Abstract

The emerging automated world necessitates an elaborate infrastructure to comply with the growing traffic and ensure a reliable mode of communication. This paper proposes a multi path Virtual Private Network (VPN) with assuaging options through which remote sites are connected over a shared provider network. It articulates a scheme with a view to extract the best values for the performance metrics in the path that transfers the data with minimum utilization of bandwidth. The methodology encompasses measures to continue the process through the next minimum bandwidth path in the event of the occurrence of an exigency. It includes Network Simulator-2 (NS-2) results across a stream of flow to project its applicability in the context of creating a traffic free environment.

References

Algorithms for Virtual Private Networks in the Hose Model. Twenty-First Annual Joint
Conference of the IEEE Computer and Communications Societies.
- Gee-Swee Poo, and Haibo Wang. 2007. Multi-path routing versus tree routing for VPN
bandwidth provisioning in the hose model. Computer Networks. 51(6), 1725–1743.
- Ho Young Cho, Jae Yong Lee, and Byung Chul Kim. 2003. Multi-path Constraint-based
Routing Algorithms for MPLS Traffic Engineering. IEEE International Conference on
- Kyeongja Lee, Armand Toguyeni, and Ahmed Rahmani. 2006. Hybrid multipath routing
algorithms for load balancing in MPLS based IP network. International Conference on
Multi-Path Routing Algorithm in Different Situations. International Journal of Computer Science
and Network Security, 7(11), 295-297.
- Monia Ghobadi, Sudhakar Ganti and Gholamali C. Shoja. 2007. Hierarchical
Provisioning Algorithm for Virtual Private Networks Using the Hose Model. Global
Telecommunications Conference. 2467- 2471.
Improving QoS in Mobile Ad hoc Networks. European Journal of Scientific Research, 53(2),
222-230.
- Tat Wing Chim, King-Shan Lui, Kwan L. Yeung and Chi Ping Wong. 2005. Routing
Algorithm for Provisioning Symmetric Virtual Private Networks in the Hose Model. Global
Telecommunications Conference. 802-806.
- Zenghua zhao, Yantai shu, Lianfang zhang, and Oliver yang. 2005. Flow-level multipath
load balancing in MPLS network. IEICE Transaction on Communications. E88–B (5),
Routing of Bandwidth Guaranteed Tunnels with MPLS Traffic Engineering Applications. IEEE
Journal on Selected Areas in Communications. 18(12),2566-279.

Index Terms
Computer Science Networks
Keywords
Vpn  Bandwidth  Multipath Routing  Mpls