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(54) **APPARATUS AND METHOD FOR ASSIGNING SUBCARRIER IN OFDMA COMMUNICATION SYSTEM**

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See application file for complete search history.

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(57) **ABSTRACT**

A subcarrier assignment apparatus and a subcarrier assignment method, in which each of a plurality of Base Stations (BSs) constituting an Orthogonal Frequency Division Multiple Access (OFDMA) communication system provides services in the capacity of a serving BS to Mobile Stations (MSs). Channel quality information for the respective BSs are fed-back from the respective BSs. Subcarriers are assigned to the respective MSs according to a corresponding scheduling scheme in consideration of the channel quality information for the respective MSs, which are fed-back from the respective BSs, and then BSs which manage the subcarriers assigned to the respective MSs according to the corresponding scheduling scheme are selected. These operations provide site diversity to each of the MSs, and thus system capacity is maximized.

18 Claims, 8 Drawing Sheets

