CLAIMS

1. A communication apparatus that operates as an Integrated Access and Backhaul (IAB) donor in a relay transmission network complying with IAB regulations, wherein the relay transmission network includes an IAB node connected to the IAB donor and a communication path formed by the IAB donor, comprising:

transmission means for transmitting a message for causing the IAB node connected to the communication path to set a network slice,

wherein the communication apparatus is characterized by comprising:

determination means for determining, in a case where a first IAB node is newly connected to the communication path and a request for a network slice is received via the first IAB node, whether the requested network slice is already set in the communication path,

wherein upon the determination means determining that the requested network slice is not set in the communication path, the transmission means transmits a message for causing the IAB node connected to the communication path to set the requested network slice.

2. The communication apparatus according to claim 1, wherein in a case where the first IAB node is connected to the communication path and a network slice requested via the first IAB node is not set in a second IAB node included in the communication path, the transmission means transmits a message for causing the second IAB node to set the requested network slice.

3. The communication apparatus according to claim 2, further comprising:

obtaining means for obtaining, from the first IAB node, first information indicating the requested network slice;

holding means for holding second information indicating a network slice set by the second IAB node; and

second determination means for determining, based on the first information and the second information, whether the requested network slice has been set in the second IAB node.

4. The communication apparatus according to claim 3, wherein the obtaining means further obtains the second information from the second IAB node.

5. The communication apparatus according to claim 3 or 4, wherein the obtaining means obtains the first information from a connection request by the first IAB node.

6. The communication apparatus according to any one of claims 3 to 5, wherein the obtaining means obtains the first information at the time of switching, by the first IAB node, a connection destination from a third IAB node belonging to another communication path formed by the IAB donor to the second IAB node belonging to the communication path.

7. The communication apparatus according to any one of claims 3 to 6, wherein in a case where equipment is connected to the first IAB node and the equipment requests communication of a network slice that is not set in the first IAB node, the obtaining means obtains the first information concerning the network slice.

8. The communication apparatus according to any one of claims 3 to 7, further comprising specifying means for specifying, as the communication path to which the first IAB node is to be connected, a path including an IAB node in which the requested network slice indicated by the first information is settable and to which the first IAB node is connectable.

9. The communication apparatus according to claim 8, further comprising means

for connecting the first IAB node to the IAB node which is included in the communication path specified by the specifying means and to which the first IAB node is connectable.

10. The communication apparatus according to claim 8 or 9, further comprising notification means for notifying, in a case where the IAB node which is included in the communication path specified by the specifying means and to which the first IAB node is connectable belongs to another IAB donor different from the IAB donor, the other IAB donor of information indicating the first IAB node, information indicating the requested network slice indicated by the first information, and information indicating an IAB node to which the first IAB node is connectable.

11. The communication apparatus according to any one of claims 8 to 10, further comprising means for rejecting setting of the network slice in a case where the specifying means specifies that there is no path including the IAB node in which the requested network slice indicated by the first information is settable and to which the first IAB node is connectable.

12. The communication apparatus according to any one of claims 2 to 11, wherein in a case where, based on a fact that information indicating the first IAB node, information indicating the network slice requested by the first IAB node, and information indicating the IAB node to which the first IAB node is connectable are received from another IAB donor, the network slice requested by the first IAB node is not set in the second IAB node included in the communication path including the IAB node to which the first IAB node is connectable, the transmission means transmits a message for causing the second IAB node to set the requested network slice.

13. The communication apparatus according to any one of claims 2 to 12, wherein

in a case where the requested network slice is a predetermined network slice, the transmission means does not transmit the message.

14. The communication apparatus according to any one of claims 2 to 12, wherein in a case where the requested network slice is not a predetermined network slice, the transmission means does not transmit the message.

15. The communication apparatus according to any one of claims 1 to 14, wherein the transmission means transmits the message by including, in the message, information indicating an expiration period of the network slice set by the message.

16. A control method executed by a communication apparatus that operates a an Integrated Access and Backhaul (IAB) donor in a relay transmission network complying with Integrated Access and Backhaul (IAB) regulations, wherein the relay transmission network includes an IAB node connected to the IAB donor and a communication path formed by the IAB donor, comprising:

transmitting a message for causing the IAB node connected to the communication path to set a network slice,

wherein the control method is characterized by comprising:

determining, in a case where a first IAB node is newly connected to the communication path and a request for a network slice is received via the first IAB node, whether the requested network slice is already set in the communication path,

wherein upon determining that the requested network slice is not set in the communication path, a message for causing the IAB node connected to the communication path to set the requested network slice is transmitted.

17. A program for causing a computer to function as each means of a communication apparatus defined in any one of claims 1 to 15.