STAKING GUIDE BY STAKED

Algorand / ALGO

Annual Yield: 13.4%

Launch: Wednesday June 19th, 2019

Algorand is a base layer blockchain with a novel PoS consensus protocol developed by Silvio Marcali, a Turing Award winning professor at MIT. Algos are the native currency of the network. **The current annual yield for staking algos ~ 13.4%.**

Staked has been selected by the Algorand Foundation as one of the four approved relay and participation node operators for staking algos.

Staking algos is non-custodial and node operators cannot spend your algos. Staked pays 90% of the block rewards to stakeholders, does not charge for the unvested portion of your holdings, and offers the industry's only 100% SLA on block production. There are no slashing penalties in the Algorand consensus protocol.

Staking Instructions

1. Email your Algorand public address to staked@staked.us
2. Staked will generate and send you a transaction to sign offline that registers your participation key online with a participation node operated by Staked
3. Transfer the unsigned transaction generated by Staked to an offline device to sign with your private spending key
4. Transfer the signed transaction to an online device and send it to staked@staked.us
5. Staked will broadcast the signed transaction on your behalf to the Algorand blockchain

Token Metrics

Circulating ALGO Supply	2,563,585,915
Current ALGO price (06/27/19)	$1.35
Implied Network Value (Circulating)	$3,460,840,986
Current Inflation Rate	1.34%
Current Stake Rate (06/27/19)	996,334,776 / 10,000,000,000 = **9.96%**
Implied Annual Staking Yield	**1.34% / 9.96% = 13.4%**
Staking Lock-Up	No unbonding period

Source: ALGO price per https://coinmarketcap.com. Circulating supply and stake rate data per https://algoexplorer.io/.

Launch Timeline and Key Dates

The Algorand Mainnet will be launched in two phases. **The pre-launch is scheduled to start on June 12th and last for one week.** It will include launching the network with the genesis block for testing purposes.

Staked will start generating participation keys and preparing registration transactions once the pre-launch phase has started on June 12th.

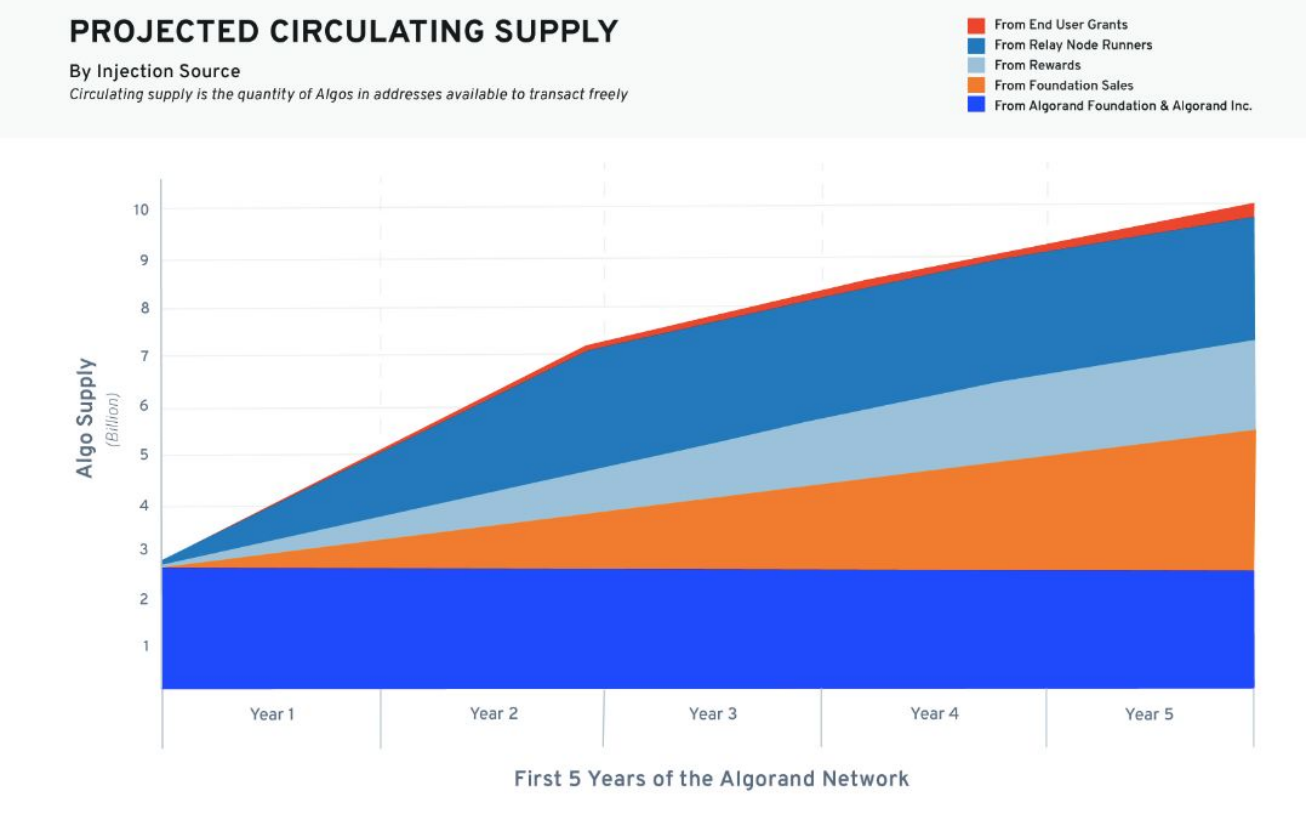
On June 19th, at the end of the pre-launch period, the Algorand Foundation will hold the first token auction (conducted on the Algorand blockchain), allowing algos to enter circulation and vesting for early backers to begin. **This will mark the official mainnet launch of the Algorand Network.** Algos are expected to be listed on Binance and Bitfinex shortly after mainnet launch.

