METABIT

METABIT WHITEPAPER

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ABOUT METABIT

METABIT is an emerging blockchain platform that is poised to revolutionize the Web3 ecosystem by offering a high-performance infrastructure for large-scale commercial applications. Scheduled to be officially launched in the first quarter of 2022, METABIT is committed to providing a robust and secure network that caters to the needs of businesses operating within the Web3 space.

One of the key objectives of METABIT is to establish a secure and autonomous blockchain operation network. By prioritizing security, the platform ensures that user data and transactions are safeguarded against potential threats, fostering trust and reliability among participants. Furthermore, the autonomous nature of the blockchain operation network ensures the elimination of centralized control, enhancing transparency and decentralization.

METABIT has successfully concluded its ICO round and seed round market financing, securing an initial capital infusion of 2 million dollars. This funding has played a pivotal role in enabling the METABIT network to successfully launch its mainnet network on April 23. Furthermore, METABIT boasts a devoted community comprising more than 100,000 active users and 160,000 valid addresses.

Currently, the Metabit network architecture has been developed with the innovative consensus mechanism MPOAS,which allows different nodes to play different roles, providing physical operation network, verification, packaging settlement, storage, and bandwidth.
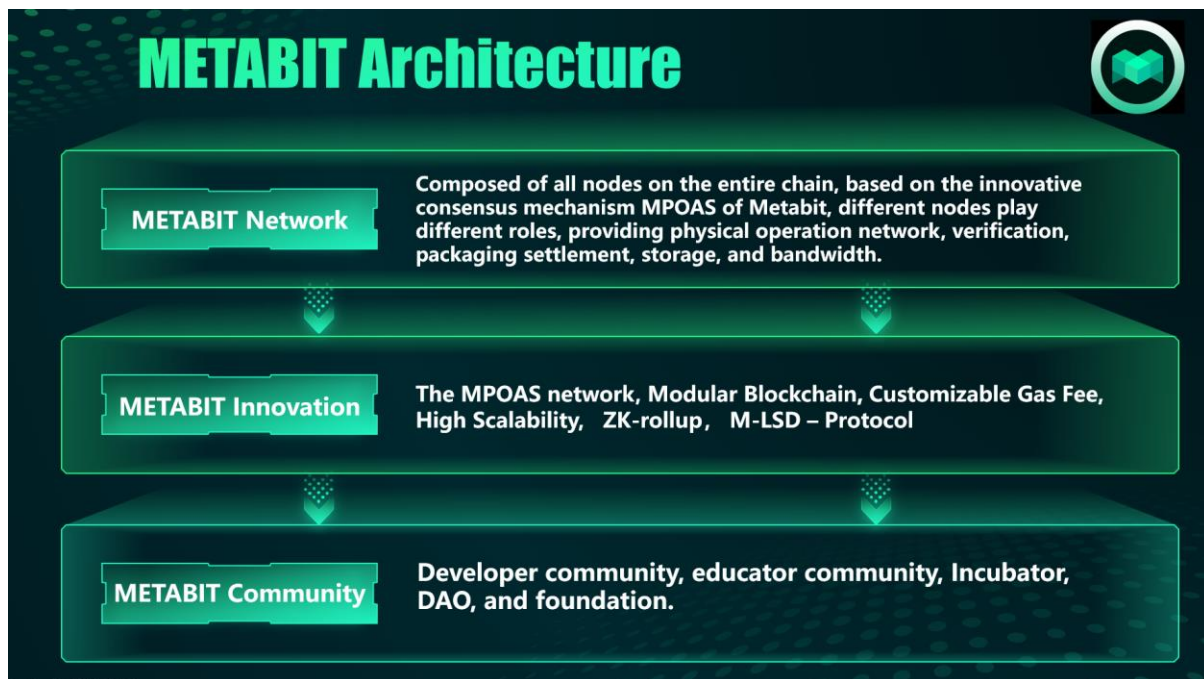
Pain Points Solved & Competitiveness

METABIT competes with other public blockchains in the market, such as Ethereum and Solana. Here is an analysis of these competitors and the pain points are solved:

Layer 1

1. Ethereum:
Ethereum faces challenges in terms of processing speed and transaction costs. Its TPS (Transactions Per Second) is relatively low, leading to network congestion and transaction delays. Additionally, Ethereum's gas fees also rise significantly as transaction volume increases, burdening users. In contrast, METABIT aims to provide high-performance and low-cost solutions to address these issues.

2. Solana:
Solana currently faces challenges in scalability, as the increasing number of users and applications may strain the network's performance and burden the nodes, potentially leading to latency and congestion issues. As an open-source project, Solana is not immune to security vulnerabilities and risks. While the development team is actively working on improving security, there

is a need for ongoing efforts to enhance security and code review. Addition ally, it has encountered intermittent periods of instability and experienced instanc es of downtime. These issues have temporarily impacted the platform's availability an d reliability. The Solana team is actively working to address and mitigate these challe nges to ensure a more stable and robust network experience for its users.

3. Aptos:

Many users claimed that in their own blog posts, the network could only han dle 4 transactions per second. Users also expressed frustration about their difficulty in connecting with validators, who are responsible for the charg e of initially verifying transactions. METABIT likely employs various optimiza tion techniques to improve the speed and efficiency of processing transactions. Thes e optimizations could include enhancing the underlying blockchain protocol, implem enting advanced consensus algorithms, or utilizing off-chain scaling solutions. Additi onally, METABIT focuses on ensuring consistent access to validators.

4. SUI:

SUI, despite its advantages, does come with a few drawbacks. SUI's technical deve lopment language has a learning curve, and its community is still in the ea rly stages. In contrast, METABIT has already established a sizable user com munity, giving it a competitive advantage in terms of community support. Th is broad user base contributes to METABIT's strength and positions it favor ably compared to SUI in terms of community engagement.

METABIT aims to differentiate itself from other blockchain competitors and leverage its innovative protocols and features to attract users and ecosyst em partners. With intense market competition, METABIT needs to continue inn ovating and developing to maintain its competitiveness and establish a prom inent position in the rapidly evolving layer 1 blockchain industry.

Layer 2

Comparing mainstream Optimistic Rollup projects - Arbitrum, Metis, and Boba Netw ork: Currently, both Arbitrum and Optimism suffer from long withdrawal times. Opti

mism underwent an EVM equivalence upgrade in November 2021, which resulted in the discontinuation of the old OVM virtual machine in favor of the Sequencer and Verifier clients. As a result, the "fraud proofs" programs designed for the old OVM are no longer functional, and the new version of the "fraud proofs" program has not been released yet. Consequently, the withdrawal time still remains at 7 days.

High costs associated with zk-SNARK (Zero-Knowledge Succinct Non-Interactive Argument of Knowledge) interactions and the complexity of off-chain proofs. Compared to Optimistic Rollup, the ZK Rollup solution has a significantly higher technical complexity, requiring substantial computational resources. Additionally, it exhibits longer transaction latency and higher computational costs.

METABIT's unique technology innovation involves ZK rollup and MLSD. ZKRollup enables the METABIT network to transition from Layer 1 to Layer 2. M-LSDP (METABIT Liquid Staking Derivatives Protocol) is An innovative initiative undertaken by the METABIT team to enhance the METABIT Proof-of-Stake (POS) mechanism at the protocol level. This protocol aims to introduce a liquid staking derivatives (LSD) model within the METABIT ecosystem.

METABIT Chain Overview

Chain Framework

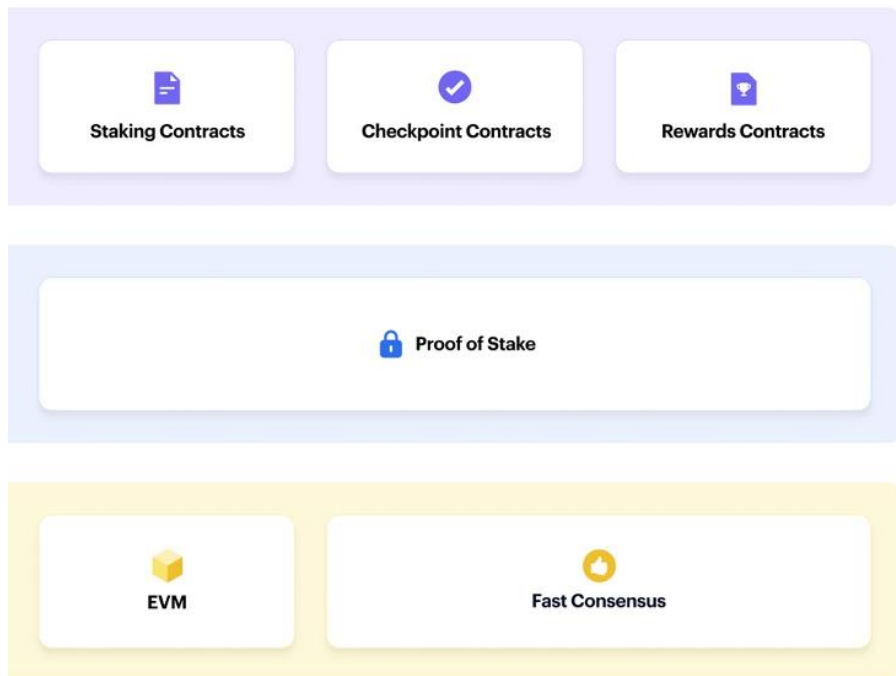The Metabit Network has a five-layer architecture:
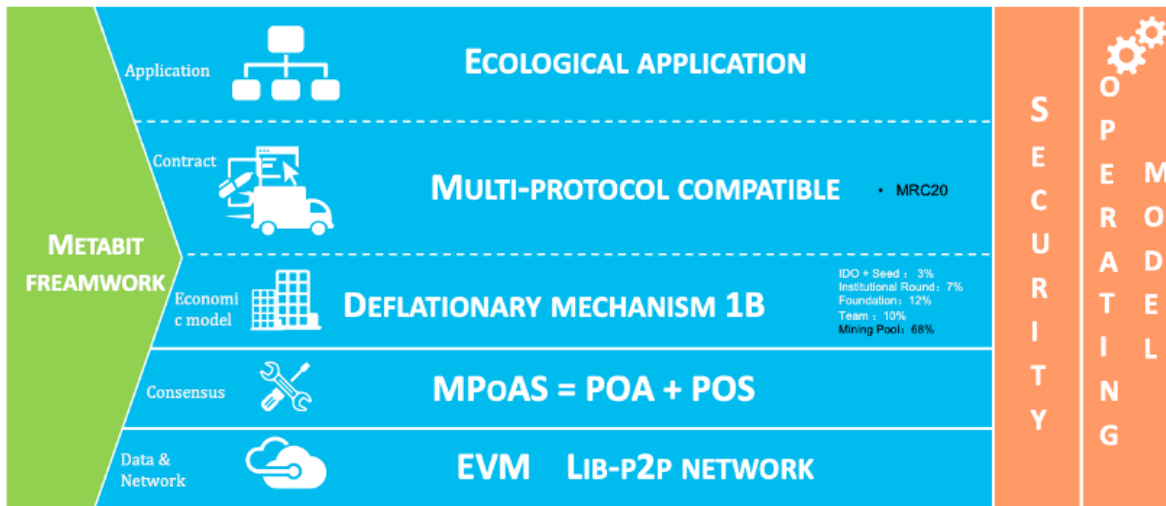
1. Ecological Application Layer

