainnet will be upgraded to WEMIX4.0. The schedule is yet to be determined.

ANNEX : THE TRIPOD OF WEMIX3.0 SERVICE

WEMIX3.0 is built on three pillars of its foundation: WEMIX Play, NFT service, NILE, and DeFi service, WEMIX.Fi, where the WEMIX tokens and WEMIX$ become the key currency of these three platforms. Details of services are subject to change pursuant to separate policies

1. WEMIX PLAY

In WEMIX PLAY, you will be able to find "Games", where you can see various servicing games of the WEMIX Platform and "Coins", where you can find information of the tokens of WEMIX Platform.

WEMIX PLAY is a blockchain gaming platform where users can earn resources from playing various 'Play & Earn' games onboard the WGC(WEMX Game Chain), which is a private chain connected to WEMIX3.0. WEMIEX PLAY is pursuing its vision to become the world's largest platform that encompasses all services imaginable centered around games and token economy without concerns of network congestion or inflated gas fees. To accomplish its vision, all the information is collected and stored in the separate chain, and only information, which is necessary, is sent to the Mainnet, and this is possible with operating private chain in the independent network infrastructure of nodes. As such, WGC delivers transactions for all games onboard WEMIX PLAY without incurring any gas fees.

While the current Play & Earn(P&E) games has main concept that gamers earn crypto assets through playing games spending lots of money and time, WEMIX PLAY incorporates new concept of virtuous circle of "Play & Earn and Pay".

Due to the business norm of the current gaming industry, current P&E games are designed as a linear model for the gamers which begin with gameplay and end in earnings with underlying IAP(In App Purchases). The problem with this linear model is that it lacks the means for the gamers to utilize their earned assets back into the game, thereby forcing them to liquidate what they have earned into fiat currency.

On the other hand, WEMIX PLAY resolves this issue by implementing a "Pay" segment into the gamer's experience cycle. This is achieved through the introduction of WEMIX PLAYER within the platform. WEMIX PLAYER is an official game launcher native to the platform which enables all games onboard the WEMIX Game Chain with a cryptocurrency payment option for gamers to utilize. By doing this, it allows gamers to reinvest what they have earned through the game, to play better, and earn more, a complete gamer-centric cycle ensuring an unhindered gaming experience as well as positive influence on the overall platform economy.

User-interface is also a key value of WEMIX PLAY platform. It offers essential information such as games bub, token market cap, token swaps, auctions, and staking programs for our global gaming community to provide a complete service-oriented experiences.

We believe that WEMIX PLAY will be the ultimate playground fulfilling the needs of players, earners, and holders of gaming community by visually delivering key data that reflects their individual interests within the ecosystem.

Here, game tokens will be used as the yardstick for measuring value within games and medium for exchange and purchases. Game tokens will be issued, and their transactions will be carried out in WEMIX Game Chain, which is a side-chain of WEMIX Play. Continued from the WEMIX1.0 and 2.0 stages, WEMIX can be traded for game tokens and vice versa at variable exchange rates determined by supply and demand

Game tokens incentivize gameplaying, as they are earned while games are played. As explained in the "staking" section, users will be able to earn them when playing games two to four hours a day. If additional game tokens are needed, they can be obtained by exchanging them with WEMIX tokens. Users will be able to use game tokens in ways specified below, and any used game tokens will be balanced out through the circulation structure where they return to incentivize game play.

Along with WEMIX Play service, Play Wallet service is provided to facilitate for the users to enjoy games and services onboard WEMIX. Such services as management of tokens, Marketplace for NFTs will be connected to Play Wallet. Detailed explanation on the use of game tokens is provided below.


1) PURCHASE

Most games today have their own in-game stores. These stores sell various items that help users enjoy games more, and users widely accept and make purchases at such in-game stores. In-game stores in the existing game Apps typically accept fiat money for these purchases. WEMIX's game DApps will accept both fiat money and game tokens, with the latter serving as the basic method of payment. By enabling users to pay game tokens for item purchases, the entertainment value will be maximized, and users will be better positioned and incentivized to earn more game tokens.

2) USE OF CONTENTS

When playing games, users may sometimes have to purchase certain contents outside the in-game stores. For example, they might have to upgrade their equipment, expand their territory, or add skills or techniques within games. For contents that can be enjoyed using in-game goods, game tokens can be utilized in return for the services provided. As WEMIX offers a great degree of freedom and flexibility, contents where game tokens are utilized can incorporate the developers' design visions to the maximum extent, supporting the production of games rich in entertainment features. Furthermore, with a coherent circulation structure for game tokens, the value of game tokens will likely increase and be well preserved in the long term.

2. NILE

NILE is DAO & NFT platform service on WEMIX3.0 Mainnet. NILE consists of DAO, DApp and NFT projects along with NFT marketplace supporting those projects. NILE DAO is implemented based on Neith Protocol, the core smart contract mechanism that enables community to create, facilitate and manage all the projects created within the platform. This protocol ultimately allows participants and users an easy access to creating DAOs, fundraising for projects, operating businesses, sharing revenues, changing operation standards and more. NEITH Protocol is categorized by 7 main functions: Station, Treasury, Staking Pool, Governance, Trust, Furnace, and Creator. More details of these functions are shared in NILE docs.
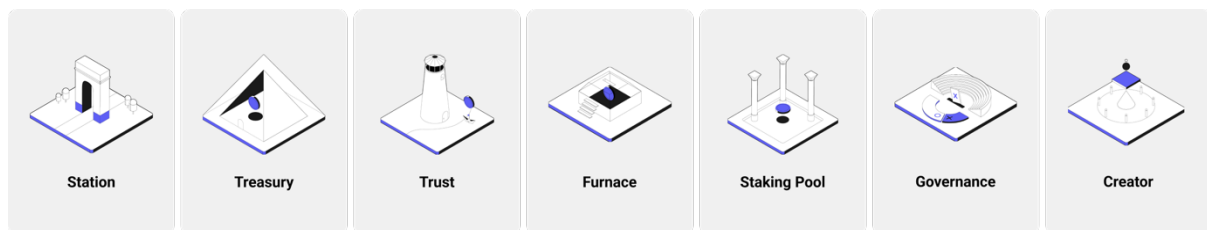
NILE will enable DAO projects based on real-life goods such as concerts, art exhibitions, sports, investments, and real-estate, come true in blockchain network. Tokens issued by DAOs, NFTs, Tokens for DApp projects and NFTs as projects themselves will all be distributed and used for transactions.

NILE ultimately aims for a complete decentralization through autonomous onboarding, utilization, and alteration of Neith Protocol. NILE is going through an era of implementing stable platform environment. The platform envisions inviting blockchain into our daily lives in every aspect of our environments through our discovery of on-chain and off-chain projects based on blockchain.

3. WEMIX. Fi

WEMIX.Fi is a decentralized finance platform provided by WEMIX3.0. In WEMIX.Fi, users may participate in various services including swap, staking, pool, bridge etc., using WEMIX$ that each owns a value equivalent to $1.