

StakeEasy Whitepaper

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Disclaimer

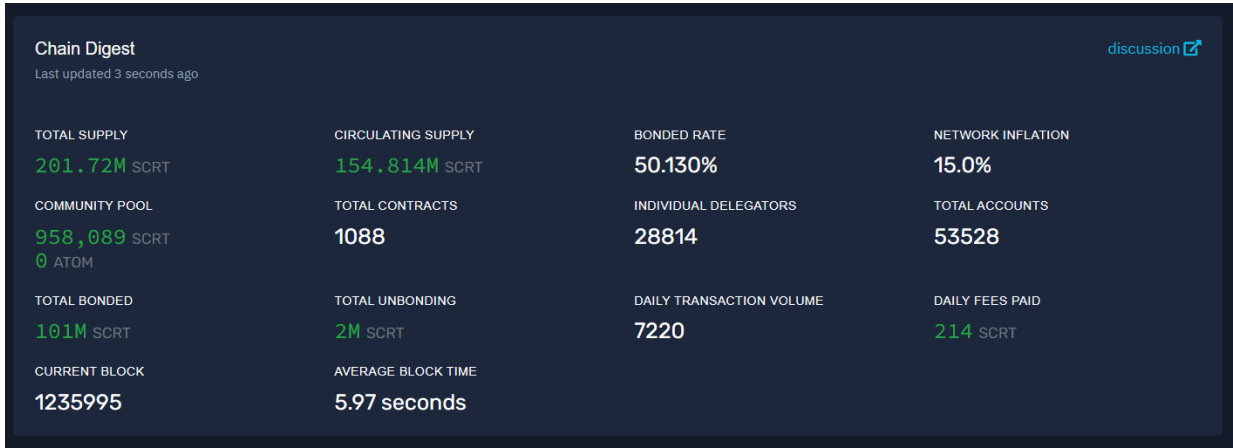
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1. Overview

Secret network is a delegated proof of stake chain. In such a type of chain, a user holding native coins (\$SCRT for Secret network) can stake their native coins to a validator enabling the user to earn a passive income in form of staking rewards accrued from processing transactions by the validator.

At the time of writing this paper, there are **154.8 M SCRT** in circulation and **101 M SCRT** bonded with validators, which approximates to **65.5% SCRT** tokens bonded.



Chain Digest
Last updated 3 seconds ago [discussion](#)

| | | | |
|------------------------|--------------------|--------------------------|-------------------|
| TOTAL SUPPLY | CIRCULATING SUPPLY | BONDED RATE | NETWORK INFLATION |
| 201.72M SCRT | 154.814M SCRT | 50.130% | 15.0% |
| COMMUNITY POOL | TOTAL CONTRACTS | INDIVIDUAL DELEGATORS | TOTAL ACCOUNTS |
| 958,089 SCRT 0 ATOM | 1088 | 28814 | 53528 |
| TOTAL BONDED | TOTAL UNBONDING | DAILY TRANSACTION VOLUME | DAILY FEES PAID |
| 101M SCRT | 2M SCRT | 7220 | 214 SCRT |
| CURRENT BLOCK | AVERAGE BLOCK TIME | | |
| 1235995 | 5.97 seconds | | |

At the current rate, around **29%** is the APY on the bonded SCRT tokens.

Rewards given to the token delegator are given in form of SCRT token and the delegator has to stake the reward tokens manually in order to compound the staking rewards. This is not ideal due to two major reasons: the delegator has to do manual effort, the delegator has to pay transaction fees for each reward claim and reward staking. StakeEasy will provide the layer of smart contracts between delegator and validator which auto-compounds the rewards after a fixed interval without requirement of delegator intervention.

There is a 21 day lock period and once the SCRT is delegated, it cannot be used anywhere else during the period of delegation. This is done to protect against Long Range attacks on the network, read more [here](#). StakeEasy will provide the solution that provides the user the ability to unbond immediately and still keep the low risk of such attacks. There's an insightful article on **Secret staking derivatives** by CashManey which can be found [here](#). Some of the core features of StakeEasy are inspired from this article.

Ability to convert staked SCRT into seSCRT is done by issuing a staking derivative token which represents the user's delegator's stake and rewards accumulated. This staking derivative token can be swapped with SCRT using a DEX supporting such pair.

