

dmarz:

This proposal sketches out a design for a relatively crude mechanism to auction a top-of-block state lock on Ethereum and enables collaboration in the block builder market. While not an end-game solution, it creates an ideal interface for experimentation with state locks and unlocks

new aspects of the block building market, which may help us out of our current local maxima. Assuming an ideal lock pricing mechanism, this approach can go live into the wild quickly and move us one step towards a better builder market structure.

hey buddy

nice post. love the references to dist sys. literature and the formalization of this topic. to summarize (please correct me if its wrong):

- Top-of-block auction takes place at the relay level. Searchers are committing bids for that very first transaction in the slot.
- The access list is used to specify which parts of the state that txn touches.
- Once that auction ends, the rest-of-block auction starts based on the new state.
- The relay constructs the full block.

This sounds super similar to the ToB/RoB split Bharath outlined in [pepc-boost](#). Would you agree with that? You mentioned that the ToB auction winner needs to be able to update their parameters, that feels very critical. If I am trying to CEX-DEX arb, I need to be able to change my ToB transaction as the last look before the block is finalized for the proposer. I def agree with the sentiment that this just feels like a VI of searcher/builder/relay, which feels like the inevitable endstate here. Also agree that doing this in ePBS sounds extremely difficult.