

ABSTRACT

By using MPLS + DiffServ, service providers can provide various service classes (Class of Service) with guaranteed Quality of Service (QoS) to customers who can support data services, voice, and video. Each service type has a different sensitivity to the types of QoS parameters, therefore each type of service has a different value of the collateral at the Service Level Agreement (SLA) which were pledged by PT. TELKOM to its customers IP-VPN users.

This final project analyzes the performance of services on IP-MPLS network, owned by PT.Telkom at the time of peak traffic that is H-3 and H +3 Hari Raya Idul Fitri. Measurement and analysis carried out on customers who have a third class of service offered PT.TELKOM interactive, gold, and silver by using the Network Management System (NMS).

Results of research and analysis will be compared with the standard PT. TELKOM is in the form of parameters such as delay parameters, then availability value for a month, and packet loss parameters. These three parameters will be measured based on the data obtained for all three types of service classes of PT. TELKOM. To further enhance customer service quality QoS-IP VPN users, better QoS and bandwidth management mechanisms are implemented at the customer site (LAN).

Keywords: MPLS, DiffServ, Service Level Agreement, QoS