Abstract

Worldwide Interoperability for Microwave Access (WiMAX) is a Broadband Wireless Access technology based on IEEE 802.16 standards. WiMAX use orthogonal frequency division
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multiple accesses (OFDMA) as one of its multiple access technique. Scheduling and burst allocation are major design factors of OFDMA resource allocation. QualNet is simulation software that using to simulate most recent wireless networks like, Long term evaluation (LTE) and WiMAX networks. In QualNet WiMAX library there are many scheduling algorithms are implemented but there is no specific burst allocation algorithm is implemented. In this paper we shows that the implemented burst allocation algorithm in Qualnet is not confirm the IEEE802.16 standard and we implement one of recent proposed burst allocation algorithm namely, eOCSA (enhanced One Column Striping with nonincreasing Area first mapping). In addition some improvement to eOCSA algorithm is proposed and both the eOCSA algorithm and its improvement are evaluated using Qualnet.

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