

## ABSTRACT

VDSL (Very High bit-rate DLS) can transmit data up to 52 Mbps for downstream and 6.4 Mbps for upstream in range between 300-1500 meters. VDSL is a modern technology that use in conventional telephone network for increase the capability of the telephone network so that can access a broadband communication service.

PT Telkom did not have an IPTV service with VDSL technology, so it would planned a network with VDSL for IPTV service. IPTV service is a breakthrough in IT world. IPTV (Internet Protocol Television) has a several benefit such as record, pause, VOD (Video on Demand).

In this Final Project will explain about performance jarlokat, including line resistance, isolate resistance, attenuation, signal to noise, continuity, longitudinal balance, and background noise so that could be known if It's support or not the network used VDSL technology, plan configuration VDSL for IPTV service, and it will simulate the network using OPNET to see the parameter of throughput.

The result of measurement parameter jarlokat show that range between 0,5-3 Km compatible for the standard. The point for throughput from residential user is bigger than enterprise user.

Measurement and planning this network help PT Telkom for implementation in the field.

Key word : VDSL, IPTV, Jarlokat.