ABSTRACT

Bufferbloat is one condition buffer with larger sizes tend to be always full and caused long queues in the buffer. If it happens continuously, it can lead to the transmission delay is high. Bufferbloat often occurs in real-time based applications. Active Queue Management (AQM) is one way to handle the bufferbloat, which generally apply Tail Drop algorithm to deal with long queues in the buffer conditions routers in the network. However, the performance-based AQM Drop Tail less reliable because the transmission delay in a state bufferbloat still high. Have been many studies done to handle bufferbloat, such as Random Early Detection (RED) and the Controlled Delay (CODEL). From the research that has been done is still difficult to determine the best algorithm performasi in handling bufferbloat. The final task is to study the performance of the handling bufferbloat using algorithms Drop Tail, RED, and CODEL. In this study, streaming video traffic is used as a test to determine the best algorithm performance in overcoming bufferbloat. The author will compare the parameters of QoS (Quality of Service) in the study of performance bufferbloat such as latency, throughput and packet-loss. Analysis of the test results take three best results in each experiment. The test results showed CODEL algorithm performance is much better at handling high latency on condition bufferbloat than RED and Tail Drop. But for packet-loss and throughput performance of RED and Tail Drop algorithm is superior to the CODEL

Key Word *: AQM, Bufferbloat, CoDel, latency, troughput, packet-loss*