

## **Two-level QoS-oriented downlink packet schedulers in LTE networks: a review**

### **ABSTRACT**

The Long Term Evolution (LTE) as a mobile broadband technology supports a wide domain of communication services with different requirements. Therefore scheduling of all flows from various applications by the same strategy of resource allocation would not be efficient. Accordingly it is necessary to design new scheduling algorithms by considering the Quality of Service (QoS) requirements defined for each application. In this regard, this paper will provide a brief overview of previously reported schedulers for QoS support in LTE cellular networks by taking into account the various important QoS parameters such as delay, packet loss ratio and data rate. The resource distribution problem in LTE networks and solutions from the numerous numbers of previous resource allocation approaches are outlined and compared through a comparative table. The future direction for solving these problems will be stated. Overall this study summarises the current state of knowledge on the QoS-oriented scheduling algorithms for LTE networks.

**Keyword:** Long-term evolution (LTE); Scheduling; QoS; GBR and non-GBR