

ABSTRACT

WiMAX (Worldwide Interoperability for Microwave Access) is a wireless technology in broadband technology and work on the Metropolitan Area Network (MAN). WiMAX can provide services with high-speed data and has a wider coverage area compared to other broadband technologies. This caused the number of customers increased. According to the customer's demand that comes bigger, WiMAX should be able to provide a good quality service .. The scheduling can be run with various bandwidth requirements based on the kinds of types of services. That is, scheduling is able to improve the QoS of each type of service.

In this final test ,to see the QoS by using scheduling algorithm those are Random Early Detection (RED) and Class Based Queueing (CBQ). QoS parameters to be observed is the throughput, delay, and packet loss. In this project, simulations performed with ns-allinone software-2:3.

The percentage of the maximum packet loss generated by the RED and CBQ scheduling scheme occurs when users are 40 ie for video services 15:32% and 17:07%, while for VoIP services at 9:12% and 9.3% .The maximum delay for video services generated by RED and CBQ scheduling scheme occurs when users are 40 of 15,687 ms and 14,029 ms for video services to VoIP services while at 13.6795 and 16.3904 ms ms.

Keywords: Random Early Detection, Class Based Queueing (CBQ). QoS, ns-allinone-2:31, throughput, delay, and packet loss.