ABSTRACT

Nowadays, the network is growing in the period of transition from circuit based to packet (IP), where all services of telecommunication such as telephony (voice, video) and data (email, file transfer, browsing, etc) using transport network based on IP. The real characteristic, this network typically is the best effort, which is the degradation of real time information quality likes telephony service potentially will happen. Hence, special protocol is needed to transfer information, in order to support QoS requirement.

This final project will simulate and analyze how far the repairement of quality can be given by MPLS technology compared with OSPF, RIP, and IS-IS. The packet loss, delay, jitter and throughput will be taken from the result of analysis in graph form without simulating signaling process in MPLS;

The performance repairments such as delay, jitter, throughput and packet loss were the result that can be taken if we use MPLS algoritm. Beside that, MPLS algoritm has better performance in traffic voice than OSPF algoritm , IS-IS and RIP.

Keyword : Multi Protocol Label Switching (MPLS, Quality of Service (QoS).