ABSTRACT

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

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The Blockchain or can be referred to as Distributed Ledger Technology / DLT is a concept where each participant incorporated in a distributed network has the right of access to these ledger. The Blockchain provides security, and data integrity, this is very useful when used on a private network, so there is no need for a third party to control all transactions. The use of blockchain ethereum on the private network requires a resource that is capable of, therefore design is needed for computing resources so that private ethereum blockchain can work. Based on these conditions, a performance test is performed on the processor to run a private ethereum blockchain to transfer coins between the ethereum blockchain nodes in a peer-to-peer manner with various parameters. This aims to create a design design for private ethereum blockchain using parameters that can be changed. The results obtained are there are effects of parameters that are changed to the processor performance. Especially on nodes that have low specifications, up to 100% performance in some scenarios, on the contrary with node specifications that are quite high performance up to 80%.

Keywords – Blockchain, Ethereum, Peer-to-peer, private ethereum, performance