

ABSTRACT

The development of telecommunication technology runs rapidly along through the customer's demand on varying telecommunication services especially in data exchange and high speed internet access. This demand, of course, has to be able to fulfilled by a tough telecommunication technology. The application of Wireless Internet Protocol Local Loop (WipLL) technology is one of the solutions from the matter above, since WipLL has so many advantages that the others have no. WipLL is a *Broadband Wireless Access* system that supports voice, data, video only using a IP (Internet Protocol) platform that able to operate in range 0-20 km at LOS (Line Of Sight). As a wireless system, one of WipLL that operates in frekuensi 3.35 Ghz appropriates to be developed in area that has internet access and high speed data exchange demand.

This final project will design WipLL network DI Yogyakarta especially in residential at Sleman and Bantul Regency that really do need high speed internet access.

The planning of WipLL network will consists of : demand identification, service area coverage, IP planning, and configuration setting and WipLL network design. Meanwhile, to know the performance of WipLL network so will be done an analysis that involved power link budget, and transmittion loss.