For all Ethereum developers, also could be the Metabit developers as they c ompatibility with EVM for the Metabit network. All the tools you are famili ar with on the Ethereum blockchain are supported on Metabit chain by defaul t

2. Contract Layer

To enable the Proof of Stake (PoS) mechanism on the Metabit Chain, the system utilizes a set of staking management contracts on the mainnet. The staking contracts implement the following features:

- Anyone can stake BMTC tokens on the staking contracts on the Metabit mainnet and become a validator in the system.
- Validators can earn staking rewards for validating state transitions on the Metabit Network.
- Support for ERC20/ERC721/ERC1155 tokens.
- Integration with Remix and Truffle development tools.
- Vyber compatibility.

3. Incentive Layer

TOKEN DISTRIBUTION RATIO
UNIT: MILLION
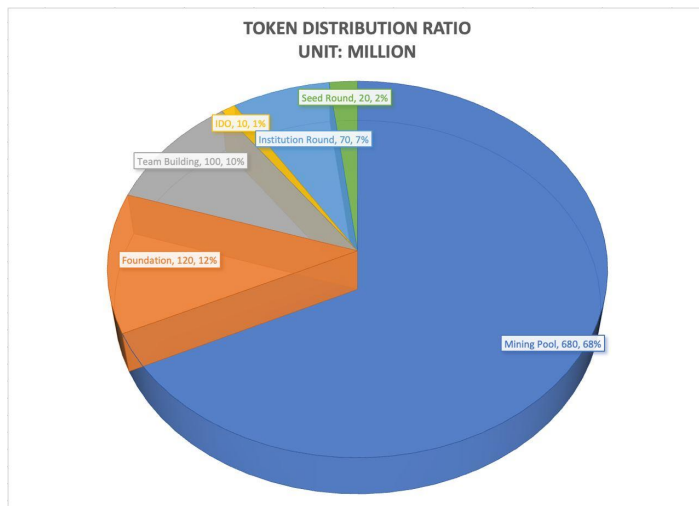
● Token supply type

Fixed supply. The total amount of 1 billion coins.

● BMTC Allocation

Allocation: Foundation - 120 million,

team building - 100 million,

IDO - 10 million,

Institutional round - 70 million,

seed round - 20 million,

mining rewards - 680 million.

Allocation type	Token Amount	Percentage	TGE	Cliff	Vesting	Release
Seed Round	20,000,000	2%	10%	6 Month	28 Months	Quarterly
Institution Round	70,000,000	7%	10%	3 Month	24 Months	Quarterly
IDO	10,000,000	1%	16.6%	0 Month	6 Months	Monthly
Foundation	120,000,000	12%	0%	12 Month	34 Months	Quarterly
Team	100,000,000	10%	0%	12 Month	34 Months	Quarterly
Ecosystem	680,000,000	68%	Strategic Release Per Market Demond			

4.4 Consensus Layer

MPoAS is a hybrid consensus mechanism called Proof-of-Stake Authority (PoAS) merges Proof-of-Stake (PoS) and Proof-of-Authority (PoA). It offers shorter block times and reduced costs at the expense of network security and decentralization.
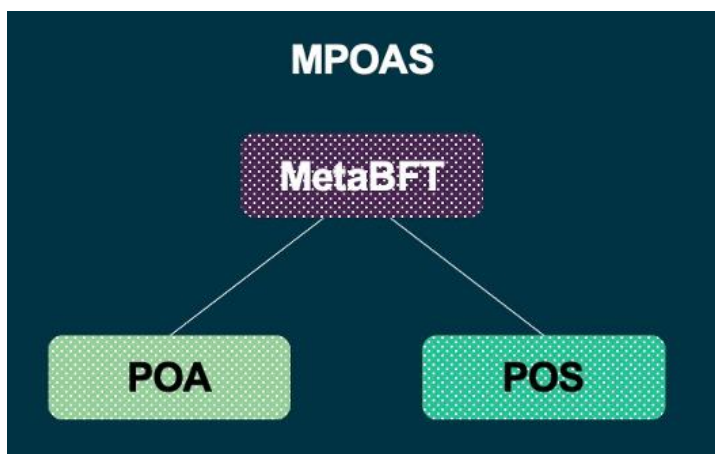
The PoA algorithm simplifies validation and lowers the amount of power needed to run the network. Staking in the PoS consensus mechanism, on the other hand, promotes decentralization by allowing user participation in network security.

The PoA algorithm ensures continued connectivity between nodes without the need to solve puzzles. As a result, the validators don't need specific hardware to keep the network running.

The proof-of-authority algorithm accelerates the rate at which the authorities validate transactions. Due to the predictable creation of blocks ba

sed on the number of validators, the blockchain registers a higher transaction rate than PoS.

MetaBFT is a sophisticated and robust consensus mechanism employed by Metabit networks. The consensus mechanism comprises two key components, a consensus engine, and a consensus protocol. MetaBFT utilizes the IBFT consensus engine and a Proof-of-Stake architecture to seal blocks, provide specific network capabilities, and govern the network. The core smart contracts work with the consensus engine to define all the network's Proof-of-Stake rules.

The consensus engine of MetaBFT is based on the Istanbul Byzantine Fault Tolerance (IBFT 2.0) protocol, which is responsible for sealing blocks on the blockchain. The IBFT 2.0 protocol ensures that network integrity is maintained even in the presence of malicious or dishonest nodes.

To achieve fault tolerance, IBFT allows for f faulty nodes in a 3f + 1 network, as long as two-thirds of the nodes are honest. This algorithm is also known as a "super-majority rules" algorithm. Each MetaBFT node maintains a local copy of the blockchain, represented as a list of blocks similar to the blockchain. The height of a block is defined as the number of parent links that separate the block from the genesis block, with the genesis block having a height of 0. Sequential instances of a block finalization protocol are run, with the objective of each instance being to determine which block is to be added at height h of the blockchain.

MetaBFT's consensus protocol is implemented through a set of core smart contracts. These contracts serve multiple purposes, including enabling staking functionality and defining an incentivization scheme for validators on the network, managing the validator set.

- MPoAS= POA + POS

- POA = proof-of-authority
- POS = proof-of-stake

5. Network Layer

Metabit chain Network layer uses a decentralized networking layer based on the libp2p protocol. The protocol provides peer-to-peer networking primitives such as peer discovery, connection management, and secure messaging. The network relies on a secure Identity Service to manage peer connectivity and handshaking, ensuring only valid peers can join the network.

- ● Identity

The Identity Service validates incoming connections and manages peer handshaking. It maintains a list of pending peer connections and uses a networkingServer interface to communicate with the underlying networking layer.

- ● Peer discovery

MBFT uses libp2p's distributed hash table (DHT) based on the Kademlia algorithm for peer discovery. The DHT stores information about other peers in the network, such as their addresses and availability. When a new node joins the network, it uses the DHT to find other peers that are currently online. The process of using the DHT to discover peers and then sending out connection requests is repeated periodically to maintain a sufficient number of connections in the network.

- ● Peer routing

Bootnodes act as rendezvous servers that help new nodes discover and connect to the network. The command allows you to specify one or more boot nodes while creating the Genesis file. Bootnodes are defined usi

ng libp2p multiaddrs, which contain information about the protocol, n
etwork address, and node port number.

