

CLAIMS

1. A method of communication at a wireless device, comprising: identifying an upper bound for a number of data bits capable of being transmitted in a symbol to be transmitted to a receiver; determining a number of data bits to be transmitted to the receiver in the symbol; selectively adding padding to an end of a protocol data unit (PDU) containing the symbol, wherein an amount of the padding is based at least in part on a ratio of the number of data bits to be transmitted and the upper bound for the number of data bits capable of being transmitted in the symbol; and transmitting the PDU to the receiver.
2. The method of claim 1, wherein the padding provides additional time relative to a short interframe space (SIFS) for processing the number of data bits to be transmitted in the symbol.
3. The method of claim 1, further comprising: identifying a plurality of bins of ratios of the number of data bits to be transmitted and the upper bound; and determining an amount of padding based at least in part on which of the plurality of bins corresponds to the ratio of the number of data bits to be transmitted and the upper bound.
4. The method of claim 3, wherein each of the plurality of bins corresponds to an integer multiple of a predetermined amount of padding to be added to the end of the PDU.
5. The method of claim 3, further comprising: transmitting, to the receiver, an indication of a bin of the plurality of bins that corresponds to the ratio of the number of data bits to be transmitted and the upper bound.
6. The method of claim 1, wherein the device is an access point (AP) in a wireless communication network, and wherein the identifying, determining, and selectively adding are performed for each of a plurality of stations (STAs) wireless communications with the AP.
7. The method of claim 6, further comprising: determining a largest amount of padding among the plurality of STAs; and applying the largest amount of padding to each of the plurality of STAs.

8. The method of claim 1, wherein the device is an access point (AP) in a wireless communication network, and wherein: the upper bound for a number of data bits comprises an aggregated number of data bits capable of being transmitted to each of a plurality of stations (STAs) in wireless communications with the AP; and the number of data bits to be transmitted comprises an aggregated number of data bits to be transmitted.

9. The method of claim 8, further comprising: transmitting an indication of an amount of padding to each of the plurality of STAs in a trigger message.

10. A method of communication at a wireless device, comprising: determining a total number of coded data bits in a symbol to be transmitted to a receiver; determining a number of useful coded data bits of the total number of coded data bits in the symbol to be transmitted to the receiver; adding a frame extension to an end of the symbol based at least in part on a ratio of the number of useful coded data bits and the total number of coded data bits; and transmitting the symbol to the receiver.

11. The method of claim 10, wherein a difference between the number of useful coded data bits and the total number of coded data bits is determined, and an amount of additional processing time comprises a sum of the difference and the frame extension.

12. The method of claim 11, wherein the amount of additional processing time is determined based on a bandwidth used for transmission of the symbol to the receiver.

13. The method of claim 11, wherein the frame extension is quantized to an integer multiple of a predefined frame extension.

14. The method of claim 11, wherein the amount of additional processing time is determined based at least in part on a modulation and coding scheme (MCS) used for transmission of the symbol to the receiver.

15. The method of claim 14, wherein the amount of additional processing time is further determined based at least in part on a number of spatial streams transmitted to the receiver.

16. The method of claim 11, wherein the amount of additional processing time is determined based at least in part on a decoding time associated with the number of useful coded data bits.

17. The method of claim 16, wherein the decoding time is based at least in part on a bandwidth used for transmission of the symbol to the receiver.

18. A communications device, comprising: a processor and memory communicatively coupled to the processor, the memory comprising computer-readable code that, when executed by the processor, causes the communications device to: identify an upper bound for a number of data bits capable of being transmitted in a symbol to be transmitted to a receiver; determine a number of data bits to be transmitted to the receiver in the symbol; selectively add padding to an end of a protocol data unit (PDU) containing the symbol, wherein an amount of the padding is based at least in part on a ratio of the number of data bits to be transmitted and the upper bound for the number of data bits capable of being transmitted in the symbol; and transmit the PDU to the receiver.

19. The communications device of claim 18, wherein the padding provides additional time relative to a short interframe space (SIFS) for processing the number of data bits to be transmitted in the symbol.

20. The communications device of claim 18, wherein the computer-readable code further causes the at least one device to: identify a plurality of bins of ratios of the number of data bits to be transmitted and the upper bound; and determine an amount of padding based at least in part on which of the plurality of bins corresponds to the ratio of the number of data bits to be transmitted and the upper bound.

21. The communications device of claim 18, wherein the device is an access point (AP) in a wireless communication network, and wherein: the upper bound for a number of data bits comprises an aggregated number of data bits capable of being transmitted to each of a plurality of stations (STAs) in wireless communications with the AP; and the number of data bits to be transmitted comprises an aggregated number of data bits to be transmitted.

22. A communications device, comprising: a processor and memory communicatively coupled to the processor, the memory comprising computer-readable code that, when executed by the processor, causes the communications device to: determine a total number of coded data bits in a symbol to be transmitted to a receiver; determine a number of useful coded data bits of the total number of coded data bits in the symbol to be transmitted to the receiver; add a frame extension

to an end of the symbol based at least in part on a ratio of the number of useful coded data bits and the total number of coded data bits; and transmit the symbol to the receiver.

