

ABSTRACT

Higher information technology demand for serves multi application service, bandwidth capacity, easy to access, and cheap price. Broadband network is a kind of network which could fulfill those requirement. It could delivers packet with efficient, scalable, might differential data packet like with it characteristic, and also mobile access. MPLS with QOS Differentiated Serice (diffserv) is solution of this requirement.

In this final paper explain about the comparation of performance of QoS in the MPLS backbone network at PT Excelcomindo Pratama with the result of simulation performance includes bandwidth utilization, delay, packet loss and delay especially in the backbone.

From the result of simulation program, for the high scale network give decreasing delay 41,48%, decreasing Loss 93,27% and increasing Throughput 32,79%, and also for the low scale network give decreasing delay 25,03%, decreasing Loss 60% and increasing Throughput 22,78% comparing with the result of existing network performance.

Keywords : MPLS, QOS diffserv, High scale network, Low scale network