CLAIMS

What is claimed is:

1. A method for allocating an association identifier (AID) in a fiber to the room FTTR network, wherein the method comprises:

allocating, by a management device, an AID to a station (STA) when the management device receives an authentication report message from at least one access point (AP) of a plurality of access points (APs) managed by the management device; and

determining a first AP from the plurality of APs, wherein the first AP belongs to the at least one AP; and

sending, by the management device, the AID and an identifier of the STA to the first AP.

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

sending, by the management device, the AID and the identifier of the STA to another AP than the first AP in the plurality of APs.

3. The method according to claim 2, wherein the method further comprises:

recycling, by the management device, the AID after detecting that the STA is offline.

4. The method according to claim 1, wherein the plurality of APs and the management device form a fiber to the room FTTR network architecture.

5. The method according to any one of claims 1 to 4, wherein the plurality of APs and the management device are connected through optical fibers.

6. The method according to any one of claims 1 to 4, wherein the authentication report message is sent by the at least one AP of the plurality of APs in response to receiving an authentication request sent by the STA.

7. The method according to any one of claims 1 to 4, wherein the allocating, by a management device, an AID to a STA comprises:

allocating, by the management device, the AID to the STA based on a parameter of the STA.

8. The method according to claim 7, wherein the obtaining, by the management device, a parameter of the STA comprises:

obtaining, by the management device, the parameter of the STA from the authentication report message.

9. The method according to any one of claims 1 to 4, wherein the method further comprises:

obtaining, by the management device, characteristic information of the at least one AP, wherein characteristic information of each AP comprises at least one of load information, information about encountered interference, and quality information of a received signal sent by the STA; and

the determining a first AP from a plurality of APs managed by the management device comprises:

determining, by the management device based on the characteristic information of the at least one AP, quality of a connection between the at least one AP and the STA, and determining an AP with highest connection quality in the at least one AP as the first AP.

10. The method according to any one of claims 1 to 4, wherein the method further comprises:

detecting, by the management device, that the STA moves from a coverage area of the first AP to a coverage area of a second AP in the plurality of APs; and

sending, by the management device, a notification message to the second AP, wherein the notification message indicates the second AP to connect to the STA.

11. The method according to any one of claims 1 to 4, wherein basic service set identifiers BSSIDs of the plurality of APs are the same.

12. A method for allocating an association identifier (AID) in a fiber to the room FTTR network, wherein the method comprises:

receiving, by a first access point (AP), an authentication request sent by a station (STA);

sending, by the first AP, an authentication report message to a management device in response to the authentication request;

receiving, by the first AP, an AID and an identifier of the STA that are sent by the management device, wherein the AID is allocated by the management device to the STA.

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

when the first AP is an AP that is to be associated with the STA and that is specified by the management device, sending, by the first AP, the AID to the STA.

14. The method according to claim 12 or 13, wherein the authentication request comprises a parameter of the STA, the authentication report message comprises the parameter of the STA; and

after the receiving, by the first AP, an AID and an identifier of a STA that are sent by a management device, further comprising:

when the first AP is the AP that is to be associated with the STA and that is specified by the management device, sending, by the first AP, an authentication response message to the STA.

15. The method according to claim 13, wherein the sending, by the first AP, the AID to the STA comprises:

sending, by the first AP, an association response message to the STA, the association response message comprises the AID.

16. An apparatus for allocating an association identifier (AID) in a fiber to the room FTTR network, comprising means for carrying out the steps of the method according to any one of claims 1 to 15.

17. A system for allocating an association identifier (AID) in a fiber to the room FTTR network, wherein the system comprises a management device and an access point (AP);

the management device is configured to perform the method according to any one of claims 1 to 11; and

the AP is configured to:

receive the authentication request sent by the STA;

send the authentication report message to the management device in response to the authentication request;

and receive the AID and the identifier of the STA that are sent by the management device.

18. The system according to claim 17, wherein the AP is further configured to send an association response message to the STA, the association response message comprises the AID.