

ABSTRACT

In the continuously evolving digital era, internet connectivity has become an essential need in daily life. High-quality internet connection is required for various activities such as video streaming. Therefore, improving internet service quality has become a primary focus for service providers and educational institutions. Network performance can be measured using Quality of Service (QoS) methods. This research aims to compare the QoS between wireless LAN and Telkomsel's 4G hotspot networks by conducting YouTube video streaming. The parameters used in this study are throughput, delay, and packet loss. The objective is to analyze the comparison between wireless LAN and Telkomsel 4G hotspot networks in terms of YouTube streaming services at Telkom University Landmark Tower 8th floor. This research is conducted with 2 scenarios and 3 testing repetitions. In the first test, the average throughput value obtained is 975.67 kbit/s. According to the standard set by TIPHON, this value can be classified as satisfactory. The average packet loss value is 0.01%, categorized as excellent, and the average delay is 11.42 ms, also categorized as excellent. In the second scenario, the average throughput value obtained is 622.33 kbit/s, categorized as less satisfactory. The average packet loss value is 0.01%, categorized as excellent, and the average delay value is 14.97 ms, which is categorized as very good. This research is expected to contribute and provide recommendations for future network infrastructure optimization.

Keywords: *Quality of Service, Throughput, Packet loss, Delay*