WHAT IS CLAIMED IS:

1. A method comprising:

transmitting a frame from a station to an access point, the frame including a beacon sequence number related to a configuration of the access point; and

in response to transmitting the frame, receiving an update frame from the access point, the update frame indicating at least one change in the configuration of the access point.

2. The method of claim 1, further comprising:

in response to transmitting the frame, receiving an acknowledgement frame including an update bit field, wherein the update bit field indicates that the update frame is available at the access point; and

receiving the update frame from the access point.

3. The method of claim 1, wherein the frame is transmitted to the access point in response to the station transitioning out of a low power mode and wherein the low power mode includes one of a sleep mode and a power off mode.

4. The method of claim 1, wherein the at least one change in the configuration of the access point includes a channel change, an operating mode change, or any combination thereof.

5. The method of claim 4, wherein the channel change includes a channel switch or an extended channel switch.

6. The method of claim 4, wherein the operating mode change includes modification of enhanced distribution channel access (EDCA) parameters, modification of a quiet information element, modification of a direct sequence spread spectrum (DSSS) parameter set, modification of a contention-free (CF) parameter set, modification of a frequency-hopping (FH) parameter set, modification of a high-throughput (HT) operation element, or any combination thereof.

7. A method comprising:

receiving a frame from a station at an access point, the frame including a beacon sequence number identifying a last known configuration of the access point that was known to the station prior to the station entering a low power mode;

determining whether a current configuration of the access point is identified by the beacon sequence number received from the station in the frame; and

in response to determining that the current configuration is not identified by the beacon sequence number, transmitting an update frame that indicates at least one difference between the current configuration and the configuration identified by the beacon sequence number.

8. The method of claim 7, further comprising:

in response to determining that the current configuration is not identified by the beacon sequence number, scheduling transmission of the update frame to the station during a scheduled transmission time; and

transmitting the update frame to the station during the scheduled transmission time, wherein the scheduled transmission time is a time when the station is not in a sleep mode and is not in a power off mode.

9. The method of claim 7, further comprising:

in response to determining that the current configuration is not identified by the beacon sequence number, transmitting an acknowledgement frame including an update bit field, wherein the update bit field indicates that the update frame is available at the access point; and

transmitting the update frame to the station.

10. The method of claim 7, wherein the update frame is an expanded channel switch announcement frame indicating a channel change of the access point.

11. The method of claim 7, wherein the update frame is a very high-throughput (VHT) notification frame indicating an operating mode change of the access point.

12. A method comprising:

transmitting, from a station to an access point, a frame requesting data for the station that is buffered by the access point; and

in response to transmitting the frame, receiving an update frame from the access point indicating at least one change in a configuration of the access point.

13. The method of claim 12, wherein the frame comprises a power save polling (PS-Poll) frame.

14. The method of claim 12, wherein the frame comprises a trigger frame that causes the access point to send the data to the station.

15. The method of claim 12, wherein the frame includes uplink data sent from the station to the access point.

16. The method of claim 12, wherein the at least one change in the configuration occurred while the station was operating in a low power mode and wherein the low power mode includes one of a sleep mode and a power off mode.

17. The method of claim 16, wherein the at least one change in the configuration of the access point includes a channel change, an operation mode change, or any combination thereof.

18. A method comprising:

receiving a frame from a station at an access point, wherein the access point includes a flags register that stores information associated with stations that operate in an asynchronous mode;

determining whether the station operates in the asynchronous mode;

in response to determining that the station operates in the asynchronous mode, determining whether information stored at the flags register that is associated with the station indicates that an update frame is to be transmitted to the station; and

in response to determining that the information indicates that an update frame is to be transmitted to the station, transmitting the update frame to the station, wherein the update frame indicates at least one change in a configuration of the access point.

19. The method of claim 18, wherein the update frame includes a beacon sequence number related to the configuration of the access point.

20. The method of claim 19, further comprising:

in response to determining that the information indicates that an update frame is to be transmitted to the station, transmitting an acknowledgement frame to the station.

21. The method of claim 18, further comprising clearing a flag corresponding to the information after transmitting the update frame to the station.

22. The method of claim 18, further comprising refraining from transmitting the update frame to the station until the station exits a sleep mode or a power-save mode.

23. A method comprising:

transmitting a frame from a station to an access point;

in response to transmitting the frame, receiving an acknowledgement frame including an updated beacon sequence number related to an updated configuration of the access point;

determining whether a last known configuration of the access point is identified by the updated beacon sequence number; and

in response to determining that the last known configuration of the access point is not identified by the updated beacon number, transmitting an update request frame to the access point.