6. Security Model

Proof of Stake Security Model

- Overview

The Proof of Stake (PoS) model's security relies on the Metabit C
hain's Security Model

The PoS mechanism operates through a collection of staking manage
ment contracts on EVM, supplemented by a group of incentivized valida
tors running nodes. This approach enables:

Participation as a Validator by staking BMTC tokens on the EVM sm
art contract. Earning staking rewards for validating state transition
s on the Metabit network. A fast finality layer periodically solidifi
es the state through checkpoints, enhancing state security. The EVM-c
ompatible chain, with its high throughput and swift block time, optim
izes scalability over an extensive degree of decentralization. it ens
ures a secure final state commit, passing through a large validator s
et to maintain high decentralization.

- For Developers

Deploying on the PoS security model is streamlined for dApp developer
s: simply deploy the smart contract on the Metabit PoS network. This
ease of deployment is due to the account-based architecture, which is
compatible with the EVM blockchain.

- AWS FW

- Certik

7. Operating Model

- KPI

- Operation Management Platform

- Governance

Chain Technical Logic Architecture

1. Logic Architecture Review
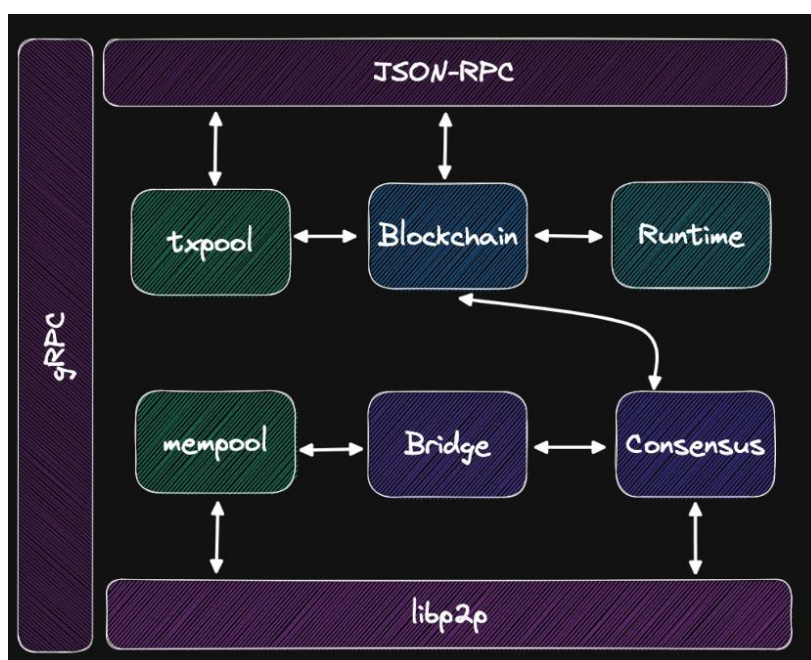
2. Logic Architecture Components

The following table breaks down each of these components.

Component	Description
libp2p	Metabit provides the networking layer for Supernets and is designed for peer-to-peer network architectures.
Bridge	An in-built bridging mechanism enabled by BFT that allows message passing between a Supernet and another Proof-of-Stake blockchain without mapping.

Mempool	Enables multiple validators to aggregate their signatures to create a single, aggregated signature representing all validators in the pool.
Consensus	MetaBFT serves as the consensus mechanism of Metabit Supernets and consists of a consensus engine, IBFT 2.0, and a consensus protocol that includes the bridge, staking, and other utilities.
Blockchain	Coordinates everything in the system, curates state transitions, and is responsible for state changes when a new block is added to the chain.
Runtime (EVM)	Uses the EVM as the runtime environment for executing smart contracts.
TxPool	Represents the transaction pool, closely linked with other modules in the system.
JSON-RPC	Facilitates interaction between dApp developers and the blockchain, allowing developers to issue JSON-RPC requests to a Supernet node and receive responses.
gRPC	Essential for operator interactions, allowing node operators to interact with the client easily and providing a seamless user experience.

3. Native Token of Metabit

Metabit Chain has a BMTC token as a native token similar to ETH in Ethereum. It is often called the gas token. This token works correctly as to how ETH works currently on the Ethereum chain.
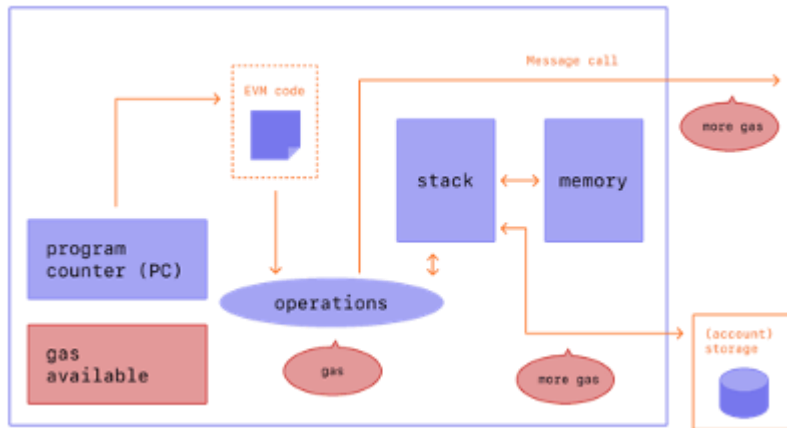
- Fees

Native token is used as fees while sending transactions on Metabit Chain. This prevents spam on Metabit Chain and provides incentives to Block Producers to run the chain for longer periods and discourages bad behavior.

A transaction sender defines GasLimit and GasPrice for each transaction and broadcasts it on Metabit Chain. Each producer can define how much minimum gas price they can accept using --gas-price while starting Metabit Chain node. If user-defined GasPrice on the transaction is the same or greater than producer defined gas price, the producer will accept the transaction and includes it in the next available block. This enables each producer to allow its own minimum gas price requirement.

Transaction fees will be deducted from the sender's account in terms of Native tokens.

Here is the formula for transaction fees:

`Tx.Fee = Tx.GasUsed * Tx.GasPrice`

Collected fees for all transactions in a block is transferred to the producer's account using coinbase transfer. Since having more staking power incre

ases your probability to become a producer, it will allow a validator with high staking power to collect more rewards (in terms of fees) accordingly.

4. Metabit Chain TPS

The Metabit Chain support 30000 TPS

Previous Block Header Hash:
0000000000000002a7bbd25a417c0374
Cc55261021e8a9ca744442b01284f0569
Timestamp: 2023-2-27 23:11:54
Difficulty: 1180923195.26
Nonce: 924591752
Merkle Root: c91c008c26e50763e9f548bb8b2
fc323735f73577effbc55502c51eb4cc7cf2e

Transactions

BMTC Coin Price	Market Cap	Gas tracker	Daily Transactions
N/A	$0.00 USD	1.51 Gwei	7,515
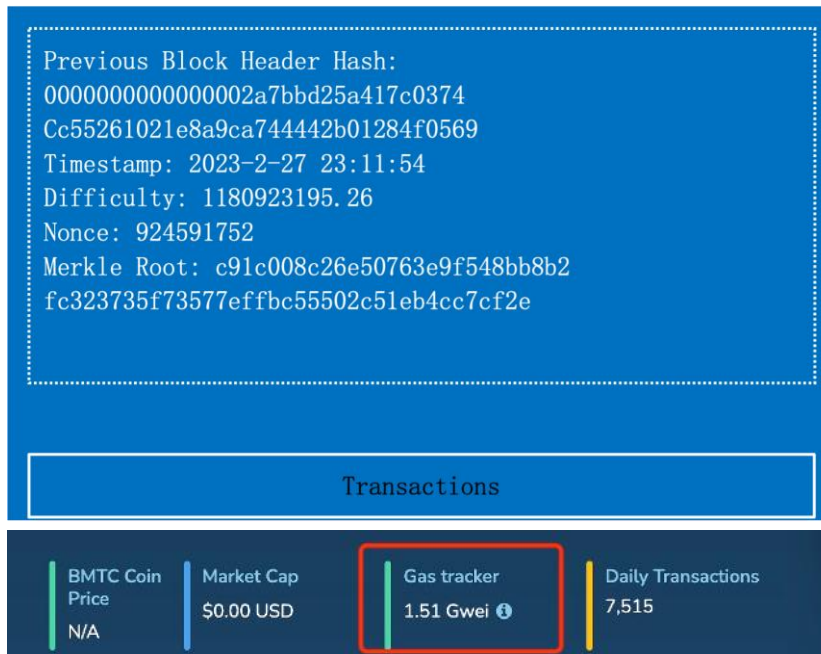
1.POA trust mechanism , the protocol header and protocol trailer are removed

n 1 tx size = 0.6 K = 600 bytes

n Transaction type = transfer

n 1 block size = 0.5 k * 30000 = 14M

2. AWS provides 100M network bandwidth with low network latency

It takes 800 milliseconds for a node to synchronize a 15M block data

3. GAS limit defaul 500000000 GWEI

15100 * 30000 = 453000000

Chain Node Architecture
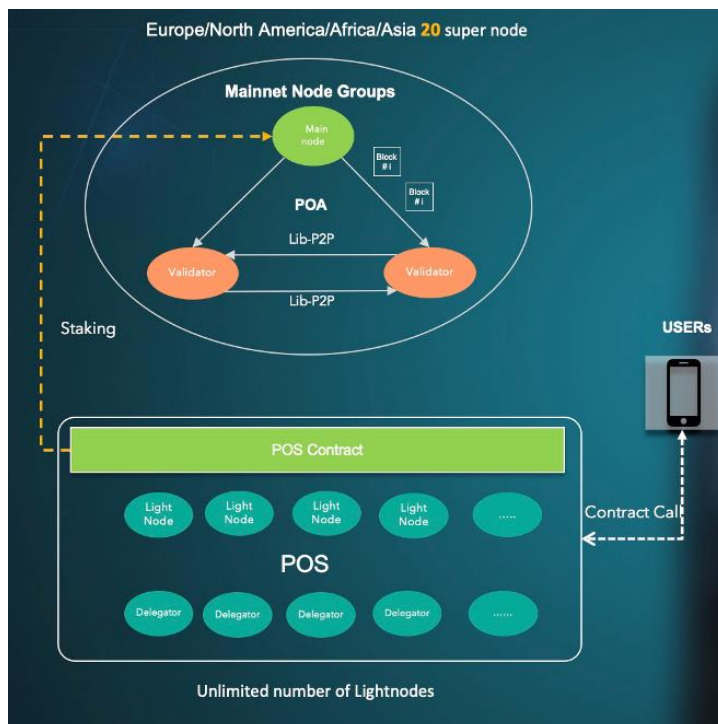
For Metabit Node System, the node is designed with a two-layer implementation，the POA Layer and POS Layer.

