



stakeware

Suite of Staking Tools for Solana CLI

(c) Dave White - June 2021

Motivation

"Every good work of software starts by scratching a developer's personal itch." --Eric Raymond,
The Cathedral & the Bazaar

The Itch:

- Most exchanges, wallets stake with a single, large validator, which is not good for network diversity, or censorship resistance
- Support smaller validators, while tempering the risk that all funds are lost/slashed due to malice or incompetence
- Efficiency and simplicity: staking is a stressful, yet repetitive task, if spreading across many validators

Solution:

- Command-line tools, web app (future goal) that painlessly spreads stake across many validators, versus one, or two

Benefits:

- Reduced network centralization; increases health & robustness of the Solana network
- Provides financial opportunity for smaller validators, *by design*
- Reduces user's risk of loss due to slashing
- More consistent yield/APR by reducing dependence on any single validator's performance

Concept / Prototype

- Initial concept (hackathon submission) is a basic set of Linux shell scripts that exercise the features of Solana CLI to provide staking of funds across numerous seed accounts and validators.
- The scripts commit funds randomly to a validator “whitelist” that is selected by the user beforehand.
- All requisite features of staking are included: funding, delegation, deactivation, and withdrawal
- File wallets and Ledger hardware wallets are currently supported

Future Work

- Phase 1 [complete]: command line tools, support basic staking activities
- Phase 1b: additional command line tools for *validator selection* from the `solana validators` program, based on criteria such as fees, total stake, skip rate, and foundation support
- Phase 2: Build web app that is a central place to stake your SOL. App interfaces with the common wallets like Ledger, Sollet, and Solflare. Emphasis on ***tools to help a user manage their staked coins***, versus swapping, trading, or yield-farming
- Phase 3: Convenient data visualization for comparison of yields, validator performance, and export for self-reporting of taxes. Possible support of other staked SPL tokens (SRM, ?)



thank you