

WHAT IS CLAIMED IS:

1. A method for operating a station of an IEEE 802.11 compliant communications system, the method comprising:

- 5 receiving, by the station, information about a restricted access window, RAW, for a RAW Group of stations served by an access point, and a first indicator of if a station in the RAW Group of stations needs to receive allocation information about its resource allocation;
- determining, by the station, whether it is allowed to access a communications channel during the RAW; and
- 10 determining, by the station, whether the station needs to receive the allocation information in accordance with the first indicator in response to determining that the station is allowed to access the communications channel during the RAW.

2. The method of claim 1, wherein the information about the restricted access window and the indicator are received in a RAW Parameter Set information element.

- 15 3. The method of claim 2, wherein the RAW Parameter Set information element comprises the RAW Group, a RAW Start Time, a RAW Duration, and the first indicator.

4. The method of any one of claims 1-3, wherein the first indicator indicates the station in the RAW Group of stations does not need to receive the allocation information about its resource allocation.

- 20 5. The method of any one of claims 1-3, wherein the first indicator indicates the station in the RAW Group of stations does need to receive the allocation information about its resource allocation, and wherein the method further comprises:

receiving control signals corresponding to allocated resources in the restricted access window for the station.

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6. The method of claim 5, wherein the control signals are received at a beginning of the restricted access window.

7. A station of an IEEE 802.11 compliant communications system, the station comprising:
a receiver configured to receive information about a restricted access window, RAW,
for a RAW Group of stations served by an access point, and a first indicator of if a station in
the RAW Group of stations needs to receive allocation information about its resource
5 allocation;

and a processor operatively coupled to the receiver, the processor configured to
determine whether the station is allowed to access a communications channel during the
RAW and to determine whether the station needs to receive the allocation information in
accordance with the first indicator in response to determining that the station is allowed to
10 access the communications channel during the RAW.

8. The station of claim 7, wherein the receiver is configured to receive the information about
the restricted access window and the first indicator in a RAW Parameter Set information
element.

15 9. The station of claim 8, wherein the RAW Parameter Set information element comprises the
RAW Group, a RAW Start Time, a RAW Duration, and the first indicator.

10. The station of any one of claims 7-9, wherein the first indicator indicates the station in the
RAW Group of stations does not need to receive the allocation information about its resource
20 allocation.

11. The station of any one of claims 7-9, wherein the first indicator indicates the station in the
RAW Group of stations does need to receive the allocation information about its resource
allocation, and wherein the receiver is further configured to receive control signals
corresponding to allocated resources in the restricted access window for the station.

25 12. The station of claim 11, wherein the receiver is further configured to receive control
signals corresponding to allocated resources in the restricted access window for the station at
a beginning of the restricted access window.

13. An access point of an IEEE 802.11 compliant communications system, the access point comprising:
- a processor configured to specify a restricted access window, RAW, for a RAW Group of stations served by the access point, and generate a first indicator of if a station in the RAW Group of stations needs to receive information about its resource allocation; and
 - a transmitter operatively coupled to the processor, the transmitter configured to broadcast information about the restricted access window and the first indicator in one of a beacon frame and a short beacon frame.
14. The access point of claim 13, wherein the transmitter is configured to transmit the information about the restricted access window and the first indicator in a RAW Parameter Set information element.
15. The access point of claim 14, wherein the RAW Parameter Set information element comprises the RAW Group, a RAW Start Time, a RAW Duration, and the first indicator.
16. The access point of any one of claims 13-15, wherein the first indicator indicates the station in the RAW Group of stations does not need to receive information about its resource allocation.
17. The access point of claim any one of claims 13-15, wherein the first indicator indicates the station in the RAW Group of stations does need to receive information about its resource allocation, and wherein the processor is further configured to allocate resources within the restricted access window to at least one station in the RAW Group of stations served by the access point, and generate control signals corresponding to allocated resources; and the transmitter is further configured to broadcast the control signals.
18. The access point of claim 17, wherein the transmitter is further configured to broadcast the control signals at a beginning of the restricted access window.