1. Proof-of-Authority (PoA) implementation

The Metabit Full Node supports a Proof-of-Authority (PoA) consensus algorithm in its protocol that can be used instead of its Proof-of-Work, or its Proof-of-Stake algorithm. Instead of having to hit a target, by plugging either an integer or UTXO into a formula, to earn the right to create new blocks, a PoA blockchain grants authority to create new blocks to a set of nodes on the network. Providing the integrity of the nodes who have this authority is maintained, using PoA makes it easier to secure smaller blockchains, which are typically but not necessarily private. So what attacks are small PoW and PoS blockchains vulnerable to? Small PoW blockchains are vulnerable to attacks where large amounts of computing power are hired out in an attempt to overwhelm the network. Small PoS blockchains, which typically have a

relatively small number of tokens being staked, are vulnerable to an attack where a bad actor, without arousing suspicion, accumulates over 50% of the staking power.

Using a PoA algorithm has two other advantages:

1. Block creators can be kept accountable as they are identifiable.

2. The network is more predictable as blocks are issued at steady time intervals. In other words, they follow a strict "target spacing".

2. Proof-of-Stake (PoS) implementation

The Proof-of-Stake Verifier layer, which is responsible for checkpointing a representation of the blocks to the main chain in our architecture. We have implemented this by building on top of the Metabit consensus engine with changes to the signature scheme and various data structures.
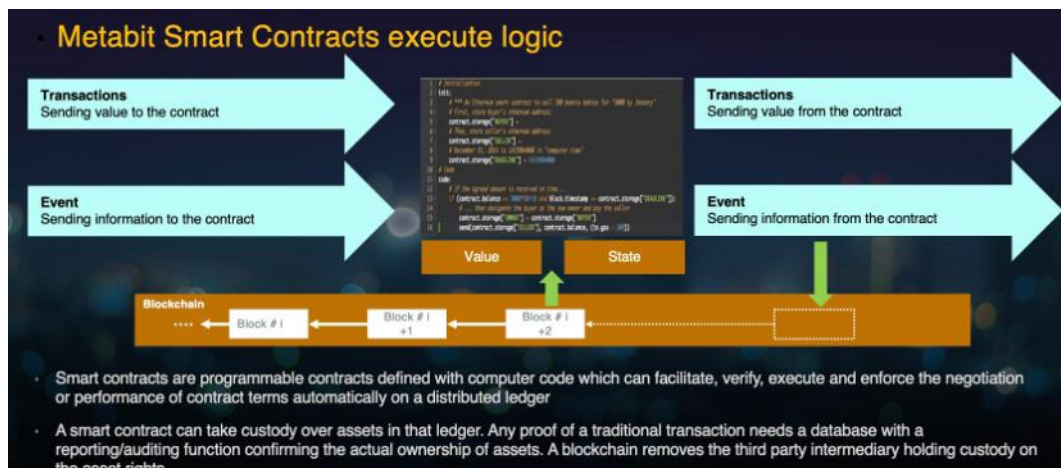
- The Proof-of-Stake Verifier layer handles the aggregation of blocks produced by The Validator Layer into a Merkle tree and publishing the Merkle root periodically to the root chain. The per

iodic publishing of snapshots of The Validator Layer are called checkpoints.

Validates all the blocks since the last checkpoint.

Creates a Merkle tree of the block hashes.

Publishes the Merkle root hash to the Metabit mainnet.

Checkpoints are important for two reasons:

Providing finality on the root chain.

Providing proof of burn in withdrawal of assets.

An overview of the process:

A subset of active validators from the pool is selected to act as block producers for a span. These block producers are responsible for creating blocks and broadcasting the created blocks on the network.

A checkpoint includes the Merkle root hash of all blocks created during any given interval. All nodes validate the Merkle root hash and attach their signature to it.

A selected proposer from the validator set is responsible for collecting all signatures for a particular checkpoint and committing the checkpoint on the Metabit mainnet.

The responsibility of creating blocks and proposing

The Validator Layer includes

1. Proof-of-Stake verification

2. Checkpointing blocks on Metabit network main chain

3. Validator and Rewards Management

4. Ensuring Sync with Ethereum main chain (future)

5. Decentralized Bridge (future)

3. Metabit Chain Node Staking

For Metabit Network, any participant can be qualified to become a Metab it's Ligh node validator by running a full node to earn rewards and collect transaction fees. To ensure good participation by validators, they lock up some of their BMTC tokens as a stake in the ecosystem.

Validators in Metabit Network are selected via an on-chain auction proc ess which happens at regular intervals.

- Stake

To join the validator set, you must stake your BMTC tokens.

- Unstake

Unstaking allows the validator to be out of active pool of validators.

To ensure good participation, the validator stake is locked for 80 chec kpoints.

- Restake

Validators can add more BMTC tokens to their stake:

To earn more rewards.

To maintain the position in the validator set.

4. Metabit Chain Node Delegator

● **Delegation**

Staking may be expensive, raising the barrier to entry, which favours the rich getting richer. Everyone should take part in network security and receive tokens of appreciation. The only other option is to join a staking pool similar to a mining pool, where validators must be trusted. We believe that sticking to the protocol is the best course of action for new delegators. Since capital and rewards are open and protected by in-protocol mechanisms.

Delegators can take part in validation even though they don't host entire nodes. However, by staking with validators, they can increase the network's strength and gain rewards by paying a tiny commission charge (which varies depending on the validator) to the validator of their choice.

Metabit Chain Maintenance

1. Chain deployment

Metabit Chain provides hassle-free deployment for blockchain networks with deploy scripts "one-click" deployments, allowing developers to seamlessly set up a child chain.

● Cloud deployments

Metabit support cloud deployment options that enable developers and enterprises to easily and securely deploy a child chain to the cloud. With cloud deployment options, users can take advantage of the scalability and flexibility of cloud infrastructure, without having to worry about the complexities of managing their own infrastructure.

Metabit Chain supports deployment to various cloud platforms and allows users to choose the cloud platform that best suits their needs and preferences.

Metabit Chain cloud deployment options also come with a range of features and capabilities, such as auto-scaling, load balancing, and disaster recovery, that can help ensure network stability, security, and availability. These features can be especially important for enterprise-level deployments that require high levels of reliability and performance.

2. Node Monitor

Metabit Chain provides a tool, its Meta-jaguar is a monitoring and alerting tool for validators operating on Matic Network. It provides separate Grafana dashboards to better monitor the health of the validator and server. It has integration with Telegram and Sendgrid which enables it to provide updates via notifications or email. It uses InfluxDb and Prometheus to store the metrics and Grafana to display them.

The alerting part of the tool has a modular approach that enables the user to decide on which metrics the alerts should be sent. Any and all notifications can be modified by a user to fit one's preference. By default a ba

sic level of notifications is enabled for inexperienced users which can be modified by editing the config file.

3.Communication

- Communicate issues

Communicating issues as early as possible ensures that the community and the Metabit team can rectify the problems as soon as possible. The preferred platforms to communicate the commission rates are:

Ø **Discord:**

Ø **GitHub :** https://github.com/metabitglobal

METABIT Chain Innovation

1.Metabit ZK Rollup

Metabit zkRollup is the first zero-knowledge (ZK) scaling solution that's fully compatible with Ethereum.

All existing smart contracts, developer tools, and wallets work seamlessly within Metabit's zkEVM.

The zkRollup harnesses the power of ZK proofs to reduce transaction costs and massively increase throughput, all while inheriting near proximal security to Ethereum's L1.

1.1 Smart Contract

- A Smart contract is used to enforce a set of pre-defined rules to allow a state transition. It checks if each transition is done correctly for the validity proofs verification. This is achieved by using zk-SNARK circuits (we expand on how they work in our zkSNARK primer).

- Sequencers propose transaction batches to the network, i.e. they roll-up the transaction requests to batches and add them to the PoE smart contract.

