

ABSTRACT

Telkom University Jakarta Campus, which was previously named the Jakarta Telecommunication Engineering Institute (ITTJ), is a private university (PTS), using a WiFi network as one of the facilities provided to students, lecturers and staff to access the internet as a support for lecture activities. With the return of active lecture activities on campus after the pandemic so that the campus WiFi network is more often and more widely used than before, which may cause the quality of the WiFi network to be less than optimal. Therefore, measuring and analyzing Quality of Service (QoS) is needed to determine the performance and quality of the WiFi network itself. QoS measurements were carried out in classroom 102 on the 1st floor 3 times for 3 days, namely in the morning (08.00-09.00), afternoon (12.00-13.00), and evening (15.00-16.00) using the Wireshark application by 3 users with different activities, namely, user 1 streaming video, user 2 downloading files, and user 3 playing online games. The parameters used in the measurement are throughput, packet loss, latency/delay, and jitter with the TIPHON standard as a reference. Based on the analysis of the measurement results, the average throughput for 3 days with a value of 1068 Kbits/s has very good performance, the average packet loss for 3 days with a value of 0.9% has very good performance, the average latency/delay for 3 days with a value of 15.923 ms has very good performance, and the average jitter for 3 days with a value of 15.924 ms has good performance.

Keywords: WiFi, Quality of Service, Throughput, Packet Loss, Latency/Delay, Jitter