

ABSTRACT

Information technology develops so fast that much of human activity depends on the quality of the Internet network. Especially in the era of Revolution 4.0, where technology covers every part of our daily life, especially for those of us who need an internet network of adequate speed or quality to deliver our activities. Technology where limited space doesn't get in the way of connectivity. Another thing that affects us is the use of more and more bandwidth. This allows network administrators to manage the use of the available bandwidth so the required costs are not too high. Therefore, it is hoped that the MPLS method can provide a solution to this problem. Thus, among other things, the QOS generated by the MPLS method must also be good. This is an effort to measure how good a network is according to the TIPHON standard Quality of Service (QoS) and to determine the characteristics and properties of a network service. In Internet Protocol (IP), IP QoS refers to the performance of IP packets over one or more networks. QoS is designed to improve end-user productivity. In this study, network design simulations with MPLS and VPN routing were performed to calculate network QOS values. The simulation itself is done with the GNS3 tool and Qos with the Wireshark tool.

Keywords: MPLS, VPN, QoS, GNS3