## ABSTRACT

The development of the current protocol is very helpful in communication networks, especially computer networks also involving to the increasing number of new applications that can be enjoyed and the increasing traffic. Computer networks, particularly the LAN are expected to provide services with high speed.

Congestion control in computer networks with traffic growth which goes up exponentially become one of the important effort to provide good service for users. Congestion causing packet loss are high, low throughput and high delay. Therefore developed a new congestion control scheme that is more diverse. One of them is PGMCC (Pragmatic General Multicast Congestion Control) with a delivery that is multicast.

Only compared PGMCC and TCP with the number of users 50, 100, 150, 200, 250 and 300. Also add background traffic with a data rate of 800 Kbps and 1200 Kbps. In terms of packet loss, this PGMCC schemes have good quality, by reducing the occurrence of packet loss. In a dense network conditions as well as usual, there was packet loss that is smaller in number when compared with TCP. However PGMCC lacking the large delay and low throughput when compared with the performance of TCP that has low delay and throughput of little value.

## Key Word : PGMCC, Multicast, Congestion Control