CLAIMS

1. A method of wireless communication by an access point (AP), comprising: selecting a packet duration for uplink (UL) transmissions from a station (STA); transmitting a trigger frame soliciting UL data from the STA and indicating the selected packet duration; receiving an UL packet of the selected packet duration from the STA; and selectively adjusting the packet duration for subsequent UL transmissions from the STA based on one or more of an amount of data carried in the UL packet, an amount of padding inserted into the UL packet by the STA, or an amount of UL data queued in the STA, wherein selectively adjusting the packet duration includes decreasing the packet duration when the amount of padding inserted into the UL packet by the STA is greater than a value while at least some UL data is queued in the STA.

2. The method of claim 1, further comprising: transmitting an indication of the adjusted packet duration to the STA.

3. The method of claim 1, wherein the UL packet comprises a high-efficiency (HE) trigger-based (TB) physical layer convergence procedure (PLCP) protocol data unit (PPDU).

4. The method of claim 1, wherein the UL packet includes at least one medium access control (MAC) protocol data unit (MPDU).

5. The method of claim 1, wherein the UL packet includes an indication of the amount of UL data queued in the STA.

6. The method of claim 5, wherein the indication is carried in a Quality-of-Service (QoS) control field of the UL packet.

7. The method of claim 1, wherein selectively adjusting the packet duration further comprises decreasing the packet duration when the amount of data carried in the UL packet is less than the amount of UL data queued in the STA and at least a portion of one or more data fields contained in the UL packet do not carry queued UL data from the STA.

8. The method of claim 1, wherein selectively adjusting the packet duration further comprises: estimating a maximum amount of data that the STA is capable of embedding in the UL packet based at least in part on the amount of data carried in the UL packet; and adjusting the packet duration based on the estimated maximum amount of data.

9. The method of claim 8, further comprising: determining a weighted moving average of the estimated maximum amount of data that the STA is able to include in a given packet; and selecting a minimum amount of data that the STA is to include in each UL packet based on the determined weighted moving average.

10. The method of claim 9, further comprising: transmitting an indication of the selected

minimum amount of data to the STA.

11. The method of claim 1, further comprising: periodically increasing the selected packet duration for a time period.

12. The method of claim 1, wherein selecting the packet duration for UL transmissions is further based at least in part on estimating the amount of data that the STA has queued for UL transmissions.

13. The method of claim 1, wherein the amount of UL data queued in the STA is based at least in part on UL queue size information provided by the STA prior to transmission of the trigger frame.

14. The method of claim 13, wherein the UL queue size information is contained in one or more of a buffer status report (BSR) or a Quality-of-Service (QoS) control field of a previously received UL packet from the STA.

15. A method of wireless communication performed by an access point (AP), comprising: selecting a packet duration for uplink (UL) transmissions from a station (STA); transmitting a trigger frame soliciting UL data from the STA and indicating the selected packet duration; receiving an UL packet of the selected packet duration from the STA; and selectively adjusting the packet duration for subsequent UL transmissions from the STA based on one or more of an amount of data carried in the UL packet, an amount of padding inserted into the UL packet by the STA, or an amount of UL data queued in the STA, wherein selectively adjusting the packet duration comprises decreasing the packet duration when a size or duration of one or more aggregated frames carried in the UL packet is less than a value.

16. An access point (AP), comprising: at least one modem; one or more processors coupled to the at least one modem; a memory coupled to the at least one modem and to the one or more processors, the memory storing instructions that, when executed by the one or more processors, cause the AP to perform operations comprising: selecting a packet duration for uplink (UL) transmissions from a station (STA); transmitting a trigger frame soliciting UL data from the STA and indicating the selected packet duration; receiving an UL packet of the selected packet duration from the STA; and selectively adjusting the packet duration for subsequent UL transmissions from the STA based on one or more of an amount of data carried in the UL packet, an amount of padding inserted into the UL packet by the STA, or an amount of UL data queued in the STA, wherein selectively adjusting the packet duration includes decreasing the packet duration when the amount of padding inserted into the UL packet by the STA is greater than a value while at least some UL data is queued in the STA.

17. The AP of claim 16, wherein execution of the instructions causes the AP to perform operations further comprising: transmitting an indication of the adjusted packet duration to the STA.

18. The AP of claim 16, wherein the UL packet includes an indication of the amount of UL data queued in the STA.

19. The AP of claim 18, wherein the indication is carried in a Quality-of-Service (QoS) control field of the UL packet.

20. The AP of claim 16, wherein execution of the instructions for adjusting the packet duration further causes the AP to decrease the packet duration when the amount of data carried in the UL packet is less than the amount of UL data queued in the STA and at least a portion of one or more data fields contained in the UL packet do not carry queued UL data from the STA.

21. The AP of claim 16, wherein execution of the instructions for adjusting the packet duration causes the AP to perform operations further comprising: estimating a maximum amount of data that the STA is capable of embedding in the UL packet based at least in part on the amount of data carried in the UL packet; and adjusting the packet duration based on the estimated maximum amount of data.

22. The AP of claim 21, wherein execution of the instructions causes the AP to perform operations further comprising: determining a weighted moving average of the estimated maximum amount of data that the STA is able to include in a given packet; and selecting a minimum amount of data that the STA is to include in each UL packet based on the determined weighted moving average.

23. The AP of claim 22, wherein execution of the instructions causes the AP to perform operations further comprising: transmitting an indication of the selected minimum amount of data to the STA.

24. The AP of claim 16, wherein execution of the instructions causes the AP to perform operations further comprising: periodically increasing the selected packet duration for a time period.

25. The AP of claim 16, wherein selecting the packet duration for UL transmissions is further based at least in part on estimating the amount of data that the STA has queued for UL transmissions.

26. The AP of claim 16, wherein the amount of UL data queued in the STA is based at least in part on UL queue size information provided by the STA prior to transmission of the trigger frame.

27. The AP of claim 26, wherein the UL queue size information is contained in one or more of a buffer status report (BSR) or a Quality-of-Service (QoS) control field of a previously received UL packet from the STA.

28. An access point (AP), comprising: at least one modem; one or more processors coupled to the at least one modem; a memory coupled to the at least one modem and to the one or more processors, the memory storing instructions that, when executed by the one or more processors, cause the AP to perform operations comprising: selecting a packet duration for uplink (UL) transmissions from a station (STA); transmitting a trigger frame soliciting UL data from the STA and indicating the selected packet duration; receiving an UL packet of the selected packet duration from the STA; and selectively adjusting the packet duration for subsequent UL transmissions from the STA based on one or more of an amount of data carried in the UL packet, an amount of padding inserted into the UL packet by the STA, or an amount of UL data queued in the STA, wherein execution of the instructions for adjusting the packet duration causes the AP to decrease the packet duration when a size or duration of one or more aggregated frames carried in the UL packet is less than a value.