

**22.** The wireless station of claim 20 wherein said first medium-access-control service is transmit queueing.

**23.** The wireless station of claim 20 wherein said second medium-access-control service is channel access.

**24.** A wireless network radio module comprising:

a Physical Control; and

a first circuit for receiving a service data unit from an Upper Medium Access Control and for outputting a protocol data unit to said Physical Control;

wherein said Physical Control provides a first medium-access-control service that is independent of the state of said Physical Control; and

wherein said protocol data unit is based on:

(i) said service data unit, and

(ii) a second medium-access-control service that depends on the state of said Physical Control.

**25.** The wireless network radio module of claim 24 further comprising:

a second circuit for receiving a second protocol data unit from said Physical Control and for outputting a second service data unit to said Upper Medium Access Control.

**26.** The wireless network radio module of claim 24 wherein said first medium-access-control service is transmit queueing.

**27.** The wireless network radio module of claim 24 wherein said second medium-access-control service is channel access.

**28.** A wireless network radio module comprising:

a Physical Control; and

a first circuit for receiving a service data unit from an Upper Medium Access Control that provides a first medium-access-control service and outputting a protocol data unit to a Physical Control;

wherein said first medium-access-control service is independent of any physical attribute of all signals transmitted or received by said Physical Control; and

wherein said protocol data unit is based on:

(i) said service data unit, and

(ii) a second medium-access-control service that is dependent on a physical attribute of a signal transmitted or received by said Physical Control.

**29.** The wireless network radio module of claim 28 further comprising:

a second circuit for receiving a second protocol data unit from said Physical Control and outputting a second service data unit to said Upper Medium Access Control.

**30.** The wireless network radio module of claim 28 wherein said first medium-access-control service is transmit queueing.

**31.** The wireless network radio module of claim 28 wherein said second medium-access-control service is channel access.

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