

ABSTRACT

Telecommunications technologies continue to evolve to support better services to the users of the telecommunication services. At the present era, telecommunications services have a tendency toward convergence of all telecommunications services, namely data, images, and voice. This convergence requires a technology standard that can support it. 3GPP (3rd Generation Partnership Project) release 8 released a technology standard called LTE (Long Term Evolution), which is a pure IP-based technology. The technology aims to reduce the costs incurred by the user and operator services telecommunications, to expand coverage area, increasing the system capacity. To support this technology standard required several supporting factors, among others: a smart antenna (MIMO), multiple access techniques are appropriate, efficient scheduling algorithm.

Appropriate scheduling algorithm is the scheduling that provides an optimal system. In this final task round robin scheduling algorithm, the maximum C / I, and proportional fair are simulated. To support this need a system of reliable packet retransmissions, in this case is Hybrid Automatic Retransmission Request (HARQ).

Based on simulation results, the three types of simulated scheduling techniques, Round-Robin has the advantage of queuing delay is smaller and more fair than others. Max-C / I has the advantage on the value of a higher throughput. Meanwhile, though Proportional Fair value lower throughput than max-C / I, but the delay queue and the fairness of Round-Robin approach.