- Aggregators check the validity of the transaction batches (provided by the sequencers) and provide validity proofs. *Any* permissionless Aggregator can submit the proof to demonstrate the correctness of the state transition computation. Aggregators work with specialized hardware in the form of a prover.
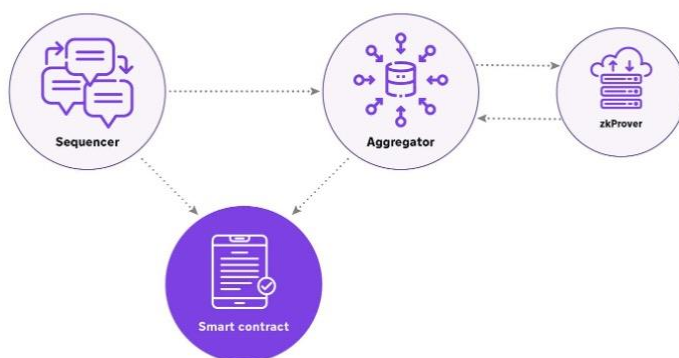
2. Metabit Liquid Staking Derivatives

Metabit network support LSD protocol and support Staking BMTC to reward other tokens.
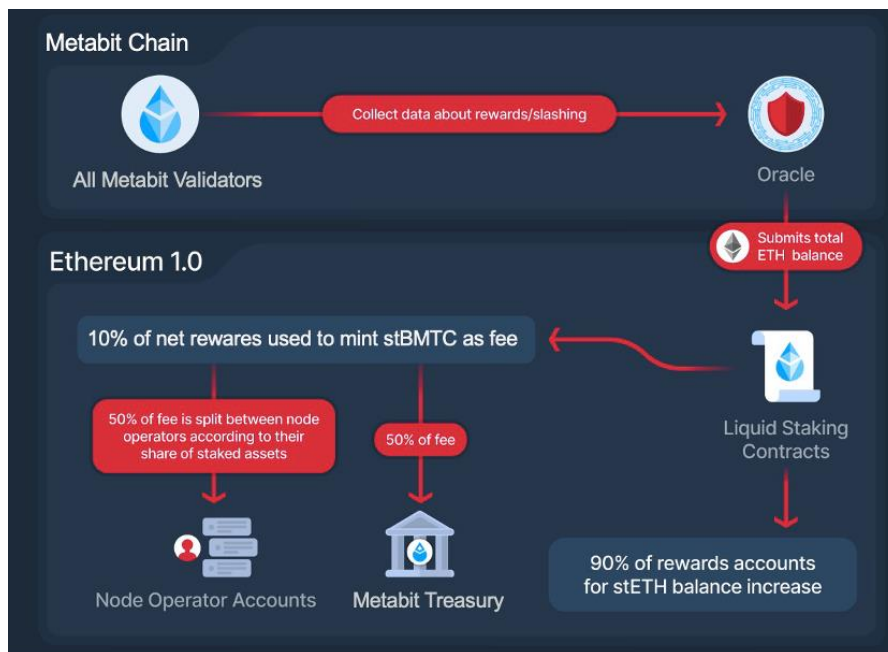
Staking is the process of locking up some assets in order to participate in the validation process in return for token rewards. While staking is not a new concept, it has long been understood that staking often involves a sort of 'lock-up' period during which the staked funds can't be withdrawn. "Liquid staking" breaks from this framework, enabling users to earn staking rewards while still maintaining the flexibility to use their staked assets for things like collateral for loans or arbitrage trading, for instance.

This is possible by issuing tokens that represent those staked assets, which can subsequently be traded and used like any other on-chain asset. Since these new tokens derive their value from the underlying staked tokens, we can call these 'derivative' tokens, or more precisely, liquid staking derivative (LSD) tokens. LSD tokens can be traded on secondary markets or loaned out, restaked, or used for arbitrage trading.

METABIT Tokenomics

The allocation of tokens for METABIT is divided into different categories as outlined above. The Seed Round has an allocation of 20,000,000 tokens, the Institution Round has 70,000,000 tokens, the IDO has 10,000,000 tokens, the Foundation has 120,000,000 tokens, the Team has 100,000,000 tokens, and the Ecosystem has 680,000,000 tokens. These allocations represent the distribution of tokens across various stakeholders and purposes within the METABIT ecosystem.
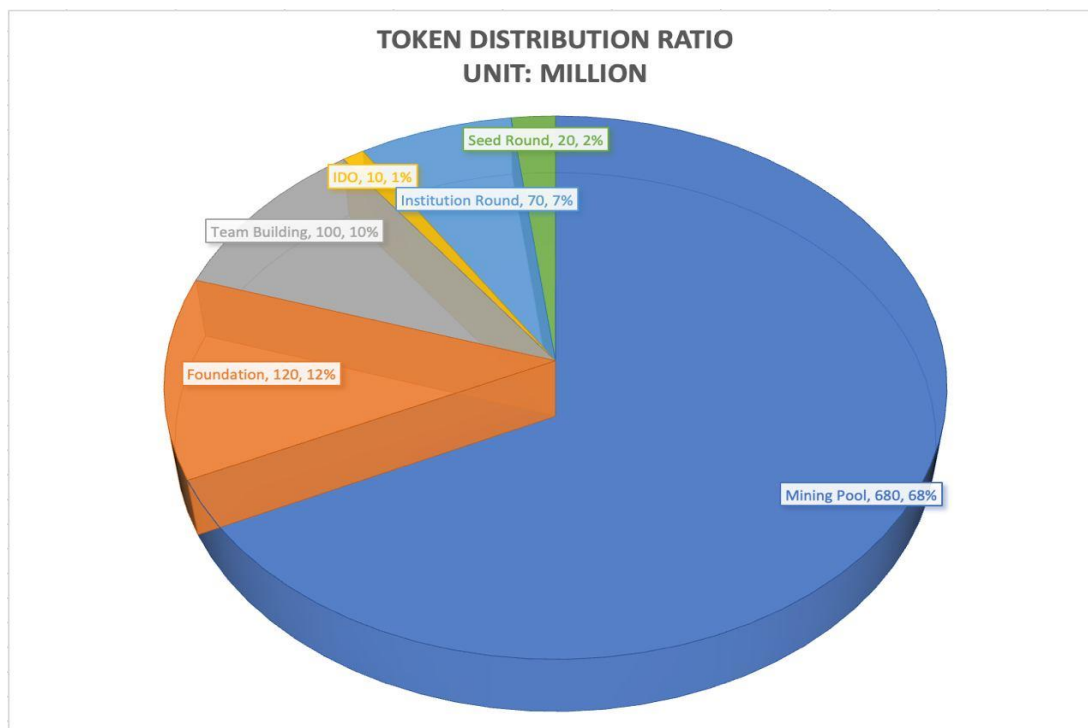
Release Model

- Seed Round: 20,000,000 tokens allocated, representing 2% of the total token supply. The tokens have a cliff period of 10%, with vesting occurring over a 6-month period. Tokens will be released quarterly over a span of 28 months.
- Institution Round: 70,000,000 tokens allocated, representing 7% of the total token supply. The tokens have a cliff period of 10%, with vesting occurring over a 3-month period. Tokens will be released quarterly over a span of 24 months.
- IDO (Initial DEX Offering): 10,000,000 tokens allocated, representing 1% of the total token supply. The tokens have no cliff period, with v

esting occurring over a 16.6% monthly release during a 6-month perio
d.

- Foundation: 120,000,000 tokens allocated, representing 12% of the tot
  al token supply. The tokens have no cliff period, with vesting occurr
  ing over a 12-month period. Tokens will be released quarterly over a
  span of 34 months.
- Team: 100,000,000 tokens allocated, representing 10% of the total tok
  en supply. The tokens have no cliff period, with vesting occurring ov
  er a 12-month period. Tokens will be released quarterly over a span o
  f 34 months.
- Ecosystem: 680,000,000 tokens allocated, representing 68% of the tota
  l token supply. The tokens will be released strategically based on ma
  rket demand, without any specific cliff or vesting period mentioned.

Allocation type	Token Amount	Percentage	TGE	Cliff	Vesting	Release
Seed Round	20,000,000	2%	10%	6 Month	28 Months	Quarterly
Institution Round	70,000,000	7%	10%	3 Month	24 Months	Quarterly
IDO	10,000,000	1%	16.6%	0 Month	6 Months	Monthly
Foundation	120,000,000	12%	0%	12 Month	34 Months	Quarterly
Team	100,000,000	10%	0%	12 Month	34 Months	Quarterly
Ecosystem	680,000,000	68%	Strategic Release Per Market Demond			

Node Mining Model

METABIT utilizes an innovative consensus mechanism known as MPOAS (Multi-Pa
rty On-Chain Agreement System). In this consensus model, each node in the n
etwork assumes a specific role, contributing to the overall operation and s
ecurity of the blockchain. One of the key roles in the METABIT network is t

hat of a validator. Validators are responsible for validating and verifying transactions, maintaining the integrity of the blockchain, and participating in the consensus process. They play a crucial role in ensuring the accuracy and security of the network by proposing and confirming new blocks. On the other hand, delegators are participants who delegate their stake to validators. Delegators contribute their BMTC tokens to a validator they trust and receive rewards based on the validator's performance. Delegators enjoy the benefits of participating in the network's consensus process without the need for technical expertise or running their own nodes. By delegating their stake, they contribute to the security and decentralization of the network while earning rewards proportional to their delegation. Together, validators and delegators form an essential part of the METABIT ecosystem, ensuring the smooth operation and security of the blockchain while providing opportunities for token holders to actively participate and be rewarded for their contributions.

- The Total number of nodes :
  - METABIT sets the total number of nodes: 50000
- Get node method: Official website purchase - white list for institutional reservations
- Node staking: The node owner required a minimum 1000 BMTC staking, the lower amount would trigger a slash system
- Release rules: : Initial as 42.5 million BMTC tokens per year, reduced by half every 4 years
- Node Income Source :
  - 100% personal staking APR and 10% direct referral reward of the mining reward
  - Staking commission 0 - 5 %
  - 50% Gas reward based on the staking weight on the node
  - Ecosystem reward

Light Node Mining Economic Model

Validator: The light node holder
Delegator: The user who would stake BMTC on the light node.

