ABSTRACT

This research aims to apply point to point wireless network technology to overcome the problem of internet access that is difficult to reach with network cables by sharing the internet network using the Mimosa C5x Antenna. The parameters used are Quality of Service (QoS) which will be tested including Throughput, Packet Loss, Delay and Jitter with the results being compared with the standard Quality of Service (QoS) from TIPHON. QoS testing was carried out by streaming videos on YouTube 10 times divided into 2 stages. The first stage is to stream video for 30 seconds with video quality 240p, 360p, 480p, 720p, up to 1080p. The second stage is the same as the first stage, only the video streaming duration is longer, namely 60 seconds. Testing uses wareshark software which will capture data and will be analyzed. In the first stage, the average throughput value was 578,175.4 bps, while in the second stage it was 476,578 bps, so it was in the poor category, in accordance with TIPHON standardization. For the packet loss measurement results, both the first and second stages have a very good category, namely 0%. The delay measurement results obtained an average of 14,798 ms & 16,960 ms so it was in the very good category, namely less than 150 ms with an index of 4. The jitter measurement results obtained had an average of 17,152 ms & 16,805 ms so it was in the good category, namely less than 75 ms. ms with index 3. Based on the QoS results obtained, the results of implementing a point to point wireless network using the Mimosa C5x antenna are good and meet TIPHON standards.

Keywords*: Internet, Wireless, Point to Point, Mimosa C5x, wireshark, Quality of Service*