Mesh

Unleash the full potential of VITE

Introduction

Mesh (MESH-000) is a token on the Vite blockchain. It was conceptualised and created in December 2021 by four Vite enthusiasts - 5am, Kript, Not Thomiz, and Shuttlecock - each of whom are veteran members or leaders of other projects within the Vite ecosystem.

Mesh is designed to solve what the creators regard as two key issues concerning how users' earn daily passive income through Vite network's Snapshot Block Producer ("SBP") system.

Vite Network

Launched in 2019, Vite is a next-generation - high throughput, low latency and scalable - network, designed to bridge every blockchain in a decentralised way. Vite uses a 'Directed Acyclic Graph' (DAG) ledger structure, and is the first public blockchain to implement smart contracts on its basis. One distinctive feature of Vite is its utilisation of asynchronous sending and receiving of transactions. This asynchronous capability is one of the key innovations of Vite, and is instantiated in three distinct areas - smart contracts, transaction writing and confirmation, and message-based calls between contracts. In practical terms, this means that transactions on the Vite blockchain are communicated and completed almost instantaneously. Moreover, there is no mining of the traditional sort on the Vite blockchain, and the network is therefore more energy efficient and ecologically friendly.

Vite also offers a built-in and truly decentralised exchange, ViteX, which is the world's first DAG based decentralised exchange. ViteX does not rely on intermediaries to facilitate trading. Instead, they rely on smart contracts to facilitate trading. First, DEXs generally do not require Know Your Customer (KYC) verifications, and thus allow traders to remain anonymous while trading. Second, DEXs permit traders to retain custody over their own cryptocurrency -- the cryptocurrencies that are traded are never held by the exchange. This coheres well with the general maxim of the cryptocurrency space -- "Not Your Keys, Not Your Crypto".

A central feature of the Vite blockchain is its "snapshot chain" system, whose main function is to maintain the consensus of Vite ledgers. A snapshot chain is a chain structure comprising snapshot blocks; and snapshot blocks are storage for a state snapshot of a Vite ledger. The setup of the snapshot chain system allows Vite to eliminate critical vulnerabilities associated with DAG
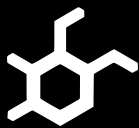
structures.[1] Within this system, Snapshot Block Producers ("SBP"s) are tasked with the responsibility of producing snapshot blocks, thus securing network consensus.

SBPs are rewarded for their contributions to network consensus. The production of each snapshot block is rewarded with 0.951293759512937595 Vite. In ideal conditions, 75 snapshot blocks are produced every 75 seconds (in a "round"). A total of 1152 rounds make up a full cycle, lasting approximately a day. 50% of these rewards are given to SBPs, corresponding to the number of blocks that they have produced ("Block Creation Rewards"). 50% of the rewards will be given to the top 100 SBPs by vote ("Candidate Additional Rewards").[2]

Passive Income

It is on the issue of voting and Candidate Additional Rewards that Mesh enters the picture. Users who hold Vite can vote for SBPs in order to participate in maintaining the consensus. While SBPs that are within the top 100 are permitted to produce snapshot blocks and receive mining rewards, the top 25 SBPs have a significantly greater probability of producing blocks. Accordingly, the SBP rewards for the top 25 SBPs are significantly greater than those which are not within the top 25.

Currently, most SBPs distribute a portion of their SBP daily rewards to their voters. These rewards are split among voters in accordance with their voting weight (which corresponds to the percentage of Vite they hold, relative to the entire pool of voters). While this amount varies, typically between 30-50% of an SBP's daily rewards are distributed to voters. Moreover, SBPs do not always publish reports on the exact portion of their daily rewards that they distribute.

This situation presents us with two issues:

(1) Users need to hold Vite and vote for a particular SBP, in order to receive daily rewards. There is no other way of earning daily rewards except by holding Vite.
(2) Users' daily passive income (in the form of distributed SBP rewards) is often constrained, depending on the proportion of the daily rewards that SBPs choose to keep for themselves.

Maximising potential

There are two key ideas of Mesh, each of which was conceptualised and specifically designed to solve the two issues above.

[1] Liu, Chunming et al. 2018. Vite: A High Performance Asynchronous Decentralized Application Platform. Available at: https://github.com/vitelabs/whitepaper/blob/master/vite_en.pdf. Retrieved 1 Dec 2021.
[2] Snapshot Block Producer. Vite Docs. Available at: https://docs.vite.org/go-vite/reference/sbp.html. Retrieved 1 Dec 2021.
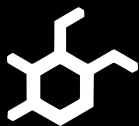
(1) Mesh is a token on the Vite network. Users who hold Mesh will be entitled to SBP daily rewards (via MeshSBP) for staking Mesh, in addition to the SBP daily rewards that they receive for voting for another SBP with their Vite. The distribution of these rewards will be governed by a novel smart contract that tracks the amount of Mesh tokens that users stake,[3] rather than the amount of Vite they hold. Thus, users are no longer restricted to a single source of passive income, by holding Vite. That is, **Mesh allows users on the Vite network to double their source of passive income.**

(2) Unlike other SBPs, **MeshSBP will distribute 100% of its SBP daily rewards to its stakeholders**. Again, this significantly increases (in some cases, it more than doubles) users' daily passive income.

