

## ABSTRACT

To improve QoS, there are some methods that can be applied such as best effort, integrated service, and differential service. Best effort is a method of sending a package from the first node to another one. IntServ is a method where the package that are going to be sent, will be given a bandwidth guarantee first, the protocol that involves is RSVP. Diffserv is a method of giving first priority in the network to the package that will be sent. To improve forwarding data performance we will need MPLS. MPLS is a method of forwarding data via network using the information from the IP package label.

In this minithesis MPLS-Diffserv and MPLS-Intserv on video conference service are compared and it has analyzed. This reservation is based on improvement performance of each method that have an impact on the QoS of video conference service.

From the result of the emulation that have done in this research, we know that MPLS-DiffServ can keep the value of QoS. it is identified based on voice delay that lowered until 6.5% to MPLS and 23.9% to MPLS-IntServ, packet loss lowered until 18.8% to MPLS and 58.3% MPLS-IntServ, jitter lowered until 18% to MPLS and 25.9% to MPLS-IntServ, throughput voice 2.5% to MPLS and 20.4% to MPLS-IntServ. the measurement result of MPLS-DiffServ on video delay that lowered until 4.3% to MPLS and 26.1% to MPLS-IntServ, packet loss lowered until 19.5% to MPLS and 27.7% to MPLS-IntServ, jitter lowered until 4.4% to MPLS and 25.4% to MPLS-IntServ, throughput video 3.2% to MPLS and 20.6% to MPLS-IntServ.

Keyword : MPLS, MPLS-DiffServ, MPLS-IntServ, QoS, *Video Conference*.