Invitation Code: Establishes a mining reward relationship between inviter and invitee

- **Consensus**: MPOAS---Metabit Proof of Authorized Staking
- **Mining Quantity**: 340 million.
- **Release Model**: Halved every 4 years according to the remaining total quantity, for example, 42.5 million in the first year and 170 million released after four years.
- **Staking Rules**: The minimum staking unit for light node holders is 100 BMTC, and the maximum staking unit is determined by the capacity of the super node.
- **Unstaking Rules**: Delegator can unstack the principal at any time, and the principal will be returned after 21 days, the interest will stop on the day of unstaking. Validator can unstake the principal at any time but if the personal staking amount is lower than 100 BMTC, it will trigger the slash system.
- **Invitation Mechanism and Interest Rewards:** Node invitation rewards are a two-level relationship, and the inviter receives 10% of the mining reward from the direct invitee. The reward of mining will be released linearly, 1% will be released every day, and the 100-day release completed.
- **Validator Reward Categories** Validator can benefit from personal staking rewards, referring mining rewards, gas fee rewards, node commission rewards, management fee rebate rewards, and ecosystem rewards
- **Slash System**: The validator's personal staking amount is less than 100 BMTC will trigger the slash system. During the slashing period, the validator does not have any invitation and staking rewards and cannot withdraw the principal. Validator who receives a triggered slash system over 3 times will be removed from all invitation relationships and validation identity, the light node will be managed by the Metabit management team.

Invitation relationship and identity confirmation

The invitee/normal user come to the node staking interface, and there will be a pop-up window prompting the user to choose their identity. The user can choose to continue staking BMTC or upgrade to be a validator.

- Choose to continue staking: the invitee becomes the lifelong delegator of this light node.

- Choose to upgrade to be a validator, then the inviter will receive 10% of purchasing fee of the validator and the referral relationship is ended.
- The validator successfully invites a new validator, the referral relationship still keep as before, and the inviter will get 10% of the mining reward from the invitee.

Example of Referral (Assume 1 completed year)

- Validator, A sets commission fee as 5% from mining reward and assuming the current gas fee reward to A is 25 BMTC, management fee rebate is 50BMTC after calculating from whole network BCDE is Delegators, both of them staked 1000 BMTC

Current Staking Status

Currently, the METABIT Community has achieved a significant milestone with a total of 160,000 activated wallet addresses. As part of its growth strategy, METABIT aims to expand its community even further, targeting a range of 200,000 to 300,000 members. This expansion initiative is expected to result in the activation of an estimated 300,000 active wallet addresses. The increasing number of active wallet addresses signifies the growing engagement and participation within the METABIT ecosystem, demonstrating the community's enthusiasm and support for the platform.

METABIT Commercial Ecosystem

METABIT Engine

METABIT will focus on ecosystem development in the following eight areas:

1. Wallet Identity

This whitepaper introduces METABIT Wallet Identity, a revolutionary solutio n designed to enhance the security and privacy of digital asset management. In today's digital economy, the widespread adoption of cryptocurrencies and digital assets brings new challenges in safeguarding personal assets and ma intaining user privacy. METABIT Wallet Identity leverages advanced technolo gies, including decentralized identity verification, encryption, and user-c entric control, to provide users with a secure and trusted identity framewo rk. By emphasizing security, privacy, and user empowerment, METABIT Wallet Identity offers a comprehensive solution for individuals to manage their di gital assets securely while preserving their privacy.

2. Games and Social

a. Games

METABIT is dedicated to creating an innovative platform that integrates gam ing and social elements. We firmly believe that future development will con tinue to explore new possibilities in the realms of gaming and social inter action. METABIT will continuously expand our game library to provide users with a diverse, rich, and exciting gaming experience. This includes establi shing partnerships to introduce high-quality game developers and content cr eators. The goal of METABIT is to offer games suitable for different ages, interests, and gaming styles, catering to the diverse needs of our users.

b. Social

METABIT will further enhance the social functionalities of our platform to facilitate connections and interactions among users. It plans to introduce more social tools and features, such as real-time chat, groups, and forums, allowing users to conveniently share gaming experiences, engage in discussi ons, and make new friends. Additionally, we will explore opportunities for social competitions and cooperative gameplay, providing users with multipla yer gaming and social interaction experiences.

3. NFT Trading Market and Metaverse

a. NFT Trading Market:

METABIT recognizes the escalating significance of non-fungible tokens (NFT s) within the digital landscape. In the future, we plan to develop an NFT t rading market within our platform and introduce a multitude of high-quality projects. This marketplace will serve as the central hub for creators, coll ectors, and enthusiasts to purchase, sell, and trade NFTs. By leveraging bl

ockchain technology, our objective is to establish a secure and transparent environment that fosters trust and promotes the development of the NFT ecosystem.

b. Exploration of the Metaverse:
METABIT is actively exploring the construction of the metaverse, an immersive virtual universe where users can interact, participate in various activities, and create unique experiences. In the future, we intend to develop and introduce metaverse features within our platform. This includes the creation of virtual worlds, personalized avatar customization, immersive experiences, and social interactions. Our goal is to provide users with a seamless and captivating metaverse experience that blurs the boundaries between the physical and digital realms.

4. Developer Community and Tool Integration

a. Developer community
At the core of MEATBIT recognize the invaluable contribution of developers in shaping the growth and sustainability of our platform. We are dedicated to building a robust and inclusive developer community that fosters collaboration, knowledge sharing, and continuous improvement. Through initiatives such as developer forums, hackathons, and educational resources, we aim to empower developers with the necessary tools, support, and networking opportunities to create innovative applications and solutions on the METABIT platform.

b. Tool Integration
Our platform provides a comprehensive set of developer tools and testing capabilities to empower developers in building robust and innovative applications. For contract development, developers can leverage popular tools such as Remix, Truffle, and Vyber, which offer features like code compilation, deployment, and debugging, ensuring efficient and secure contract development. To facilitate effective contract debugging, we offer BlockExplore, a dedicated tool for deploying and debugging smart contracts, enabling developers to identify and resolve issues with ease.

To support testing and validation, METABIT has implemented a faucet functionality, allowing developers to acquire METABIT's test tokens for testing their application's functionality. By utilizing this functionality, developer

s can thoroughly test and validate their programs, ensuring the smooth oper ation and desired functionality of their applications.

Furthermore, developers can verify their testing results through our testne t block explorer, accessible at ext.metabitgological.io. This block explorer provides a transparent and reliable view of the testnet blockchain, allowin g developers to examine and validate transactions, smart contracts, and ass ociated data generated during the testing phase. This ensures the accuracy, transparency, and reliability of the testing results, enabling developers t o confidently move forward with their applications.

With our suite of developer tools and testing capabilities, METABIT aims to provide developers with a seamless and efficient development experience. By offering reliable tools, dedicated debugging capabilities, faucet functiona lity, and a transparent testnet block explorer, METABIT empowers developers to build and validate high-quality applications on the platform.

5. METABIT DeFi and Financial Derivatives

a. METABIT DeFi:
METABIT is committed to establishing a robust and inclusive DeFi ecosystem that provides decentralized financial solutions to users. Through blockchai n technology and smart contracts, the goal is to eliminate intermediaries, enhance financial accessibility, and facilitate transparent and secure tran sactions. METABIT DeFi platform offers a range of decentralized services, i ncluding decentralized exchanges, liquidity pooling, and asset collateraliz ation. In the future, METABIT will also introduce lending and community gov ernance tokens, enabling users to have full control over their assets and p articipate in various financial activities.

b. Financial Derivatives:

In line with the mission to drive innovation, METABIT recognizes the potent ial of financial derivatives in enhancing risk management and providing inv estment opportunities in the DeFi space. METABIT is dedicated to developing and launching a variety of financial derivatives that allow users to hedge risks, speculate on asset prices, and employ leveraged investment strategie

s. These derivatives include options, futures, swaps, and other derivative products designed to meet the ever-changing needs of users.

6. METABIT Stablecoin

METABIT's token, M-USD, is a stablecoin, which is a revolutionary digital currency designed to provide stability and security in the volatile cryptocurrency market. Built on a robust blockchain infrastructure, METABIT aims to address the challenges of price volatility and lack of stability that often hinder the widespread adoption of cryptocurrencies. By leveraging advanced algorithms and a decentralized governance model, METABIT's stablecoin offers a reliable and efficient medium of exchange, fostering trust and confidence among users, providing ample liquidity in the virtual currency market, and promoting financial inclusion in the digital economy.

7. Metabit DAO, Foundation

a. META DAO:

Metabit DAO represents a paradigm shift in decision-making and governance. It enables token holders and community members to actively participate in shaping the direction and future of the platform. Through a decentralized governance model, stakeholders can propose key decisions and vote on matters such as platform upgrades, project financing, and ecosystem enhancements. METABIT DAO ensures a fair and inclusive decision-making process, giving voice to all community members and nurturing a vibrant and participatory ecosystem.

b. Foundation:

The METABIT Foundation is the driving force behind platform development and ecosystem growth. As a nonprofit organization, it is dedicated to supporting research, education, and community initiatives. The foundation's main focus is to foster innovation, promote adoption, and advance the technology and infrastructure of the Metabit ecosystem. It actively collaborates with developers, partners, and industry experts to create an environment that fosters creativity and realizes groundbreaking projects.

