In this communication, Lido DAO Community Staking team contributors are inviting proposals from software providers specializing in node/validator setup to enhance their existing tools by incorporating a user-friendly pathway for community stakers to engage with theLido Community Staking Module (CSM) and Lido Simple DVT Module (SDVTM) as Node Operators (NO).

Parties interested in developing an integration with CSM and/or SDVTM should share a proposal with an overview of a potential integration as a separate post on the Lido research forum with a corresponding link added as a comment in response to this thread to signify an intent for collaboration. Each proposal will be considered by Lido DAO contributors and the LEGO committee to evaluate the expediency of integration and subsequently decide on its funding. Based on the proposals received, the actual funding scheme is to be defined.

The application deadline is set for February 29th, 2024.

Preface

The recently approved Community Staking Module aims to add permissionless entry to the Lido on Ethereum Node Operator set, enfranchise solo-staker participation in the protocol, and maintain Lido on Ethereum protocol security, reliability, and capital efficiency on levels equal to or above the existing ones. The Simple DVT Module, approved in November 2023, presents the first opportunity for solo and community stakers to participate in using the Lido protocol to run validators. The module is intended to increase the number of independent Node Operators utilizing the protocol while also battle testing Distributed Validator Technology developed by Obol and SSV Network on mainnet.

Simplifying UX is pivotal to expanding accessibility to solo staking. The value propositions outlined in the CSM proposal state that the module should provide friendly UX for community stakers and make interactions with CSM simple, gas-effective, and easy to understand.

The development of the module itself, along with essential off-chain tooling such as the Performance Oracle and the new Key Validation tool, is slated for execution by Lido contributors. Concurrently, there is potential for the CSM integration with various node/validator setup tools aimed at enhancing the utilization of the CSM by community stakers.

Given the Simple DVT Module's focus on expanding solo and community staker participation in clusters with professional Node Operators and current members of the Lido on Ethereum Curated Node Operator set, providing a simple UX to interact with Obol and SSV based DVT is also crucial for making participation in the module accessible to a larger set of potential users.

Integration with CSM & SDVTM

Integration involves the development of the necessary features that will allow a user (node operator) to participate in the CSM or SDVTM and maintain their nodes and validators within the module with some preset parameters specific to the CSM and SDVTM. Depending on the depth of integration, it may also involve the development of visual interfaces.

At a high level, a typical Node Operator flow in CSM

might look like this:

- Prepare validator setup and deposit data (validator keys + deposit signatures)
- Submit bond and deposit data to CSM
- Maintain validator operation
- Claim rewards

Also, optional steps can be considered:

- Exit validator on CL
- Claim unlocked bond

Similarly, for a typical Node Operator participating in the SDVTM

:

- Node Operator is matched with other cluster participants (outside of integration scope)
- Node Operator prepares an Obol Node or SSV Operator/DKG Node
- Cluster coordinator generates deposit data (validator keys + deposit signatures) via DKG (outside of integration scope)

- Maintain validator operation
- Claim rewards
- Exit validator following the Obol or SSV spec

To show how different levels of integrations might look like, we structured them in tiers, with Tier 0 serving as the foundational groundwork, focusing on streamlining software setup for node operators. Higher tiers, such as Tier 1 and beyond, offer additional features, but their implementation is at the discretion of third-party software providers.

Tier 0: Software Setup Helper

Tier 0 is essential for improving the node operator's initial experience by setting up Ethereum validation tools (and Obol or SSV nodes in the case of SDVTM), configuring MEV-boost, and generating correct deposit data, among other crucial tasks.

The example of the CSM and SDVTM Tier 0 integration with eth-docker.

Tier 1: Operator Statistics Monitor

Building upon Tier 0, Tier 1 provides a comprehensive interface displaying a node operator's personal statistics using available CSM and SDVTM view functions, with capabilities like displaying keys and queue info, bond and rewards info, and alerting penalties and exit requests.

Tier 2: Operator Manager

This tier incorporates on-chain interactions, allowing actions such as adding a new node operator, uploading keys, claiming rewards, and setting up a dedicated manager and reward addresses, without requiring a graphical user interface.

Tier 3: Full-featured Operator UI

Building on the previous tiers, Tier 3 adds visual features suitable for a graphical interface, including lifecycle graphs for node operators, such as earnings, performance, and events, along with the ability to compare node operator stats with averages.

The detailed description of tiers and methods for integrations to interact with CSM is outlined here:

Community Staking Module | Integrations interfaces

Community Staking Module | Integrations interfaces

This document outlines the methods for third-party integrations to interact with Community Staking Module (CSM). Essentially, the integration provides a straightforward interface for the Node Operator functionality within the CSM (and possibly other...

How to submit a proposal

Lido DAO contributors suggest LEGO support to fund the continued improvement of existing tools that integrate with the Lido protocol to facilitate operator participation in CSM and SDVTM.

To submit a proposal, parties interested in developing an integration with CSM and/or SDVTM should share a detailed proposal of a potential integration as a separate post on the Lido research forum under the "Community grants / Initiatives" category and link it as a reply to this thread as a comment to signal their interest in collaboration. Proposals are not required to support both the CSM and SDVTM.

Proposal should include:

- General overview of the tool and its features as well as approximate estimation of current userbase (e.g. number of active users, number of users who run validators using the software)
- Design of the integration with CSM or SDVTM, including:
- Description of a general flow for user to join CSM or SDVTM as a Node Operator utilizing your software
- Scope of integration features
- Description of UI interfaces (if planned)
- Description of a general flow for user to join CSM or SDVTM as a Node Operator utilizing your software
- Scope of integration features

- Description of UI interfaces (if planned)
- Requested budget for the integration
- Timelines for the development
- Estimation on maintenance costs

Additional: Support and maintenance

To deeply integrate tools for validator maintenance with CSM, regular updates and support will be required. To support this maintenance and to establish alignment between Lido DAO and validator maintenance tools developers, it is considered to introduce a referral program that aims to allocate part of the staking rewards to the referrals (software providers) instead of DAO treasury for the validators operated using such software tools.

Please note that the establishment of the program, as well as concrete terms and conditions have to be approved by the Lido DAO.