**Definition of peer-to-peer mode of operation:**

Communications directly between remote nodes (such as mobiles, handhelds, and/or waysides) without passing through any central/office components. Peer-to-peer communications must function when the two endpoint remote nodes are within direct communication range regardless of whether there is base coverage or not. Peer-to-peer communications can be point-to-point (unicast), multicast, or broadcast.

**Definition of point-to-point communication:**

Communication between 2 and only 2 endpoint nodes, i.e., unicast - not broadcast and not multicast.

**Peer-to-peer related requirements for 802.16t:**

1. All implementations of this standard shall include a peer-to-peer mode of communication between remotes without requiring the use of a base station.
2. All implementations of this standard shall allow peer-to-peer communication between remotes with the use of a base station (BS) or a multihop relay-base station (MR-BS) and one or more additional base stations acting as repeaters.
3. All implementations of this standard shall allow peer-to-peer communication between remotes with the use of a relay station (RS).
4. All implementations of this standard shall use peer-to-peer mode when transmitting a message whose QoS field indicates that it is a peer-to-peer message.
5. All implementations of this standard shall allow an alternative communication path to be selected in which a message is repeated by a base station or a relay station, when the message cannot be successfully communicated via a direct communication link between the remotes, when operating in the peer-to-peer mode.
6. All implementations of this standard shall allow dedicated air interface resources to be statically assigned for peer-to-peer communications.
7. All implementations of this standard shall allow dedicated air interface resources to be dynamically assigned by a base station for peer-to-peer communications.
8. All implementations of this standard shall use Carrier Sense Multiple Access (CSMA) protocol when communicating in peer-to-peer mode.
9. All implementations of this standard shall allow for the remote radios to operate as a peer-to-peer repeater station.

Note: There can be one or more relay node between a pair of endpoint remotes.