8. METABIT Decentralized Exchange

METABIT Decentralized Exchange offers a wide range of trading features and innovative solutions. As a next-generation cryptocurrency trading platform, METABIT aims to provide users with a secure, efficient, and autonomous trad

ing environment. Whether you are a beginner or an experienced trader, METAB
IT will provide you with comprehensive and comprehensive functionality, sup
porting a variety of mainstream cryptocurrency trading pairs on a single pl
atform, enabling users to engage in diversified trading and meet all your t
rading needs in the cryptocurrency market.

Business Model & Financial Projection

Historical

Revenue

Token IDO	$1Million (10 milion*0.1)
Node Management Fee	$280,000 per year (140u*2000)
Node Sale	$ 1 million (500*2000)
Seed Round	$ 2 million
Total Revenue	$4.28 million

The revenue for the described project amounts to $4.28 million. This revenu
e is generated through various sources, each contributing to the overall fu
nding of the project.
◦ The Token Initial DEX Offering (IDO) brings in $1 million. This is achiev
ed by offering 10 million tokens at a price of $0.1 per token. The IDO allo
ws individuals to purchase tokens and participate in the project's ecosyste
m.
◦ Node Management Fees contribute $280,000 per year to the revenue. This in
come is derived from 140 units charging $2,000 each for node management ser
vices. These fees provide ongoing revenue for the project, ensuring the smo
oth operation and maintenance of the nodes.
◦ Node Sales generate $1 million in revenue. With a price of $500 per node,
2,000 nodes are sold, contributing to the project's financial resources.
◦ The Seed Round brings in $2 million. This investment is crucial for the i
nitial development and launch of the project, providing necessary funding f
or research, team expansion, infrastructure, and other essential component
s.

∘ In total, these revenue streams amount to $4.28 million, demonstrating a solid financial foundation for the project. This funding can be utilized for further development, marketing, partnerships, and any other necessary expenditures to achieve the project's goals.

Projection

Revenue:

Revenue(Per Year)	Amount
Node Sales	$24.556 million 4000nodes*(5999u+140u)
Token Sales(Institution)	$ 56 million (70 million * $0.8)
BMTC Exchange Target Price	$2 USDT
Total Revenue	$80.556 million
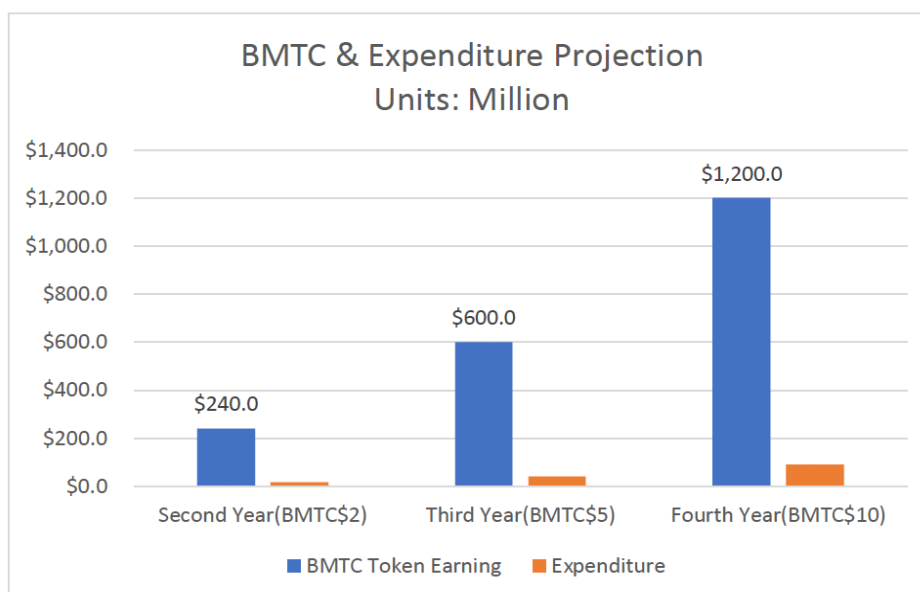
∘ The financial projection for METABIT reveals a substantial growth in revenue and a carefully managed expenditure over a four-year period.

◦ In the second year, METABIT is projected to generate an impressive revenue of $80.56 million. This represents a significant increase compared to the previous year, showcasing

Revenue of 98% and Expenditure of 2%

the growing success and adoption of the METABIT platform. At the same time, the expenditure is estimated at $3.46 million, indicating a prudent approach to managing costs while supporting the platform's growth.

◦ Moving into the third year, the revenue projection more than doubles to $161.11 million. This remarkable growth reflects the increasing popularity and usage of Metabit. The expenditure is projected to rise as well, reaching $6.92 million. This demonstrates a strategic allocation of resources to support the platform's expansion and provide enhanced services to its users.

◦ In the fourth year, the revenue projection continues to soar, reaching an impressive $322.22 million. This exponential growth indicates a strong market presence and continued success for METABIT. Despite the substantial revenue, the expenditure remains carefully managed at $10.38 million, ensuring efficient operations and sustainable growth.

◦ These financial projections demonstrate the remarkable potential of METABIT, both in terms of revenue generation and responsible expenditure management. It showcases the platform's ability

The financial projection for the METABIT BMTC token and its expenditure reveals a promising outlook over a three-year period.

◦ In the second year, the projected revenue from METABIT BMTC tokens is estimated to reach $240 million. This demonstrates a substantial increase compared to the previous year, indicating a growing demand for the tokens within the METABIT BMTC ecosystem. This revenue can be attributed to various factors such as increased token adoption, user engagement, and potential partnerships.

◦ Simultaneously, the projected expenditure for the second year is estimated at $3.46 million. This expenditure includes various operational costs, development expenses, marketing initiatives, and other necessary expenditures to sustain and grow the METABIT BMTC ecosystem.

◦ Moving into the third and fourth years, the financial projection continues to show positive growth. The revenue is projected to reach $600 million in the third year and further increase to $1200 million in the fourth year. Similarly, the expenditure is expected to rise, reaching $6.92 million in the third year and $10.38 million in the fourth year.

◦ These projections highlight the anticipated growth and financial stability of the METABIT BMTC token ecosystem, providing a solid foundation for its long-term success and sustainability.

Governance

MetaDAO

MetaDAO is a decentralized autonomous organization (DAO) that governs the Metabit ecosystem through the use of the MDAO governance token. With a growing community of members, numerous proposals have been submitted to MetaDAO, reaching a total of 500 proposals. These proposals cover a wide range of topics and initiatives aimed at advancing the development and governance of the METABIT ecosystem.

- MDAO: 15% of tokens allocated to the MDAO (Metabit Decentralized Autonomous Organization) category. These tokens are dedicated to supporting and governing the Metabit ecosystem through community-driven initiatives.
- Community Treasury: 5% of tokens allocated to the community treasury. These tokens are held for community initiatives, partnerships, and future development funding.
- Airdrop: 15% of tokens allocated for airdrops. These tokens will be distributed to early adopters, community members, and other participants to promote widespread adoption and engagement.
- Development Team: 15% of tokens are allocated to the development team. These tokens are reserved for rewarding the team's efforts and incentivizing ongoing development and improvement of the Metabit platform.
- Liquidity Pool: 15% of tokens are allocated to the liquidity pool. These tokens will be used to provide liquidity and facilitate trading on exchanges, ensuring a healthy market for the Metabit token.
- Staking Reward: 50% of tokens allocated as staking rewards. These tokens will be distributed to miners who actively contribute to the network's security and consensus by validating transactions and maintaining the blockchain.

TOKEN ECONOMICS	1 billion tokens
MDAO	category
15%	community treasury
5%	air drop
15%	development team
15%	liquidty pool
50%	mining reward

Token Economics 1 billion Tokens
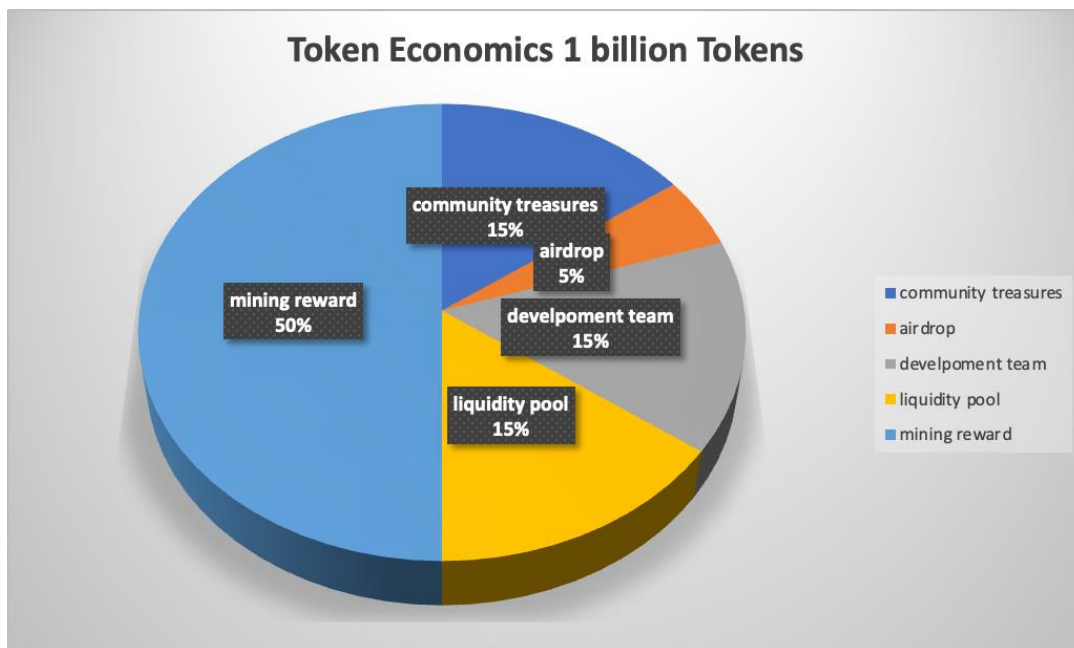
Voting Cost:100MDAO Tokens = 1 vote

Voting period: 7 days

Execution period:3 days

Approving criteria: more than 50% approval

Developer's Grants Program

METABIT Developer's Grants Program is an initiative aimed at supporting developers within the METABIT ecosystem. This program provides funding and res

ources to developers who are working on projects that contribute to the growth, innovation, and overall development of the METABIT platform.

