WHAT IS CLAIMED IS:

1. A method of operating a first communications device to communicate with a second communications device, said first and second communications device being in a region including a third communications device, the method comprising:

transmitting a paging signal directly to said second communications device over an airlink; and

transmitting data, directed to said second communications device, to said third communications device.

2. The method of claim 1, wherein said data includes user data.

3. The method of claim 1, further comprising:

receiving, prior to transmitting said paging signal, a presence indicator communicated over the airlink directly from the second communications device.

4. The method of claim 3, further comprising:

receiving, following transmission of said paging signal and prior to transmitting said data, a paging response signal, which is in response to said paging signal, over the airlink directly from the second device.

5. The method of claim 4, wherein said step of transmitting data directed to said second device is performed in response to receiving said paging response signal.

6. The method of claim 3, wherein said paging signal is transmitted at a higher power level per information bit than said data.

7. The method of claim 3, wherein said paging signal is transmitted at a higher total power level than said data.

8. The method of claim 6, wherein said presence indicator is a signal which communicates an identifier corresponding to the second device.

9. The method of claim 8, wherein said presence indicator signal communicates only said identifier.

10. The method of claim 8, wherein said presence indicator signal communicates information in a set of information consisting of one or more of the following: i) one or more identifiers corresponding to said second communications device; ii) information indicating the type of the second device; iii) functionality supported by the second device; and iv) information used to interpret the content of the presence indicator signal.

11. The method of claim 8, further comprising:

updating a list of devices with which said first communications device can communicate based on the received presence signal.

12. The method of claim 8, further comprising:

receiving a signal from the third communications device prior to said step of transmitting data, directed to said second communications device, to said third communications device.

13. The method of claim 12, wherein said signal from the third communications device includes an identifier corresponding to the third device.

14. A first communications device for communicating with a second communications device, said first and second communications device being in a region including a third communications device, the first communications device comprising:

a paging signal generation module for generating a paging signal directed to said second communications device;

a hopped route data signal generation module for generating data units directed to said second communications device to be communicated via a third communications device; and

a wireless transmitter module for transmitting said paging signal directly to said second communications device over an airlink and for transmitting data units, directed to said second communications device, to said third communications device.

15. The first communications device of claim 14, wherein said data units include user data.

16. The first communications device of claim 14, further comprising:

a wireless receiver module for receiving, prior to transmitting said paging signal, a presence indicator communicated over the airlink directly from the second communications device; and

a peer discovery module for determining if a received presence indicator signal is from the second communications device.

17. The first communications device of claim 16, wherein said wireless receiver module is also for receiving, following transmission of said paging signal and prior to transmitting said data, a paging response signal, which is in response to said paging signal, over the airlink directly from the second device, the first communications device further comprising:

a paging response signal processing module for processing a received paging response signal and determining if a received paging response signal represents a positive response to the transmitted paging signal.

18. The first communications device of claim 17, further comprising:

a data transmission approval module for controlling the transmission of data directed to said second device to proceed in response to a received paging response signal.

19. The first communications device of claim 16, further comprising:

a transmission power control module for controlling said transmitter module to transmit said paging signal at a higher power level per information bit than said data units.

20. The first communications device of claim 16, further comprising:

a transmission power control module for controlling said transmitter module to transmit said paging signal at a higher total power level than said data units.

21. The first communications device of claim 19, wherein said presence indicator is a signal which communicates an identifier corresponding to the second device.

22. The first communications device of claim 21, wherein said presence indicator signal communicates only said identifier.

23. The first communications device of claim 21, wherein said presence indicator signal communicates information in a set of information consisting of one or more of the following: i) one or more identifiers corresponding to said second communications device; ii) information indicating the type of the second device; iii) functionality supported by the second device; and iv) information used to interpret the content of the presence indicator signal.

24. The first communications device of claim 21, further comprising:

a communications peer updating module for updating a list of devices with which said first communications device can communicate based on the received presence signal.

25. The first communications device of claim 21, wherein said wireless receiver is also for: receiving a signal from the third communications device prior to said step of transmitting data, directed to said second communications device, to said third communications device, the first communications device further comprising:

a routing information recovery module for recovering information from the third device indicating that the third communicates device can act as an intermediary between the first and second communications devices for the communication of data.

26. The first communications device of claim 25, wherein said signal from the third communications device includes an identifier corresponding to the third device.

27. A first communications device for communicating with a second communications device, said first and second communications device being in a region including a third communications device, the first communications device comprising:

paging signal generation means for generating a paging signal directed to said second communications device;

hopped route data signal generation means for generating data units directed to said second communications device to be communicated via a third communications device; and

wireless transmitter means for transmitting said paging signal directly to said second communications device over an airlink and for transmitting data units, directed to said second communications device, to said third communications device.

