CLAIMS

1. A communication apparatus for performing communication compliant with an IEEE 802.11 standard series, the communication apparatus comprising:

communication means for establishing a first network, and performing communication with another communication apparatus belonging to the first network by dynamically switching a channel access scheme between a first channel access scheme, in which at least a predetermined Primary channel in a channel bundle is used, the channel bundle being formed by bonding a plurality of channels, and a second channel access scheme, in which, in a case where the Primary channel is occupied due to communication in a second network different from the first network and a remaining duration during which said another communication apparatus does not perform transmission of a radio frame using the Primary channel due to the communication in the second network is set, the Primary channel is not used and one or more Non-Primary channels different from the Primary channel among the plurality of channels included in the channel bundle are used; and

notification means for notifying, to said another communication apparatus, information indicating a threshold, wherein the threshold relates to a length of the remaining duration and said another communication apparatus is permitted to use the second channel access scheme in a case where the length of the remaining duration set in said another communication apparatus exceeds the threshold.

2. The communication apparatus according to claim 1, wherein

the notification means notifies, to said another communication apparatus, information indicating a first threshold for determining whether transmission of data requiring low latency is permitted, and a second threshold for determining

whether transmission of data not requiring low latency is permitted, as the information indicating the threshold.

3. The communication apparatus according to claim 1, wherein

the notification means notifies, to said another communication apparatus, information indicating a threshold for determining, for each access category, whether transmission of data in the access category is permitted, as the information indicating the threshold.

4. The communication apparatus according to claim 1, wherein

the notification means notifies, to said another communication apparatus, information indicating a threshold for determining, for each Traffic Identifier (TID), whether transmission of data to which the TID is attached is permitted, as the information indicating the threshold.

5. The communication apparatus according to any one of claims 1 to 4, wherein

the threshold is set to a value greater than a value obtained by adding a time length of a Request to Send (RTS), a time length of a Clear to Send (CTS), a time length of an acknowledgement response, and a time length three times a Short Interframe Space (SIFS).

6. The communication apparatus according to any one of claims 1 to 5, wherein

notification of a predetermined value as the threshold indicates that the second channel access scheme is not permitted to be used, irrespective of the length of the remaining duration.

7. The communication apparatus according to claim 1, wherein

the notification means transmits a beacon frame that includes the information indicating the threshold.

8. The communication apparatus according to any one of claims 1 to 7, wherein

the notification means transmits a Probe Response frame that includes the information indicating the threshold.

9. A communication apparatus for performing communication compliant with an IEEE 802.11 standard series, the communication apparatus comprising:

communication means for joining a first network established by another communication apparatus, and performing communication with said another communication apparatus by dynamically switching a channel access scheme between a first channel access scheme, in which at least a predetermined Primary channel in a channel bundle is used, the channel bundle being formed by bonding a plurality of channels, and a second channel access scheme, in which, in a case where the Primary channel is occupied due to communication in a second networking different from the first network and a remaining duration during which the communication apparatus does not perform transmission of a radio frame using the Primary channel due to the communication in the second network is set, the Primary channel is not used and one or more Non-Primary channels different from the Primary channel among the plurality of channels included in the channel bundle are used;

reception means for receiving information indicating a threshold relating to the remaining duration from said another communication apparatus;

determination means for determining, in a case where the remaining duration during which the communication apparatus does not perform transmission of a radio frame using the Primary channel due to the communication in the second network is set, whether or not a length of the remaining duration exceeds the threshold; and

control means for performing, based on determination that the length of the remaining duration exceeds the threshold, control so as to communicate with said another communication apparatus using the second channel access scheme.

10. The communication apparatus according to claim 9, wherein

the reception means receives, from said another communication apparatus, information indicating a first threshold for determining whether transmission of data requiring low latency is permitted, and a second threshold for determining whether transmission of data not requiring low latency is permitted, as the information indicating the threshold.

11. The communication apparatus according to claim 9, wherein

the reception means receives, from said another communication apparatus, information indicating a threshold for determining, for each access category, whether transmission of data in the access category is permitted, as the information indicating the threshold.

12. The communication apparatus according to claim 9, wherein

the reception means receives, from said another communication apparatus, information indicating a threshold for determining, for each Traffic Identifier (TID), whether transmission of data to which the TID is attached is permitted, as the information indicating the threshold.

13. The communication apparatus according to any one of claims 9 to 12, wherein

the threshold is set to a value greater than a value obtained by adding a time length of a Request to Send (RTS), a time length of a Clear to Send (CTS), a time length of an acknowledgement response, and a time length three times a Short Interframe Space (SIFS).

14. The communication apparatus according to any one of claims 9 to 13, wherein

notification of a predetermined value as the threshold indicates that the second channel access scheme is not permitted to be used, irrespective of the length of the remaining time of the remaining duration.

15. The communication apparatus according to any one of claims 9 to 14, wherein

the reception means receives the information indicating the threshold in a beacon frame received from said another communication apparatus.

16. The communication apparatus according to any one of claims 9 to 14, wherein

the reception means receives the information indicating the threshold in a Probe Response frame received from said another communication apparatus.

17. A control method executed by a communication apparatus, the communication apparatus establishing a first network, and performing, with another communication apparatus belonging to the first network, communication

compliant with an IEEE 802.11 standard series by dynamically switching a channel access scheme between a first channel access scheme, in which at least a predetermined Primary channel in a channel bundle is used, the channel bundle being formed by bonding a plurality of channels, and a second channel access scheme, in which, in a case where the Primary channel is occupied due to communication in a second network different from the first network and a remaining duration during which said another communication apparatus does not perform transmission of a radio frame using the Primary channel due to the communication in the second network is set, the Primary channel is not used and one or more Non-Primary channels different from the Primary channel among the plurality of channels included in the channel bundle are used, the control method comprising:

notifying, to said another communication apparatus, information indicating a threshold, wherein the threshold relates to a length of the remaining duration and said another communication apparatus is permitted to use the second channel access scheme in a case where the length of the remaining duration set in said another communication apparatus exceeds the threshold.

18. A control method executed by a communication apparatus, the communication apparatus joining a first network established by another communication apparatus, and performing, with said another communication apparatus, communication compliant with an IEEE 802.11 standard series by dynamically switching a channel access scheme between a first channel access scheme, in which at least a predetermined Primary channel in a channel bundle is used, the channel bundle being formed by bonding a plurality of channels, and a second channel access scheme, in which, in a case where the Primary channel is occupied due to communication in a second networking different from the first

network and a remaining duration during which the communication apparatus does not perform transmission of a radio frame using the Primary channel due to the communication in the second network is set, the Primary channel is not used and one or more Non-Primary channels different from the Primary channel among the plurality of channels included in the channel bundle are used, the control method comprising:

receiving information indicating a threshold relating to the remaining duration from said another communication apparatus;

determining, in a case where the remaining duration during which the communication apparatus does not perform transmission of a radio frame using the Primary channel due to the communication in the second network is set, whether or not a length of the remaining duration exceeds the threshold; and

performing, based on determination that the length of the remaining duration exceeds the threshold, control so as to communicate with said another communication apparatus using the second channel access scheme.

19. A program for causing a computer to function as the means included in the communication apparatus according to any one of claims 1 to 16.