

ABSTRACT

Fiber optic network designers often face several challenges in planning and designing fiber optic networks. One of the challenges faced is the lack of optimal tools to facilitate the calculation of LPB and RTB as well as reporting the results of technicians' daily work in a practical manner. In addition, rapid changes in the business and technology environment require network designers and engineers to constantly update their planning to stay relevant. Errors in planning, inefficient project management, and the need for increased productivity are also important issues that need to be addressed.

The solution to the above problem is the creation of a website that can help fiber optic network designers and technicians in calculating LPB (Link Power Budget) and RTB (Rise Time Budget) values automatically. With this website, network designers can increase efficiency, reduce errors, and design more effective fiber optic networks. In addition, there is a Daily Report feature that aims to assist network technicians in reporting daily work results, thus creating transparency between technicians and team leaders. The implementation of the website solution begins with designing a user-friendly and informative website interface. This process involves identifying user needs through direct interviews with users, to determining relevant content such as technical specifications.

The results of testing the accuracy perhitungan LPB (Link Power Budget) and RTB (Rise Time Budget) calculations carried out by comparing the results of manual and system calculations using the website, obtained the accuracy of LPB and RTB calculations of 99.96% and 99.68%, respectively. While the results of testing the functionality aspects and MOS testing (rating scale of 1 to 5) for the Daily Report feature state that all aspects of functionality have functioned optimally and get a high level of user satisfaction with an average MOS value of 4.61.

Keywords: website, LPB (Link Power Budget), RTB (Rise Time Budget), Daily Report