CLAIMS

1. A relay wireless transmit/receive unit (WTRU) comprising:
a processor configured to:
receive, from a source WTRU, end-to-end quality of service (QoS) information that indicates a packet delay budget (PDB) for an established end-to-end connection between the source WTRU and a destination WTRU via the relay WTRU;
determine, based on the received end-to-end QoS information, a first PDB split for a first QoS flow and a second PDB split for a second QoS flow;
transmit, to the source WTRU, a first PDB for the first QoS flow, wherein the first PDB for the first QoS flow is based on the first PDB split, and wherein the first PDB for the first QoS flow is transmitted via a PC5 radio resource control (RRC) message; and
transmit, to a base station, a second PDB for the second QoS flow, wherein the second PDB for the second QoS flow is based on the second PDB split.

2. The relay WTRU of claim 1, wherein the processor is further configured to:
determine that the relay WTRU is configured to function as a relay WTRU.

3. The relay WTRU of claim 1, wherein a first hop is associated with the first PDB for the first QoS flow, and wherein a second hop is associated with the second PDB for the second QoS flow.

4. The relay WTRU of claim 3, wherein the first hop of the connection is between the source WTRU and the relay WTRU.

5. The relay WTRU of claim 3, wherein the second hop of the connection is between the relay WTRU and the destination WTRU.

6. The relay WTRU of claim 1, wherein the processor configured to transmit the second PDB for the second QoS flow comprises the processor being configured to:
include the second PDB for the second QoS flow in an RRC message; and
transmit the RRC message to the base station.

7. A method for a relay wireless transmit/receive unit (WTRU) comprising:

receiving, from a source WTRU, end-to-end quality of service (QoS) information that indicates a packet delay budget (PDB) for an established end-to-end connection between the source WTRU and a destination WTRU via the relay WTRU;
determining, based on the received end-to-end QoS information, a first PDB split for a first QoS flow and a second PDB split for a second QoS flow;
transmitting, to the source WTRU, a first PDB for the first QoS flow, wherein the first PDB for the first QoS flow is based on the first PDB split, and wherein the first PDB for the first QoS flow is transmitted via a PC5 radio resource control (RRC) message; and
transmitting, to a base station, a second PDB for the second QoS flow, wherein the second PDB for the second QoS flow is based on the second PDB split.

8. The method of claim 7, wherein the method further comprises:
determining that the relay WTRU is configured to function as a relay WTRU.

9. The method of claim 7, wherein a first hop is associated with the first PDB for the first QoS flow, and wherein a second hop is associated with the second PDB for the second QoS flow.

10. The method of claim 9, wherein the first hop of the connection is between the source WTRU and the relay WTRU.

11. The method of claim 9, wherein the second hop of the connection is between the relay WTRU and the destination WTRU.

12. The method of claim 7, wherein transmitting the second PDB for the second QoS flow comprises:
including the second PDB for the second QoS flow in an RRC message; and
transmitting the RRC message to the base station.