In effect, **Mesh allows its stakeholders to potentially increase their passive income by several times, compared to simply holding Vite and voting for typical SBPs**. It does this by creating a different pathway to partake in an SBP's daily rewards.

Moreover, and unlike many other SBPs, MeshSBP declares the proportion of its daily rewards (i.e. 100%) that are distributed to its stakeholders. There will be no more need for users to engage in guesswork about the amount of passive income they receive, or the differential Annual Percentage Return (APR) across different SBP. With Mesh and MeshSBP, the information is always clearly and transparently presented.

Examples

Consider the two following case examples, which show how Mesh allows its users to unleash the full potential of Vite. The focus of both examples is a top 25 SBP that produces 3000 snapshot blocks a day. This corresponds to an SBP daily reward of 3000 Vite.

Example A: The SBP in concern distributes 50% of its rewards (i.e. 1500 Vite) among its voters. The amount of passive income that a voter receives, corresponds only to the proportion of Vite that they hold, relative to the entire pool of voters.

Example B: The SBP in concern is MeshSBP, which distributes 100% of its rewards (i.e. 3000 Vite) among its stakeholders. The a+mount of passive income that a stakeholder receives, corresponds to the proportion of Mesh tokens that they stake, relative to the entire pool of Mesh stakeholders. **Because the distribution is based on Mesh tokens (instead of Vite), users are free to vote for another SBP. This means that they will receive SBP rewards from MeshSBP and another SBP of their choice.**

[3] Users who choose not to stake their Mesh tokens can trade for them on ViteX, through the MESH/VITE trading pair.
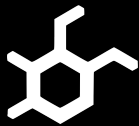
Tokenomics & Distribution 4

Mesh was minted with a maximum supply of 1 quadrillion (1,000,000,000,000,000) tokens. No more than this amount will ever exist.

The distribution of Mesh tokens will be as follows:
- 80% of supply will be offered during the presale.
- 10% of the supply will be distributed among the team members. The entire team supply will be locked and slowly released over 365 days. Locked Mesh tokens cannot be staked for rewards, taking them out of the pool.
- 10% of the supply will be kept staked for Vite. These Vite tokens will be used for our Buyback & Burn Programme (explained below).

OVERALL DISTRIBUTION OF MESH TOKENS

Team
10%

Staking
10%
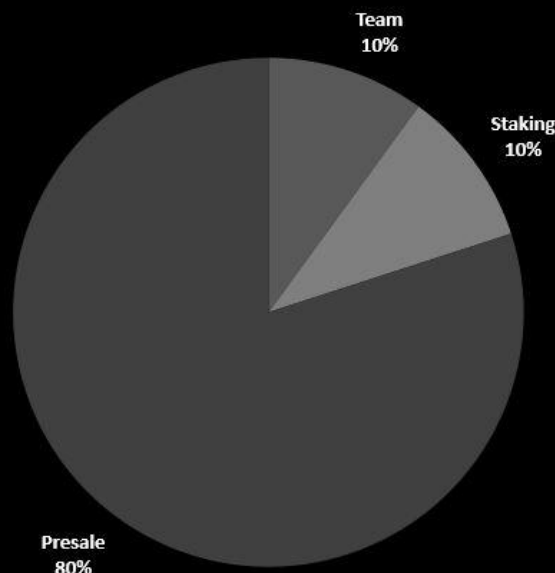
Presale
80%

During the presale - which is governed by a smart contract - each Mesh token will be sold at the price of 0.00000001 Vite. This corresponds to the price floor on ViteX - it is the lowest possible price that a token can have, when it is listed on ViteX. **This means that the value of Mesh tokens will never go below its presale price.**

A successfully completed presale will generate 8,000,000 Vite for MeshSBP. Here is how these funds will be used:

- 10,000 Vite will be used to list Mesh on ViteX, guaranteeing its value for investors;
- 1,000,000 Vite will be staked in order for Mesh to be registered as a Snapshot Block Producer;
- 6,990,000 Vite will be used to vote for MeshSBP, guaranteeing its place as a top 25 SBP on the Vite network.

