ABSTRACT

The field of telecommunications is now growing rapidly which causes the demands of the community to increase in line with the development of the telecommunications sector itself. The high quality of access services is the ideal for all users of telecommunications services, but is a challenge for operators. The transmission line is the main thing in sending and receiving customer information because if the transmission line is not running properly, the information will fail to be sent. One of the causes is congestion, which is a slowdown that occurs in the transmission channel due to data transmission exceeding capacity, causing a decrease in performance. This happened at PT. XL Axiata Tbk in Poncol area until Pekalongan. The available transmission line cannot accommodate traffic on the Multi Service Transport Platform (MSTP) port that will go to the Radio Network Controller (RNC). The method used to overcome this congestion is balancing tunnel, which is a technique to divide the existing traffic load into a balance. Based on the XL network topology, the MSTP Poncol port that can be traded is port 7 # 1 via Tawangsari with the highest traffic of 59% and congestion traffic at Poncol site port 11 # 1 is 80%. The results of the utilization of the balancing tunnel allows getting 69.5% of traffic but in reality the results of Poncol site utilization port 11 # 1 are 35% and the results of Poncol site utilization port 7 # 1 are 98%. It can be concluded that the balancing technique carried out by the executor team has not gone well.

Keyword: Transmission Channels, MSTP, Balancing Tunnel, Utilization