Abstract

This paper analyzes voice quality in terms of R-Factor and MOS in IEEE 802.11s Wireless Mesh Network (WMN). Another issue addressed in this paper is the effect of increasing nodes on voice transmission in wireless mesh network. The simulation model developed allows identifying the main reasons for voice quality degradation in Mesh network. Results show that
voice quality measured in terms of R-Factor and MOS degrades with increase in number of hops (Wireless Mesh Points) in Wireless Mesh network. Wireless mesh network has been modeled using M/D/1 queue and based on this analytical delay model, the average one way delay suffered by Voice over IP (VoIP) traffic has been calculated. Simulations have been conducted to validate the correctness of the analytical model.

Reference

- Albert Sunny, Joy Kuri, Saurabh Aggarwal, “Delay modeling for a single-hop wireless mesh network under light aggregate traffic,” online version available at
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Index Terms

Computer Science Wireless

Key words

Wireless Mesh Network Voice over IP (VoIP)
R-Factor
Mean Opinion Score (MOS)
H.323
G.711