CLAIMS:

1. A method for operating a station of an IEEE 802.11 compliant communications system, the method comprising:

receiving, by the station, information about a restricted access window (RAW) for a RAW Group of stations served by an access point, and an indicator of whether a station in the RAW Group of stations needs to receive allocation information about its resource allocation;

determining, by the station, whether it is in the RAW Group of stations based on the information about the RAW; and

determining, by the station, whether the station needs to receive the allocation information in accordance with the indicator in response to determining that the station is in the RAW Group of stations.

2. The method of claim 1, wherein the information about the restricted access window and the indicator are received in a RAW Parameter Set information element.

3. The method of claim 2, wherein the RAW Parameter Set information element comprises the RAW Group, a RAW Start Time, a RAW Duration, and the indicator.

4. The method of claim 1, wherein the indicator indicates the station in the RAW Group of stations does not need to receive the allocation information about its resource allocation.

5. The method of claim 1, wherein the indicator indicates the station in the RAW Group of stations does need to receive the allocation information about its resource allocation, and wherein the method further comprises:

receiving control signals corresponding to allocated resources in the restricted access window for the station.

6. The method of claim 5, wherein the control signals are received at a beginning of the restricted access window.

7. A station of an IEEE 802.11 compliant communications system, the station comprising:

a receiver configured to receive information about a restricted access window (RAW) for a RAW Group of stations served by an access point, and an indicator of whether a station in the RAW Group of stations needs to receive allocation information about its resource allocation; and

a processor operatively coupled to the receiver, the processor configured to determine whether the station is in the RAW Group of stations based on the information about the RAW and to determine whether the station needs to receive the allocation information in accordance with the indicator in response to determining that the station is in the RAW Group of stations.

8. The station of claim 7, wherein the receiver is configured to receive the information about the restricted access window and the indicator in a RAW Parameter Set information element.

9. The station of claim 8, wherein the RAW Parameter Set information element comprises the RAW Group, a RAW Start Time, a RAW Duration, and the indicator.

10. The station of claim 7, wherein the indicator indicates the station in the RAW Group of stations does not need to receive the allocation information about its resource allocation.

11. The station of claim 7, wherein the indicator indicates the station in the RAW Group of stations does need to receive the allocation information about its resource allocation, and wherein the receiver is further configured to receive control signals corresponding to allocated resources in the restricted access window for the station.

12. The station of claim 11, wherein the receiver is further configured to receive control signals corresponding to allocated resources in the restricted access window for the station at a beginning of the restricted access window.

13. An access point of an IEEE 802.11 compliant communications system, the access point comprising:

a processor configured to specify a restricted access window for a restricted access window (RAW) Group of stations served by the access point, and generate a first indicator of if a station in the RAW Group of stations needs to receive information about its resource allocation; and

a transmitter operatively coupled to the processor, the transmitter configured to broadcast information about the restricted access window and the first indicator in one of a beacon frame and a short beacon frame.

14. The access point of claim 13, wherein the transmitter is configured to transmit the information about the restricted access window and the first indicator in a RAW Parameter Set information element.

15. The access point of claim 14, wherein the RAW Parameter Set information element comprises the RAW Group, a RAW Start Time, a RAW Duration, and the first indicator.

16. The access point of claim 13, wherein the first indicator indicates the station in the RAW Group of stations does not need to receive information about its resource allocation.

17. The access point of claim 13, wherein the first indicator indicates the station in the RAW Group of stations does need to receive information about its resource allocation, and wherein the processor is further configured to allocate resources within the restricted access window to at least one station in the RAW Group of stations served by the access point, and generate control signals corresponding to allocated resources; and

the transmitter is further configured to broadcast the control signals.

18. The access point of claim 17, wherein the transmitter is further configured to broadcast the control signals at a beginning of the restricted access window.