Delegators can use the staking derivative token even further and deposit in some other DeFi protocol to accrue more yield such as providing liquidity for a DEX or lend the token in a lending protocol. Other use cases are ability to do:

1. Leveraged staking.
2. Derivative token Futures and Options contracts which opens up the possibility of many other opportunities.
3. No loss lottery where rewards generated are distributed to lucky winners.

2. Background

2.1. Proof of stake chains

There are numerous proof of stake chains on the rise with major chains including Ethereum 2.0, Solana, Terra, Secret Network. The market capitalization of proof of stake chains has risen to **\$294 billions**[\[source\]](#) and is predicted to increase the market share in future due to the accelerated development of protocols on these chains.

2.2. Locked & liquid staking

With such an increase, there will be an increase in the amount of capital locked up as staked tokens to validators. These locked up tokens cannot be used anywhere else when being used for staking.

Staking becomes liquid when on staking the tokens, some other token is issued which represents the staked amount and hence can be used elsewhere and can increase utility of the token and leads to increase in capital efficiency.

2.3. Governance

The delegator loses the ability to vote for governance on network proposals as these tokens are now being held with the validator and validators can use these tokens to vote in network governance. So, a user can only vote using the token when they are not staked. Validators can choose to vote either by taking the opinions of the delegator or not and the validator can have a different opinion on a proposal from some of its delegators.

2.4. Token centralization

On the validator end, there is a need to be convincing for delegators to delegate their tokens to them. Delegators generally stake to validators with a high amount staked already. This leads to the top validators getting most of the tokens and negatively affects the decentralization of the network. Furthermore, the information available to delegators from the list of validators is limited to a few parameters only, so a delegator has limited information to assess the choice.

3. StakeEasy features

3.1. Auto compounding

The staking rewards are not automatically staked and the delegator has to manually claim and stake the rewards to compound them over time. StakeEasy has automatic compounding of staked tokens at a fixed frequency. This benefits the delegator as no manual input required from their end, so it saves the delegator's effort and gas fees spent on staking those rewards.

3.2. Validator diversification

The issue with providing a liquid staking token is that it reverts the 21 day lock-in period put in place to keep the network secure. This is because when a validator does something bad, then the tokens delegated to it must be slashed and to identify a bad behaviour it takes a few days for which 21 days is taken as a safe threshold.

To handle this issue and still have a liquid staking token, StakeEasy introduces a model to stake not just to one but to multiple validators at once (token divided equally amongst them). These multiple validators are chosen based on a weighted average of different parameters to make sure that the right set of validators is chosen for staking.

3.2.1. Reduce slashing risk

Having multiple validators reduces the slashing risk to the delegator because now if a validator does a bad behaviour, it does get slashed but now a delegator has only delegated $x\%$ of their tokens to the validator and will only cause slashing of that $x\%$ of total asset value.

More importantly, if a validator tries to have all of its self-delegation as liquid, they only get $x\%$ of those staking to their own validator nodes. So, when a bad behaviour is done, it is done with power of only $x\%$ of the voting power, hence the harm caused is much lower. (x could be anything in range of 5 - 10)

3.2.2. Selection criteria

Validator set is chosen by taking 7 different parameters and taking the weighted average of these parameters and using the top x validators from the final list.

Each validator is ranked on the basis of each of the following parameters and each individual ranking is combined to get a final ranking and top x validators from that ranking are chosen. The parameters are:

1. Uptime
2. Commission
3. Number of slashing events in last months
4. Community votes
5. Total amount staked
6. Self-delegation amount
7. Participation in network governance

Some other constraints are also applied such as:

1. Only consider a validator with less than 10% commission.
2. Only consider validators with higher self-delegation.

3.2.3. Dynamic validator pool

Keeping the same validators as the validator set for a long period of time is not ideal as the value of above parameters for each of the validators keeps on changing over time and can change drastically over a longer period of time causing the initial ranking to be obsolete.

StakeEasy keeps this set of validators as dynamic in nature and ranking is recalculated frequently enough to not have the validator set obsolete and also not make too many transactions of re-delegations. Some part of the process would be handled by the dev team during the early period of StakeEasy and would gradually be completely automated and managed by the community DAO.

