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Below there is the abstract of the report, which you can findhere.

Abstract

Ethereum's Serenity upgrade aims to solve the scalability trilemma, which posits that there is an inherent tradeoff between scalability, security, and decentralization. This is not an easy task, and solving it comes with a bunch of challenges. Precisely, to guarantee the safety of the network, a complex consensus is needed, and accounting for all possible scenarios, by achieving the best outcomes in all of them, requires to state stringent rules. As the network is designed to survive several types of attacks, the complexity of the implemented reward and penalty mechanisms increases. Complexity, sometimes, means high exposure for validators. In this report, we summarize the Beacon Chain consensus protocol and associated reward and penalty mechanisms and take a look at how various scenarios may impact the APY and balance of a Beacon Chain validator.

We find that the expected annualized reward for an ideal validator is 5.44%. This decreases to 5.4% if we take into account a more realistic case. Furthermore, we investigate the impact on a validator that is caught making a slashable offense.