

CLAIMS

1. A method of communicating in a wireless network, the method comprising:
generating a data packet including a local identifier of either a transmitter of the data packet or a receiver of the data packet based on a direction in which the data packet is sent, and a global identifier or local identifier of the other of the transmitter of the data packet and the receiver of the data packet based on the direction in which the data packet is sent; and
transmitting the data packet.
2. The method of Claim 1, wherein the local identifier comprises an association identifier, and the global identifier comprises a media access control address.
3. The method of Claim 1, wherein the local identifier comprises 13 bits and the global identifier comprises 48 bits.
4. The method of Claim 1, wherein the data packet further includes information indicating a link type over which the data packet is transmitted.
5. The method of Claim 1, wherein the data packet further includes information indicating the direction in which the data packet is sent.
6. The method of Claim 5, wherein the information is included in at least one of a to-distribution system field and a from-distribution system field.
7. The method of Claim 1, wherein an identifier of the receiver precedes an identifier of the transmitter in the data packet.

8. The method of Claim 1, wherein the local identifier and the global identifier in combination uniquely define a pair consisting of the receiver and the transmitter.

9. The method of Claim 1, wherein the data packet includes a field indicating if at least one of a destination address field and a source address field is present in the data packet.

10. The method of Claim 9, wherein the field that identifies whether the data packet includes at least one of a destination address field and a source address field is one or more of a type field and a subtype field of a frame control field.

11. The method of Claim 9, wherein the field that identifies whether the data packet includes at least one of a destination address field and a source address field is a single bit.

12. The method of Claim 1, wherein the data packet includes a field that identifies whether the data packet includes a compressed header or an uncompressed header.

13. The method of Claim 12, wherein the field that identifies whether the data packet includes a compressed header or an uncompressed header is a protocol version field.

14. The method Claim 12, wherein the field that identifies whether the data packet includes a compressed header or an uncompressed header is one or more of a type field and a subtype field of a frame control field.

15. The method of Claim 1, wherein the data packet does not include at least one of a duration field, high throughput control field, and a quality of service control field.

16. The method of Claim 1, wherein the data packet includes a sequence control field.

17. An apparatus for communicating in a wireless network, the apparatus comprising:

a processor configured to generate a data packet including a local identifier of either a transmitter of the data packet or a receiver of the data packet based on a direction in which the data packet is sent, and a global identifier or local identifier of the other of the transmitter of the data packet and the receiver of the data packet based on the direction in which the data packet is sent; and

a transmitter configured to transmit the data packet.

18. The apparatus of Claim 17, wherein the local identifier comprises an association identifier, and the global identifier comprises a media access control address.

19. The apparatus of Claim 17, wherein the local identifier comprises 13 bits and the global identifier comprises 48 bits.

20. The apparatus of Claim 17, wherein the data packet further includes information indicating a link type over which the data packet is transmitted.

21. The apparatus of Claim 17, wherein the data packet further includes information indicating the direction in which the data packet is sent.

22. The apparatus of Claim 21, wherein the information is included in at least one of a to-distribution system field and a from-distribution system field.

23. The apparatus of Claim 17, wherein an identifier of the receiver precedes an identifier of the transmitter in the data packet.

24. The apparatus of Claim 17, wherein the local identifier and the global identifier in combination uniquely define a pair consisting of the receiver and the transmitter.

25. The apparatus of Claim 17, wherein the data packet includes a field indicating if at least one of a destination address field and a source address field is present in the data packet.

26. The apparatus of Claim 25, wherein the field that identifies whether the data packet includes at least one of a destination address field and a source address field is one or more of a type field and a subtype field of a frame control field.

27. The apparatus of Claim 25, wherein the field that identifies whether the data packet includes at least one of a destination address field and a source address field is a single bit.

28. The apparatus of Claim 17, wherein the data packet includes a field that identifies whether the data packet includes a compressed header or an uncompressed header.

