ABSTRACT

ETHEREUM PARAMETER ANALYSIS OF PEER TO PEER BLOCKCHAIN NETWORK IN COIN TRANSFER APPLICATIONS ON NETWORK PERFORMANCE

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The blockchain technology is a digital ledger or digital bookkeeping of virtual transactions, where a transaction cannot be changed even though it has moved from device to other device, in other words each data does not have a centralized authority to change the details of the data data. Every data in the Blockchain technology is called Block, where each Block uses cryptographic principles to secure it. Blockchain has one platform, Ethereum. Ethereum is a Blockchain platform that uses Smart Contract which can create a transaction data block. Every data that moves has a load of parameters, namely GasPrice, GasLimit, and Difficulty for each transaction that contains data sent or received. Based on these conditions, this study design and conduct trials and see the use of network performance to run a private Ethereum blockchain to transfer coins between node blockchain Ethereum in a peer-to-peer manner using existing parameters. This aims to create a design design for the private Ethereum blockchain by changing the parameters in each test scenario.

Keywords - Blockchain, Ethereum, performance, GasPrice, GasLimit, Difficulty