Abstract

With the rapid growth of the Internet, customers are demanding multimedia applications such as telephony and video on demand, to be available on the internet. Voice over Internet Protocol (VoIP) is a rapidly emerging technology for voice communication that uses the ubiquity of IP-based networks. The greatest challenge is the provisioning of Quality of Service (QoS) over limited bandwidth. Multimedia applications need a lot more bandwidth and have different QoS requirements than the applications that were used in early years of the internet. The purpose of this paper is to check the performance of VoIP application under different Codec’s such as G. 711, G. 729 and G. 723. 1 over variable bandwidth. This paper proposes RSVP protocol for providing end to end QoS for real time applications over diverse networks. The performance is checked under RSVP and Non RSVP. Packet end to end delay and packet delay variation are evaluated through simulation. The result shows that under any bandwidth G. 723. 1 gives better result as compared to G. 711 and G. 729. Simulation is done using OPNET IT Guru Academic edition.

References
Performance Analysis of Various Codecs using RSVP on VoIP Quality of Service over Variable Bandwidth

- Eunkyu lee, Sang Ick Byun, Myungchul kim "A Translator between Integrated services RSVP and differentiated services for End to End QOS&qu;: IEEE March 2003 Page(s): 1394 - 1401 vol. 2.
- ITU-T Recommendation G. 729: Coding of speech at 8 kbit/s using conjugate-structure algebraic-code-excited linear-prediction (CSACELP); 03/1996.
- ITU-T Recommendation G. 723. 1 : Dual rate speech coder for multimedia communications transmitting at 5. 3 and 6. 3 kbit/s; 03/1996.
- Mubashar Mushtaq and Toufiq ahmed "Multimedia Caching Integration for Efficient content Delivery over Heterogeneous Networks&qu;: March 31 2008-April 4 2008 on page(s): 1011-1012.
- Pascal Lorenz, "QOS in Next Generation Network. 26th International Conference Interfaces ITI 2004, June 7-10.
- Shahrizal Sahabudin, Mohamad Yusoff Alias "End-to End Delay Performance Analysis of Various Codecs on VoIP Quality of Service&qu;: IEEE Proceedings 2009 Page(s):607-612
- Tomas Robles, Hector velyous, Arndt kadelka, "QOS for all IP System beyond 3g&qu;: Communications Magazine, IEEE Volume 39, Issue 8, Aug 2001 Page(s):64 - 72

**Index Terms**

Computer Science  
Multimedia

**Keywords**

Qos-quality Of Service  Codec  Rsvp- Reservation Protocol  Voip - Voice Over Internet Protocol