

Abstract

Multimedia applications enforce Quality of Service (QoS) requirements. One of the important factors that affect the quality of service is at the transport protocol layer. The use of the right transport protocol will result in optimal utilization of network resources. UDP and DCCP are protocols that are at the transport protocol layer. This study will analyze the Quality of Services (QoS) of the use of UDP and DCCP transport protocols on the SD-WAN network architecture by providing video data traffic flows. Quality of Services (QoS) analysis parameters that will be used are throughput, packet loss and delay. The test results by providing video traffic flow with background traffic variations, the results show that the use of the UDP transport protocol provides better performance when compared to DCCP. Meanwhile, in testing with various resolutions, the performance of the DCCP transport protocol is better at low resolution, while at high resolution UDP is superior. In addition, the use of DCCP will be more suitable if used on network paths where there is no large data traffic flow because if there is a large data traffic flow, it will result in a decrease in service performance.

Keywords: Transport Protocol, SD-WAN, UDP, DCCP, Quality of Services
