Meta Pool - liquid staking platform - Development - Grant Application

Introduction

Vision.

- Enable Proof of Stake (PoS) protocols to become decentralized and capital efficient
- Increase PoS blockchain adoption for ecosystems in developing countries, through an interest bearing asset such as a liquid staking token - mpETH
- Help projects launch on SSV Network through a crowdfunding platform supported by liquid staking assets.

Track record.

- Meta Pool. Currently the leading liquid staking solution on NEAR Protocol and Aurora Network (EVM) - with 8.4 million NEAR being distributed to 67 validator nodes on the NEAR Protocol network.
- The only liquid staking solution on Aurora EVM, that allows wrapped NEAR to be staked through Metamask or any EVM compatible wallet.
- Meta Yield. The only crowdfunding platform that leverages a liquid staking token to support projects through the staking rewards. Currently crowdfunded $1.2 million USD in staked NEAR tokens (stNEAR).
- Meta Vote. Vote-escrow. The liquid staking smart contract runs on a DAO and this allows for the community to contribute to the functionality of delegating staked tokens. It is used to vote for projects coming to Meta Yield.
- The NEAR Foundation delegated 1.5 million NEAR tokens to Meta Pool in early 2022 - link.
- We are the only liquid staking solution on NEAR and Aurora that supports custodial services - Fireblocks and FINOA.
- We are supported by Dragonfly, IOSG Ventures, Warburg Serres, Blockwall, Palmera Crypto, DARMA Capital, D1 Ventures, A&T Capital and angels.

Team.

- Claudio Cossio: Product/Growth. Claudio is the leader of NEAR Hispano, the community for all Latin America at NEAR Protocol and co-founder of Meta Pool. Brings more than 20 years experience building SaaS solutions on Atlassian, Slack, Freshworks and eCommerce apps.
- Lucio Tato: Tech/Architecture. Lucio is the creator of Narwallets chrome-extension wallet for the NEAR protocol and co-founder of Meta Pool. He is also the main architect for Marinade Finance, which is also the first liquid staking solution on Solana. 30+ years developing software and the last 3 years building Rust DApps on NEAR Protocol and Solana.
- Guillaume Balas: Chief Marketing Officer, with 20+ years experience creating marketing and growth campaigns for B2B software solutions. Sold his last company 3Scale to Red Hat.
- Clara Tora. Operations Lead. In charge of community and marketing initiatives in Meta Pool. 10+ years experience in Startups and high growth technology companies.
- Leandro Henflen. Head of Design, 20+ years experience on design and UX for software applications.

- Leandro Manzanal. Full stack developer, React, Node and Rust. 8 years experience developing software applications and 1 year building blockchain applications.
- Jose Maria Soza. Back end developer, Python, Solidity and Rust. 6 years experience developing software, 2 years as a data scientist and 1 year building blockchain applications.

The Product

What are you developing?
Meta Pool, which is liquid staking on Ethereum using the SSV Network, to mint mpETH (name still pending). This interest bearing asset can allow users in developing countries access to DeFi through its permissionless design.

What is your USP?
Our liquid staking smart contract is not a rebasing staked token and it does not rely on oracle services to calculate it´s price. This considerably reduces the possibility of a depegging of the price of the liquid asset. Our contract includes an internal ad-hoc AMM allowing users to unstake and get ETH immediately with a fee, and allowing LPs to provide ETH liquidity (single token LP) for mpETH->ETH unstakes with no impermanent loss.

What is your GTM strategy?
We have been operating for 15 months on NEAR Protocol and for 7 months on the Aurora Network which is EVM compatible. We understand what it takes for a liquid stake token to become accessible for retail and institutional users.

Retail.
Lending and borrowing is where our staked assets shine, so we will be working towards doing partnerships on the Ethereum ecosystem around borrowing and lending platforms such as AAVE and Compound.

On EVM compatible chains such as Aurora, we already have good partnerships with Bastion Protocol and Aurigami Finance.

Institutional.
We will bring our custodial services providers to the SSV Network ecosystem - Fireblocks and FINOA. So we can offer them a liquid staking solution to institutional investors interested in SSV.

