Abstract

In today’s environmental world, no organization has time to wait for hours to receive data through various network channels. Everyone is looking forward to develop the Quality of Services (QoS) parameters during data transfer. IEEE 802. 11e standard for Quality of Service (QoS) in Wireless Local Area Networks (WLANs) can activate with the Differentiated Services (DiffServ). IEEE 802. 11e has established a new access mechanism called the Hybrid Coordination Function (HCF) that combines a contention-based Enhanced Distributed Channel Access (EDCA) and a contention free HCF Controlled Channel Access (HCCA) in a single function. In this mechanism, HCF scheduler is introduced to allocate transmission opportunities
Improving QoS using Adaptive TXOP Allocation in IEEE 802.11e WLAN

(TXOPs), to the stations. TXOP is the time under which the station can send its burst data packets to other stations that is applicable to existing scheduling algorithms. It works in accordance with channel and traffic conditions and complies with the link adaptation mechanism. Also in the existing system, TXOP has applied only to the four categories of MAC Service Data Unit (MSDU). But in proposed methodology, TXOP is applying to eight categories of MSDU with the support of DiffServ.

References

- Prof. Rathnakar Acharya, Dr. V. Vityanathan, Dr. Pethur Raj Chellaih, "WLAN QoS Issues and IEEE 802.11e QOS Enhancement" International journal of Computer Theory and Engineering, vol 2, no. 1 February, 2010
- Geyong Min, Member, Jia Hu, and Mike E. Woodward, "Performance Modelling and Analysis of the TXOP Scheme in Wireless Multimedia Networks with Heterogeneous Stations"; IEEE transactions on wireless communications, vol. 10, no. 12, pp 4130-4139, Dec 2011.
- Yang Xiao, Yan Zhang, Mike Nolen, Julia Hongmei Deng, and Jingyuan Zhang, "A Cross-Layer Approach for Prioritized Frame Transmissions of MPEG-4 Over the IEEE 802.11 and IEEE 802.11e Wireless Local Area Networks"; IEEE systems journal vol. 5, no. 4, pp 474-485, Dec 2011

Index Terms
Keywords
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Station (sta).