QoS Constrained Communication using Voice Codecs over Multicast Ad Hoc Networks

International Journal of Computer Applications
Foundation of Computer Science (FCS), NY, USA

Volume 132
Number 10

Year of Publication: 2015

Authors:
Amit Chopra, Rajneesh Kumar

Abstract

QoS support for group communication over MANETs using real time applications is essential to fulfill the requirements of users. It is very challenging for a multicast ad hoc routing protocol to perform under the QoS constraints due to the unstable network environment, unpredictable traffic loads, mobility, scalability and limited resources etc. Researchers have developed some standards to support real time audio/video traffic over network such as Voice over IP (VoIP), H.323, H.264 etc. Multicast ad hoc routing protocols are designed to work with the traditional traffic streams, so there is need to analyze their performance using real time traffic in order to extend their capabilities. In this paper, we will explore the efficiency of PUMA multicast routing protocol using various voice codecs under the QoS constraints.

References

3. Weiwei Zhang1, Yongyu Chang1, Yitong Liu1, Yuan Tian2, "Perceived QoS Assessment for VoIP Networks", ICCT-2013, pp-707-711
17. Floriano De Rango, Member, IEEE, Peppino Fazio, Student Member, IEEE, Francesco Scarcello, and Francesco Conte, "A New Distributed Application and Network Layer Protocol for VoIP in Mobile Ad Hoc Networks", IEEE TRANSACTIONS ON MOBILE COMPUTING, VOL 13(10), 2014, pp-2185-2198

Index Terms

Computer Science Wireless
Keywords

Multicast, QoS, MANETs, PUMA, VoIP, Voice Codec