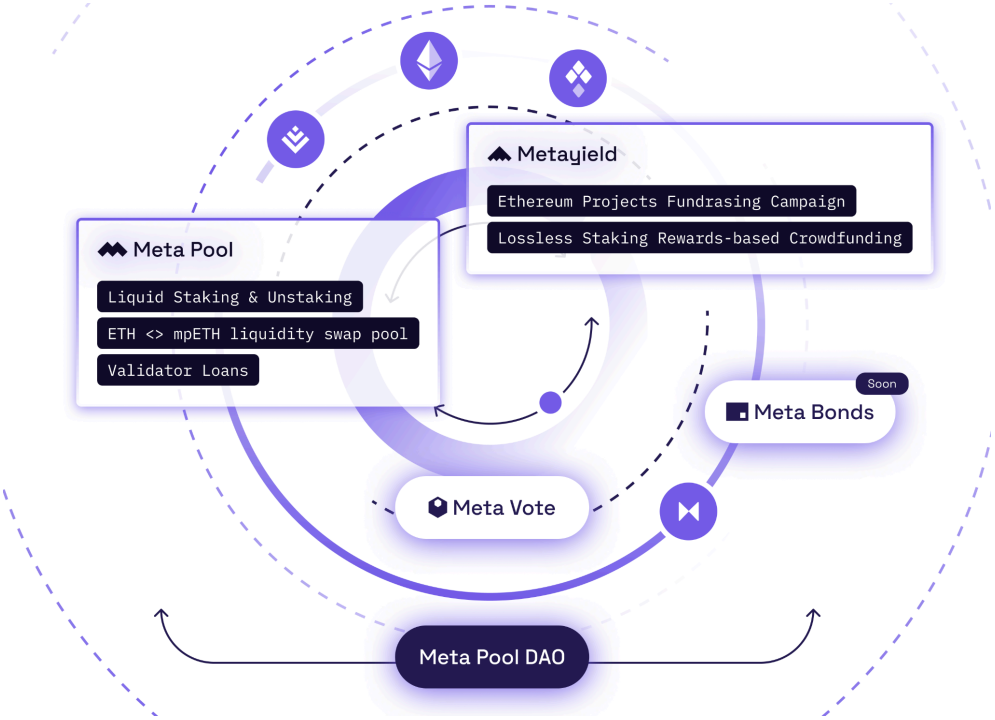
Launch products that leverage staked assets.
We will be bringing our products that leverage liquid staking assets, not only use mpETH (our own staking asset) but also stETH, rETH and others. These are Meta Yield and Meta Vote, plus Meta Bond, a secondary bond market.
Note: Launching Meta Yield and Meta Vote is not part of this grant.

How do you stack up against competitors?
We are bringing product building experience to liquid staking, not only building a platform to delegate ETH. We build solutions that leverage a yield bearing asset, and having a novel architecture, where the liquid/staking contract also includes an ad-hoc AMM, providing an unstake service in the same contract making liquidity more efficient and allowing the participation of LP users in the contract.

Why SSV

When we launched Meta Pool on NEAR Protocol and Aurora, our design was centered around the main delegation of stake smart contracts to be running under a DAO. We believe that SSV has the necessary technology that will enable us to focus on the governance of the staking and leverage the technology built by SSV for how it allocates the delegation and interacts with different nodes on the ETH PoS network.

We believe that this partnership will enable us to deliver on the same promise that kick started Meta Pool on NEAR and Aurora, bringing together a platform that will be able to be run by the Ethereum and SSV community.



Selecting Operators

Meta Pool - operator nodes.
Initially we will be operators in the SSV network, so we will be choosing one of our own nodes along with other 3 operators, selected based on their past performance.
We will be also implementing a bot to monitor the SSV balance of the operator nodes for Meta Pool

Attracting more partners
We have key partnerships in Latin America with AWS plus Sensei Node and Tencent Cloud. Through our community in other layer one protocols, we have access to node operators that we can also onboard into SSV as strategic partners like Stakely, Verse2 and Stardust.

Proposal Details

Liquidity for mpETH

Bootstrapping:
Meta Pool will be providing 100 ETH to help bootstrap the project liquidity. We will be providing the initial ETH to be staked for the first three months and support from our investors after product market fit is accomplished through our community launch.

Also we will be launching an early ambassador program to reward community members with extra $META tokens to users that stake during and after our community launch.

