

ABSTRAK

The computer network is the media information that is evolving so rapidly. The media is a network of computers connected to each other through the media of the sender with the help of a hardware device. But in computer networks there are a few to watch out for the routing configuration that will influence delivery information from one router to another router. With so many routers are connected on the same network then each will affect the working of the network and the results of a traceroute obtained

In this final project purpose i.e knowing the configuration of OSPF and MPLS to Mikrotik router. As well as finding out the workings of MPLS network on the Mikrotik router. Routing configuration which determines the best router to send the data. For the measurement of QoS parameter is done in two ways, namely to network with MPLS OSPF and OSPF. So for this time using the video as support services.

From the results of testing on the scenario that is already set, then retrieved the results of comparisons to routing OSPF with MPLS and OSPF are applied, it can be seen from the results of the QoS parameters by using the video stream as its services. For measurement of the parameters of the OSPF and MPLS, average Delay value tends to be high for the video service streams namely 0.128ms with background traffic that is 200Mbps. The value of the average highest Jitter for video service streams namely 2.589ms with background traffic i.e. 280Mbps. The value of the Packet loss average high for the video service streams namely 8.5% with background traffic i.e. 280Mbps. Value throughput highest average for video services namely 90.9 Mbps with background traffic that is 200Mbps. as for parameter measuring of ospf, the average value of delay which tend to be higher i.e 0.128 ms with background traffic i.e. 280Mbps. Value of jitter average high for the video service streams namely 12.917 ms with background traffic i.e. packet loss Value. 260Mbps average high for the video service streams namely 7.70% with background traffic 200Mbps. last value throughput average high for the video service streams namely 95.4 Mbps.

Keywords: *OSPF, Mikrotik, MPLS, QOS, Background Trafik, Traceroute*