ABSTRACT

Future telecommunication development will lead to a public network that is widely known, IP networks. All telecommunication either wired or wireless form will culminate in one primary rule is the rule of IP. Now with developing of LAN technology, where data communication between devices become easier and cheaper, developed a new technology that allows the relationship between different LAN and geographical distance does not become a significant constrain

Metro Ethernet Network are generally defined as bridge from a network or connecting separate areas, could also be a network or connecting the region with LAN or WAN backbone network which is generally owned by service providers. Metro Ethernet Networks to provide services using Ethernet as the core protocol and broadband applications.

In this final task will be carried out simulations using Weight Round Robin (WRR) and Weight Fair Queueing (WFQ) algorithm to measure the QoS of each service on Metro Ethernet Network so that will get the most appropriate method. From the test results and analysis obtained that WFQ and WRR algorithms give the same value and have not much differences. In the scenario of a user changes, the results of delay were 0.066131s for WFQ and 0.066133s for WRR, the results from simulation of user changes still meets the standards of ITU-T delay that is <150ms, the results of packet loss were 0.035949% for WF and 0.035553% for WRR, and the results of throughput were 59575.69bps for WFQ and 59733.67 bps for WRR.

Keywords : Metro Ethernet, WRR, WFQ, QoS