

ABSTRACT

IPFS (InterPlanetary System) is a file system that uses peer to peer method in terms of storing and sharing hypermedia in a distributed file system because IPFS does not have a minimum of requirement in RAM capacity as well as value Measurement of the memory usage at the time of the running process, it is necessary to analyze the memory usage to find a minimum of requirement in memory especially in RAM. In its implementation IPFS will be put on the virtualization resource model using Ubuntu operating system. This research refers to the measurement of memory usage of uploaded files by having different file sizes done in two conditions: connected to public peers and connected with 2 peers when performing uploading files. Both conditions divide the RAM capacity into 4 different capacities. This research is done to find out what factors affect memory usage when running the IPFS virtualization process when uploading files. For test results the average result value affects the memory usage that is connected to the public peers has a value greater than when connected to 2 peers. The results of memory usage testing will be used as a benchmark against a minimum of requirement in memory capacity so that the implementation of IPFS virtualization can run well and effectively.

Keywords: IPFS, virtualization, peer to peer, memory, RAM (Random Access Memory), peers.