METHOD AND APPARATUS FOR DETERMINING AND MANAGING CONGESTION IN A WIRELESS COMMUNICATIONS SYSTEM

Abstract

An improved method of network management, particularly in the context of standards IEEE802.11 and IEEE802.11k, through two new MAC measurements, with attendant advantages. The two new measurements include WTRU uplink traffic loading measurement, and an AP service loading measurement and is generally applicable at least to layers 1 and 2 as applied to a least 802.11k in the context of OFDM and CDMA 2000 systems, but is applicable to other scenarios as well. A Method for determining and advertising congestion is also provided for a Wireless Local Area Network (WLAN) system. The present invention also introduces a method for managing congestion when congestion is detected. This aspect of the present invention applies primarily to wireless systems that use the Carrier Sense Multiple Access/ Collision Avoidance (CSMA/CA) mechanism. The methods are advantageously implemented in selectively configured WTRUs of various forms.

Fig. 3