

- (2) transferring an address of said first protocol data unit in said memory to said second integrated circuit, and
- (3) transferring said first protocol data unit from said memory to said integrated second circuit.
- 18. The apparatus of claim 17 wherein said transferring of (1), (2), and (3) are via an input/output controller.
- 19. A wireless terminal comprising:
  - (a) a microprocessor for generating an outgoing message to be transmitted to a remote wireless terminal via a first service data unit;
  - (b) a first circuit for:
    - (i) providing a first medium-access-control service, and
    - (ii) generating a first protocol data unit based on said first service data unit;
  - (c) a second circuit for:
    - (i) providing a second medium-access-control service, and
    - (ii) generating a second protocol data unit based on said first protocol data unit;
  - (d) a radio;
  - (e) a radio controller for:
    - (i) generating a third protocol data unit based on said second protocol data unit, and
    - (ii) transmitting, via said radio, a first signal based on said third protocol data unit to said remote wireless terminal;
  - (f) a bus for:
    - (i) transferring signals between said microprocessor and a peripheral, and
    - (ii) transferring said first protocol data unit from said first circuit to said second circuit; and
  - (g) wherein said first, second, and third protocol data units are different.

- 20. The apparatus of claim 19 wherein said bus transfers signals between said microprocessor and said peripheral via an input/output controller.
- 21. The apparatus of claim 19 wherein said first medium-access-control service is independent of the state of said radio controller;
  - and wherein said second medium-access-control service is dependent on the state of said radio controller.
- 22. The apparatus of claim 21 wherein said first medium-access-control service is transmit queuing.
- 23. The apparatus of claim 21 wherein said second medium-access-control service is channel access.
- 24. The apparatus of claim 19 wherein said radio controller is also for:
  - (iii) receiving, via said radio, a second signal from said remote wireless terminal, and
  - (iv) generating a second service data unit based on said second signal;
 wherein said second circuit is also for (iii) generating a third service data unit based on said second service data unit;
  - and wherein said bus is also for (iii) transferring said third service data unit from said second circuit to said first circuit.
- 25. The apparatus of claim 24 wherein said first circuit is also for (iii) generating a fourth service data unit based on said third service data unit; and
  - wherein said microprocessor is also for receiving an incoming message from said remote terminal via said fourth service data unit.

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