29. The apparatus of Claim 28, wherein the field that identifies whether the data packet includes a compressed header or an uncompressed header is a protocol version field.

30. The apparatus of Claim 28, wherein the field that identifies whether the data packet includes a compressed header or an uncompressed header is one or more of a type field and a subtype field of a frame control field.

31. The apparatus of Claim 17, wherein the data packet does not include at least one of a duration field, high throughput control field, and a quality of service control field.

32. The apparatus of Claim 17, wherein the data packet includes a sequence control field.

33. An apparatus for communicating in a wireless network, the apparatus comprising:

means for generating a data packet including a local identifier of either a transmitter of the data packet or a receiver of the data packet based on a direction in which the data packet is sent, and a global identifier or local identifier of the other of the transmitter of the data packet and the receiver of the data packet based on the direction in which the data packet is sent; and

means for transmitting the data packet.

34. A computer-readable medium comprising instructions that when executed by a computer cause the computer to perform a method of communicating in a wireless network, the method comprising:

generating a data packet including a local identifier of either a transmitter of the data packet or a receiver of the data packet based on a direction in which the data packet is sent, and a global identifier or local identifier of the other of the transmitter of the data packet and the receiver of the data packet based on the direction in which the data packet is sent; and

transmitting the data packet.

CLAIMS

1. A method of communicating in a wireless network, the method comprising:
generating a data packet including a local identifier of either a transmitter of the data packet or a receiver of the data packet and a global identifier of the other of the transmitter and the receiver, the local identifier identifying either the transmitter or the receiver within a basic service set, the global identifier identifying either the transmitter or the receiver globally;
selecting which one of the local identifier or the global identifier identifies the transmitter based on a link type for transmitting the data packet, the link type being one of a downlink, an uplink, or a direct link; and
transmitting the data packet from the transmitter to the receiver.
2. The method of Claim 1, wherein the local identifier comprises an association identifier, and the global identifier comprises a media access control address.
3. The method of Claim 1, wherein the local identifier comprises 13 bits and the global identifier comprises 48 bits.
4. The method of Claim 1, wherein the data packet further includes information indicating the link type.
5. The method of Claim 1, wherein the data packet further includes information indicating a direction in which the data packet is sent.
6. The method of Claim 5, wherein the information is included in at least one of a to-distribution system field and a from-distribution system field.
7. The method of Claim 1, wherein an identifier of the receiver precedes an identifier of the transmitter in the data packet.
8. The method of Claim 1, wherein the local identifier and the global identifier in combination uniquely define a pair consisting of the receiver and the transmitter.

9. The method of Claim 1, wherein the data packet includes a field indicating if at least one of a destination address field and a source address field is present in the data packet.

10. The method of Claim 9, wherein the field that identifies whether the data packet includes at least one of a destination address field and a source address field is one or more of a type field and a subtype field of a frame control field.

11. The method of Claim 9, wherein the field that identifies whether the data packet includes at least one of a destination address field and a source address field is a single bit.

12. The method of Claim 1, wherein the data packet includes a field that identifies whether the data packet includes a compressed header or an uncompressed header.

13. The method of Claim 12, wherein the field that identifies whether the data packet includes a compressed header or an uncompressed header is a protocol version field.

14. The method Claim 12, wherein the field that identifies whether the data packet includes a compressed header or an uncompressed header is one or more of a type field and a subtype field of a frame control field.

15. The method of Claim 1, wherein the data packet does not include at least one of a duration field, high throughput control field, and a quality of service control field.

16. The method of Claim 1, wherein the data packet includes a sequence control field.

17. An apparatus for communicating in a wireless network, the apparatus comprising:

a processor configured to:

generate a data packet including a local identifier of either a transmitter of the data packet or a receiver of the data packet and a global identifier of the other of the transmitter and the receiver, the local identifier identifying either the transmitter or the receiver within a basic service set, the global identifier identifying either the transmitter or the receiver globally, and

select which one of the local identifier or the global identifier identifies the transmitter based on a link type for transmitting the data packet, the link type being one of a downlink, an uplink, or a direct link; and

a transmitter configured to transmit the data packet to the receiver.

