Abstract

A virtual private network (VPN) is a private network that uses a public network such as the internet or Multiprotocol Label Switching (MPLS) network to connect remote sites of same or different organizations/networks together. VPN provides similar level of privacy, security, quality of service and manageability that privately owned network provides. This paper presents the comparative analysis of VPN provisioning algorithm, Modified Tree Routing Algorithm (MTRA), on traditional IP based VPN and MPLS technology based VPNs. MPLS based method of packet forwarding has many advantages over IP layer forwarding. Packets with the same destination arriving on different ports of the router can be assigned to different Forwarding Equivalence Classes (FEC). Conventional forwarding, on the other hand, can only consider information that travels with packet in the packet header. The simulator used to implement the algorithm is, Network Simulator version 2. 30 (ns-2). NS-2 gives the packet level analysis of the network with animation.

Index Terms

Computer Science Networks

Keywords

Vpn Provisioning Ip Vpn Mpls Mtra Ns-2