

## ABSTRACT

Due to the rapid increase in information technology development nowadays, it creates many varieties of technology standards, with its own advantages and disadvantages. A synergy between these technologies is then created to optimize its advantages and eliminate its disadvantages.

In wireless technologies there is a technology widely known as WLAN or WIFI, which has its disadvantages due to its close range area cover, approximately 100m and for wider area coverage then a repeater is needed, which increases the budget needed and lowers this technology's efficiency from cost alone. To expand the coverage area, WiMAX is used as backhaul of WLAN technology and also as network provider technologies in areas not yet covered by WLAN.

IEEE, which started development over 802.21 Standard in March 2004, is provided to bridge handover between technologies explained above in covering communication in multimedia signals.

The simulation and analysis shows us that multimedia communication QoS on WLAN and WiMAX still feasible and match with ITU-T standard when done on not extreme velocity. From the experiments we can see the value of loss packet are 15,02% to 31,7%. Lastly we can make a conclusion that the movements from WLAN to WiMAX will get a value of loss packet 17,02% which is better than WiMAX to WLAN that valued 23,82%.

Keyword : 802.21, Multimedia, Wimax, Wlan