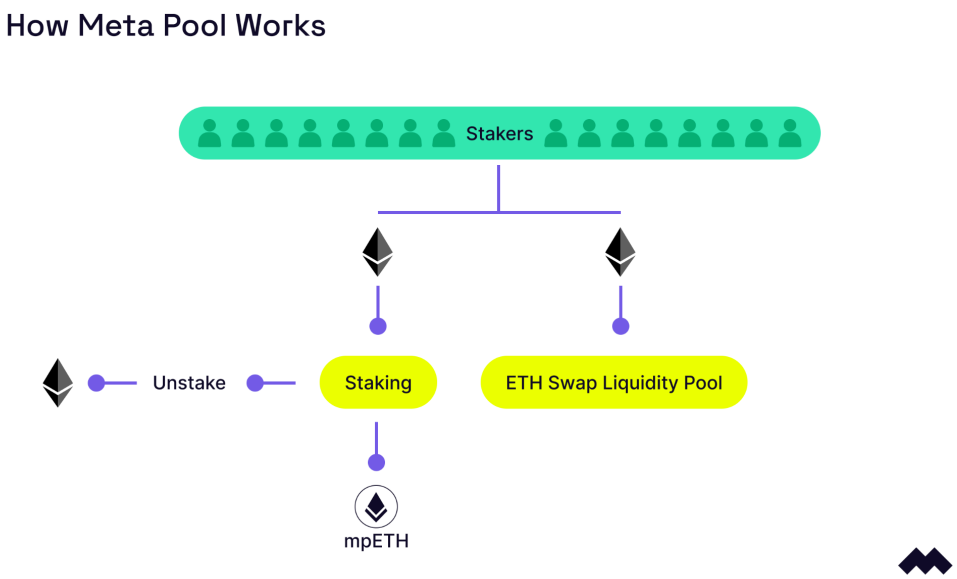
Community launch.
We will be distributing our $META Governance token through the liquid staking smart contract as rewards for the early community backers of the project, called Meta Staking Rewards.

These will be $META tokens that are locked for 6 months and that will be able to be transferred in a secondary market to be built in 2023.

It will be 3 weeks for the community launch that will allow stakers to earn the Meta Staking Rewards at a premium rate, after this period it will be reduced significantly, each $META will be priced at market price.

Technical Overview

This is a high-level overview of how your product or service works and provide an overview of its main components (e.g. smart contracts, dapp, off-chain services, etc..).



Liquid staking smart contract

We will provide a platform so users can stake their ETH and generate a liquid asset called mpETH. A user can deposit their ETH in the smart contract and they get mpETH immediately. The solution is non-custodial and permissionless.

Internal ad-hoc AMM pool

The contract also includes an internal AMM pool allowing users the first option to “liquid-unstake”, meaning swap mpETH->ETH at “true price” plus fee (“Total_ETH_Staked”/“Total_mpETH_Minted”).
This novel architecture allows the contract to provide a first-option liquidity pool with no reliance on external AMMs or Oracles. Nevertheless, we will promote liquidity in the ecosystem AMMs.
By having an internal ad-hoc AMM, users can also provide ETH as liquidity for this internal mpETH<>ETH AMM Pool. The pool is pre-seeded by Meta Pool with mpETH (Protocol-owned liquidity) and by using the pool in combination with user deposits, the contract can assure constant APY gains for mpETH and an efficient use of ETH for creating validators.

How it works

- The user deposits ETH and receives mpETH.
- The mpETH will normally come from the internal, pre-seeded pool, so it is mpETH associated with an active validator, so it is generating yield from the get go.
- By getting mpETH from the internal pool in exchange for the user ETH, the liquidity available for immediate unstake is increased
- If there’s no mpETH in the internal pool, mpETH is minted for the user and the ETH is deposited in the reserve for validator creation. Every time the reserve reaches 32 ETH a new validator is created.
- The contract keeps an internal estimate of “Total_ETH_Staked” and the value of “Total_mpETH_Minted”
- Every time a new validator is created, the internal “Total_ETH_Staked” amount is increased
- Every time mpETH is minted “Total_mpETH_Minted” is increased
- The “true price”/”full unwind price” of mpETH is “Total_ETH_Staked”/“Total_mpETH_Minted”
- The contract uses this price to provide the immediate unstake function for a fee to be shared with LP providers.
- The smart contract keeps an internal estimate of how much ETH is being delegated, estimating the staking rewards. This estimate is periodically adjusted (synced) so it gets in line with the exact amount computed by an external bot operated by Meta Pool. The bot computes the exact “Total_ETH_Staked” rewards and changes the value and the “ratio of estimated increase” based on the previous period in order for both amounts to be in sync

