WiMAX is an emerging broadband wireless access system based on IEEE 802.16 specification which defines PHY and MAC layer for both fixed and mobile profiles. The WiMAX system effectively supports wide variety of broadband wireless access (BWA) technologies (including high speed internet and multimedia access) with high Quality of service (QoS) requirements. To support flexibility, efficiency and various requirements of QoS over a range of different applications and environments several provisioning and mechanisms are provided in the standard. In this paper various QoS provisions are analyzed for different application traffics. The effect of Adaptive Modulation Coding (AMC) mechanism on the QoS performance of WiMAX network is also studied. The results obtained show that these provisions and mechanisms enhance the QoS performance of the network in terms of throughput, packet loss and delay.
Reference

- IEEE 802.16m-07/004r4, IEEE 802.16m Evaluation Methodology Document (EMD), November 2008.
- IEEE 802.16 std., IEEE Standard for wireless Medium Access Control (MAC) and Physical layer (PHY) specifications, April 2002.

Index Terms

Computer Science Wireless Networks

Key words

WiMAX QoS
QoS mechanisms AMC