

ABSTRACT

Attenuation analysis on FTTH Network PT. Telkom Mangga Besar with Gigabit Passive Optical Network (GPON) Technology Using Simulator. With the rapid development of telecommunications technology which serves as a very important requirement for communication, there is an important need for transmission media that can carry data at high speeds. Using GPON technology, FTTH services can reach users at speeds up to 2GBps. The main purpose of this study was to determine the cause of an increase in the total attenuation value in Fiber To The Home (FTTH). For the purpose of determining the cause of an increase in the total attenuation value associated with Fiber To The Home (FTTH). To handle the total damping value that exceeds the standard limit of PT. Telkom Mangga Besar that has been established. The methodology of this research consists of analyzing the total attenuation value studied on the FTTH network at PT Telkom Mangga Besar. The total attenuation value in a fiber optic cable, measured from the optical line terminal (OLT) to the optical network terminal (ONT), must be within the standard attenuation value of 15–28dB. Factors that occur in increasing the total attenuation value of fiber optic cables include the number of splices and tangles of cables, angles greater than 45 degrees. By changing a 0.35 dB fiber cable to a 0.20 dB fiber cable, and can reduce the total attenuation value in fiber optic cable into a predetermined standard range.

Keywords: Optical Fiber, FTTH, GPON, Attenuation