

Abstract

VoD (Video on Demand) is a type of service, where digital video is sent using Internet Protocol through a high speed network infrastructure. The increasing number of VoD and other IP based streaming service users create a problem in managing its traffic congestion that could decrease the network's performance. To handle the traffic's congestion on the network, a network traffic management is needed by using queue discipline. The implementation of queue discipline using *Hierarchical Fair Service Curve (HFSC)*, *Token Bucket Filter (TBF)*, and *Stochastic Fair Queuing (SFQ)* algorithm that are supported by Linux operating system. These three queue disciplines that are categorized in Classfull and Classless method, is used to divide the bandwidth allocation on HTTP, FTP, and VoD service on LAN network.

The analysis in this final project, is which queueing discipline algorithm serves better when applied to VoD services in a network, measured using the QoS parameters which are *delay*, *jitter* and *packet loss*. Analysis from all the scenarios tested shows that implementing *leaf TBF* can increase the performance of VoD. From the test results obtained *leaf TBF* good results in a *delay*, *jitter*, *packet loss* which is an important component of the VoD service.

Key Word: Management Bandwidth, *Hierarchical Fair Service Curve (HFSC)*, *Token Bucket Filter (TBF)* serta *Stochastic Fair Queuing (SFQ)*, VoD.