This would also help the platform mitigate the risks such as:

1. Validator disconnecting it's services and the delegator being unaware of such event and rendered not being able to earn staking rewards.
2. Validator changing commission.
3. Validator being down for an extended period of time.

3.3. Liquid staking

Staking is made liquid by issuing liquid staking tokens as a representation of the value of staked tokens. This means that the liquid token now holds the value equal to the value staked plus the rewards earned and is in the possession of the

delegator so it gives the delegator the opportunity to invest this liquid token in some other protocol causing better use of the assets.

This also means that the delegator can easily move the staked assets from one wallet to another without waiting 21 days. Delegators can even unstake the tokens immediately and participate in governance as they would when their tokens were not staked.

StakeEasy will issue a seSCRT token when a delegator stakes their token through the platform. The seSCRT token will have 1:1 value ratio with SCRT token on the StakeEasy's staking genesis and will increase in value w.r.t SCRT as rewards are accumulated from staking. Each slashing event will cause the value of seSCRT token w.r.t SCRT representing the loss of SCRT tokens staked with the platform.

3.4. DeFi integration

Liquid staking token opens up the door to multiple DeFi integration opportunities such as providing liquidity to DEXs, taking out a loan from a lending protocol or doing leveraged staking, no loss lottery.

3.4.1. Integration with DEXs

DEXs have liquidity pools for users to swap CW-20 tokens (or SNIP-20 tokens for Secret network). The liquid staking token is also a such category of token, hence can be deposited into a DEX to provide liquidity for a pool on that DEX earning the user LP rewards generated from swapping fees on the DEX.

StakeEasy will also have pools for seSCRT tokens such as seSCRT/SCRT, seSCRT/UST and more. StakeEasy will have an event to bootstrap the liquidity for such initial pools so that users can swap their tokens right away and won't have to wait for the platform to mature to have enough liquidity for low slippage. The platform will also provide incentives for users providing liquidity to the pools in the form of platform tokens.

3.4.2. Integration with lending protocols

Similar to DEX, this liquid token can be used on lending protocols either to provide liquidity from lending pools earning interest or be used as collateral to borrow some other CW-20 (or SNIP-20) token.

This will be done by partnering with oracle networks for reliable price feeds and with lending protocols for lending pools. StakeEasy will have a liquidity bootstrap

event of the lending protocols too and will also provide incentives to users for providing liquidity to such pools.

3.4.3. Leveraged staking

Lending protocols can be used to leverage a position in some other DeFi protocol. Same can be applied to StakeEasy where a user can deposit their SCRT and get seSCRT, borrow some other token against seSCRT and convert that to SCRT and again deposit to StakeEasy getting hold of some more scrtSCRT and continuing the cycle. This leads to higher staking returns but also exposes the user to a higher amount of liquidation risk. This can be of high utility to a certain set of users looking for such opportunities or can also act as a layer to other possible investment strategies.

3.4.4. Futures and Options

Futures and options financial market is another possible use case of liquid staking token. The FO derivatives financial market is much larger in size compared to the spot financial market in terms of volume traded.

