

Abstract

IPTV is a type of service, where digital television is sent using Internet Protocol through a high speed network infrastructure. The increasing number of IPTV and other IP based streaming service users creates a problem in managing its traffic congestion that could decrease the networks 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 Token Bucket (HTB), Hierarchical Fair Service Curve (HFSC), and also Class Base Queuing (CBQ) algorithm that are supported by Linux operating system. These three queue disciplines that are categorized in Classfull method, is used to divide the bandwidth allocation on HTTP, FTP, and IPTV service on LAN network.

The analysis in this final project, is which queueing discipline algorithm serves better when applied to IPTV 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 CBQ can increase the performance of IPTV. From the test results obtained CBQ good results in a delay and jitter which is an important component of the IPTV service.

Key Word: IPTV Bandwidth Management, Hierarchical Token Bucket, Hierarchical Fair Service Curve, Class Based Queuing