What is Claimed is:

1. A method for multi-connectivity between a plurality of base stations and user equipment through a plurality of channels, the method comprising:

estimating a first round trip time (RTT) at the user equipment, wherein the first RTT is expected time to be taken for transmitting data and receiving an acknowledgement (ACK) through a first channel;

estimating a second RTT at the user equipment, wherein the second RTT is expected time to be taken for transmitting data and receiving an ACK through a second channel; and

determining, at the user equipment, a size of uplink data which is to be transmitted through the first channel, based on the first RTT and the second RTT,

wherein the estimating the first RTT comprises:

obtaining retransmission parameters corresponding to the first channel; and

obtaining the first RTT, based on the retransmission parameters, and

wherein the obtaining the first RTT is based at least, on a block error rate $BLER_1$ in the first channel.

~~2. The method of claim 1, wherein the estimating the first RTT comprises:~~

~~obtaining retransmission parameters corresponding to the first channel; and~~

~~obtaining the first RTT, based on the retransmission parameters.~~

~~3~~2. The method of claim ~~2~~1, wherein

the retransmission parameters comprise a retransmission period c_1 and a maximum retransmission number N_1, and

the obtaining the first RTT comprises obtaining an RTT_{S1}, which is expressed in an

equation below:

$$RTT_{S1} = (1 - BLER_1) * \sum_{n=0}^{N_1-1} BLER_1{}^{n}(p_1 + n * c_1),$$

wherein the $BLER_1$ and the p_1 are ~~a~~ the block error rate and a signal moving time in the first channel, respectively.

~~4~~3. The method of claim ~~3~~2, wherein

the retransmission parameters further comprise a maximum retransmission number R_1 of a radio link control (RLC) entity, and

the obtaining the first RTT comprises obtaining, as the first RTT, an RTT_{T1}, which is expressed in an equation below:

$$RTT_{T1} = RTT_{S1} * \sum_{r=0}^{R_1}\left(BLER_1{}^{N_1}\right)^{r}.$$

~~5~~4. The method of claim ~~3~~ 2 or claim ~~4~~3, wherein the obtaining the first RTT comprises determining the RTT_{S1} as the first RTT in response to the $BLER_1$ being less than a first threshold value.

~~6~~5. The method of any one of claims ~~3~~ 2 to ~~5~~4, wherein the determining the size of the uplink data comprises determining the size of the uplink data as zero in response to the $BLER_1$ being greater than a second threshold value.

~~7~~6. The method of claim ~~2~~1, wherein

the obtaining the retransmission parameters comprises obtaining updated retransmission parameters corresponding to the first channel, and

the obtaining the first RTT comprises obtaining the first RTT based on the updated retransmission parameters.

~~8~~7. The method of any one of claims 1 to ~~7~~6, further comprising:

obtaining a first channel bandwidth corresponding to the first channel; and

obtaining a second channel bandwidth corresponding to the second channel,

wherein the determining the size of the uplink data comprises obtaining the size of the uplink data, based on the first RTT, the second RTT, the first channel bandwidth and the second channel bandwidth.

~~9~~8. The method of claim ~~8~~7, wherein the determining the size of the uplink data comprises changing the size of the uplink data, based on a variation Δw, which is expressed in an equation below:

$$\Delta w = \frac{max\left(\frac{BW_1}{RTT_1}, \frac{BW_2}{RTT_2}\right)}{(BW_1+BW_2)^2},$$

wherein the RTT_1, the RTT_2, the BW_1, and the BW_2 are the first RTT, the second RTT, the first channel bandwidth, and the second channel bandwidth, respectively.

~~10~~9. The method of claim ~~8~~7, wherein the determining the size of the uplink data comprises changing the size of the uplink data, based on a variation Δw, which is expressed in an equation below:

$$\Delta w = \frac{max\left(\frac{BW_1}{RTT_1}, \frac{BW_2}{RTT_2}\right)}{(BW_1+BW_2)^2} * N_{ACK1},$$

wherein the RTT_1, the RTT_2, the BW_1, the BW_2, and the N_{ACK1} are the first RTT, the second RTT, the first channel bandwidth, the second channel bandwidth, and a number of ACKs received through the first channel, respectively.

