ABSTRACT

Gateway Load Balancing Protocol (GLBP) is a method to devide router performance that the value is same or balance. The *Gateway Load Balancing Protocol* (GLBP) was come from load Balancing concept, where the concept use to balancing load at some link where come to the same network remote. So that the network link will not disturbed if trouble came by one of the router.

This final task try to explained the GLBP concept, effort to increase network performance with any queuing mechanism that can use at GLBP router, consist of FIFO (*First In First Out*), DRR (*Deficit Round Robin*), RED (*Random Early Detection*), dan REM (*Random Exponential Marking*) in GLBP network with simulation tool: network simulator-2 (NS-2).

The results that get from the simulation are in the rare network, DDR show good performance and balance. REM show the worse performance with high percentage in packetloss and jitter. In the busy network, FIFO (DropTail) and RED that can control the congestion that give small percentage delay.

Keywords: *: GLBP, Load* Balancing*, FIFO, DRR, RED, REM.*

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