

## ABSTRACT

Quality of Service (QoS) is an important thing that must be considered in the Internet network. The ultimate goal of the Quality of Service (QoS) is to provide a better service from a provider to the customer. Many of the considerations that need attention to get the value of good quality on a large network bandwidth Procurement is one alternative, but this matter is not effective because the data traffic that is passed does not continually have a large amount of traffic. To improve network performance that can be done for example by applying the differential method of service, resource reservation protocol (RSVP), and the use of routing management.

Multi-Protocol Label Switching (MPLS) is a method of forwarding data over a network using the information in the label attached to an IP packet. Due to the exchange of information via the Internet continues to increase rapidly which causes the amount of traffic through the MPLS network is getting bigger and create congestion on the network, MPLS offers traffic-engineering functions that can utilize the network optimum utility.

Use of MPLS TE is done by finding the path that has the utilities link perutingan low, In this final task will integrate technology with MPLS traffic engineering technology differentiated service so that it will produce a better QoS when the link is experiencing congestion by way of classifying the services megalami removal link, so that packets get priority would have a better QoS good. QoS parameters seen from the results of throughput, delay, packet loss, and jitter. In MPLS-TE technology diffserv For Value Videos service delay in the background traffic has the value 0 Mb 288.807 ms, throughput of 4774.534 bps, packet loss and jitter of 0.89% for 0329 ms.

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