ABSTRACT

The development of technology is so rapid from time to time along with the development of the needs of every human life. One of the developments in information technology is internet users, because the internet is a collection of millions of computers from all over the world that are connected to each other, but every internet user still has a slow internet problem and has not received an even access speed to conduct video conferencing. bandwidth management is needed for users to be able to access the internet evenly to each active client so that it is smooth, comfortable and stable. So the authors carry out bandwidth management using the Peer Connection Queue (PCQ) and Stochastic Fairness Queuing (SFQ) methods for testing. This research focuses on analyzing the quality of Microsoft Teams, Google Meet and Zoom video conferences. Based on the results of video conference testing using Microsoft Teams, Zoom, and Google Meet with the PCQ, SFQ, and no method methods, variations in delay, jitter, packet loss, and throughput values were obtained. The test results show that all QoS parameters tested are still within the standard values set by Telecommunications and Internet Protocol Harmonization Over Network (TIPHON). The best test results are the Google Meet video conference with the PCQ method showing the value of QoS parameters with a delay value = 0.702ms, jitter value = 0.701ms, packet loss value = 0%, and throughput value = 11296 Kbps. The best time to do video conferencing is at 8:00 am. While 13.00 noon is not recommended for video conferencing because there is a significant decrease in QoS. This is due to the high internet usage during peak hours.

Keywords: Bandwidth, Internet, Quality of Service (QoS), Peer Connection Queue (PCQ), Stochastic Fairness Queuing (SFQ), TIPHON.