Through the grants program, developers can submit proposals for funding their projects, which can range from core protocol development, decentralized applications (DApps), smart contracts, tooling, infrastructure, and more. The grants are designed to empower developers and incentivize them to build and enhance the METABIT ecosystem.

The program follows a transparent and community-driven process, where proposals are reviewed and evaluated by a panel of experts or through a decentralized voting mechanism. The criteria for evaluation typically include the project's potential impact, feasibility, innovation, technical quality, and alignment with the METABIT ecosystem's goals.
Successful applicants receive financial support, mentorship, technical guidance, and access to resources such as developer tools and documentation. The grants program not only helps developers in realizing their ideas but also fosters a collaborative and supportive community that encourages knowledge sharing and continuous improvement.

By investing in the development of the ecosystem through the grants program, METABIT aims to attract talented developers, stimulate innovation, and ensure the long-term success and growth of the platform.

Community

Education

METABIT Community Education is an initiative focused on providing educational resources, programs, and opportunities to the members of the METABIT community. The goal is to empower individuals with the knowledge and skills needed to actively participate in and contribute to the Metabit ecosystem.
The education program offers a variety of resources, including tutorials, guides, documentation, and workshops, to help community members understand the core concepts, features, and functionalities of the METABIT platform. It covers topics such as blockchain technology, decentralized finance (DeFi), smart contracts, tokenomics, and more.

Through webinars, online courses, and offline events, community members can deepen their understanding of METABIT and explore its potential applications. Experienced speakers and industry experts share their insights and best practices, enabling participants to gain practical knowledge and stay up to date with the latest developments in the field.

Additionally, the education program encourages collaboration and knowledge sharing within the community. It fosters a supportive environment where members can engage in discussions, ask questions, and learn from each other's experiences. This collaborative approach promotes a strong and informed community that can collectively contribute to the growth and adoption of METABIT.

By investing in community education, METABIT aims to nurture a knowledgeable and empowered community that can actively participate in the ecosystem, drive innovation, and unlock the full potential of the Metabit platform.

Developers

Development Roadmap

2022•Q1 METABIT project and development team were officially established: In the first quarter of 2022, the METABIT project was initiated, and a dedicated development team was formed. The team is composed of skilled professionals with expertise in various domains related to blockchain technology.

2022•Q2 Technology research and development started: During the second quarter of 2022, the METABIT team commenced intensive research and development activities.

2022•Q3 Economic model confirmation and token IDO: In the third quarter of 2022, METABIT focused on finalizing its economic model. Through careful analysis and evaluation, the team confirmed the tokenomics of the platform.

2022•Q4 METABIT consensus and node network infrastructure development: During the fourth quarter of 2022, METABIT concentrated on the development of its consensus mechanism（MPOAS）, which is a critical component for achieving network consensus and validation. Additionally, the team worked on building a robust node network infrastructure to ensure the stability and security of the METABIT blockchain.

2023•Q1 METABIT mainnet release: In the first quarter of 2023, METABIT reached a significant milestone with the release of its mainnet. This marked the official launch of the METABIT blockchain network, enabling users to participate in transactions and interact with the platform's features.

2023•Q2 Metabit IcO Listing. Additionally, the foundation responsible for overseeing the long-term development and governance of the project was established.

2023•Q3 METABIT Developer Community and Wallet Eco 2.0 Build: In the third quarter of 2023, METABIT will place emphasis on fostering a vibrant developer community. The team will organize developer outreach programs, hackathons, and educational initiatives to attract and support talented developers to build applications on the METABIT platform. Furthermore, METABIT will work on enhancing its wallet ecosystem, introducing Wallet Eco 2.0 with improved features and user experience.

2023•Q4 Decentralized exchanges and NFT exchanges: During the fourth quarter of 2023, METABIT will focus on the development and launch of decentralized exchanges within its ecosystem. These exchanges will provide users with a secure and transparent platform for trading cryptocurrencies and digital assets. Additionally, METABIT will delve into the NFT space, facilitating the exchange and trading of unique digital assets on its platform.

2024•Q1 Ecosystem 2.0 Development: In the first quarter of 2024, METABIT will embark on the development of Ecosystem 2.0, aiming to enhance and expand its ecosystem's functionalities. This will involve the introductio

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n of new features, integration with external services, and the explorati
on of partnerships to enrich the METABIT ecosystem and create additional
value for its users.
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Team

Adam L

METABIT Founder

METABIT founder and Core Contributor

Adam have been involved in the operation of multiple well-known Web3 public chain projects, including early contributors and node holders for ETH, EOS, Polkadot, and XRP.

Adam also has participated in and operated multiple Web3 projects, receiving investments from Binance Lab, Animoca Brands, OKX Ventures, Kucoin Ventures, and others. Adam have extensive experience in Web3 public chain operations.

Jason Z

METABIT CTO

Jason Graduate from Tsinghua University and Beijing University of Aeronautics and Astronautics abbreviated.

Former R&D engineer in big data and distributed computing at Google, blockchain algorithm architect; former data architect and cloud deployment consultant at Accenture; former technical director of database underlying development at NCR.

Specializes in blockchain technology architecture design and development, proficient in encryption algorithms, familiar with stablecoin algorithms, proficient in consensus protocols and rule algorithms of various blockchains, proficient in programming languages such as Go, Rust, Java, etc.

Michael L

METABIT Technical experts

METABIT co-founder, product manager, product researcher, and token economics developer.

Micahel previously worked as a seed project research manager at Binance Labs, a product manager at Bybit, a product manager for Lay1 ecosystem projects, and a senior researcher for cutting-edge DeFi projects. He has participated in the development and management of multiple well-known Web3 leading projects.

Michael has extensive experience in Web3 projects and has successfully led over 10 Web3 projects to launch.

Mahmoud Elsamad Metabit Technical Experts

Mahmoud holds a Ph.D. from the Institute of Computer Science Research (IRIT) in Toulouse, France. With 15 years of teaching experience in programming, algorithms, and technology, and 10 years of experience in the Department of Computer Science, he is proficient in database systems, network programming, data structures and algorithms, software engineering, operating systems, algorithm design and analysis, advanced databases, and information system development. He is an expert in computer fundamentals, algorithms and programming, database systems, and advanced database systems.

Fadi Yamout

Chef Scientist

Ph.D. in Computer Science from the University of Sunderland in the United Kingdom and Dean of the College of Computer Science and IT at the Lebanese International University. His main research focuses on information technology, databases, data structures, algorithm retrieval, robot learning, and data mining. He is the head of the ABET accreditation committee for the Department of Computer Science and a principal researcher at the Canadian Digital Currency Research Institute. He also serves as the head of the Computer Science Committee at the Lebanese International University and is

a platform expert at the RAISD-European Innovation and Entrepreneurship Center (IEC).

Tian H

Technical experts

A Expert in smart contract development, DEX decentralized front-end development, wallet back-end development, and public chain development. AWS Cloud, Azure Cloud DevOps experience (6 years), database (10+ years).

Worked as a smart contract engineer in a well-known centralized exchange, developed NFT transaction-related contracts, and supported multi-currency deposits and withdrawals at the front end of the exchange. Also worked as a technical manager in a large software company and was responsible for developing DEX exchange software for decentralized exchanges.

Xue S

Technical experts

Peking University Undergraduate

Technology stack: front end: Vue+Element+web3+Css; mobile end: Android+Vant back end java+Spring+mysql+redis; familiar with blockchain front-end ecological development, nft, dex, and block browser

Work experience: 2008~2017, AsiaInfo; 2017-2019

present working WEB3 full-stack developer

Alex Z

Technical experts

Institute of Software, Chinese Academy of Sciences

Technology stack: Golang for public chain development, Solidity for smart contract development, Nodejs

Work experience: Worked in a mobile game company for three years, responsible for user behavior analysis, and responsible for developing a data platform serving tens of millions of users from scratch; in 2018, Alex started an innovative exchange in South Korea with a maximum daily trading volume of 200 million US dollars; Alex developed DeFi products and protocols such as Swap, lending, and NFT trading platforms.

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This paper is for general information purposes only. It does notconstitute investment advice or a re commendation or solicitation tobuy or sell any investment and should not be used in the evaluationof the merits of making any investment decision. It should not berelied upon for accounting, legal or t ax advice or investment recommendations. This paper reflects current opinions of the authorsand is n ot made on behalf of Uniswap Labs, Paradigm, or theiraffiliates and does not necessarily reflect the opinions of UniswapLabs, Paradigm, their affiliates or individuals associated with themThe opinions reflected herein are subject to change without beingupdated.