

Abstract

Yasser A Dahab

Improving the Performance of IEEE 802.11e using A Dynamic Adaptation Approach

Providing Quality of Service (QoS) for real time applications in mobile Ad hoc networks is a challenging task, due to the characteristics of the wireless links and networks. These Characteristics include: dynamic nature, infrastructure less architecture, and time varying unstable links and topology. Features as: low cost, ease of deployment, increased coverage, and enhanced capacity make IEEE 802.11 distributed coordination function (DCF) more popular in wireless applications. However, DCF is unsuitable for real time applications which have strict demands on QoS. IEEE 802.11e Medium Access Control (MAC) was introduced to support QoS in Wireless Local Area Networks (WLANs). Many researches have been proposed to enhance IEEE 802.11e such as Gentle Decrease, and SCW. In this paper, we propose a new approach called "Dynamic Adaptive Approach for enhancement of EDCA" (DAA_EDCA). The proposed approach was inspired from the Gentle Decrease Scheme.