Tl;dr

We are experimenting with a new bidding strategy in the Flashbots builder. Under this strategy, the Flashbots builder will no longer bid its true block value. Instead, it will adjust its bid dynamically in response to public information about other bids in the MEV-Boost auction. This will allow the Flashbots builder to land more blocks and provide better service to users.

*True block value = sum of all priority fees and coinbase transfers

Bidding strategies

Today, most block builders adjust their bids based on public information about other builders' bids in the MEV-Boost auction. Concretely, builders adjust their bids in two main ways:

Strategic bids

: Bid less than the true value of the block. Builders do this today by listening to the top bid (X) reported by MEV-Boost relays and setting their own bid to be some small epsilon higher (X + e). If their true block value is greater than X + e, they retain the difference as profit.

For example, suppose a builder's true block value is 10 ETH, but the next highest bid is only 8 ETH. The builder can bid 9 ETH and keep 1 ETH as profit.

Subsidies

: Bid more than the true value of the block. Builders do this today by adding capital to their bid which is not sourced from priority fees or coinbase transfers. This capital can come from an exogenous source or from profit captured from earlier strategic bids.

For example, suppose a builder's true block value is 10 ETH but the highest bid is 11 ETH. The builder could subsidize 2 ETH to pay 12 ETH and win the block.

Changes to the Flashbots builder

Today, the Flashbots builder bids the true value of its block in the MEV-Boost auction. It does not support strategic bids or subsidies.

We are updating the Flashbots builder to enable both strategic bids and subsidies. Profit from strategic bids will be recycled to fund features like subsidies. Subsidies will primarily be funded by recycled profit.

Impact

These changes will enable the Flashbots builder to land more blocks and provide better service to users.

Concretely, subsidies will enable the Flashbots builder to provide faster inclusion to users who rely on the Flashbots builder to land their transactions on chain. Strategic bidding will allow the Flashbots builder to fund these subsidies, and to experiment with new refund mechanisms for users in the future.

Risks and mitigations

Flashbots operates a MEV-Boost relay which collects sensitive data about unlanded blocks from block builders. To offset the risk of using this unique position to give the Flashbots builder an unfair advantage in the MEV-Boost auction, Flashbots will continue to maintain a separation between the codebases, services, and data that is visible to the Flashbots relay and builder. The Flashbots builder will only have access to the same public signals that other block builders do.