

ABSTRACT

Routing protocols are important in the process of transferring data from computer to another computer through addressing the intended IP network. Enhanced Interior Gateway Routing Protocol and RIPv2 version 2 RIP (Routing Information Protocol) using hop count as routing metrics and requesting help on EIGRP hops using bandwidth and delay as routing metrics to determine the best path to network destination addresses, to connect more routing both in the EIGRP and RIPv2 networks to be able to connect using the Redistribution method. In MPLS network (Multiprotocol Label Switching) required in the network to process data to be fast, therefore this final project will compare the performance of Redistribution and Redistribution on MPLS network. In this research, we tested how good file sharing service and streaming video service with Redistribution and Redistribution of MPLS network, then analyzed QoS parameters from file sharing service and video streaming service in the form of throughput, delay, and packet loss. This test uses 3 scenarios on file sharing services of 10 MB, 30 MB, 50 M, 80MB dan 100MB . From the test results on the file sharing service for the redistribution network, the average throughput value is 1.4878 Mbps, while for the redistribution MPLS, the average throughput value is 1.6398 Mbps. The results of the average delay value on the redistribution network is 2.6754 ms, while for the redistribution MPLS is 2.4112 ms. The results obtained for the average value of packet loss in the redistribution network is 1.9984%, while the MPLS redistribution network is 2.0474%. Based on the results of testing on file sharing services, the MPLS redistribution and redistribution networks are categorized as very good for the parameters of throughput, delay and packet loss according to the TIPHON standardization.

Keywords: *Routing Protocol, EIGRP, RIPv2, Redistribution, MPLS*