

Claims

1. A method to provide access to a medium, the method comprising:
receiving a traffic indication map at a wireless station, wherein a backoff number is implicitly assigned to the wireless station as a function of a position of the wireless station within the traffic indication map; and
determining a medium access backoff value by multiplying the backoff number by a time value.
2. The method of claim 1, wherein the time value is a fixed value.
3. The method of claim 1, wherein the time value is received at the wireless station via one of a beacon, a short beacon, a probe response frame, an association response frame, a Fast Initial Link Setup discovery frame, a management frame, or a control frame.
4. The method of claim 1, further comprising:
setting a backoff timer at the wireless station with the medium access backoff value; and
attempting to send a communication by the wireless station after the backoff timer has expired.
5. The method of claim 1, wherein the medium access backoff value is a slot time.
6. The method of claim 1, wherein the medium access backoff value is determined using a hash function with a predetermined set of parameters.
7. The method of claim 6, wherein the predetermined set of parameters comprises at least one of the position of the wireless station within the traffic indication map, a basic service set ID (BSSID), an association identifier (AID), or a TSF value.
8. The method of claim 1, further comprising signaling the medium access backoff value using at least one of a beacon or a short beacon.

9. A wireless station comprising:
a transceiver configured to receive a traffic indication map, wherein a backoff number is implicitly assigned to the wireless station as a function of a position of the wireless station within the traffic indication map; and
a processor in communication with the transceiver, the processor configured to determine a medium access backoff value for the wireless station by multiplying the backoff number by a time value.
10. The wireless station of claim 9, wherein the time value is a fixed value.
11. The wireless station of claim 9, wherein the wireless station receives the time value via one of a beacon, a short beacon, a probe response frame, an association response frame, a Fast Initial Link Setup discovery frame, a management frame, or a control frame.
12. The wireless station of claim 11, further comprising a backoff timer in communication with the processor, the backoff timer being set to the medium access backoff value, wherein the transceiver attempts to send a communication after the backoff timer has expired.
13. The wireless station of claim 9, wherein the medium access backoff value is a slot time.
14. The wireless station of claim 9, wherein the medium access backoff value is determined using a hash function with a predetermined set of parameters.
15. The wireless station of claim 14, wherein the predetermined set of parameters comprises at least one of the position of the wireless station within the traffic indication map, a basic service set ID (BSSID), an association identifier (AID), or a TSF value.
16. The wireless station of claim 9, wherein the transceiver is configured to signal the medium access backoff value using at least one of a beacon or a short beacon.

17. A method for assigning a medium access backoff value to a wireless station, the method comprising:

sending a traffic indication map to the wireless station, wherein a backoff number is implicitly assigned to the wireless station as a function of a position of the wireless station within the traffic indication map; and

determining the medium access backoff value by multiplying the backoff number by a time value.

18. The method of claim 17, wherein the time value is a fixed value.

19. The method of claim 17, further comprising sending the time value to the wireless station via one of a beacon, a short beacon, a probe response frame, an association response frame, a Fast Initial Link Setup discovery frame, a management frame, or a control frame.

20. The method of claim 17, wherein the medium access backoff value is a slot time.

21. The method of claim 17, wherein the medium access backoff value is determined using a hash function with a predetermined set of parameters.

22. The method of claim 21, wherein the predetermined set of parameters comprises at least one of the position of the wireless station within the traffic indication map, a basic service set ID (BSSID), an association identifier (AID), or a TSF value.

23. The method of claim 17, further comprising signaling the backoff value using at least one of a beacon or a short beacon.

24. A device comprising:

a transceiver configured to send a traffic indication map to a wireless station, wherein a backoff number is implicitly assigned to the wireless station as a function of a position of the wireless station within the traffic indication map; and

a processor in communication with the transceiver, the processor configured to determine a medium access backoff value by multiplying the backoff number by a time value.

25. The device of claim 24, wherein the time value is a fixed value.

26. The device of claim 24, wherein the transceiver is configured to send the time value to the wireless station via one of a beacon, a short beacon, a probe response frame, an association response frame, a Fast Initial Link Setup discovery frame, a management frame, or a control frame.

27. The device of claim 24, wherein the medium access backoff value is a slot time.

28. The device of claim 24, wherein the medium access backoff value is determined using a hash function with a predetermined set of parameters.

29. The device of claim 28, wherein the predetermined set of parameters comprises at least one of the position of the wireless station within the traffic indication map, a basic service set ID (BSSID), an association identifier (AID), or a TSF value.

30. The device of claim 24, wherein the transceiver is configured to signal the medium access backoff value using at least one of a beacon or a short beacon.

Claims

1. A method to provide access to a medium, the method comprising:
receiving a time value at a wireless station;
receiving a traffic indication map at the wireless station;
determining a backoff number for the wireless station as a function of at least one of a position of the wireless station within the traffic indication map or an association identifier (AID) associated with the wireless station; and
determining a medium access backoff time by multiplying the backoff number by the time value.
2. The method of claim 1, wherein the time value is a fixed value.
3. The method of claim 1, wherein the time value is received at the wireless station via one of a beacon, a short beacon, a probe response frame, an association response frame, a Fast Initial Link Setup discovery frame, a management frame, or a control frame.
4. The method of claim 1, further comprising:
setting a backoff timer at the wireless station with the medium access backoff time;
and
attempting to send a communication by the wireless station after the backoff timer has expired.
5. The method of claim 1, wherein the medium access backoff time is a slot time.
6. The method of claim 1, further comprising signaling the medium access backoff time using at least one of a beacon or a short beacon.
7. A wireless station comprising:
a transceiver configured to receive a time value and a traffic indication map; and
a processor in communication with the transceiver, the processor configured to

determine a backoff number for the wireless station as a function of at least one of a position of the wireless station within the traffic indication map or an association identifier (AID) associated with the wireless station; and

determine a medium access backoff time for the wireless station by multiplying the backoff number by the time value.

8. The wireless station of claim 7, wherein the time value is a fixed value.

9. The wireless station of claim 7, wherein the wireless station receives the time value via one of a beacon, a short beacon, a probe response frame, an association response frame, a Fast Initial Link Setup discovery frame, a management frame, or a control frame.

10. The wireless station of claim 9, further comprising a backoff timer in communication with the processor, the backoff timer being set to the medium access backoff time, wherein the transceiver attempts to send a communication after the backoff timer has expired.

11. The wireless station of claim 7, wherein the medium access backoff time is a slot time.

12. The wireless station of claim 7, wherein the transceiver is configured to signal the medium access backoff time using at least one of a beacon or a short beacon.