Bandwidth refers to the amount of data that can be transmitted in a specific time over a wireless or wired medium. It is an important factor that is used to analyze network performance, design new networks, and understand the internet. Multi-protocol label switching (MPLS) originated from tag switching and enables the consolidation of applications onto a single network whilst providing the mechanism to prioritize the latency of individual applications within application classes. It is a more efficient way to transfer data between wide area networks and thus helps to reduce cost and increase bandwidth, throughput and reliability. In this paper we demonstrated by simulation experiment that MPLS-TE can help decongest routing path thereby ensuring improved network performance by reducing the traffic on a network segment, and increasing network throughput and reliability.
Improvement of Quality of Service (QoS) over a Wide Area Network (WAN) using Multiprotocol Label Switching Traffic Engineering (MPLS-TE)

References

- Webopedia, "MPLS", retrieved from www.webopedia.com/TERM/M/MPLS.html
- Margaret Rouse, "What is Multiprotocol Label Switching (MPLS)?", retrieved from www.searchenterprisewan.techtarget.com
- Top speed data communications, "MPLS-Multi-Protocol Label Switching", Available at: http://www.topspeeddata.com/MPLS.html
- S. Bryant; P. Pate (2005), RFC 3985: Pseudo wire emulation edge-to-edge (PWE3) architecture, IETF.
- L. Andersson; L. Minei; B. Thomas (2007), RFC 5036: LDP specification, IETF.
- Y. Rekhter; E. Rosen (2001), RFC 3107: Carrying label information in BGP-4, IETF.

Index Terms

Computer Science

Wireless

Keywords
<table>
<thead>
<tr>
<th>Bandwidth</th>
<th>Latency</th>
<th>Local Area Network</th>
<th>MPLS/TE</th>
<th>Throughput</th>
</tr>
</thead>
</table>

Improvement of Quality of Service (QoS) over a Wide Area Network (WAN) using Multiprotocol Label Switching Traffic Engineering (MPLS-TE)