**OMAC**

OMAC is able to send data packet to multiple receivers to increase the likelihood of successful transmission. To avoid multipath transmission, each node in the receiver list waits for a certain amount of time before acknowledging the received data packet. If the node overheard an ACK from the other node within this time, it will ignore the received data packet. Otherwise, it will send an ACK to the source node. The amount of time to overhear ACKs is determined by the index in the receiver list. The parameters that the OMAC module takes can be found in:

src/node/communication/mac/oMac/OMAC.ned

The packet from network layer should pass the receiver list and a unique packet ID to OMAC. The network layer generic packet class for OMAC can be found in the folder.

src/node/communication/routing/OMacRoutingPacket

If you want to use OMAC, the new .msg file of network layer packet has to be extended to OMacRoutingPacket. The generic packet OMacRoutingPacket has two types of packets, namely OMAC\_ROUTING\_DATA\_PACKET and OMAC\_ROUTING\_HOPCOUNT\_PACKET. A new type of packet can be added in OMacRoutingPacket.msg or in the new .msg file. In addition, the fromNetworkLayer() has to be modified to support the new type of packet.

One example of the network layer packet to refer to is in

src/node/communication/routing/simpleRouting/SimpleRoutingPacket.msg