

Claims

[Claim 1]

A communication apparatus comprising:

a communicating unit configured to communicate service information in a case where the size of the service information is smaller than a predetermined value in a cyclically repeated period in which a plurality of apparatuses including the communication apparatus transmits or receives a beacon;

a control unit configured to control the communicating unit so as to communicate the service information outside the period in a case where the size of the service information is larger than the predetermined value; and

a notifying unit configured to notify in the period that the service information is to be communicated outside the period to the other communication apparatus being a destination of the service information among the plurality of apparatuses in a case where the communicating unit communicates the service information outside the period under control of the control unit.

[Claim 2]

The communication apparatus according to claim 1, further comprising:

a determining unit configured to determine the size of an information element included in a frame for communicating service information or the size of the frame,

wherein, in a case where the determining unit determines that the size of the information element or the size of the frame is larger than the predetermined value, the control unit controls the communicating unit so as to communicate the service information outside the period.

[Claim 3]

The communication apparatus according to claim 1 or 2, wherein the notifying unit notifies information describing a time point for communicating service information outside the period.

[Claim 4]

The communication apparatus according to any one of claims 1 to 3, wherein the notifying unit notifies information describing a channel for communicating service information outside the period.

- [Claim 5] The communication apparatus according to any one of claims 1 to 4, wherein the notification by the notifying unit uses a beacon to be transmitted by the communication apparatus.
- [Claim 6] The communication apparatus according to any one of claims 1 to 5, wherein the control unit controls the communicating unit so as to communicate service information outside the period in a case where the size of the service information is larger than the predetermined value and where the service information is to be communicated by unicasting; and
the communicating unit communicates service information outside the period in a case where the size of the service information is larger than the predetermined value and where the service information is to be communicated with a plurality of other communication apparatuses.
- [Claim 7] The communication apparatus according to any one of claims 1 to 6, wherein the service information is an SDF (Service Discovery Frame) defined in NAN (Neighbor Awareness Networking).
- [Claim 8] The communication apparatus according to any one of claims 1 to 7, wherein the period is a Discovery Window defined in NAN.
- [Claim 9] The communication apparatus according to any one of claims 1 to 8, wherein the beacon is a Synchronization Beacon defined in NAN.
- [Claim 10] A communication method to be executed by a communication apparatus, the method comprising:
firstly communicating service information in a case where the size of the service information is smaller than a predetermined value in a cyclically repeated period in which a plurality of apparatuses including the communication apparatus transmits or receives a beacon;
secondly communicating the service information outside the period in a case where the size of the service information is larger than the predetermined value; and
notifying in the period that the service information is to be communicated outside the period to the other communication

apparatus being a destination of the service information among the plurality of apparatuses in a case where the second communicating communicates the service information outside the period.

[Claim 11]

A communication method according to claim 10, wherein:
the period is a Discovery Window defined in NAN (Neighbor Awareness Networking); and
the service information is an SDF (Service Discovery Frame) defined in NAN.

[Claim 12]

A program causing a computer to operate as the communication apparatus according to any one of claims 1 to 9.