

ABSTRACT

Network technology is currently developing to the full base with IP Next Generation Network concept can deliver triple play services that are required by the subscriber. Triple play services need a carrier medium which is able to transfer data with a large capacity. Constraints that occurs in the condition of network access at the Faculty of applied science requiring large bandwidth of triple play services, as well as for the needs of the learning media.

Technology that is able to accommodate the triple play service is the 802.16 d WiMAX with standardization. The frequency of the use of WiMAX 802.16d is 3.5 GHz implemented University Campus surroundings Telkom, in addition is designed for corporate clients with the configuration point to point and use the prefix cyclic ¼, and using bandwidth management.

On this implementation made 2 scenario i.e. the location of the customers were in the building with the condition of Tokong Nanas LOS and in the building of Ararkula with conditions NLOS. Based on the second scenario then obtained the best results i.e. customers were in the building with Tokong Nanas bandwidth obtained of 11.648 Mbps data throughput obtained 225.93 Kbps, video service acquired delay 9.73 ms, with 0% packet loss, and throughput 731.57 Kbps, and voice service get MOS 4.25. By viewing the parameter QoS belongs either in accordance with ITU-T standardization P.800 and ETSI 1999-2006 year.

Keyword : WiMAX, Triple Play, QoS, ITU.T P.800, ETSI