ABSTRACT

Data has become a commodity and every organization is capable of collecting and storing vast amounts of data. Big Data is a new technology in the world of information technology which enables processing, storage and analysis of data in various forms / formats, and gain a large amount of data very quickly. Processing and analysis of very large amounts of data requires a relative time much shorter using Big Data compared to the previous data technology. Based on study, now have a new technology about virtual distributed storage system which called Alluxio, Alluxio lies between computation frameworks or jobs and various kinds of storage systems.

In this research to analyze the performance of Alluxio testing is done using MapReduce. In this test, the file size of 10MB, 20MB, 30MB are used to compare the performance of Alluxio with some variables. The variables to be analyzed is the speed of MapReduce, CPU, memory and stream input / ouput. The result of all variables show that computation time process, the larger the file size is increasing the speed of time, The larger the file used will be smaller memory used, for the CPU, the larger the file that is used will be greater CPU performance, for the stream read files alluxio looks stable, the larger the file used , the greater the stream read files, as well as write stream file .

Keywords : *Alluxio, Hadoop, MapReduce, Big data*