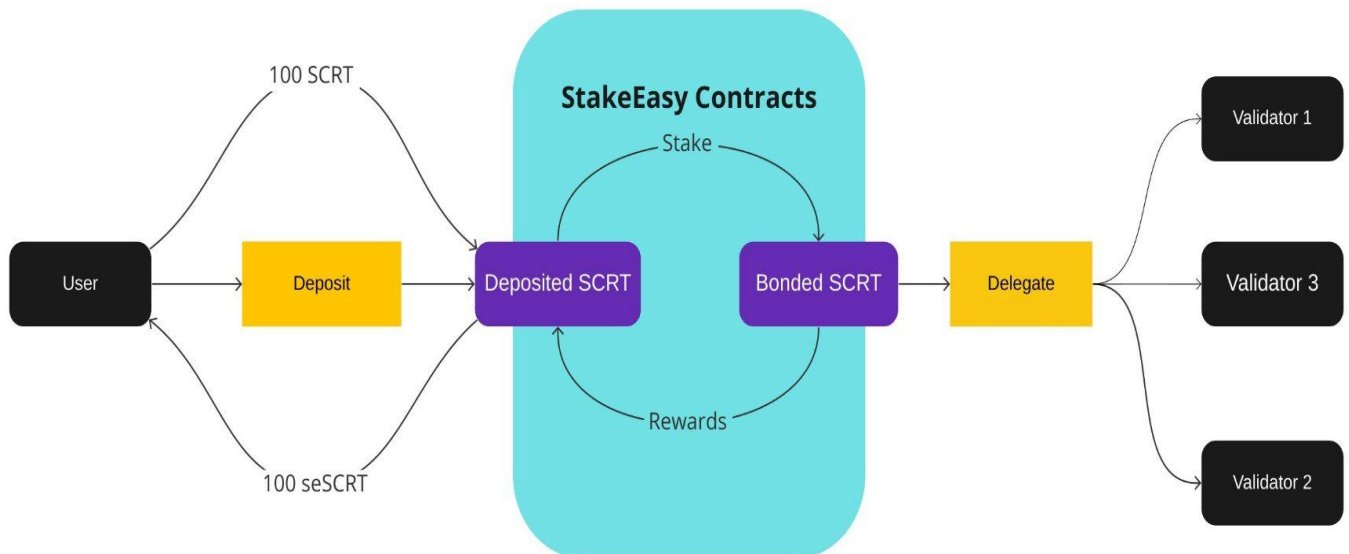
StakeEasy will in future provide the users with futures and options markets on top of seSCRT token and other associated tokens. This will be useful to people looking to do leverage trading on their staking position or hedging their staking position using a liquid options market.

4. StakeEasy architecture

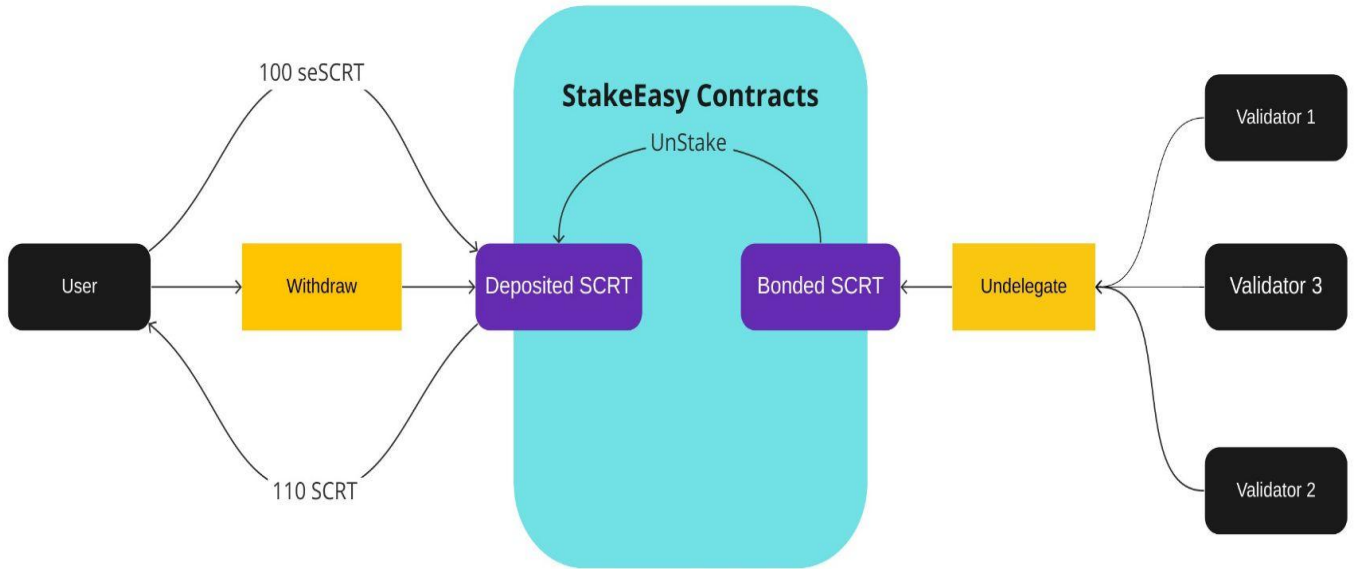
4.1. User Flow

This section details out the flow of action to be done by the user in order to use the respective feature of the StakeEasy platform.

