Claims

What is claimed is:

1. A method for use by a wireless transmit/receive unit (WTRU) for uplink transmission, the method comprising:

the WTRU transmitting a message to a Node-B, wherein the message is selected from at least a first type, a second type, and a third type;

wherein on a condition that the WTRU does not have capacity for the second type or the third type, the message is the first type indicating that the WTRU has uplink buffered data to transmit;

wherein on a condition that the WTRU has capacity for the second type message, the message is the second type comprising a plurality of indications, wherein each indication indicates an amount of uplink buffered data associated with at least one logical channel~~, wherein each logical channel is associated with a priority~~;

wherein on a condition that the message is not the first type or the second type, the message is the third type having less information than the second type and more information than the first type;

the WTRU receiving, in response to the message, information that indicates a grant of an uplink data transmission; and

the WTRU transmitting uplink data over an uplink channel based on the received information.

wherein on a condition that the WTRU has capacity for the second type message, the message is the second type comprising a plurality of indications, wherein each indication indicates an amount of uplink buffered data associated with at least one logical channel~~, wherein each logical channel is associated with a priority~~;

wherein on a condition that the message is not the first type or the second type, the message is the third type having less information than the second type and more information than the first type;

circuitry configured to receive, in response to the message, information that indicates a grant of an uplink data transmission; and

circuitry configured to transmit uplink data over an uplink channel based on the received information.

8. The WTRU of claim 7 wherein the message includes an indication of a total amount of uplink buffered data.

9. The WTRU of claim 7 wherein the message includes an indication of an amount of uplink buffered data for a plurality of logical channels.

10. The WTRU of claim 7 wherein the uplink data is transmitted over a plurality of physical channels.

11. The WTRU of claim 7 wherein the message is multiplexed with