## ABSTRACT

Currently in the Internet industry, QoS (Quality of Service) plays an important role in the implementation of the various types of services (multiservice). QoS itself is of a high level of service that is connected to handle that is expected to meet user satisfaction.

In this regard, it is needed a mechanism that can guarantee QoS. IETF (Internet Engineering Task Force) proposed several models and mechanisms to meet the demand for services such as the merger of QoS DiffServ and MPLS technologies.

The combination of both DiffServ and MPLS technology provides a very attractive strategy for backbone network providers with a scalable QoS and traffic engineering capabilities to use fast packet switching technology. In addition to anticipating the flow of communications traffic data on the Internet network, also developed mechanisms that regulate congestion queue from which a good performance.

Queue mechanism is used in this final task, is Worst-case Fair Weighted Fair Queuing (WF2Q) and Class Based Queuing, Weighted Round Robin (CBQ-WRR). The results of the simulation is in every scenario that has been made available to the conclusion that the CBQ queuing mechanism, the WRR better handle video packets and data packets, while WF2Q better handle VoIP packets.

Keywords: DiffServ, MPLS, WF2Q, CBQ-WRR