ABSTRACT

Necessity of user makes various services have to be available in network. Since many services have to be available in the network, it will influence performance of network. A network must handle the requirement of user even in congestion or heavy load state. It is need a management bandwidth which can guarantee service to the user in network. One kind of bandwidth manager is Class Based Queueing (CBQ). In CBQ, it can be added in the class leaf queueing to improve the ability. Leaf queueing which can implement in CBQ is Stochastic Fair Queueing (SFQ) and Token Bucket Filter (TBF).

In this final project, CBQ-SFQ was used as the bandwidth manager in streaming video. Then, streaming video simulation tried on LAN. Simulation on LAN the streaming occurred based on ip address and port with different bandwidth. Performance measurement will be taken in 10 times for each scenario.

From the measurement result of jitter, throughput and packet loss shows that performance of management bandwidth CBQ-SFQ on LAN is better than CBQ-TBF with value for jitter about 55.93 – 64.57 ms, value for throughput about 615 – 744.5 Kbps and result for packet loss is about 0 – 10.18 %. From the measurement of delay for scenario 2 port CBQ-SFQ gives better result than CBQ-TBF with value about 222.57 – 269.38 ms. On the contrary, at scenario 3 port CBQ-TBF gives better result than CBQ-SFQ with value about 491 – 497.63 ms. Although the result is not significant, but CBQ-SFQ can be considered to serve application which sensitive in time.

Key Words : QoS, CBQ, TBF, SFQ