

ABSTRACT

Requirements of a good network performance with high speed data transmission getting increases along with amends it technology. Multi Protocol Label Switching (MPLS) is a technology that can meet the need, because MPLS technology can abridge duration of forwarding package by adds header/label on packet identifies process. MPLS-VPN is a technology that can make simpler customer routing by service provider, and enabling a number of difficult topology implements in VPN peer to peer shape. Even every MPLS-VPN working in an Autonomous System (AS). Because every AS have a different policy, therefore needful a method to make a relationship inter AS MPLS VPN. One of that method is using MP-BGP VPNv4.

On this final task the writer does to analyze Quality of Service on inter As MPLS VPN network using MP-BGP VPNv4 compared by Back to Back VRF option. Network quality analysis can be known by creating video conference application where exists background traffic process increases.

From the researches results with QoS's parameter compare as inter-arrival delay (delta), jitter, throughput, packet loss gotten that both of option has a relative quality same. In common, MP-BGP VPNv4 gives QoS performance on video conference application as voice delay 0,031% smaller, video delay 0,037% smaller, voice jitter 0,029% smaller, video jitter 0,086% smaller, voice throughput 0,011% greater, video throughput 0,022% greater, voice packet loss 0,051% smaller, and video packet loss 0,056% smaller than Back To Back VRF's methods. On video conference at network inter AS MPLS VPN using MP BGP VPNv4 in common have the better quality.

Keyword : MPLS-VPN, Autonomous System, MP-BGP, Back to Back VRF