

ABSTRACT

The need for telecommunications has increased rapidly along with the development of today's technology. The high demand for the provision of reliable telecommunications services, telecommunications service providers are required to continue to provide adequate service infrastructure for the public. Metro ethernet is one of the solutions chosen in providing services because capacity can be added from time to time. Adipala-Kawunganten metro ethernet link network is a transmission system using fiber-optic cable that stretches along the electric tower owned by PT PLN (State Electricity Company). Factors that affect optical parameters such as attenuation, dispersion, power link budget, availability, rise time budget, these parameters are quite influential in evaluating performance. The technique used is to analyze the parameters of the power link budget, availability, rise time budget using OptiSystem. The assessment of the Adipala-Kawunganten budgeted metro ethernet power link was considered good and met the standard because it obtained results below the standard set by PT Icon Plus, namely -28 dBm. Based on the calculation of the rise time budget for the Adipala-Kawunganten metro network, it meets ITU-T standards. The availability carried out in this study also obtained 99.9% results and was said to be good because it met the standards of the ITU-T

Keywords: metro ethernet, OptiSystem, Link Power Budget, Availability