

Abstract

The increasing demand for cellular telephone users to improve the quality of communication services using indoor wireless services which has reduced many people and the use of cellular services indoors has also increased from year to year. One important challenge for the LTE system is to improve the quality of indoor communication services and improve services for users efficiently. With such important challenges, the femtocell is the right solution to improve communication quality and network capacity especially in the room. To improve the quality of communication needed, a scheduling algorithm is needed that improves the quality of communication used by users. Two of the package scheduling algorithms that compare communication quality in calculating scheduling metrics are Maximum scheduling algorithm - First Weighted Delay (M-LWDF) and frame level scheduler (FLS), because this is an efficient tool and can be used to test connection throughput with package performance relatively low loss ratio. In this final project, a research related to the implementation of this second algorithm in terms of guarantee of Service Quality (QoS) includes delay, packet loss ratio, throughput and reasonableness index using the LTE-Sim simulator. The simulation results show that when counting the number of FLS users in general it provides better performance than the MLWDF algorithm

Keywords: FLS algorithm, MLWDF algorithm, scheduling, LTE, QoS.