Abstract

Multihop WiMAX networks show a lot of promise as the last mile in broadband connections for streaming audio and video to users. Such WiMAX networks are based on IEEE 802.16, which specifies the service classes for Quality of Service (QoS), but leaves the admission and scheduling mechanisms open. This paper presents a flow admission control and scheduling scheme for multihop WiMAX networks based on IEEE 802.16. Our admission control and scheduling scheme ensures that the various QoS parameters for the 802.16 service classes are met. We present our flow admission control and scheduling scheme and simulation results for this scheme. We then compare it in terms of QoS provided, with a simple admission and scheduling scheme and an admission scheme proposed by Ghosh et al. in [1]. Simulation results show that our scheme indeed guarantees the QoS parameters (minimum assured bandwidth, maximum allowable packet delay, maximum allowable packet jitter) needed by the different service classes of 802.16.

References

Admission Control and Flow Scheduling for IEEE 802.16 WiMAX Networks with QoS Requirements


Index Terms

Computer Science Wireless Communications

Keywords

Scheduling Admission Control Quality Of Service