UTILISATION OF FUNDS

SBP registration
12.5%

ViteX listing
0.1%
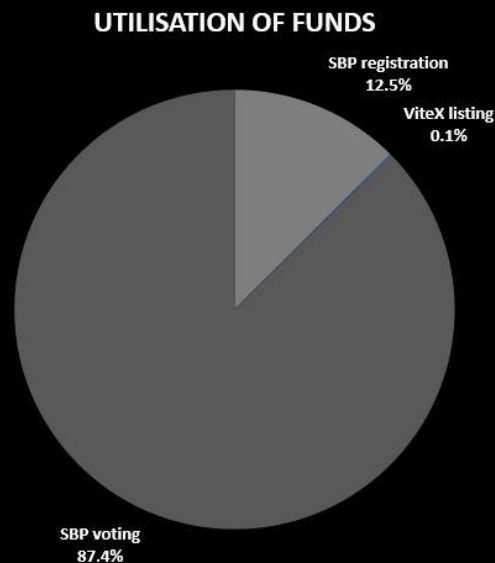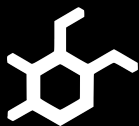
SBP voting
87.4%

The use of the funds for SBP voting is governed strictly by, and locked within, a smart contract. This smart contract kicks in only when the presale is successfully completed. When it starts, even the team members have no way of retrieving the locked funds.

If the presale is unsuccessful (i.e. if the tokens are not completely sold out within the presale period), all of our investors' funds will be automatically and directly returned to them by the smart contract.

In effect, this setup guarantees that there will be no misuse of funds. The smart contract code will also be made public and open source (non-commercial licence), in order to facilitate public audit and review.

Buyback & Burn Programme

Upon the completion of the presale, 10% of the total supply will be staked for Vite tokens.

The Vite earned from staking rewards will be used to buy back Mesh tokens on the ViteX exchange, at the presale price of 0.00000001 Vite. The Mesh tokens that are bought via this Buyback Programme will be burnt.

The Buyback & Burn Programme achieves two goals:
- The buyback component provides liquidity on ViteX for people who want to exit the MeshSBP network completely.
- The burn component gradually increases the value of each Mesh token over time. Each remaining Mesh token will become more valuable.

The Buyback & Burn Programme will be executed <u>automatically</u>. The address of the wallet executing the transactions will be made publicly available.
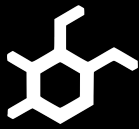
Technology

The smart contract deployed in Mesh is powered by Vite, and leverages on the latter's asynchronous capabilities to deliver fast and feeless functions and transactions. The Mesh contract will also be trustless (no one has power over the contract upon its instantiation) and decentralised (anyone can invoke the contract's basic functions). The contract will also automatically communicate with other built-in contracts on the Vite network, such as the consensus, listing, and token issuance contracts. This deployment enables the Mesh contract to work without manual intervention (and without risk of human error). In practice, the presale, SBP rewards, and distribution will always be done automatically and on-time. The Mesh smart contract code will be reviewed by multiple developers, to pre-empt and prevent hacks and losses of funds.

Roadmap

- 17 January 2022: Announcement of Mesh & SBP; launch of website and social media platforms

- 27-29 January 2022: Presale to investors (execution via smart contract)

- 30 January 2022: Conclusion of presale; registration of SBP and ViteX listing (if successful), or complete refund to investors (if unsuccessful)

- 31 January 2022: First SBP rewards distributed to Mesh stakeholders
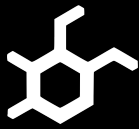
Team members

The Mesh team comprises veteran members or leaders of other projects within the Vite ecosystem and beyond.

5am: Co-founder of ExperimentDAO and team member of Vitamin Coin. Likes DAGs and dogs. Website: bio.link/5am.

Kript: Team lead of Vitamin Coin, co-founder of ExperimentDAO, and contributor to Viva on Vite. Member of Vuilder DAO. Team member of upcoming marketplace, Banano Bay. Likes beer and BBQ. Website: bio.link/kript.

Not Thomiz: Lead developer at Vitamin Coin and ExperimentDAO. Creator of Vite tipbot on Discord (VitaBot) and Twitter (vitctipbot) and BanSwap, among others. 2nd and 3rd prize winner (open category) of the Buidl on Vite hackathon. Member of Vuilder DAO. Likes code and cats. Website: bio.link/thomiz.

Shuttlecock: Co-founder of ExperimentDAO, and team member of Vita Inu and Vitamin Coin. Member of Vuilder DAO. Likes popcorn and puzzles. Website: bio.link/shuttlecock.
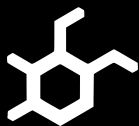
Summary

- Mesh is a token on the Vite network.

- Presale funding for Mesh will be used to create a top 25 SBP.

- 100% of SBP rewards will be distributed to investors, depending on the amount of Mesh tokens that they hold.

- Mesh holders will be able to vote for another SBP, significantly increasing their passive income.

- Mesh will be listed on ViteX at the trading floor price, guaranteeing that the value of Mesh does not fall below the presale price.