Price Oracle

The main smart contract, by keeping an adjustable estimate of mpETH price, serves as the authoritative oracle providing on-chain the “true price” of mpETH, always computed as (“Total_ETH_Staked” / “Total_mpETH_Minted”). Our internal AMM and any third party application can query the “true price” of mpETH directly from the contract.

Internal liquidity swap pool

The internal ad-hoc AMM which enables the liquid unstaking action for our users. This internal swap pool is essential so mpETH token holders can liquid unstake immediately their staked asset for ETH. For each liquid-unstake there will be a fee applied to from 0.3% to 5%, depending on the total amount that will be unstaked. E.g. if a user tries to liquid-unstake a large amount and the pool gets depleted, the fee will be the max: 5%. Big fees generate large APYs for LPs, attracting more LPs to the pool.
Liquidity providers can participate in this pool and obtain fees. The APY for LPs is variable, with very high APYs when the pool is depleted, attracting ETH to replenish it.
This architecture is battle-tested, it is the same we're using for Meta Pool on NEAR, and it has been proven to work in very volatile market conditions. See:
https://metapool.gitbook.io/master/for-developers/system-overview#liquid-unstake

Delayed Unstake

This is a functionality we want to be ready for when stake withdraws are enabled in Ethereum.
If a user does not want to pay a fee to unstake their ETH immediately, they can choose the Delayed Unstake option (when available in Ethereum). Delayed Unstake has no fee, the mpETH is burned and exchanged for ETH at the true price, but the user must wait for the cooldown period imposed by the L1 in order to receive the ETH.

Project Plan

Outline your project milestones with a breakdown of objectives and deliverables - please include references to your integration phases of SSV testnet and mainnet.

#	Milestone	Objectives	Est. Effort

1	Smart contract development	• Smart contracts development and testing
		  ○ 8 weeks
		  ■ Liquid staking contract
		  ■ Liquidity pool, liquid-unstake, ad-hoc AMM
			2 Months

	Front End development	• MVP v1 frontend UI/UX design and development ○ 4 weeks	*1 Month*

	Off-chain services development	• Backend service: Automate the assignment of new pre-configured validators when 32 ETH are available.
		  ○ 2 weeks
		• Backend service: SSV balance monitoring bot
		  ○ 1 week
		• Backend service: mpETH "true price" oracle, monitor and adjustment mechanism
		  ○ 2 weeks
			2 Months

	Testnet	• Testnet deployment
		  ○ 1 week
		• Private Beta testing and adjustments
		  ○ 3 weeks
			1 Month

2	Mainnet Launch	• Mainnet deployment • Launch event & Marketing • Ecosystem integration	*1 Month*
3	Bootstrapping liquidity for the staking pools	• 800 ETH in Total Value Locked • 25 validators	

Payments

Items

- Backend development:
    - Solidity smart contract - $18,000
        - Liquid staking contract
        - Liquidity pool, liquid-unstake, ad-hoc AMM
- FrontEnd design - $10,000
- FrontEnd development - React (web only - $10,000)
- Backend Off-chain services
    - Deploy Meta Pool SSV nodes - $2,000
    - Nodes SSV balance monitor - $2,000
    - mpEth true-price monitor and adjuster service - $4,000
    - Automate deployment of new validators - $4,000
- Implement audit recommendations - $5,000
- Mainnet deployment costs: $5,000

Terms

Way of payment: *70% SSV, 30% USDC*

Milestone Allocation

Outline payment allocation per each milestone:

Milestone	**Amount**	**Percentage**
Milestone 1 - Testnet	*$24,000*	40%
Milestone 2 - Mainnet	*$24,000*	40%
Milestone 3 - Bootstrapping liquidity	*$12,000*	20%
Total	**$60,000**	**100.00%**