

ENHANCED MANAGEMENT OF ACs IN MULTI-USER EDCA TRANSMISSION MODE IN WIRELESS NETWORKS

ABSTRACT

To avoid blocking node AC queues in the degraded MU EDCA mode due to regular OFDMA transmission of data from another AC queue in resource units provided by an AP, the present invention proposes to use a dedicated HEMUEDCATimer for each AC queue, in order for them to be able to exit the degraded MU EDCA mode independently of the other AC queues. In this respect, upon successfully transmitting data stored in two or more traffic queues, in each of one or more accessed resource units provided by the AP within one or more transmission opportunities, the node sets each traffic queue transmitting in the accessed resource unit in the degraded MU EDCA mode for a predetermined degrading duration counted down by a respective timer associated with the transmitting traffic queue. Next, upon expiry of any timer, the node switches back the associated traffic queue to the conventional EDCA mode.

(Figure 5b)