To ensure that you are eligible to earn staking rewards as soon as the Algoran public network launches on June 19th, please send your public key address to Staked no later than June 18th.

Vesting will begin immediately following the first auction and algos will continue to vest daily as long as the participation node operated by Staked remains online. Locked tokens will vest into the address associated with the participation key and rewards will be issued directly into that account as well. There are no restrictions on moving your vested tokens from your vested account to a custodial account at anytime.

Algo Distribution

Algorand expects that it will take at least five years of public network operation to reach the maximum 10 billions algos in circulation. Algos will be distributed and enter circulation over time as follows:



Recipient	Algos (Billions)	% of Total Supply
Estimated ALGOs to be injected into circulation in first 5 years (initially via auction)	3.00	30.0%
Algorand Foundation and Algorand Inc.	2.50	25.0%
Relay node operators	2.50	25.0%
Estimated participation rewards	1.75	17.5%
End user grants	0.25	2.5%
Total	**10.0**	**100.0%**

Rewards

Relay node operators earn algos according to daily vesting schedules that range from 2 to 5 years. Unvested algos are not eligible to participate in the consensus protocol.

All token holders that have registered their participation keys with an online participation node will earn an amount of rewards proportional to their (vested) stake for every block that is committed to the blockchain.

Rewards accumulate virtually as the blockchain grows, but are only explicitly reflected in the account balance when the account is involved in a transaction (e.g. sending or receiving algos).

The projected rewards for the first 12 reward periods, each of which spans 500,000 blocks or approximately 1 month, are as follows (millions of algos): 10, 13, 16, 19, 22, 25, 28, 31, 34, 36, 38, 38.

The Algorand Foundation is responsible for the distribution of algos via auction sales and participation rewards. For the first five years of network operation, rewards will come from a pool of 1.75 BN reserved tokens that is managed by the foundation.

After the entire rewards pool has been distributed, stakers will earn transaction fees in exchange for participating in consensus. Transaction fees will accumulate in a transaction fee pool that will be used to compensate node operators after the initial rewards pool of 1.75 billion tokens has been exhausted.

Network Architecture

The Algorand network supports two types of nodes to optimize for transaction throughput and decentralization: relay nodes and participation nodes.

Relay nodes serve as network hubs and maintain connections to other nodes. These nodes have high-performance network connections which allow for efficient communication paths, reducing the number of hops and the transmit time of sending a message throughout the network. Relay nodes decongest noise in the system by accumulating protocol messages from participation nodes and other relay nodes connected to them, performing deduplication, signature checks, and other validation steps and then re-propagating only the valid messages.

Participation nodes are connected to Relay Nodes. They act as a user's agent in the network. Authorized by the user's participation key, these nodes contribute to the Algorand consensus protocol by proposing and voting on blocks on behalf of the user's stake within the consensus algorithm. Participation nodes can represent any number of users provided the appropriate participation keys are registered with it.

Consensus / PoS Model

In Algorand, a new block is constructed in two phases. In the first phase, a single token is randomly selected, and its owner is the user who proposes the next block. In the second phase, 1000 tokens are selected among all tokens currently in the system. The owners of these 1000 tokens are selected to be part of a phase-2 committee, which approves the block proposed by the first user.

All users are randomly, secretly, and continuously selected to participate in the Algorand consensus protocol. Before they participate, no one knows who the users are, and once they participate, it is already too late for an attacker to benefit from attacking them. Even if the network is partitioned into multiple non-connected networks, Algorand's blockchain does not fork and users' balances remain secure.

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The Algorand Staking Guide was heavily excerpted using the following sources:

1. https://algorand.foundation/network
2. https://medium.com/algorand/various-questions-about-the-algorand-blockchain-ef8bf719f1f
3. https://medium.com/algorand/algorands-core-technology-in-a-nutshell-e2b824e03c77

About Staked

Staked operates highly available and highly secure, institutional grade staking infrastructure for leading proof-of-stake (PoS) protocols. The Staked infrastructure is deployed in a multi-tier signing and listening cloud configuration that combines geographic diversity and redundancy across on premise data centers and cloud providers. Google's Kubernetes container orchestration is used to achieve near-infinite scale, self-healing and hardware decentralization.

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