18. The apparatus of Claim 17, wherein the local identifier comprises an association identifier, and the global identifier comprises a media access control address.

19. The apparatus of Claim 17, wherein the local identifier comprises 13 bits and the global identifier comprises 48 bits.

20. The apparatus of Claim 17, wherein the data packet further includes information indicating the link type.

21. The apparatus of Claim 17, wherein the data packet further includes information indicating a direction in which the data packet is sent.

22. The apparatus of Claim 21, wherein the information is included in at least one of a to-distribution system field and a from-distribution system field.

23. The apparatus of Claim 17, wherein an identifier of the receiver precedes an identifier of the transmitter in the data packet.

24. The apparatus of Claim 17, wherein the local identifier and the global identifier in combination uniquely define a pair consisting of the receiver and the transmitter.

25. The apparatus of Claim 17, wherein the data packet includes a field indicating if at least one of a destination address field and a source address field is present in the data packet.

26. The apparatus of Claim 25, wherein the field that identifies whether the data packet includes at least one of a destination address field and a source address field is one or more of a type field and a subtype field of a frame control field.

27. The apparatus of Claim 25, wherein the field that identifies whether the data packet includes at least one of a destination address field and a source address field is a single bit.

28. The apparatus of Claim 17, wherein the data packet includes a field that identifies whether the data packet includes a compressed header or an uncompressed header.

29. The apparatus of Claim 28, wherein the field that identifies whether the data packet includes a compressed header or an uncompressed header is a protocol version field.

30. The apparatus of Claim 28, wherein the field that identifies whether the data packet includes a compressed header or an uncompressed header is one or more of a type field and a subtype field of a frame control field.

31. The apparatus of Claim 17, wherein the data packet does not include at least one of a duration field, high throughput control field, and a quality of service control field.

32. The apparatus of Claim 17, wherein the data packet includes a sequence control field.

33. An apparatus for communicating in a wireless network, the apparatus comprising:

means for generating a data packet including a local identifier of either a transmitter of the data packet or a receiver of the data packet and a global identifier of the other of the transmitter and the receiver, the local identifier identifying either the transmitter or the receiver within a basic service set, the global identifier identifying either the transmitter or the receiver globally;

means for selecting which one of the local identifier or the global identifier identifies the transmitter based on a link type for transmitting the data packet, the link type being one of a downlink, an uplink, or a direct link; and

means for transmitting the data packet to the receiver.

34. A computer-readable medium comprising instructions that when executed by a computer cause the computer to perform a method of communicating in a wireless network, the method comprising:

generating a data packet including a local identifier of either a transmitter of the data packet or a receiver of the data packet and a global identifier of the other of the transmitter and the receiver, the local identifier identifying either the transmitter or the receiver within a basic service set, the global identifier identifying either the transmitter or the receiver globally;

selecting which one of the local identifier or the global identifier identifies the transmitter based on a link type for transmitting the data packet, the link type being one of a downlink, an uplink, or a direct link; and

transmitting the data packet to the receiver.

35. The method of Claim 1, wherein the link type is the downlink and the data packet includes the local identifier of the receiver and the global identifier of the transmitter.

36. The method of Claim 1, wherein the link type is the uplink and the data packet includes the local identifier of the transmitter and the global identifier of the receiver.

37. The method of Claim 1, wherein the link type is the direct link and the data packet includes the local identifier of the transmitter and the global identifier of the receiver.

38. The apparatus of Claim 17, wherein the link type is the downlink and the data packet includes the local identifier of the receiver and the global identifier of the transmitter.

39. The apparatus of Claim 17, wherein the link type is the uplink and the data packet includes the local identifier of the transmitter and the global identifier of the receiver.

40. The apparatus of Claim 17, wherein the link type is the direct link and the data packet includes the local identifier of the transmitter and the global identifier of the receiver.