ABSTRACT

Improvement of customer service is the main concern of every telecommunications service provider company. Including that conducted by PT. Telkom Tbk with implementing VLAN technology in Metro Ethernet backbone network too. Thus, the frame-frame that is broadcast on a network is transferred between the ports, which are grouped in logical in the same VLAN.

At the end of this task is done and the simulation analysis KMY-link JBBK using VLAN on the Metro Ethernet network for IP VPN services. IP VPN is a service from PT. Telkom Tbk for companies and institutions that need secure data communications and economic center for office and branches in various locations spread. Simulations were performed using the software Network Simulator 2 and focuses on the link that observed with analyzing the performance QoS parameters include delay, throughput, and packet loss and also made forecasting traffic on the link.

Analysis of the simulation results show that the link observed decrease in the QoS performance when running 60 users simultaneously without the traffic conditions on the transgressor. While there is a background traffic about 40% of the available capacity, decrease the number of users that can still be served with both the user as much as 45. So that the background traffic can be very gadfly affect performance generated by the link.

Keywords: VLAN, Metro Ethernet, Quality of Service (QoS), IP VPN Service