ABSTRACT

High public demand will lead to internet service internet service providers are required to meet the demand for high speed internet. Currently, PT. Telkom as one of the leading providers of telecommunications services has been providing internet services, namely Speedy. Speedy is a broadband internet access service with high speed, which uses ADSL (Asymetric Digital Subscriber Line). With this service, customers telephone access network upgraded to high-speed digital networks, which allow customers to be able to use the facilities at the same phone can access the internet at high speed. By using Speedy, customers can take advantage of USeeTV namely IPTV services.

However, as the performance of Speedy broadband service today it is still lacking and frequent disruptions. In addition there are still many users who do not subscribe Speedy UseeTV because the network does not support. To improve performance Speedy service, minimize disruptions, and supports IPTV services, one way to do is to optimize the cascade DSLAM network. Optimizing using GPON technology, which already support Triple Play services, and use the Splitter 1: 2 in each DSLAM to not cause interference streak.

In this final project resulting cascade DSLAM network is already using GPON in order to improve performance and support Triple Play services . On the measurement and testing in the field showed PRX = -17.8578 dB for maximum distance and 0229 ns rise time budget . The results of measurements in the field to qualify the feasibility of a network where PRX ≥ -25 dB and a rise time ≤ 0:28 ns budget

Keywords: DSLAM, GPON, cascading, Triple Play.