

## ABSTRACT

Voice technology through IP network very popular now, a lot of technology earn to serve this service, but there are one of alternative access network to support the service is WiMAX, WiMAX technology is technology high speed broadband wireless access capable to access information through internet network with data speed up to 75 Mbps with reach 50 km at LOS condition, so that WiMAX technology earn to become solution in equipping requirement of application voice service.

But there still are problem, before providing application voice service over WiMAX, there are transmission aspect which must be paid attention because will influence quality of application voice service, and aspect from parameter of QoS Voice which sometimes not yet according to standard of minimum condition.

In this final project done by field study at Telkom RDC by doing measurement of QoS parameter for voice service in WiMAX network, there condition is LOS and Non LOS ( NLOS) in some distance from Subscriber Station ( SS) to Base Station ( BS). QoS parameter Perceived is delay, packet loss, jitter start from source node to destination node.

Expected result of this final project is earn optimalization performance of WiMAX network from QoS Service aspect to certain area especially in providing voice service, so that be expected earn to help voice service provider for implemented this technology into WiMAX network.

**Keyword : WiMAX, 802.16d, voice**