for a radio resource for the purpose of performing a transmission for RF proximity detection for a given service (for mutual discovery).

[0007] A service discovery process may include a WTRU receiving, from a network, a configuration for a D2D channel.

[0008] A discoverable WTRU may terminate the RF proximity detection or terminate transmission on an RF signal for proximity detection when the validity of the resource expires, when the WTRU no longer assumes uplink synchronization to a network, or other conditions.

[0009] An application in a WTRU may trigger a service discovery procedure with a request to a wireless module that includes a service identity. Priority rules according to discovery classes and the role of the WTRU, (e.g., monitoring, discoverable), are also applicable.

[0009a] According to an aspect, a method for use in a wireless transmit/receive unit (WTRU) capable of performing device-to-device discovery, the method comprising: sending a discovery request to initiate a discovery process used to perform radio frequency (RF) proximity detection for a service, wherein the discovery request includes at least one discovery identity comprising a common part and a dedicated part; monitoring a channel for a response to the discovery request.

[0009b] According to another aspect, a wireless transmit/receive unit (WTRU) capable of performing device-to-device discovery, the WTRU comprising: a transmitter configured to transmit a discovery request to initiate a discovery process used to perform radio frequency (RF) proximity detection for a service, wherein the discovery request includes at least one discovery identity comprising a common part and a dedicated part; a receiver configured to receive a channel for a response to the discovery request.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010] A more detailed understanding may be had from the following description, given by way of example in conjunction with the accompanying drawings wherein:

[0011] Figure 1A shows an example communications system in which one or more disclosed embodiments may be implemented;

[0012] Figure IB shows an example wireless transmit/receive unit (WTRU) that may be used within the communications system shown in Figure 1A;

[0013] Figure 1C shows an example radio access network and an example core network that may be used within the communications system shown in Figure
1A;

[0014] Figures 2A and 2B show examples of the discoverable and monitoring state impact on network parameters;