

Multimedia video applications on mobile devices become pervasive and basically crept into every part of our life. Historically, the wireless standards tend to make the LAN faster and now we have the latest version 11 ac with new advanced features like multi-user (MU) transmission on downlinks. Basically, the LAN standards extend in two different directions. First, increasing performance while reducing the power consumption. Second, as the wireless LAN has become so successful, new concepts, such as Internet of Things, lead to the problem of the interference since many devices use the same frequency spectrum at the same time. While downlink MU feature tries to reduce the interference problem, setting up the LAN for the devices to have a fair opportunities within the network is of high importance. As the IEEE 802.11 ac standard left the fairness to the implementation, in this paper, we present practical schemes to deal with this issue in video streaming applications. The proposed schemes are mathematically modeled and their tractable optimal solutions are presented and verified. The simulation studies show that the proposed schemes meet the fairness criteria while guaranteeing the required quality and performance.