

ABSTRACT

The requirement of human being of communications will claim the technology to develop the flexible communications system, can make a move free and have high technology. According to the human being demand is hence developed by a new technology is called (HSDPA) High Speed Downlink Packet Access and Mobile WiMAX 802.16e (Worldwide Interoperability for Microwave Access). Because high mobility user and immeasurable intensity trafik hence enabled by the existence of functional improvement and implementation of vertical handover between HSDPA and Mobile WiMAX 802.16e.

The technology of Network wireless which there have offered to mobile user difference of connection bandwidth , coverage and expense. By handover user can use the most appropriate network wireless with the time and place. When happened by the network transfer (handover) between HSDPA and Mobile WiMAX 802.16e, so the file transfer will remain to be executed. Handover among the network is also known as vertical handover. Vertical Handover enable the happening of transfer user among high data rate network and small coverage area with the low data rate network and wide coverage area.

The speed of Vertical handover which excelsior cause the degradation to performance of TCP network. In general degradation of interval transmission packet cause the degradation to performance TCP network.

At process handover from network HSDPA to network Mobile WiMAX 802.16e get the result in the packet loss is larger ones, if compared when happened the process handover from network Mobile WiMAX 802.16e to network HSDPA. At a speed of 1 m / s get difference of packet loss 1 %, in speed 5 m / s get difference of packet loss 1.5 %, in speed 10 m / s get difference of packet loss 2 %, in speed 15 m / s get difference of packet loss 2 %, and in speed 25 m / s get difference of packet loss 2 %.

Key words : HSDPA, Mobile WiMAX 802.16e, TCP, *vertical handover*