Delegating on Polygon: A Comprehensive Guide

Key Features

Blockchain Overview

Launched in May 2020, Polygon stands as a prominent scaling solution for Ethereum, offering swifter and more cost-efficient transactions with its native asset, POL. This was known as MATIC until the September 4th 2024 upgrade which saw the renaming of the native asset as well as other significant upgrades across the protocol. Its compatibility with the Ethereum Virtual Machine (EVM) allows a seamless transition for Ethereum developers to port their projects over. With the ambition to outpace Ethereum in speed and cost, Polygon operates effectively as a Layer 2 (L2) solution, contributing significantly to the advancement of blockchain technology.

Block Time

- Time is denominated in checkpoints and blocks.
- Checkpoints are committed with varying time intervals but are always a multiple of 256 blocks.
- Block times are variable but typically range between 2.1 to 2.4 seconds.

Delegating Overview

Minimum Stake

- No minimum stake is required, but a minimum of 2 POL is needed to restake rewards. This is under evaluation for the Polygon 2.0 upgrade.
- There is a limit of 105 validators in the system; this is slowly increasing.

Warm-up/Bonding Periods

- Bonding is instant, however it takes approximately 12-36 hours to show up on Polygon web interface depending on Ethereum network congestion. Rewards accrue during the bonding period.

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Delegating Overview [Cont.]

Cool-down/Unbonding Periods
- An 80-checkpoint cool-down period, equivalent to 1-3 days, depending on validator consensus on the Polygon Heimdall layer and the congestion of the Ethereum network.

Rewards Overview

Reward Structure Highlights
- Rewards are influenced by block time, total stake, and checkpoint reward rate - which operates as an inflation rate.

Payout Timing
- Rewards are distributed every 25-35 minutes at every checkpoint.

Compounding rewards: Yes

Expected APY: 3.12%

Slashing Overview

Slashing Possibility: No

Potential Penalties
- Validators can miss rewards or be forced to exit for prolonged downtime.

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