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

[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] A non-limiting 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, 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 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] In one example, it is possible to flexibly control an uplink transmission power per terminal.

[0010] Additional benefits and advantages of the examples in this disclosure will become apparent from the specification and drawings. The benefits and/or advantages may be individually obtained by the various 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;