

AN ACCESS POINT AND A COMMUNICATION METHOD FOR FACILITATING SCHEDULING OF COMMUNICATION FOR COMMUNICATION APPARATUSES SUSCEPTIBLE TO INTERFERENCE

BACKGROUND

Technical Field

The present disclosure generally relates to at least one Access Point (AP) for facilitating communication in association with one or more communication apparatuses which can be susceptible to interference. The present disclosure further relates to a communication method in association with the AP(s).

Description of the Related Art

Typically, it is not unexpected for interference to occur within a communication system. In the event of interference, integrity of communication in the communication system can be adversely impacted.

Solutions have been contemplated for the purpose of mitigating interference and restoring communication integrity within a communication system.

The present disclosure contemplates that there is a need for alternative solution(s) directed at mitigating interference.

SUMMARY

In one aspect, the present disclosure refers to an access point (AP) comprising:

- circuitry, which in operation, reserves a subset of an operating frequency bandwidth for a group of communication apparatuses susceptible to interference when operating within the operating frequency bandwidth, and schedules, based on the reserved subset of the operating frequency bandwidth, communication in association with at least one communication apparatus in the group of communication apparatuses; and
- a transmitter, which in operation, transmits information of the reserved subset of the operating frequency bandwidth.

In another aspect, the present disclosure refers to a first AP comprising:

- a receiver, which in operation receives information of a reserved subset of an operating frequency bandwidth from a second AP, and
- circuitry, which in operation, at least one of:

schedules, based on the received information, communication of at least one communication apparatus in a group of communication apparatuses susceptible to interference due to communication associated with the operating frequency bandwidth, and

adjusts transmit power of signals, to be transmitted from the first AP, associated with the reserved subset of the operating frequency bandwidth.

In yet another aspect, the present disclosure refers to a communication method comprising reserving a subset of an operating frequency bandwidth for a group of communication apparatuses susceptible to interference when operating within the operating frequency bandwidth, scheduling, based on the reserved subset of the operating frequency bandwidth, communication in association with at least one communication apparatus in the group of communication apparatuses, and transmitting information of the reserved subset of the operating frequency bandwidth.

Non-limiting and exemplary ~~embodiments~~—examples facilitate scheduling of communication apparatus(es) for mitigating interference.

In an ~~embodiment~~example, the techniques disclosed here feature an access point (AP).

The AP can include circuitry, which in operation:

- reserves a subset of an operating frequency bandwidth for a group of communication apparatuses susceptible to interference when operating within the operating frequency bandwidth, and
- schedules, based on the reserved subset of the operating frequency bandwidth, communication in association with at least one communication apparatus in the group of communication apparatuses.

The AP can further include a transmitter, which in operation, transmits information of the reserved subset of the operating frequency bandwidth.

It should be noted that general or specific ~~embodiments-examples~~ may be implemented as a system, a method, an integrated circuit, a computer program, a storage medium, or any selective combination thereof.

Additional benefits and advantages of the disclosed ~~embodiments-examples~~ will become apparent from the specification and drawings. The benefits and/or advantages may be individually obtained by the various ~~embodiments-examples~~ and features of the specification and drawings, which need not all be provided in order to obtain one or more of such benefits and/or advantages.

BRIEF DESCRIPTION OF DRAWINGS

Embodiments of the disclosure are described hereinafter with reference to the following drawings, in which:

Fig. 1 shows a system which can include at least one access point (AP) and at least one communication apparatus, according to an embodiment of the disclosure;

Fig. 2a to Fig. 2c show various communications within the system of Fig. 1 which can cause interference, according to an embodiment of the disclosure;

Fig. 3 to Fig. 5 illustrate scheduling, based on a first exemplary scenario, in association with the system of Fig. 1 , according to an embodiment of the disclosure;

Fig. 6 and Fig. 7 illustrate scheduling, based on a second exemplary scenario, in association with the system of Fig. 1 , according to an embodiment of the disclosure;

Fig. 8a to Fig. 8i illustrate scheduling, based on a third exemplary scenario, in association with the system of Fig. 1 , according to an embodiment of the disclosure;

Fig. 9 shows a device location information element in association with the third exemplary scenario of Fig. 8a to Fig. 8i, according to an embodiment of the disclosure;

Fig. 10 shows the access point (AP) of Fig. 1 in further detail, according to an embodiment of the disclosure;