

## CLAIMS

What is claimed is:

1. A method for establishing a wireless local area network (WLAN) proximity service (ProSe) connectivity between a first WLAN ProSe capable wireless transmit/receive unit (WTRU) and a second WLAN ProSe capable WTRU, the method comprising:

receiving a request from the first WLAN ProSe capable WTRU to establish a WLAN ProSe connection to the second WLAN ProSe capable WTRU, the request including at least an identification of the second WLAN ProSe capable WTRU; and

transmitting a configuration message with configuration information associated with the second WLAN ProSe capable WTRU, wherein the configuration information includes at least one of: WLAN ID of the second WLAN ProSe capable WTRU , a medium access control (MAC) ID of the second WLAN ProSe capable WTRU, a frequency or channel number, a beacon interval, and timing information.

2. The method of claim 1, further comprising:

determining WLAN ProSe capabilities of the first WLAN ProSe capable WTRU and the second WLAN ProSe capable WTRU.

3. The method of claim 1, further comprising:

performing discovery of at least one WLAN access point (AP).

4. The method of claim 3, further comprising:

receiving configuration information from the at least one WLAN AP.

5. The method of claim 3, further comprising:

querying a ProSe server for a list of WLAN APs and associated configuration information.

6. The method of claim 1, wherein the configuration message is an implicit indication to start the WLAN ProSe connection.

7. The method of claim 1, wherein the configuration message includes an explicit indication to start the WLAN ProSe connection.

8. The method of claim 1, wherein the configuration message is one of a radio resource control (RRC) or a Non-access stratum (NAS) message.

9. The method of claim 1, further comprising:  
transmitting identification of established radio bearers that need to be switched to the WLAN ProSe connection.

10. The method of claim 1, further comprising:  
transmitting address information of the second WLAN ProSe capable WTRU to the first WLAN ProSe capable WTRU.

11. A method in a first WLAN ProSe capable wireless transmit/receive unit (WTRU) for establishing direct wireless local area network (WLAN) proximity service (ProSe) connectivity with a second WLAN ProSe capable WTRU, the method comprising:

transmitting a request from the first WLAN ProSe capable WTRU to establish a WLAN ProSe connection with the second WLAN ProSe capable WTRU , the request including at least an identification of the second WLAN ProSe capable WTRU;

receiving a configuration message with configuration information that is associated with the second WLAN ProSe capable WTRU, wherein the configuration information includes at least one of: WLAN ID of the second WLAN ProSe capable WTRU , a medium access control (MAC) ID of the second WLAN ProSe capable WTRU, a frequency or channel number, a beacon interval, and timing information; and

establishing a direct WLAN ProSe connection with the second WLAN ProSe capable WTRU based on the configuration message.

12. The method of claim 11, further comprising:

transmitting WLAN ProSe capabilities to a network node.

13. The method of claim 11, further comprising:

performing a discovery process using a WLAN ProSe ID.

14. The method of claim 11, further comprising:

transmitting location information of the first WLAN ProSe capable WTRU to the network node.

15. The method of claim 11, wherein the configuration message is one of a radio resource control (RRC) or a Non-access stratum (NAS) message.

16. A wireless transmit/receive unit (WTRU) that is a first WLAN ProSe WTRU for establishing direct wireless local area network (WLAN) proximity service (ProSe) connectivity with a second WLAN ProSe capable WTRU, the WTRU method comprising:

a transmitter configured to transmit a request to establish a WLAN ProSe connection with the second WLAN ProSe capable WTRU , the request including at least an identification of the second WLAN ProSe capable WTRU;

a receiver further configured to receive a configuration message with configuration information that is associated with the second WLAN ProSe capable WTRU, wherein the configuration information includes at least one of: WLAN ID of the second WLAN ProSe capable WTRU , a medium access control (MAC) ID of the second WLAN ProSe capable WTRU, a frequency or channel number, a beacon interval, and timing information; and

establishing a direct WLAN ProSe connection with the second WLAN ProSe capable WTRU based on the configuration message.

17. The WTRU of claim 16, wherein the transmitter is further configured to transmit the WLAN ProSe capabilities to a network node.

18. The WTRU of claim 16, wherein the WTRU is configured to perform a discovery process using a WLAN ProSe ID.

19. The WTRU of claim 16, wherein the transmitter is further configured to transmit location information of the first WLAN ProSe capable WTRU to the network node.

20. The WTRU of claim 16, wherein the configuration message is one of a radio resource control (RRC) or a Non-access stratum (NAS) message.