Abstract

Modern mobile communication networks provide a variety of voice and data services. The latest set of mobile technology specifications by the 3rd Generation Partnership Project (3GPP) is referred to as Long Term Evolution (LTE). In this paper, the performance of a wireless network where LTE is used at the Medium Access Control (MAC) layer is evaluated. User Datagram Protocol (UDP) traffic is considered for the evaluation. The major performance parameters that are focused are average throughput, end-to-end delay, and jitter. Experiments are performed to evaluate the effect for varying bandwidth, number of subscribers, and packet size on these performance parameters for downlink scenarios.

References

3G LTE tutorial, “3G LTE Tutorials - 3GPP Long Term Evolution”, viewed on 03.08.15, Available at http://www.radioelectronics.com/info/cellulartelecomms/lte-long-termevolution/3g-lte-basics.php.


Index Terms

Computer Science

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Keywords

eNodeB, Jitter, LTE, Latency, MAC, Performance Evaluation, Throughput, 3GPP.