Abstract

Security and privacy become mandatory requirements for voice and video communications that need security services such as confidentiality, integrity, authentication, non-replay and non repudiation. Stringent quality of service (QOS) maintenance for voice & video communication is a major challenge. New security solutions must take into account the real-time constraint of voice & video and their mechanisms should address possible attacks and overhead associated with it. Nowadays, Virtual Private Networks (VPNs) is considered the strongest security solutions for multimedia communications over IP networks. In this paper, analysis and experimental results for an evaluation of the QOS of voice and video traffic are presented. A comprehensive set of measurements like packet delay variation, Mean Opinion Score (MOS), packet end to end delay, traffic received, traffic sent are obtained. These results are further analysed to study the effect of VPN on these parameters. Experimental results confirm that, depending on the type of the traffic, the overall security of the networks is improved, with a reasonable decrease in term of performance.

References

Performance Analysis of Virtual Private Network for Securing Voice and Video Traffic


Index Terms

Computer Science
Multimedia
Keywords
Virtual Private Network  Security  voice  video  Firewall  opnet.