CLAIMS

1. An apparatus for wireless communications, comprising: an interface configured to receive, from a wireless node, one or more parameters specifying a memory at the wireless node, and a block acknowledgement (BA) frame including a receiver buffer capacity (RBUFCAP) field that is configured to include an indication of an amount of computed free memory space in the memory at the wireless node when the computed free memory space is less than an amount of memory for an aggregated data unit having a maximum length, an indication of no space available in the memory at the wireless node when zero space is available in the memory, and an indication that there is sufficient space in the memory at the wireless node for the aggregated data unit having the maximum length; and a processing system configured to determine a number of data units to be transmitted to the wireless node based on the one or more parameters specifying the memory at the wireless node, and the indication of the amount of computed free memory space when the free memory space is less than the amount of memory for the aggregated data unit having the maximum length, the indication of no space available in the memory when zero space is available in the memory, and the indication that there is sufficient space in the memory at the wireless node for the aggregated data unit having the maximum length; wherein the interface is further configured to output data units for transmission to the wireless node, wherein a number of the data units output for transmission to the wireless node equals the determined number of data units.

2. The apparatus of claim 1, wherein the one or more parameters include a parameter indicating a size of a memory unit, and the indication of the amount of free memory space is given in terms of the memory unit.

3. The apparatus of claim 1, wherein the interface is further configured to output a block acknowledgement request for transmission to the wireless node, and the block acknowledgement frame is received after the block acknowledgement request.

4. The apparatus of claim 1, wherein the block acknowledgement frame is received unsolicited by the apparatus.

5. The apparatus of claim 1, wherein each of the data units is a media access control (MAC) protocol data unit (MPDU).

6. The apparatus of claim 1, wherein the interface is further configured to: output an add block acknowledgement (ADDBA) request for transmission to the wireless node, the ADDBA request requesting a block acknowledgement session with the wireless node; and receive, from the wireless node and after outputting the ADDBA request, an ADDBA response that comprises the one or more parameters.

7. The apparatus of claim 6, wherein the one or more parameters in the ADDBA response include a type of the memory in the wireless node, and a size of a memory unit used in the RBUFCAP.

8. The apparatus of claim 1, wherein the memory at the wireless node comprises a plurality of buffers, and the one or more parameters include a buffer size and a limit on a number of data units per buffer.

9. The apparatus of claim 1, wherein the memory at the wireless node comprises a plurality of buffers, and the one or more parameters include a parameter indicating whether a single data unit may be split between two or more of the plurality of buffers.

10. The apparatus of claim 1, wherein: the interface is configured to receive a capabilities element indicating one or more capabilities of the wireless node; and the processing system is configured to determine the number of data units to be transmitted to the wireless node based also on the one or more indicated capabilities.

11. The apparatus of claim 1, wherein: the interface is further configured to receive an add block acknowledgement response including a dialog token set to zero when the add block acknowledgement response is not solicited by an add block acknowledgement request requesting a block acknowledgement session; and the processing system is further configured to ignore one or more parameters of the block acknowledgement response when the dialog token is set to zero, wherein the one or more parameters are associated with the block acknowledgement session.

12. A wireless node, comprising: a receiver configured to receive, from an other wireless node, one or more parameters specifying a memory at the other wireless node, and a block acknowledgement (BA) frame including a receiver buffer capacity (RBUFCAP) field that is configured to include an indication of an amount of computed free memory space in the memory at the other wireless node when the computed free memory space is less than an amount of memory for an aggregated data unit having a maximum length, an indication of no space available in the memory at the other wireless node when zero space is available in the memory, and an indication that there is sufficient space in the memory at the other wireless node for the aggregated data unit having the maximum length; a processing system configured to determine a number of data units to be transmitted to the other wireless node based on the one or more parameters specifying the memory at the other wireless node, and the indication of the amount of computed free memory space when the free memory space is less than the amount of memory for the aggregated data unit having the maximum length, the indication of no space available in the memory when zero space is available in the memory, and the indication that there is sufficient space in the memory for the aggregated data unit having the maximum length; and a transmitter configured to transmit data units to the other wireless node, wherein a number of the data units transmitted to the other wireless node equals the determined number of data units.

13. An apparatus for wireless communications, comprising: an interface configured to output one or more parameters for transmission to a wireless node, the one or more parameters specifying a memory; and a processing system configured to compute an amount of computed free memory space in the memory; wherein the interface is further configured to output an indication of the amount of computed free memory space for transmission to the wireless node in a block acknowledgement (BA) frame including a receiver buffer capacity (RBUFCAP) field that is configured to include the indication of the amount of free memory space in the memory when the computed free memory space is less than an amount of memory for an aggregated data unit having a maximum length, an indication of no space available in the memory when zero space is available in the memory, and an indication that there is sufficient space in the memory for the aggregated data unit having the maximum length.

14. The apparatus of claim 13, wherein the one or more parameters include a parameter indicating a size of a memory unit, and the indication of the amount of free memory space is given in terms of the memory unit.

15. The apparatus of claim 14, wherein the processing system is configured to compute the size of the memory unit based on a size of the memory, and a range of the receiver buffer capacity (RBUFCAP) field.

16. The apparatus of claim 13, wherein: the interface is further configured to receive a block acknowledgement request from the wireless node; and the processing system is further configured to generate the block acknowledgement frame in response to the block acknowledgement request.

17. The apparatus of claim 13, wherein the processing system is configured to generate the block acknowledgement frame unsolicited by the wireless node.

18. The apparatus of claim 13, wherein: the interface is further configured to receive an add block acknowledgement (ADDBA) request from the wireless node, the ADDBA request requesting a block acknowledgement session with the wireless node; the processing system is further configured to generate an ADDBA response in response to the ADDBA request, wherein the ADDBA response comprises the one or more parameters; and the interface is further configured to output the ADDBA response for transmission to the wireless node.

19. The apparatus of claim 18, wherein the one or more parameters in the ADDBA response include a type of the memory in the wireless node, and a size of a memory unit used in the RBUFCAP.

20. The apparatus of claim 13, wherein the processing system is configured to compute the amount of free memory space by tracking an amount of data going into the memory and an amount of data being released from the memory.

21. The apparatus of claim 13, wherein the memory comprises a plurality of buffers, and the one or more parameters include a buffer size and a limit on a number of data units per buffer.

22. The apparatus of claim 13, wherein the memory comprises a plurality of buffers, and the one or more parameters include a parameter indicating whether a single data unit may be split between two or more of the plurality of buffers.

23. The apparatus of claim 13, wherein the interface is further configured to output a capabilities element for transmission to the wireless node, the capabilities element indicating one or more capabilities of the apparatus.

24. The apparatus of claim 13, wherein the interface is further configured to output an add block acknowledgement response for transmission to the wireless node, the add block acknowledgement response including a dialog token set to zero when the add block acknowledgement response is not solicited by an add block acknowledgement request requesting a block acknowledgement session.

25. The apparatus of claim 13, further comprising a transmitter configured to transmit the one or more parameters to the wireless node, wherein the apparatus is configured as another wireless node.