

## **Know Why Your Business Needs a Multiprotocol Label Switching Service Virtual Private Network**

*A Virtual Private Network (VPN) should have the uninterrupted service availability that enterprises need. At the same time, they need to safeguard the sensitive customer data and other company information stored on the corporate servers.*

*IPsec (Internet Protocol Security) VPNs have been well accepted in the market after they replaced the remote access VPNs that were based on ISDN and analogue lines. However, new protocol options have also come up and Multiprotocol Label Switching Service (MPLS), particularly, has proved to be a better alternative. With MPLS VPN, once a data packet gets labelled, it need not go through multiple hop analyses and can offer the desired speed in secure communications.*

The usual Internet services available to the public are now faster than before and have an almost ubiquitous global reach. These can also be coupled with security frameworks such as IPsec encryption to take on the role of corporate WAN. Also, the general broadband connections used by consumers have a lower subscription fee than MPLS VPN. Why then should an enterprise choose the latter instead of fibre-based broadband?

Let us delve into the details.

While the broadband used by the masses seems good enough to use for businesses, its limitations in encrypting the data moving from one point to another make it unsuitable for running custom apps where information must be religiously guarded.

A public Internet connection may or may not be encrypted, but it is solely focused on transmitting data packets without any Quality of Service (QoS) provision. There is no guarantee of uptime or the flexibility to increase or decrease the bandwidth as required. Such a connection also lacks multicast capabilities and integrated resistance against DDoS attacks. Business users just push their data packets into the connection and hope that it will be transferred safely and in time.

The vanilla Internet has functioned well for email services and transferring documents or audio-video files but it is not an optimal choice anymore for the converged application traffic patterns that are common in business environments today.

On the other hand, an MPLS VPN is a business-standard Internet solution that comes without the delays and risks of basic Internet services. It comes with built-in QoS, resiliency, flexible capability and business continuity support. MPLS VPN offers layers of advanced solutions that are particularly targeted towards enterprise-grade traffic and enhanced user experiences. It can effectively handle multicast transmission through the network.

## **A higher level of security**

VPNs were originally designed for the security of data across public WAN infrastructures that consumers would share. Upon sharing a WAN, consumers can benefit from significant economies of scale as against the cost-restrictive alternative of each business creating its own private network. VPN solutions help to add some layer of security in networks shared by multiple users and there are multiple ways to achieve this.

As an example, an IPsec VPN secures the data in transit against theft across the shared Internet by employing a particular industry-standard encryption. Another option is the MPLS VPN that helps in segregating the data across an individual operator's business-class WAN infrastructure. It separates each user's traffic from others by employing an industry-standard consumer identification tagging technique called multiprotocol label switching.

Besides maintaining the privacy of traffic as it moves across shared network architecture, MPLS VPNs do not get affected by the DDoS attacks that are frequent across the Internet. As an MPLS VPN uses private address space, users are not vulnerable to the hijacking of their addresses and other dangers that loom in the public realm.

## **Other benefits of MPLS for businesses**

MPLS is a genuine app networking platform for enterprises that not only makes the networks secure but also brings several other attributes not provided with the general-purpose Internet connections and IPsec services:

- It has inbuilt features for disaster recovery and business continuity. In case of a sudden failure, the network traffic is safely rerouted within mere milliseconds. It brings class of service (CoS) potentials for the prioritisation and management of traffic, enabling the most critical or delay-sensitive traffic to get delivered before others.
- MPLS VPN has seamless site-to-site connectivity that allows business sites and employees working at remote locations to exchange data, voice and video traffic with each other without requiring the traffic to move an extra step at the central site. This prevents any slag in performance before the traffic reaches the intended destination. With unified, CoS and any-to-any connectivity, the seamless enhanced performance of enterprises applications is ensured and this is necessary for real-time apps involving video, text and voice.
- Single-operator administration and control is another advantage of MPLS-based VPNs. The service provider can, therefore, configure and administer the network to keep the traffic as per the policies and preferences of the organisation.

MPLS VPN also entails multicast possibilities to save upon bandwidth.

It is recommended that businesses bypass the public Internet in the interests of their productivity and data security. And the best way to do this is to configure MPLS VPN, which is currently the most suitable choice for enterprise-grade network services for the reasons described in this article.

The cheaper option of IPsec is suitable only for predictable, point-to-point and hub-and-spoke-style traffic or in conditions where security is not vital.

### **Conclusion**

An MPLS VPN is designed as an essential dynamic networking platform with all the security, performance, flexibility and uptime guarantee as required to manage the any-to-any traffic patterns that are typical to networks today. With an MPLS VPN, a business not only secures its ability to transmit data and use real-time app services but also unifies its voice, video, data and mobility communications with better performance than on the public Internet.

Enabling greater productivity and related revenue generation, MPLS is worth the investment for enterprises that employ custom software and apps for their regular operations.