Potential Governance proposal and discussion thread:

The topic of incentivising new validators has come up several times in the last few weeks, and with the recent “upgrade” to secret-3, it seemed time to re-raise the topic.

Summary

Running a basic Validator node requires roughly 58000 SCRT (~100k USD) staked in order to break even on server costs. This puts new Validators at a severe disadvantage when it comes to keeping and maintaining their servers. The Secret Network has high requirements for running a proper node, making the initial investment for just breaking even very large and potentially insurmountable given they’ll then show up at the end of the list.

I propose:

1. Reconsidering the current delegations from the foundation (?).
2. Creating a list of requirements that, once met, a new Validator node can at least break even on costs.

Cost Analysis of Running a Validator Node

The following are VPS providers and (roughly*) their costs, when starting a new node given the recommendations found on the vps compliance page:

Note I'm basing this off the following recommendations: - Processor: E-series rather than E3 (due to age) - SSD: 1TB+ - RAM: 16GB+ (discussions appear to be happening that 32GB may be required)

vultr: $185/mo

psychz: $144/mo

leaseweb: $89/mo

nforce: $95/mo

phoenixNAP: $210/mo

This is just for the basic hardware, not including load balancers, sentry nodes, or other costs. Taking an average of the above, we get the average cost of a single validator being

roughly $145/mo.

In order to reach the break-even point of $145/mo, a validator must have (roughly*) 58,000 SCRT staked. This is found given the following assumptions:

1. SCRT is $2 each
2. Monthly SCRT staking rewards are 2.5%
3. The validating node uses a commission rate of 5% (rounding down from the actual average of 5.230%)

To get the commission of 1 SCRT:

Staking rewards per month = 1 * 0.025 => 0.025 = {reward} Commission = {reward} * 0.05 => 0.025 * 0.05 = 0.00125 = {commission} Commission in usd = {commission} * $2 => 0.00125 * $2 = $0.0025 = {commission in usd per 1 SCRT}

$145/0.0025 = 58000 SCRT

Therefore, in order to break even on running a validator node, over $100k USD must be delegated to the node.

Proposals

The following are several potential options for incentivizing new validator nodes.

Re-Balance Delegations

During the governance meeting on 9/15/2021, it was pointed out that over 500k SCRT has been delegated to an inactive validator (specifically, Iqlusion). Perhaps there should be a list of rules for receiving a delegation, such as having a minimum uptime, as well as the minimum requirement (thoughts) outlined below.

Set Minimum Validator Requirements

Another way to do this would be to give a delegation “reward” for meeting certain requirements. As a rough example, ideally each validator would have:

1. Alerts in case their node goes down
2. Alerts setup to a channel specific for secret validators (in case another emergency arises again, or even just a basic network upgrade)
3. Sentry Nodes

If you, as a Validator, show you have done each step you “earn” a certain amount of delegations. Say, you set up a prometheus server with grafana and alerts, you receive 50k delegations (from where?).

This would also have the benefit of ensuring a certain level of stability/expectations for each Validator.