

## Abstract

Preplanned Recovery is one of algorithm that used to solve the recovery problems in high speed computer network if link failure or node failure occurred. Preplanned Recovery has two types algorithm who knew well in high speed computer network that is MFBG dan G-MFBG. MFBG Algorithm and G-MFBG Algorithm are looked same one each other, but there are the different between two this algorithm while searching mechanism for Blue Tree and Red Tree each others. G-MFBG algorithm can be optimalized to find Blue Tree and Red Tree which is have better QoS than the MFBG have.

On High Speed Network, QoS factor is the important thing that must be watched because the data packet sending held in high speed in fact, the delay as small as anything can fact a bad side in receiver the data packet. To solve the problem, we can appllied the G-MFBG algorithm to generate better Blue Tree and Red Tree with better QoS than the MFBG was in network.

The Perfomance of quality of service that analyzed include some factors, that are average delay, badwith, total cost, and running time of Blue Tree and Red tree generated by the algorithm. The performance analysis held in simple network simulation with java programming language.

From the result of the simulation, the G-MFBG algorithm gives better Red Tree and Blue Tree for recovery problems than the MFBG algorithm looked from the average delay side, total cost, bandwidth and also the running time algoritmn.

**Keywords :** *Preplanned Recovery Schemes, QoS, delay, bandwith, cost, MFBG, G-MFBG, High Speed Network.*