

On the Effects of Resource Usage Ratio on Data Rate in LTE Systems

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Abstract— In LTE (Long Term Evolution) systems, the PRB (Physical Resource Block) usage ratio is considered importantly to manage the QoS (Quality of Service) of LTE traffic. As the PRB usage ratio increases, the resource may not be allocated in a timely and reliable manner to the users of the cell. It may cause the degradation of the QoS, particularly to the cell edge users. In this paper, we share the output from the discussion with the cellular operator and government, and also present how the PRB usage ratio can affect the QoS in the aspect of data rate of LTE users near the base station or the cell edge.

Keyword— resource usage ratio, data rate, LTE



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