

Currently, the beacon chain is just a testnet, since it doesn't affect the data stored in the eth1 chain, and any exploit, possibly affecting validator balances, can be reversed without serious consequences. As a result, I believe it is not aggressively targeted by bad actors, and the fact that it is running smoothly may provide a sense of false confidence.

However, at one point we will need to migrate the eth1 state into the POS beacon chain, and any exploit after this would be catastrophic.

I think that, once this transition is ready to be activated, it would be advantageous to have a test period where both the POW eth1 chain and the POS eth2 chain would run simultaneously, processing the same transactions, with the expectation that they would finalize to the same state (if maybe not at the exact same time).

If we assume that the ETH1 chain is secure and bug free, any exploit in the ETH2 chain would allow a transaction to create a different finalized state in the eth2 chain when compared to the eth1 chain.

We could establish a testing period of maybe 1 month, where a reward of say 1000 eth would be granted to anyone who can find an exploit allowing to change the eth2 chain finalized data to a state different from the eth1 data produced with the same transactions.

Possibly, every time an exploit is found, it would be patched and the eth2 chain resynchronized with the eth1 chain, and then the testing period would reset to 1 month, and the reward amount multiplied by 1.5.

This would provide a strong incentive for people to stress-test the eth2 chain before it is live. I think this testing period is necessary to stress-test the consensus layer, in a mode where finding an exploit would provide a significant material reward.

PS: my knowledge of Ethereum is very rudimentary, so apologies if this is not expressed well, I just wanted to share this idea.