CLAIMS

What is claimed is:

1. A multiplexing scheduling method for IAB network applied to a first IAB node, wherein the method comprises:

determining pre-scheduling information between a first hop and a second hop;

receiving activation signaling sent by a second IAB node; and

after activating multiplexing scheduling between the first hop and the second hop based on the activation signaling, performing multiplexing scheduling based on the pre-scheduling information, wherein the first IAB node is used to schedule data transmission on the first hop, and the second IAB node is a parent IAB node of the first IAB node and is used to schedule data transmission on the second hop.

2. The method according to claim 1, wherein the determining pre-scheduling information between a first hop and a second hop comprises:

obtaining the pre-scheduling information determined by the second IAB node.

3. The method according to claim 2, wherein the pre-scheduling information is carried by one of the following:

a physical downlink control channel PDCCH;

a medium access control control element MAC CE; and

a backhaul adaptation protocol BAP control protocol data unit PDU.

4. The method according to claim 1, wherein the determining pre-scheduling information between a first hop and a second hop comprises:

obtaining the pre-scheduling information configured by a centralized unit CU.

5. The method according to claim 4, wherein the pre-scheduling information is carried by one of the following: radio resource control RRC signaling or F1AP signaling.

6. The method according to claim 1, wherein the pre-scheduling information comprises multiplexing resource information and a multiplexing manner.

7. The method according to claim 6, wherein the multiplexing resource information comprises at least one of the following:

a time length for using multiplexing scheduling;

a frequency range for using multiplexing scheduling; and

a starting time point of multiplexing scheduling.

8. The method according to claim 7, wherein in a case that the multiplexing resource information comprises the starting time point of multiplexing scheduling, the starting time point of multiplexing scheduling is determined based on one of the following:

a receiving time of a PDCCH, a MAC CE, or a BAP control PDU;

a sending time of an acknowledgement signal corresponding to reception of the PDCCH, the MAC CE, or the BAP control PDU; and

indication information carried by the PDCCH, the MAC CE, or the BAP control PDU.

9. The method according to claim 6, wherein the multiplexing manner comprises one of the following:

transmit or receive multiplexing based on spatial division multiplexing SDM;

transmit or receive multiplexing based on frequency division multiplexing FDM; and

transmit and receive multiplexing based on co-frequency co-time full duplex CCFD.

10. The method according to claim 6, wherein the pre-scheduling information further comprises power control information.

11. The method according to claim 1, wherein the activation signaling is carried by one of the following:

a physical downlink control channel PDCCH;

a medium access control control element MAC CE; and

a BAP control PDU.

12. The method according to claim 1, wherein the method further comprises:

receiving deactivation signaling sent by the second IAB node, wherein the deactivation signaling is used to indicate deactivating the multiplexing scheduling.

13. The method according to claim 12, wherein the deactivation signaling is carried by one of the following:

a physical downlink control channel PDCCH;

a medium access control control element MAC CE; and

a BAP control PDU.

14. The method according to claim 1, wherein the method further comprises:

determining, based on received target scheduling information of the second IAB node on the second hop, whether to deactivate the multiplexing scheduling; or

wherein the multiplexing scheduling is deactivated after bandwidth part BWP switching.

15. A multiplexing scheduling method for IAB network applied to a second IAB node, wherein the method comprises:

sending activation signaling to a first IAB node, wherein the activation signaling is used by the first IAB node to activate multiplexing scheduling between a first hop and a second hop, the first IAB node is used to schedule data transmission on the first hop, and the second IAB node is a parent IAB node of the first IAB node and is used to schedule data transmission on the second hop.

16. The method according to claim 15, wherein before the sending activation signaling to a first IAB node, the method further comprises:

sending pre-scheduling information to the first IAB node, wherein the pre-scheduling information is used to configure the first IAB node to perform multiplexing scheduling between the first hop and the second hop.

17. The method according to claim 16, wherein the activation signaling and the pre-scheduling information are carried by one of the following:

a physical downlink control channel PDCCH;

a medium access control control element MAC CE; and

a BAP control PDU.

18. The method according to claim 15, wherein the method further comprises one of the following:

sending deactivation signaling to the first IAB node, wherein the deactivation signaling is used to indicate deactivating the multiplexing scheduling; or

sending, to the first IAB node, target scheduling information of the second IAB node on the second hop, wherein the target scheduling information is used by the first IAB node to determine whether to deactivate the multiplexing scheduling.

19. A first IAB node, comprising a memory, a processor, and a computer program stored in the memory and capable of running on the processor, wherein when the computer program is executed by the processor, the steps of the method according to any one of claims 1 to 15 are implemented.

20. A second IAB node, comprising a memory, a processor, and a computer program stored in the memory and capable of running on the processor, wherein when the computer program is executed by the processor, the steps of the method according to any one of claims 16 to 19 are implemented.