

etherless - a pow based barrierless EVM

The purpose of this proposal would be to make a decentralised p2p evm network where the barrier to entry will be 0. We do this through removing the need for ether in ethereum. By having the gas fee be a personal transaction hash the network will be able to allow for an open decentralised evm and the ability to perform non monetary operation on information without needing to worry about holding cryptocurrency. This will not affect ethereum but will be somewhat like a fork but remain dependent on the eth project for core functionality. Think of it more for offloading non financial projects like supply chain.

How it works

The underlying implementation of the evm will remain for interoperability and compatibility purposes. The underlying ether will be replaced by a new consensus and fee model. All transactions will have gas costs for operations just as they do now but will also include a pow field with the nonce needed to produce a hash of the transaction that will be more than the gas used if it is not the transaction will just fail. The pow needed will be roughly the network cost to perform the transaction and perhaps an overhead. Like if the transaction were to be a 21k gas transaction taking .01s and the node group would be 5000 then the pow should take more than 50s to perform the pow for. This may be adjusted. Gas will also have a price but will be based off the pow provided. If the pow is 0000 and only 000 was needed for the min pow then the transaction will have a higher priority based on the pow that it has and how much higher it is than was needed. This will allow for prioritization during high use and let the user put more pow behind it to get it confirmed.

Consensus

Consensus will involve validator nodes that will sign using a threshold signature on proposed blocks made from within the group. The group will be allocated a slot by putting up a pow token as collateral for their blocks. 5000 slots will make up this group.

The pow token

For users who are unable to perform the pow this will be able to be delegated to other nodes through a burned pow token. Nodes who have resources to spare might want to use these to produce tokens by special transactions where they create a mint transaction that will look like a transaction to transfer pow token from the coinbase to themselves and by submitting a pow that would match the requirement for the gas cost it will be replacing the resource cost can be moved. This will be the rough process.

Assume 1 token will replace 100k gas

Pow miner submits 10 pow hashes for a pow that meets 200k per for 10 tokens from the coinbase to themselves this will be valid if they meet the minimum threshold. The miner then will be able to transfer this to mobile user bob for .05 USD for 1 token. The transaction will cost 21k and they will get back .79 pow token.

Note

The mined tokens are not as efficient as doing the pow but they are reimbursed while pow is not.

This is just a late night thought i had none of it is final just getting others thoughts.