28. The first communications device of claim 27, wherein said data units include user data.

29. The first communications device of claim 27, further comprising:

wireless receiver means for receiving, prior to transmitting said paging signal, a presence indicator communicated over the airlink directly from the second communications device; and

peer discovery means for determining if a received presence indicator signal is from the second communications device.

30. The first communications device of claim 29, wherein said wireless receiver means is also for receiving, following transmission of said paging signal and prior to transmitting said data, a paging response signal, which is in response to said paging signal, over the airlink directly from the second device, the first communications device further comprising:

paging response signal processing means for processing a received paging response signal and determining if a received paging response signal represents a positive response to the transmitted paging signal.

31. A computer program product, comprising:

a computer readable medium comprising:

code for causing a computer in a first communications device to control the first communications device to transmit a paging signal directly to a second communications

device over an airlink, said first and second communications device being in a region including a third communications device; and

code for causing a computer to control said first communications device to transmit data, directed to said second communications device, to said third communications device.

32. The computer program product of claim 31, wherein said data includes user data.

33. The computer program product of claim 31, wherein the computer-readable medium further comprises:

code for causing a computer in the first communications device to receive, prior to transmitting said paging signal, a presence indicator communicated over the airlink directly from the second communications device.

34. The computer program product of claim 33, wherein the computer readable medium further comprises:

code for causing a computer in the first communications device to receive, following transmission of said paging signal and prior to transmitting said data, a paging response signal, which is in response to said paging signal, over the airlink directly from the second device.

35. An apparatus comprising:

a processor for use in a first communications device, the processor being configured to:

transmit a paging signal directly to a second communications device over an airlink, said first and second communications devices being in a region including a third communications device; and

transmit data, directed to said second communications device, to said third communications device.

36. The apparatus of claim 35, wherein said data includes user data.

37. The apparatus of claim 35, wherein the processor is further configured to:

receive, prior to transmitting said paging signal, a presence indicator communicated over the airlink directly from the second communications device.

38. The apparatus of claim 37, wherein the processor is further configured to:

receive, following transmission of said paging signal and prior to transmitting said data, a paging response signal, which is in response to said paging signal, over the airlink directly from the second device.

CLAIMS

1. A method performed by a first communications device to communicate with a second communications device, said first and second communications device being in a region including a third communications device, the method comprising:

transmitting a paging signal to said second communications device over an airlink; and

transmitting data, to be directed to said second communications device via said third communications device, to said third communications device.

2. The method of claim 1, wherein said data includes user data.

3. The method of claim 1, further comprising:

receiving, prior to transmitting said paging signal, a presence indicator communicated over the airlink directly from the second communications device.

4. The method of claim 3, further comprising:

receiving, following transmission of said paging signal and prior to transmitting said data, a paging response signal, which is in response to said paging signal, over the airlink directly from the second device.

5. The method of claim 4, wherein said step of transmitting data directed to said second device is performed in response to receiving said paging response signal.

6. The method of claim 3, wherein said paging signal is transmitted at a higher power level per information bit than said data.

7. The method of claim 3, wherein said paging signal is transmitted at a higher total power level than said data.

8. The method of claim 6, wherein said presence indicator is a signal which communicates an identifier corresponding to the second device.

9. The method of claim 8, wherein said presence indicator signal communicates only said identifier.

10. The method of claim 8, wherein said presence indicator signal communicates information in a set of information consisting of one or more of the following: i) one or more identifiers corresponding to said second communications device; ii) information indicating the type of the second device; iii) functionality supported by the second device; and iv) information used to interpret the content of the presence indicator signal.

11. The method of claim 8, further comprising:

updating a list of devices with which said first communications device can communicate based on the received presence signal.

12. The method of claim 8, further comprising:

receiving a signal from the third communications device prior to said step of transmitting data, directed to said second communications device, to said third communications device.

13. The method of claim 12, wherein said signal from the third communications

device includes an identifier corresponding to the third device.

14. A first communications device for communicating with a second communications device, said first and second communications device being in a region including a third communications device and said third communicates device acting as an intermediary node between said first and second communications devices for the communication of data, the first communications device comprising:

a paging signal generation module for generating a paging signal directed to said second communications device;

a hopped route data signal generation module for generating data units directed to said second communications device to be communicated via a third communications device; and

a wireless transmitter module for transmitting said paging signal directly to said second communications device over an airlink and for transmitting data units, directed to said second communications device, to said third communications device.

15. The first communications device of claim 14, wherein said data units include user data.

16. The first communications device of claim 14, further comprising:

a wireless receiver module for receiving, prior to transmitting said paging signal, a presence indicator communicated over the airlink directly from the second communications device; and

a peer discovery module for determining if a received presence indicator signal is from the second communications device.

