ABSTRACT

Mobile WiMax is a standard wireless technology IEEE 802.16e that support for mobility services. Mobile WiMax have many advantages such as broadband bandwitdth, distance coverage, can service in non line of sight condition .

In this research, will simulate mobile WiMax network perfomance in voice comunication service, in this case are VoIP. The parameters that used to standard quality perfomance such as delay, througput, packetloss and jitter.

In this simulation, will test a quality of VoIP service in mobile WiMax network, with give some background traffic such as HTTP, FTP and Video. Second simulation that change the codec that used to test the perfomance. Third simulation will test VoIP perfomance with mobility user.

From simulation result, codec G729 good enough for VoIP comunication, where at simulation with highest background traffic gives mean packetloss 6.88%. Codec G711 gives hihgest delay with 46.7630 and the lowest G723 with 25.551ms.

Key Word : *WiMax, VoIP, Mobile, Codec.*