

1 1. A method, comprising:

2 transmitting, from a radio, over a router-to-radio interface, a first transmission-on  
3 signal indicating to a router that data packets can be sent to the radio for transmission in a  
4 network; and

5 transmitting, from the radio over the router-to-radio interface, a first transmission-  
6 off signal indicating to the router that data packet transmission should be suspended until  
7 receipt of a second transmission-on signal, wherein the first transmission-on signal and the  
8 first transmission-off signal are generated in a network layer of the seven-layer OSI  
9 model.

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11 2. The method according to claim 1, further including storing, in the radio, a remainder of  
12 a packet transmitted by the router after the first transmission-off signal was transmitted by  
13 the radio.

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15 3. The method according to claim 1, further including buffering data from the router for  
16 transmission to a radio.

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18 4. The method according to claim 3, further including sizing a buffer for buffering the  
19 data from the router to receive complete packets.

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21 5. The method according to claim 1, further including configuring the radio for Mobile  
22 Ad-hoc Network (MANET) operation.

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24 6. The method according to claim 1, wherein the first transmission-off signal indicates  
25 that a buffer in the radio will overflow.

1 7. A communication system, comprising:

2 a radio comprising:

3 a router interface to interface with a router;

4 a buffer to buffer data from the router;

5 an antenna interface to receive data from the buffer for wireless

6 transmission by an antenna; and

7 a flow control mechanism to generate a first transmission-on signal

8 indicating to the router that data packets can be sent to the radio and a first transmission-

9 off signal indicating to the router that data packet transmission should be suspended until

10 receipt of a second transmission-on signal, wherein the flow control mechanism is located

11 in a network layer of the seven-layer OSI model.

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13 8. The system according to claim 7, wherein the communication system comprises a

14 Mobile Ad-hoc Network (MANET) network.

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16 9. The system according to claim 7, wherein the buffer is sized to store complete packets.

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18 10. The system according to claim 7, wherein the first transmission-off signal indicates

19 that a buffer in the radio will overflow.

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21 11. An article, comprising:

22 computer readable medium including non-transitory stored instructions that enable

23 a machine to perform:

24 transmitting, after receiving from a radio over a router-to-radio interface, a first

25 transmission-on signal indicating to a router that data packets can be sent to the radio for

26 transmission in a network; and

27 transmitting, after receiving from the radio over the router-to-radio interface, a first

28 transmission-off signal indicating to the router that data packet transmission should be

29 suspended until receipt of a second transmission-on signal, wherein the first transmission-

30 on signal and the first transmission-off signal are generated in a network layer of the

31 seven-layer OSI model.

1 12. The article according to claim 11, further including instructions for storing, in the  
2 radio, a remainder of a packet transmitted by the router after the first transmission-off  
3 signal was transmitted by the radio.

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5 13. The article according to claim 11, further including instructions for buffering data  
6 from the router for transmission to a radio.

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8 14. The article according to claim 13, further including instructions for sizing a buffer for  
9 buffering the data from the router to receive complete packets:

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11 15. The article according to claim 11, further including instructions for configuring the  
12 radio for Mobile Ad-hoc Network (MANET) operation.

13  
14 16. The article according to claim 11, wherein the first transmission-off signal indicates  
15 that a buffer in the radio will overflow.

## Claims

1. A method, comprising:  
transmitting, from a radio, over a wired router-to-radio interface, a first transmission-on signal indicating to a router that data packets can be sent to the radio for transmission in a network; and  
transmitting, from the radio over the wired router-to-radio interface, a first transmission-off signal indicating to the router that data packet transmission should be suspended until receipt of a second transmission-on signal, wherein the first transmission-on signal and the first transmission-off signal are generated in a network layer, which is layer 3 of the seven-layer OSI model.
2. The method according to claim 1, further including storing, in the radio, a remainder of a packet transmitted by the router after the first transmission-off signal was transmitted by the radio.
3. The method according to claim 1, further including buffering data from the router for transmission to a radio.
4. The method according to claim 3, further including sizing a buffer for buffering the data from the router to receive complete packets.
5. The method according to claim 1, further including configuring the radio for Mobile Ad-hoc Network (MANET) operation.
6. The method according to claim 1, wherein the first transmission-off signal indicates that a buffer in the radio will overflow.

7. A communication system, comprising:
  - a radio comprising:
    - a router interface to interface with a router;
    - a buffer to buffer data from the router;
    - an antenna interface to receive data from the buffer for wireless transmission by an antenna; and
    - a flow control mechanism to generate a first transmission-on signal indicating to the router that data packets can be sent to the radio and a first transmission-off signal indicating to the router that data packet transmission should be suspended until receipt of a second transmission-on signal, wherein the flow control mechanism is located in a network layer, which is layer 3 of the seven-layer OSI model.
8. The system according to claim 7, wherein the communication system comprises a Mobile Ad-hoc Network (MANET) network.
9. The system according to claim 7, wherein the buffer is sized to store complete packets.
10. The system according to claim 7, wherein the first transmission-off signal indicates that a buffer in the radio will overflow.
11. An article, comprising:
  - a non-transitory computer readable medium including stored instructions that enable a machine to perform:
    - transmitting, after receiving from a radio over a wired router-to-radio interface, a first transmission-on signal indicating to a router that data packets can be sent to the radio for transmission in a network; and
    - transmitting, after receiving from the radio over the wired router-to-radio interface, a first transmission-off signal indicating to the router that data packet transmission should be suspended until receipt of a second transmission-on signal, wherein the first transmission-on signal and the first transmission-off signal are generated in a network layer, which is layer 3 of the seven-layer OSI model.

12. The article according to claim 11, further including instructions for storing, in the radio, a remainder of a packet transmitted by the router after the first transmission-off signal was transmitted by the radio.
13. The article according to claim 11, further including instructions for buffering data from the router for transmission to a radio.
14. The article according to claim 13, further including instructions for sizing a buffer for buffering the data from the router to receive complete packets.
15. The article according to claim 11, further including instructions for configuring the radio for Mobile Ad-hoc Network (MANET) operation.
16. The article according to claim 11, wherein the first transmission-off signal indicates that a buffer in the radio will overflow.