24. The method of claim 23, further comprising receiving an update frame from the access point indicating at least one change in the last known configuration of the access point.

25. A method comprising:

receiving a frame from a station at an access point; and

in response to receiving the frame, transmitting an acknowledgement frame including an updated beacon sequence number related to an updated configuration of the access point.

26. The method of claim 25, further comprising:

in response to transmitting the acknowledgement frame, receiving an update request frame from the station; and

transmitting an update frame to the station indicating at least one change in a last known configuration of the access point that was known by the station.

27. An apparatus comprising:

a processor; and

a memory storing instructions executable by the processor to:

initiate transmission of a frame from a station to an access point, the frame including a beacon sequence number related to a configuration of the access point; and

in response to transmission of the frame, detect receipt of an update frame from the access point indicating at least one change in the configuration of the access point.

28. The apparatus of claim 27, wherein the instructions are further executable by the processor to:

in response to transmission of the frame, detect receipt of an acknowledgement frame including an update bit field, wherein the update bit field indicates that the update frame is available at the access point;

initiate transmission of an update request frame to the access point; and

in response to transmission of the update request frame, detect receipt of the update frame from the access point.

29. The apparatus of claim 27, wherein the at least one change in the configuration of the access point includes a channel change, an operating mode change, or any combination thereof.

30. The apparatus of claim 27, wherein the processor is integrated into a mobile device, a camera, a multimedia player, an entertainment unit, a navigation device, a personal digital assistant (PDA), a portable computer, or any combination thereof.

31. An apparatus comprising:

a processor; and

a memory storing instructions executable by the processor to:

detect receipt of a frame from a station at an access point; and

in response to receiving the frame, initiate transmission of an acknowledgement frame including an updated beacon sequence number related to an updated configuration of the access point.

32. The apparatus of claim 31, wherein the instructions are further executable by the processor to:

in response to transmission of the acknowledgement frame, detect receipt of an update request frame from the station; and

initiate transmission of an update frame to the station indicating at least one change in a last known configuration of the access point that was known by the station.

33. An apparatus comprising:

means for receiving a frame from a station at an access point, the frame including a beacon sequence number identifying a last known configuration of the access point that was known to the station prior to the station entering a low power mode;

means for determining whether a current configuration of the access point is identified by the beacon sequence number received from the station in the frame; and

means for transmitting an update frame that indicates at least one difference between the current configuration and the configuration identified by the beacon sequence number, in response to determining that the current configuration is not identified by the beacon sequence number.

34. An apparatus comprising:

means for transmitting a frame from a station to an access point;

means for receiving an acknowledgement frame including an updated beacon sequence number related to an updated configuration of the access point in response to the frame; and

means for determining whether a last known configuration of the access point is identified by the updated beacon sequence number,

wherein the means for transmitting is further configured to transmit an update request frame to the access point in response to determining that the last known configuration of the access point is not identified by the updated beacon number.

35. A non-transitory computer-readable medium including program code that, when executed by a processor, causes the processor to:

initiate transmission of a frame from a station to an access point, the frame including a beacon sequence number related to a configuration of the access point; and

in response to transmission of the frame, detect receipt of an update frame from the access point indicating at least one change in the configuration of the access point.

36. The non-transitory computer-readable medium of claim 35, further comprising program code that, when executed by the processor, causes the processor to:

in response to transmission of the frame, detect receipt of an acknowledgement frame including an update bit field, wherein the update bit field indicates that the update frame is available at the access point;

initiate transmission of an update request frame to the access point; and

in response to transmission of the update request frame, detect receipt of the update frame from the access point.

37. The non-transitory computer-readable medium of claim 35, wherein the at least one change in the configuration of the access point includes a channel change, an operating mode change, or any combination thereof.

38. A non-transitory computer-readable medium comprising program code that, when executed by a processor, causes the processor to:

detect receipt of a frame from a station at an access point; and

in response to receiving the frame, initiate transmission of an acknowledgement frame including an updated beacon sequence number related to an updated configuration of the access point.

39. The non-transitory computer-readable medium of claim 38, further comprising program code that, when executed by the processor, causes the processor to:

in response to transmission of the acknowledgement frame, detect receipt of an update request frame from the station; and

initiate transmission of an update frame to the station indicating at least one change in a last known configuration of the access point that was known by the station.

Claims

1. An invention not claimed in any divisional application.