~~11~~10. The method of any one of claims 1 to ~~10~~9, wherein the method is performed

in a packet data convergence protocol (PDCP) layer.

~~12~~11. The method of any one of claims 1 to ~~11~~10, wherein the determining the size of the uplink data comprises determining the size of the uplink data as zero in response to a rate of negative acknowledgement (NACK) through the first channel being greater than a third threshold value.

~~13~~12. The method of any one of claims 1 to ~~12~~11, further comprising determining a size of uplink data which is to be transmitted through the second channel, based on the first RTT and the second RTT.

~~14~~13. The method of any one of claims 1 to ~~13~~12, wherein

the user equipment communicates with a first base station through the first channel and a second base station through the second channel, and

the first base station and the second base station communicate with the user equipment, based on the same radio access technology.

~~15~~14. The method of any one of claims 1 to ~~13~~12, wherein

the user equipment communicates with a first base station through the first channel and a second base station through the second channel, and

the first base station and the second base station communicate with the user equipment, based on different radio access technologies.

~~16~~15. A method for multi-connectivity between a plurality of base stations and a user equipment through a plurality of channels, the method comprising:

estimating a first round trip time (RTT) at a first base station, wherein the first RTT is expected time to be taken for transmitting data and receiving an acknowledgement (ACK) through a first channel;

obtaining a second RTT at the first base station, wherein the second RTT is actual time to be taken for transmitting data and receiving an ACK through a second channel; and

determining, at the first base station, a size of downlink data which is to be transmitted from the first base station to the user equipment, based on the first RTT and the second RTT,

wherein the estimating the first RTT comprises:

obtaining retransmission parameters corresponding to the first channel; and

obtaining the first RTT, based on the retransmission parameters, and

wherein the obtaining the first RTT is based at least, on a block error rate $BLER_1$ in the first channel.

~~17~~16. The method of claim ~~16~~15, wherein the obtaining the second RTT comprises receiving the second RTT, estimated by a second base station, from the second base station.

~~18~~17. The method of claim ~~16~~ 15 or claim ~~17~~16, wherein the obtaining the second RTT comprises:

receiving channel information about the second channel from a second base station; and

estimating the second RTT, based on the channel information.

~~19~~18. A method for multi-connectivity between a plurality of base stations and

user equipment through a plurality of channels, the method comprising:

estimating a first round trip time (RTT) at the user equipment, wherein the first RTT is expected time to be taken for transmitting data and receiving an acknowledgement (ACK) through a first channel;

estimating a second RTT at the user equipment, wherein the second RTT is expected time to be taken for transmitting data and receiving an ACK through a second channel;

obtaining channel bandwidths of the first channel and the second channel; and

determining, at the user equipment, sizes of uplink data to be transmitted through the first channel and the second channel, based on the first RTT, the second RTT and the channel bandwidths of the first channel and the second channel,

wherein the estimating the first RTT comprises:

obtaining retransmission parameters corresponding to the first channel; and

obtaining the first RTT, based on the retransmission parameters, and

wherein the obtaining the first RTT is based at least, on a block error rate $BLER_1$ in the first channel.

~~20~~19. The method of claim ~~19~~18, wherein the determining the size of the uplink data comprises changing the size of the uplink data, based on a variation Δw, which is expressed in an equation below:

$$\Delta w = \frac{max\left(\frac{BW_1}{RTT_1}, \frac{BW_2}{RTT_2}\right)}{(BW_1+BW_2)^2},$$

wherein the RTT_1, the RTT_2, the BW_1, and the BW_2 are the first RTT, the second RTT, the channel bandwidth of the first channel, and the channel bandwidth of the second channel, respectively.

20. The method of claim 18, wherein the determining the size of the uplink data comprises changing the size of the uplink data, based on a variation Δw, which is expressed in an equation below:

$$\Delta w = \frac{max\left(\frac{BW_1}{RTT_1}, \frac{BW_2}{RTT_2}\right)}{(BW_1 + BW_2)^2} * N_{ACK1},$$

wherein the RTT_1, the RTT_2, the BW_1, the BW_2, and the N_{ACK1} are the first RTT, the second RTT, the first channel bandwidth, the second channel bandwidth, and a number of ACKs received through the first channel, respectively.