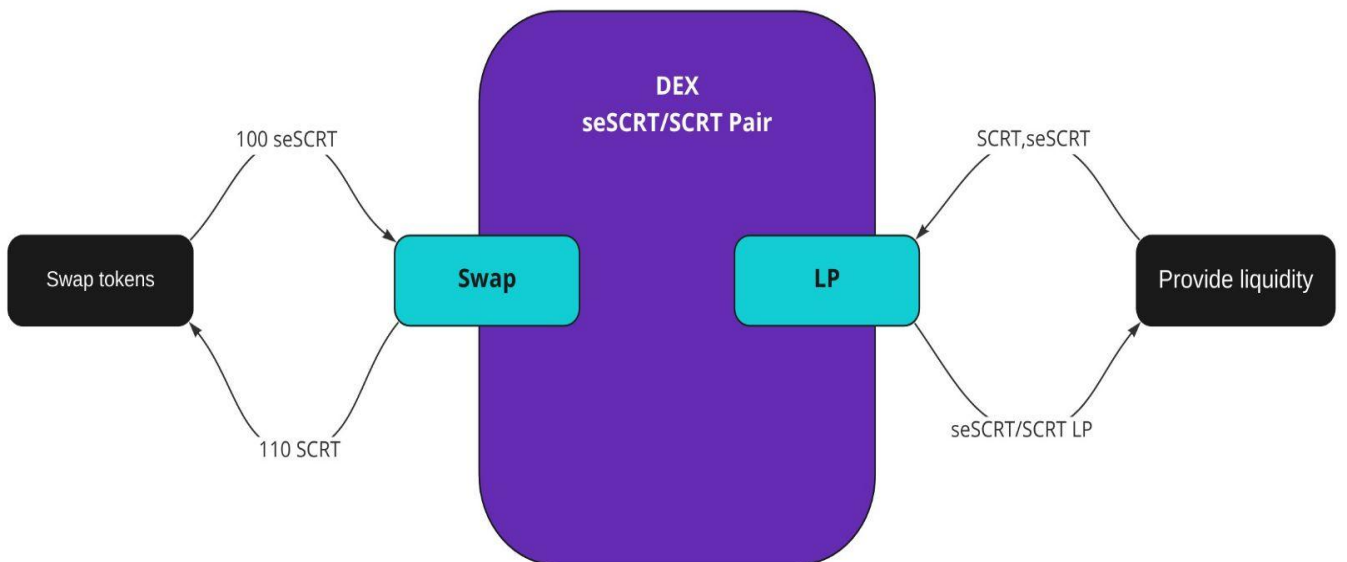
4.1.1 Staking



4.1.2. Unstaking

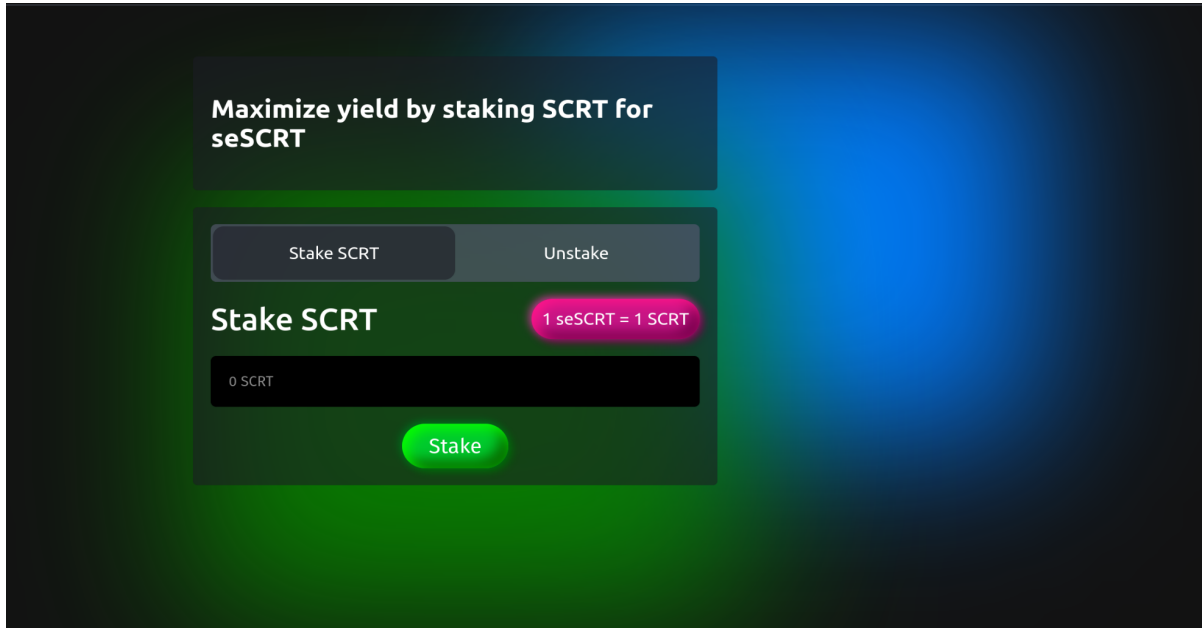


4.1.3. Quick unstaking

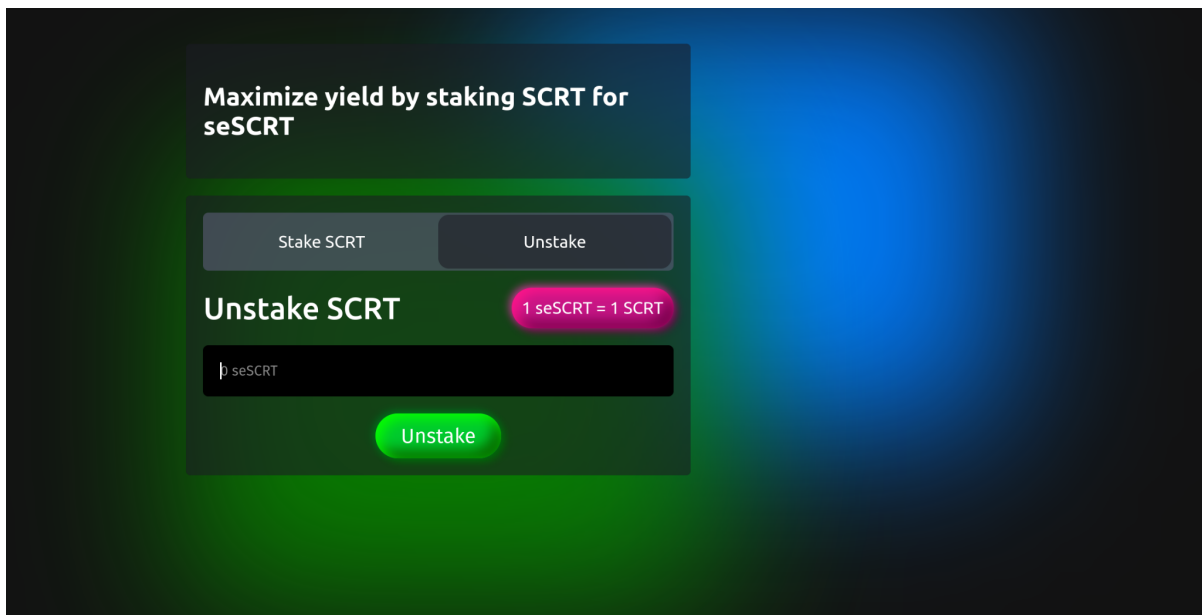


4.2. Interface

4.2.1. Staking



4.2.2. Unstaking



4.3. Protocol fees

4.3.1. Staking fee

StakeEasy charges 1% of the deposited tokens as fees for staking. This fee is charged on the deposit and there is no fee on unstaking (21 day unbonding). 0.5% goes to platform token stakers and 0.5% to platform's treasury.

4.3.2. Swap fee

Swapping a token will have 0.3% fees from which 0.2% is sent to liquidity providers and 0.05% is sent to platform token stakers and 0.05% is sent to platform's treasury.

4.4. Protocol rewards

4.4.1. Staking rewards

Users staking their SCRT to the platform will get a certain APR of the platform's governance token as part of community farming. This APR will decrease gradually with an increase in the platform's TVL.

Users staking the platform's governance token will get the share from fees accumulated by the platform from SCRT staking and swapping.

4.4.2. LP rewards

Users providing liquidity to pools will get LP rewards which is 0.2% of each swap. The mechanism is the same as any other swap's which works on a constant product swap method.

