

Abstract

Multi-Protocol Label Switchin is a network technology that provides a new method of routing IP data packets while meeting quality of service. Due to scalability and especially a concern for enterprises, which have data centers, MPLS provides priority services to users. SDWAN and SDN virtualize resources to provide better performance, higher availability, andiautomated network management. At the same time, costs are significantly reduced, especially when compared to MPLS technology. The choice of MPLS and SDWAN technologies for comparison is due to the rapid development of these two technologies, and the expected future potential of SDWAN applications. The purpose of this study is to analyze the performance of MPLS and SDWAN networks based on various known factors. The SDWAN attribute, describes the software-defined network on which SDWAN is based and the attributes defined by. MPLS technology network traffic is generated using the Wireshark network analyzer, which collects data about endpoints on the previously simulated network. SDWAN, Mininet environment function uses to determine and analyze network parameters. At the time of testing throughput on SDWAN on average more than 17% superior when compared to MPLS.

Keywords: WAN, MPLS, SD-WAN, GNS3, QoS