

ABSTRACT

The telecommunication growth especially in computer networking technology has grown very fast. This will help people to ease their job and to share the information. Thus the need of high data rate and bandwidth will become crucial. So, we need a method to improve our quality and speed of existing network with various ways. One of many ways is by implementing Multipath TCP.

Transport control protocol (TCP) is an important protocol that widely used in today network. It delivers a reliable and connection oriented communication. There is so many algorithm that can increase the performance of TCP, one of them is Multipath TCP. MPTCP is a protocol that has been developed by a workgroup on IETF and many developer around the world. The main idea of Multipath TCP is by using multiple interface simultaneously on the end host that has a reliable and connection oriented communication to increase the data rate. On this research, the implementation of MPTCP and performance testing on both wired and wireless interface has been performed.

On this research, several scenario to testing the performance of Multipath TCP using wired and wireless network has been performed. From the scenario testing, there is an improvement of throughput value from 74,445 Mbps to 152,612 Mbps (using MPTCP with two wired interface) and 131,969 Mbps (using MPTCP with two wired interface and one wireless interface). Besides increased throughput value, MPTCP also could doing failover when failure happened.

Keyword : MPTCP, *Wireless*, *Wired*, Throughput, *Transport Layer*