

ABSTRACT

The development of current wireless technology based on the growing need for mobility of subscriber services, including triple play services that are bundling voice, video, and data. The need for this mobile is required to provide communication services that can be done anytime, and anywhere even while she was traveling with a certain speed, so even during handover can still enjoy the service with good quality.

Worldwide Interoperability Microwave Access (WiMAX) is a wireless technology developed at the moment. Wimax is a technology that promises wide coverage area with a high speed, but on the mobile WiMAX 802.16e standard that promises mobility does not necessarily result in a maximum data transmission, let alone do triple play delivery.

In this final task performed handover mobile wimax research aims to find out the value of QoS for triple play services during handover. To measure the QoS value of simulation is done by looking at the effects of velocity parameters, the condition of LOS, NLOS, ITU Pedestrian A. In this study obtained results that the mobile network capable of serving wimax triple play services up to speed 40 km / h with a packet loss of 13.00% for the video, and up to speed 60 km / h with 13.44% packet loss for voip. Speed greatly affects the value of QoS in this simulation, the faster the movement of the user, ate QoS values obtained further down. Obtained while varying delay of about 21 ms to 66 ms video services for voip services. In LOS conditions have data transmission capabilities better than the NLOS conditions. As for NLOS conditions without multipath better able to send more data than the multipath NLOS conditions ITU Pedestrian A.

Kata kunci: triple play, mobile wimax, handover, velocity, LOS, NLOS, pedestrian