Abstract

Today's era of packet switched networks demands larger bandwidth to suffice the need to integrate multimedia applications like Internet gaming, transmission of voice etc. It becomes necessary to judge the network performance with the allocated bandwidth. Network performance depends mainly on the efficiency of the protocol used in addition to load on the network, the transmission system type and the connected hardware capabilities. The performance of the two versions of Internet Protocol IPv4 and IPv6 is tested as well as compared on CentOS and windows 2007 operating systems for different voice samples, DNS traffic, data traffic and Internet gaming traffic characteristics like counterstrike and Quake III. The transport layer data traffic and the application layer DNS and voice traffic was generated using the latest version of Distributed Internet Traffic Grapher tool; D-ITG 2. 8. 0 rc1. The effect of transmitting voice over IP with compressed RTP and with and without voice activity detection is also observed.

References

- S. Deering, R. Hinden; Internet Protocol version 6 specifications;
- A. Malis, Fragmentation and reassembly, tools.ietf.org/html/rfc4623
- M. Kondoz, Digital Speech Coding for low bit rate communication systems, second edition, Wiley India.
- David J. Wright, Voice Over Packet Networks, Wiley Series on Communications technology, pp 76-84
- Cricenti, A. L; Branch P. A; Armitage, G. J.; Time-series modelling of server to client IP packet Length in First person shooter games, 15th IEEE conference on Networks ICON 2007, pp 507-512.
- Olivier Hersent, Jean-Pierre Petit, David Gurle, IP Telephony, Deploying Voice over IP Protocols. pp 16

Index Terms

Computer Science  
Data Communication

Keywords

2007 CentOS CODEC Crtp D-ITG 2.8.0 rc1 Internet Layer Protocols VAD VoIP