ABSTRACT

Based on survey conducted by the website statica.com in the year 2017 user of wireless local area network (WLAN) *has reached 4,91 billion users, and lends itself steadily increases. It is distributed by easy mobility and access speed the accepted internet user. The entry of the era of the internet of things (IoT) where the real-time exchange of data increases, the demand for WLAN can provide a guarantee of quality of service (QoS). But the WLAN has some drawbacks, one of which is the absence of guarantee QoS for real-time service, where all are considered best effort traffic, which causes the data package will be easily discarded if traffic were full. Enhanced Distribution Channel Access (EDCA) is one method used in IEEE 802.11n to maintain QoS services real-time. EDCA do traffic classification based on the priority of the service. In the study conducted a comparison of performance against EDCA access method "legacy" IEEE 802.11 Distributed Coordination Function (DCF) for 3 traffic service that is voice, video streaming, and data with a number of 1 to 20 users, using a simulator NS-3. Research performance is measured based on the parameters of output throughput, packet loss ratio, end-to-end delay and jitter. The results showed that EDCA can fix the value of end-to-end delay and jitter of 36.49% and 14.2% respectively against the DCF. But instead, for a value of throughput and packet loss ratio, the DCF method gives better value, namely amounting to 8.78% and 83.88% against EDCA.*

Keywords: *WLAN, IEEE 802.11n, EDCA, DCF, Quality of Service (QoS).*