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## (12) United States Patent

#### Banerjee et al.

#### (54) QUALITY OF SERVICE FOR WLAN AND BLUETOOTH COMBINATIONS

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(2006.01)

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H04W 74/08	(2009.01)

(52) U.S. Cl. CPC ..... *H04W 16/14* (2013.01); *H04W 74/08* (2013.01)

USPC ...... **370/278**; 370/338; 455/450 (58) Field of Classification Search

See application file for complete search history.

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#### (45) **Date of Patent:** Jan. 6, 2015

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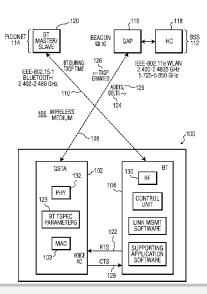
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Primary Examiner - Jeffrey M Rutkowski

#### (57) ABSTRACT

A hybrid device includes both an IEEE-802.11e type WLAN client station (QAP) and a BLUETOOTH piconet unit interconnected such that the BLUETOOTH transmissions are scheduled to occur according to a transmission opportunity (TXOP) that was granted by a quality of service (QoS) access point (QAP) in a basic service set (BSS). Requests for BLUE-TOOTH traffic are handled by the associated QSTA which generates an add traffic service (ADDTS) to the QAP.

#### 10 Claims, 4 Drawing Sheets



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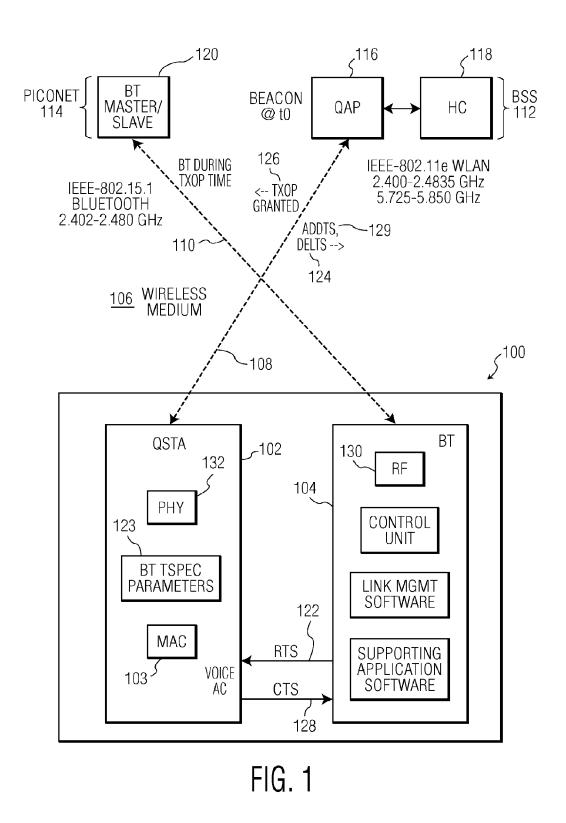
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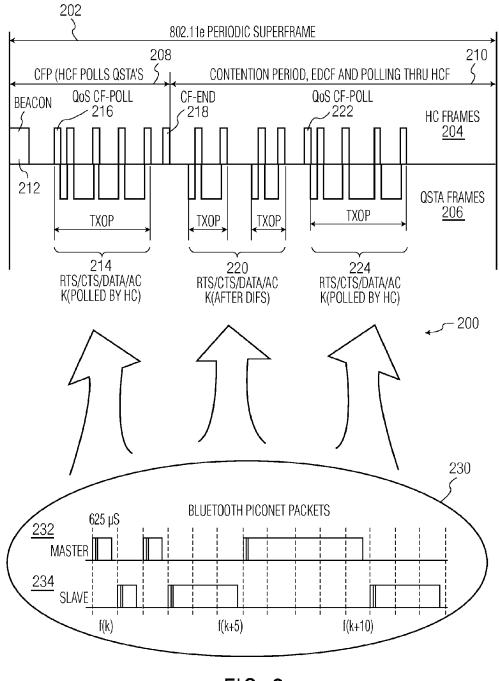


FIG. 2

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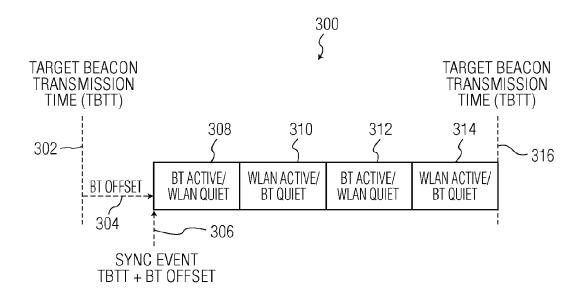


FIG. 3

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