5. Roadmap

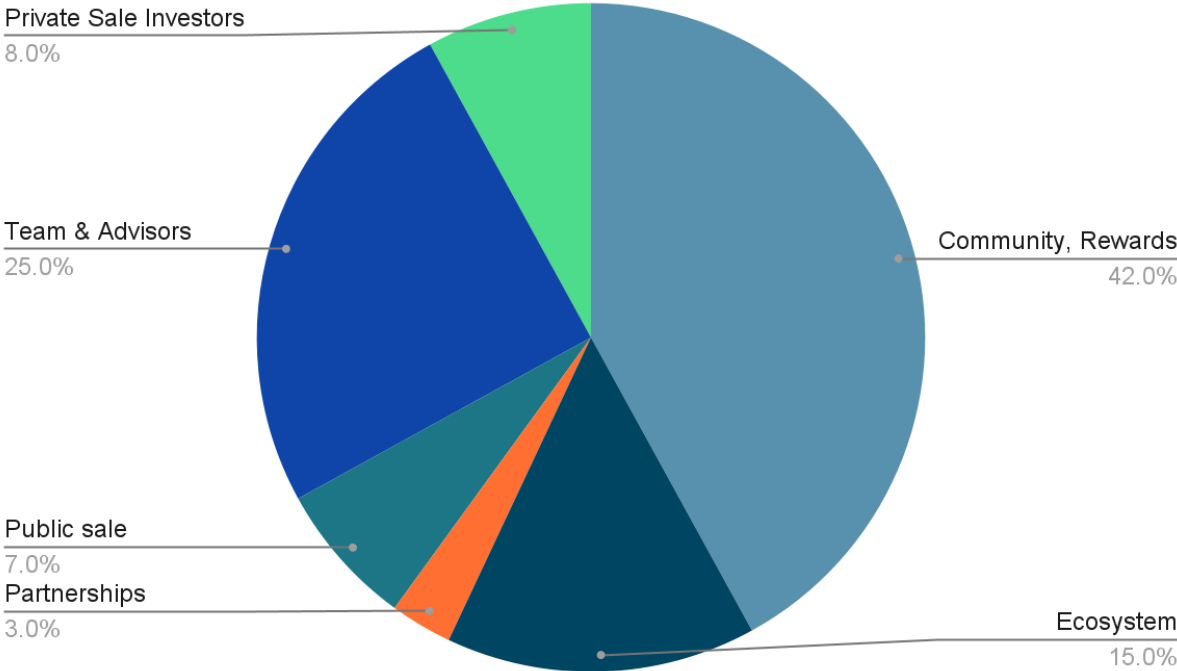
1. **January 2022:** Auto-compounding and multiple validators on testnet.
2. **February 2022:** Auto-compounding and multiple validators on mainnet.
Launch platform's governance token with governance token staking.
3. **March 2022:** Launch platform DAO.
4. **April 2022:** Integration with DEXs and lending platforms.
5. **Q3 2022:** Future contracts for seSCRT tokens.
6. **Q4 2022:** Options contracts for seSCRT tokens.

6. Tokenomics

6.1. Distribution

Governance token (\$SEASY) tokenomics in detailed below:

- 1. Total supply: 200 millions
- 2. Community, Rewards: 42%
- 3. Ecosystem Development Funds: 15%
- 4. Partnerships: 3%
- 5. Private Sale Investors: 8%
- 6. Public sale: 7%
- 7. Team & Advisors: 25%



6.2. Vesting schedule

The vesting schedule from February 2022. The vesting is uniformly distributed for each month, i.e. 1/12th of tokens will be released after an interval of 2 months each.

1. Community, Rewards: 2 years
2. Ecosystem Development Funds: Not applicable
3. Partnerships: 2 years
4. Private Sale Investors: 2 years
5. Public sale: Not applicable
6. Team & Advisors: 2 years

7. Long-term goal

The long term goal of the platform is to expand to other cosmos-based chains (such as Sentinel, Akash etc) first and other proof of stake chains later.

7.1. Cosmos based chains

The team will look into IBC for expanding to cosmos based chains and will possibly use inter-chain accounts to support chains not having CosmWasm support such as Akash Network.

This will provide users with the ability to stake their cosmos-based tokens while preserving their privacy.

7.2. Other PoS chains

The long term vision at StakeEasy is to build staking infrastructure for chains such as Ethereum 2.0, Solana, Near.