IEEE 802.11-20/0056r0, Preparations for Coordinated OFDMA

NPL 3

IEEE 802.11-20/0617r0, Multi-AP Operation -Basic Definition

NPL 4

IEEE P802.11ax/D6.0, November 2019

NPL 5

IEEE 802.11-19/1582r2, Coordinated AP Time/Frequency Sharing in a Transmit Opportunity in 11be

NPL 6

IEEE 802.11-19/1961r1, Multi-AP Group Establishment, 2020-01-02

NPL 7

IEEE 802.11-19/1972r1, Operation of Virtual BSS for Multi-AP Coordination, 2019-11-05

Summary ~~of Invention~~

[0005] However, methods of controlling a transmission power in radio communication such as a wireless local area network (WLAN) have not been sufficiently discussed.

[0006] ~~One~~A non-limiting ~~and exemplary embodiment~~example facilitates providing an access point, a terminal, and a communication method each capable of flexibly controlling an uplink transmission power per terminal.

[0007] In one aspect,~~An access point according to an exemplary embodiment of~~ the present disclosure includes an access point comprising: control circuitry, which, in operation, generates a parameter relating to uplink transmission power control, based on information on transmission power control received from another access point; and transmission circuitry, which, in operation, transmits a control signal including the parameter.

[0007a] In another aspect, the present disclosure includes a terminal comprising: reception circuitry, which, in operation, receives a control signal including a parameter that relates to

control of an uplink transmission power and is generated based on information on transmission power control received from another access point; and control circuitry, which, in operation, controls the uplink transmission power based on the parameter.

[0007b] In another aspect, the present disclosure includes a communication method, comprising: generating, by an access point, a parameter relating to uplink transmission power control, based on information on transmission power control received from another access point; and transmitting, by the access point, a control signal including the parameter.

[0007c] In another aspect, the present disclosure includes a communication method, comprising: receiving, by a terminal, a control signal including a parameter that relates to control of an uplink transmission power and is generated based on information on transmission power control received from another access point; and controlling, by the terminal, the uplink transmission power based on the parameter.

[0008] It should be noted that general or specific ~~embodiments~~examples may be implemented as a system, an apparatus, a method, an integrated circuit, a computer program, a storage medium,

or any selective combination thereof.

[0009] ~~According to an exemplary embodiment of the present disclosure~~In one example, it is possible to flexibly control an uplink transmission power per terminal.

[0010] Additional benefits and advantages of the ~~disclosed embodiments~~examples in this disclosure 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

[0011]

FIG. 1 illustrates an exemplary procedure of coordinated communication;

FIG. 2 illustrates an exemplary format of a Common Info field;

FIG. 3 illustrates an exemplary format of a User Info field;

FIG. 4 illustrates an exemplary target received signal strength indicator (RSSI);

FIG. 5 illustrates an exemplary Trigger type;

FIG. 6 illustrates an example of uplink multi-AP coordination;

FIG. 7 illustrates an exemplary coordinated AP (CAP) transmission (Tx) phase;

FIG. 8 illustrates a configuration example of a radio communication system and an example of resource allocation;

FIG. 9 is a block diagram illustrating a configuration example of part of an AP;

FIG. 10 is a block diagram illustrating a configuration example of part of an STA;

FIG. 11 is a block diagram illustrating a configuration example of the AP;

FIG. 12 is a block diagram illustrating a configuration example of the STA;

FIG. 13 is a sequence diagram illustrating an example of uplink coordinated communication processing;