What is mevETH

mevETH is the token of MEV Optimized Liquid Staking Protocol. An Ethereum next-generation seamless liquid staking protocol. Built from the ground up for MEV capture and Validator rewards.

The main goal is to optimize the validator technology used to maximize a return to mevETH holder through various means:

- OpenMEV Architecture - Maximizes the yield validators get by capturing multiple winning block proposals. The goal is to surpass mev-boost.
- DeFi Integrations - The team has a long and deep understanding of DeFi and is able to call upon their network of DeFi partners for integrations.
- A ERC-4626 non-rebasing Vault Token - This make integrations with most smart contracts more frictionless

Staking Ethereum

Since the move from Proof of Work (POW) to Proof of Stake (POS) validation requires upfront Ether (ETH) to be staked in order for validators to run nodes on the network. Currently there is a requirement of 32 ETH, regardless of USD value. This can sometimes be prohibitive for investors and even validators to take part. Therefore Liquid Staking Tokens(LST) were created to socialize this requirement to many.

Validator rewards

As long as a validator is running actively on the network, it is granted a bit of ETH from inflation. These rewards generally come from:

Attesting blocks Proposing blocks Participating in synchronization committees Execution Layer

Execution Layer Rewards (ELRs) were added withThe Merge(opens in a new tab) . This upgrade allows users to set a priority fee when sending a transaction. The extra gas fee encourages builders to add their transaction to a block, and this fee increases the amount a validator can earn. This number is not predictable as it depends on both network traffic and user choice.

Additionally, with some setups the use of a custom relayer such as MEV-Boost can select higher paying blocks. More on MEV-Boost below.

Slashing

Slashing can occur when a validator is offline for a period of time, or they attempt to propose a malicious block. A validator must withdraw their stake, minus the penalties, as soon as possible to avoid further penalties. This loss comes out of the ETH staked.

Liquid Staking Tokens

LSTs give users an easy way to participate in making the Ethereum network more robust and they earn rewards for doing so. Currently there are 2 major designs for LSTs: rebasing and value accruing. Both types gain their rewards by “lending” their ETH to others that wish to run a validator, but don't have the required 32 ETH to stake. In return for “borrowing” this ETH, validators share their rewards with holders of LSTs.

In rebasing models, LST token holders have their balance changed periodically as their rewards accrue. Most of these models require wrapping to be useful in DeFi.

In value accruing models, LST token holders also retrain the same quantity of tokens, but the underlying value of these tokens increased in reference to the ETH they can be redeemed for.

mevETH has chosen the second, value accruing tokens (VAT), for its compatibility with DeFi protocols.

mevETH’s Difference

The first difference to some LSTs is the choice to use VATs, but there are a significant number of LSTs already using this model. To set mevETH aside from the pack, a focus on MEV (Miner Extractable Value) is employed. It is the hope of mevETH to attract the best validators by offering them a better deal than they can get from other options.

This is achieved by the use of a custom made relayer that is built on top of MEV-Boost.

What is MEV-Boost?

MEV-Boost is an implementation of proposer-builder separation built by Flashbots. But what does this mean? In simple

words, it's a marketplace for blockspace. Validators using MEV-Boost, sell their blocks to the highest bidder, via the tips mentioned above. This allows Validators to get a higher ROI when compared to the basic validation inflation rewards.

As a user of Ethereum, you don't see this much, except when your are trying to speed up your transactions.

As an LST holder, you might want to consider if your provider is using MEV-Boost or something similar to earn these extra rewards.

What does mevETH do?

mevETH has built a custom relayer whereby validators only need to point at the mevRelayer to gain the benefits of MEV-Boost auctions. This is a simplification for those actually wishing to run a validator, but it serves as a primer for users wishing to understand mevETH. mevETH's custom relayer searches the auctioning of blocks for the best paying blocks. It is hyper focused on sourcing and selecting blocks that will translate to higher rewards to validators, which will be shared with all mevETH holders. Redeeming and Minting

Minting and redeeming are the ways to enter and exit a position in mevETH. A user might decide to do this for a variety of reasons, all their own. We encourage you to research all the risks with LSTs and Staking in general before you decide to take part in any LST.

Minting mevETH

Due to the value accruing design, minting and redeeming was only 1 to 1 with ETH at genesis. As time progresses, the mint and redeeming rate will change in the following manner.

Minting - Using 1 ETH to mint mevETH will result in some number less than 1. Redeeming - Using 1 mevETH to redeem will result in some number of ETH greater than 1.

Minting mevETH is an instant transaction for any user and only requires the time it takes for their transaction to confirm on the Ethereum blockchain. Usually about 15 seconds

Redeeming mevETH

Redeeming takes significantly longer. This is because in order to redeem larger amounts, validators that have used the ETH, may need to be closed down, and ETH withdrawn from the staking contract to return to users. That being said, for smaller amounts it is possible to exit the position by swapping out of it.

On the website, you will see an Instant Withdraw button. This button will search the liquidity pool for you for the best rate and swap your mevETH for ETH. This can have both price impact and slippage as the size of the request increases.

If a user is not in a significant hurry, they may elect to use the "Use mevETH" feature on the website. This will burn the mevETH from their wallet and give them any ETH currently in the contracts waiting for "borrowing by validator setups." If this amount is not enough, the contracts will queue up a withdrawal from a validator. This may take up to 15 days to complete, and a user will receive the remaining owed ETH as WETH (wrapped ETH).

Fees

There are no fees on mint or redeeming. For "Use mevETH" there is only the gas required to send transactions. There are fees for swapping mevETH to ETH via the "Instant Withdraw" method and are subject to the Decentralized Exchanges (DEx) that the swap goes through. Generally, it will be about 0.3 - 0.4%

The MEV protocol applies a 10% fee on staking rewards. The fee goes to the protocol for system upkeep.

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