17. The first communications device of claim 16, wherein said wireless receiver module is also for receiving, following transmission of said paging signal and prior to transmitting said data, a paging response signal, which is in response to said paging signal, over the airlink directly from the second device, the first communications device further comprising:

a paging response signal processing module for processing a received paging response signal and determining if a received paging response signal represents a positive response to the transmitted paging signal.

18. The first communications device of claim 17, further comprising:

a data transmission approval module for controlling the transmission of data directed to said second device to proceed in response to a received paging response signal.

19. The first communications device of claim 16, further comprising:

a transmission power control module for controlling said transmitter module to transmit said paging signal at a higher power level per information bit than said data units.

20. The first communications device of claim 16, further comprising:

a transmission power control module for controlling said transmitter module to transmit said paging signal at a higher total power level than said data units.

21. The first communications device of claim 19, wherein said presence indicator is a signal which communicates an identifier corresponding to the second device.

22. The first communications device of claim 21, wherein said presence indicator signal communicates only said identifier.

23. The first communications device of claim 21, wherein said presence indicator signal communicates information in a set of information consisting of one or more of the following: i) one or more identifiers corresponding to said second communications device; ii) information indicating the type of the second device; iii) functionality supported by the second device; and iv) information used to interpret the content of the presence indicator signal.

24. The first communications device of claim 21, further comprising:

a communications peer updating module for updating a list of devices with which said first communications device can communicate based on the received presence signal.

25. The first communications device of claim 21, wherein said wireless receiver is also for: receiving a signal from the third communications device prior to said step of transmitting data, directed to said second communications device, to said third communications device, the first communications device further comprising:

a routing information recovery module for recovering information from the third device indicating that the third communicates device can act as an intermediary between the first and second communications devices for the communication of data.

26. The first communications device of claim 25, wherein said signal from the third

communications device includes an identifier corresponding to the third device.

27. A first communications device for communicating with a second communications device, said first and second communications device being in a region including a third communications device and said third communicates device acting as an intermediary node between said first and second communications devices for the communication of data, the first communications device comprising:

paging signal generation means for generating a paging signal directed to said second communications device;

hopped route data signal generation means for generating data units directed to said second communications device to be communicated via a third communications device; and

wireless transmitter means for transmitting said paging signal directly to said second communications device over an airlink and for transmitting data units, directed to said second communications device, to said third communications device.

28. The first communications device of claim 27, wherein said data units include user data.

29. The first communications device of claim 27, further comprising:

wireless receiver means for receiving, prior to transmitting said paging signal, a presence indicator communicated over the airlink directly from the second communications device; and

peer discovery means for determining if a received presence indicator signal is from the second communications device.

30. The first communications device of claim 29, wherein said wireless receiver means is also for receiving, following transmission of said paging signal and prior to transmitting said data, a paging response signal, which is in response to said paging signal, over the airlink directly from the second device, the first communications device further comprising:

paging response signal processing means for processing a received paging response signal and determining if a received paging response signal represents a positive response to the transmitted paging signal.

31. A computer readable medium comprising:

code for causing a processor in a first communications device to control the first communications device to transmit a paging signal directly to a second communications device over an airlink, said first and second communications device being in a region including a third communications device and said third communicates device acting as an intermediary node between said first and second communications devices for the communication of data; and

code for causing the processor to control said first communications device to transmit data, directed to said second communications device, to said third communications device.

32. The computer readable medium of claim 31, wherein said data includes user data.

33. The computer readable medium of claim 31, wherein the computer-readable

medium further comprises:

code for causing the processor in the first communications device to receive, prior to transmitting said paging signal, a presence indicator communicated over the airlink directly from the second communications device.

34. The computer readable medium of claim 33, wherein the computer readable medium further comprises:

code for causing the processor in the first communications device to receive, following transmission of said paging signal and prior to transmitting said data, a paging response signal, which is in response to said paging signal, over the airlink directly from the second device.

35. An apparatus comprising:

a processor for use in a first communications device, the processor being configured to:

transmit a paging signal directly to a second communications device over an airlink, said first and second communications devices being in a region including a third communications device and said third communicates device acting as an intermediary node between said first and second communications devices for the communication of data; and

transmit data, directed to said second communications device, to said third communications device.

36. The apparatus of claim 35, wherein said data includes user data.

37. The apparatus of claim 35, wherein the processor is further configured to:

receive, prior to transmitting said paging signal, a presence indicator communicated over the airlink directly from the second communications device.

38. The apparatus of claim 37, wherein the processor is further configured to:

receive, following transmission of said paging signal and prior to transmitting said data, a paging response signal, which is in response to said paging signal, over the airlink directly from the second device.