IEEE 802.11-20/1672r2, "UL Beamforming for TB PPDUs in 11be"

NPL 5

IEEE 802.11-19/0804r0, "Multi-AP Transmission Procedure"

NPL 6

IEEE 802.11-21/0366r3, "Discussion on HE or EHT variant differentiation of a trigger frame"

Summary

[0004] However, a method for configuring a format of a control signal controlling uplink transmission in radio communication such as wireless LAN has not been sufficiently studied.

[0005] A non-limiting example of the present disclosure facilitates providing a terminal, a base station, and a communication method each capable of appropriately configuring a format of a control signal controlling uplink transmission.

[0006] A base station according to an aspect of the present disclosure comprises: control circuitry, which, in operation, generates a control signal for uplink transmission, the control signal including information on a version of a radio communication standard and a subfield whose configuration is varied depending on the version in a field common to a plurality of terminals; and transmission circuitry, which, in operation, transmits the control signal.

[0006a] In another aspect, the present disclosure refers to a terminal, comprising, reception circuitry, which, in operation, receives a control signal for uplink transmission, the control signal including information on a version of a radio communication standard and a subfield whose configuration is varied depending on the version in a field common to a plurality of terminals, and control circuitry, which, in operation, determines the configuration based on the information on the version.

[0006b] In yet another aspect, the present disclosure refers to a communication method,

comprising, generating, by a base station, a control signal for uplink transmission, the control signal including information on a version of a radio communication standard and a subfield whose configuration is varied depending on the version in a field common to a plurality of terminals, and transmitting, by the base station, the control signal.

[0006c] In yet another aspect, the present disclosure refers to a communication method, comprising, receiving, by a terminal, a control signal for uplink transmission, the control signal including information on a version of a radio communication standard and a subfield whose configuration is varied depending on the version in a field common to a plurality of terminals, and determining, by the terminal, the configuration based on the information on the version.

[0007] Note that these generic or specific examples may be achieved by a system, an apparatus, a method, an integrated circuit, a computer program, or a recoding medium, and also by any combination of the system, the apparatus, the method, the integrated circuit, the computer program, and the recoding medium.

[0008] According to an example of the present disclosure, for example, a format of a control signal controlling uplink transmission can be appropriately configured.

[0009] Additional benefits and advantages of the disclosed examples 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

[0010]

FIG. 1 illustrates an exemplary Trigger frame;

FIG. 2 illustrates an exemplary Common Info field;

FIG. 3 illustrates an exemplary User Info field;

FIG. 4 illustrates an exemplary Special User Info field;

FIG. 5 illustrates exemplary Trigger types;

FIG. 6 is a block diagram illustrating a part of an exemplary configuration of an access point (AP);

FIG. 7 is a block diagram illustrating a part of an exemplary configuration of a terminal;

FIG. 8 is a block diagram illustrating an exemplary configuration of an AP;

FIG. 9 illustrates exemplary Trigger types according to Embodiment 1;

FIG. 10 is a block diagram illustrating an exemplary configuration of the terminal;

FIG. 11 is a sequence diagram illustrating an exemplary operation of the AP and the terminal;

FIG. 12 illustrates an exemplary Common info field according to Embodiment 1;

FIG. 13 illustrates another exemplary Common info field according to Embodiment 1;

FIG. 14 illustrates still another exemplary Common info field according to Embodiment 1;