23. The communications device of claim 22, wherein a difference between the number of useful coded data bits and the total number of coded data bits is determined, and an amount of additional processing time comprises a sum of the difference and the frame extension.

24. The communications device of claim 23, wherein the amount of additional processing time is determined based on a bandwidth used for transmission of the symbol to the receiver.

25. A communications device, comprising: means for identifying an upper bound for a number of data bits capable of being transmitted in a symbol to be transmitted to a receiver; means for determining a number of data bits to be transmitted to the receiver in the symbol; means for selectively adding padding to an end of a protocol data unit (PDU) containing the symbol, wherein an amount of the padding is based at least in part on a ratio of the number of data bits to be transmitted and the upper bound for the number of data bits capable of being transmitted in the symbol; and means for transmitting the PDU to the receiver.

26. The communications device of claim 25, wherein the padding provides additional time relative to a short interframe space (SIFS) for processing the number of data bits to be transmitted in the symbol.

27. The communications device of claim 25, further comprising: means for identifying a plurality of bins of ratios of the number of data bits to be transmitted and the upper bound; and means for determining an amount of padding based at least in part on which of the plurality of bins corresponds to the ratio of the number of data bits to be transmitted and the upper bound.

28. The communications device of claim 27, wherein each of the plurality of bins corresponds to an integer multiple of a predetermined amount of padding to be added to the end of the PDU.

29. The communications device of claim 27, further comprising: means for transmitting, to the receiver, an indication of a bin of the plurality of bins that corresponds to the ratio of the number of data bits to be transmitted and the upper bound.

30. The communications device of claim 25, wherein the device is an access point (AP) in a wireless communication network, and wherein the identifying, determining, and selectively adding are performed for each of a plurality of stations (STAs) wireless communications with the AP.

31. The communications device of claim 30, further comprising: means for determining a largest amount of padding among the plurality of STAs; and means for applying the largest amount of padding to each of the plurality of STAs.

32. The communications device of claim 25, wherein the device is an access point (AP) in a wireless communication network, and wherein: the upper bound for a number of data bits comprises an aggregated number of data bits capable of being transmitted to each of a plurality of stations (STAs) in wireless communications with the AP; and the number of data bits to be transmitted comprises an aggregated number of data bits to be transmitted.

33. The communications device of claim 32, further comprising: means for transmitting an indication of an amount of padding to each of the plurality of STAs in a trigger message.

34. A communications device, comprising: means for determining a total number of coded data bits in a symbol to be transmitted to a receiver; means for determining a number of useful coded data bits of the total number of coded data bits in the symbol to be transmitted to the receiver; means for adding a frame extension to an end of the symbol based at least in part on a ratio of the number of useful coded data bits and the total number of coded data bits; and means for transmitting the symbol to the receiver.

35. The communications device of claim 34, wherein a difference between the number of useful coded data bits and the total number of coded data bits is determined, and an amount of additional processing time comprises a sum of the difference and the frame extension.

36. The communications device of claim 35, wherein the amount of additional processing time is determined based on a bandwidth used for transmission of the symbol to the receiver.

37. The communications device of claim 35, wherein the frame extension is quantized to an integer multiple of a predefined frame extension.

38. The communications device of claim 35, wherein the amount of additional processing time is determined based at least in part on a modulation and coding scheme (MCS) used for transmission of the symbol to the receiver.

39. The communications device of claim 38, wherein the amount of additional processing time is further determined based at least in part on a number of spatial streams transmitted to the receiver.

40. The communications device of claim 35, wherein the amount of additional processing time is determined based at least in part on a decoding time associated with the number of useful coded data bits.

41. The communications device of claim 40, wherein the decoding time is based at least in part on a bandwidth used for transmission of the symbol to the receiver.

42. A non-transitory computer-readable medium storing code for communication at a wireless device, the code comprising instructions executable to: identify an upper bound for a number of data bits capable of being transmitted in a symbol to be transmitted to a receiver; determine a number of data bits to be transmitted to the receiver in the symbol; selectively add padding to an end of a protocol data unit (PDU) containing the symbol, wherein an amount of the padding is based at least in part on a ratio of the number of data bits to be transmitted and the upper bound for the number of data bits capable of being transmitted in the symbol; and transmit the PDU to the receiver.

43. The non-transitory computer-readable medium of claim 42, wherein the padding provides additional time relative to a short interframe space (SIFS) for processing the number of data bits to be transmitted in the symbol.

44. A non-transitory computer-readable medium storing code for communication at a wireless device, the code comprising instructions executable to: determine a total number of coded data bits in a symbol to be transmitted to a receiver; determine a number of useful coded data bits of the total number of coded data bits in the symbol to be transmitted to the receiver; add a frame extension to an end of the symbol based at least in part on a ratio of the number of useful coded data bits and the total number of coded data bits; and transmit the symbol to the receiver.

45. The non-transitory computer-readable medium of claim 44, wherein a difference between the number of useful coded data bits and the total number of coded data bits is determined, and an amount of additional processing time comprises a sum of the difference and the frame extension.