

## ABSTRACT

Digital Subscriber Line (DSL) is technology which using copper cable as its technological bases. DSL draw enthusiasm and attention of implementer and service provider since this technology earn to make a promise to deliver high-bandwidth data without make significant changes in existing telecommunication infrastructure.

One of the DSL technologies which are vastly used during this time is ADSL (Asymmetric Digital Subscriber Line). In ADSL, subscriber's telephony access earns to improve its ability become high-speed digital network. Thus, besides getting voice phone facility, subscriber also earns to conduct to dedicated with high speed which 1 Mbps for downstream dan 384 Kbps for upstream.

In this Final Paper studied several parameters to know and analyze quality of existing network. The parameters are Loop Resistance, Insulation Resistance, Channel Attenuation, Crosstalk, and Longitudinal Balance. Simulation using OPNET IT Guru Academic Edition 9.1.

The data got from measurement will be compared by a calculation result in its mathematical standard for each parameter. Others, the measurements data also will be compared to a standard quality specified by PT. Telkom and ETSI. The result of Simulation ADSL Network with OPNET IT Guru Academic Edition 9.1.

Key words : Copper-Wire Network, ADSL