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QoS downlink schedulers in LTE towards 5G network (Conference Paper)

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Abstract

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LTE is expected to be the dominant system used by operators in these years due to its promising solutions for achieving high capacity and data rate. However, LTE packet scheduling and distributing resources among users is still the main challenge due to unfairness and low performance which occur when allocating resources to users. In this paper, the above mentioned challenges are studied and analysed, focusing on three schedulers; they are Proportional Fair (PF), Maximum Throughput (MT) and Blind equal throughput (BET). These methods do not provide QoS to users that use different types of traffic flows. The proposed algorithm in this paper is to modify the PF scheduler in order to fulfil the QoS criteria maximizing throughput and minimizing the delay for real time service. VoIP and video have been selected as real time traffic and best effort as non-real time. LTE-Sim simulator is used to compare between the mentioned schedulers in terms of throughput, delay, packet loss ratio and spectrum efficiency. © 2015 IEEE.

Author keywords

BET MT PF QoS

Indexed keywords

Engineering controlled terms: Information services Packet networks Quality of service Queueing networks Scheduling Throughput

Compendex keywords: Maximum through-put Non real time Packet loss ratio Packet scheduling Proportional fair Real time service Real time traffics Spectrum efficiency

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