## CLAIMS

1. A method performed by a wireless network device in a first Neighbor Awareness Network device cluster (NAN cluster) to join a second NAN cluster, wherein each of the first and second NAN clusters is a Wi-Fi NAN cluster of Wi-Fi Alliance and comprises a plurality of wireless network devices, the method comprising:

discovering the second NAN cluster;

determining to join the second NAN cluster based on ~~discovery~~ attribute information obtained regarding the second NAN cluster;

sending an event message to other wireless network devices in the first NAN cluster to propagate information regarding the second NAN cluster, wherein the event message ~~indicates that the wireless network device is to propagate information regarding the second NAN cluster joining the second NAN cluster, and~~ comprises a ~~cluster ID (CID) of the second NAN cluster~~part or all of the obtained attribute information of the second NAN cluster;

joining the second NAN cluster; and

~~after sending the event message,~~ leaving the first NAN cluster.;

wherein the step of determining comprises:

calculating, by the wireless network device, a first score based on multiple pieces of attribute information of the first NAN cluster, and a second score based on multiple pieces of attribute information of the second NAN cluster;

comparing the first score and the second score;

determining to join the second NAN cluster when the second score is greater than the first score.

2. The method according to claim 1, wherein the attribute information of the second NAN cluster comprises at least one of the following types of information:

a number of wireless network devices in the second NAN cluster, an anchor master rank in the second NAN cluster, a hop count from the wireless network

device to an anchor master device in the second NAN cluster, and a transmission time of a beacon frame of the anchor master device in the second NAN cluster.

~~3. The method according to any one of claim 1 or 2, wherein the step of determining comprises:~~

~~calculating, by the wireless network device, a first score based on multiple pieces of attribute information of the first NAN cluster, and a second score based on multiple pieces of attribute information of the second NAN cluster;~~

~~comparing the first score and the second score;~~

~~determining to join the second NAN cluster when the second score is greater than the first score.~~

43. The method according to ~~any one of~~ claims 1 or ~~to 3~~2, wherein the event message is a beacon frame or a service frame and comprises, a cluster ID,~~the~~ (CID) and the attribute information of the second NAN cluster; or

the event message is a beacon frame or a service frame and comprises the CID of the second NAN cluster and merging indication information for instructing the other wireless network devices in the first NAN cluster that receive the event message to join the second NAN cluster.

~~5~~4. The method according to claim 43, wherein the event message is:

a beacon frame comprising the CID of the second NAN cluster in a destination address field of the beacon frame, and the attribute information of the second NAN cluster in an NAN attribute information field of the beacon frame;

or

a service frame comprising the CID of the second NAN cluster in a destination address field of the service frame, and the attribute information of the second NAN cluster in a frame body of the service frame.

~~6~~5. The method according to any one of claims 1 to ~~5~~4, wherein the step of discovering comprises:

receiving a beacon frame or service frame including ~~the CID~~a CID, and the attribute information of the second NAN cluster.

6. The method according to any one of claims 1 to 5, wherein the step of

leaving the first NAN cluster is after the step of sending the event message.

7. The method according to any one of claims 1 to 6, wherein the leaving the first NAN cluster comprises:

stop participating in contending for serving as a synchronization device in the first NAN cluster.

~~7~~8. A wireless network device comprising:

a memory storing computer executable instructions for the wireless network device in a first Neighbor Awareness Network device cluster (NAN cluster) to join a second NAN cluster, wherein each of the first and second NAN clusters is a Wi-Fi NAN cluster of Wi-Fi Alliance and comprises a plurality of wireless network devices;

a processor is configured to execute the computer executable instructions to perform operations of:

discovering the second NAN cluster;

determining to join the second ~~neighbor awareness network device~~NAN cluster based on ~~discovery~~ attribute information obtained regarding the second NAN cluster;

sending an event message to other wireless network devices in the first NAN cluster to propagate information regarding the second NAN cluster, wherein the event message ~~indicates that the wireless network device is to propagate information regarding the second NAN cluster joining the second NAN cluster and~~ comprises a part or all of the obtained attribute information of the second NAN cluster~~cluster ID (CID) of the second NAN cluster~~;

joining the second NAN cluster; and

~~after sending the event message,~~ leaving the first NAN cluster.

wherein the operation of determining comprises: calculating a first score based on multiple pieces of attribute information of the first NAN cluster, and a second score based on multiple pieces of attribute information of the second NAN cluster;

comparing the first score and the second score;

determining to join the second NAN cluster when the second score is greater

than the first score.

89. The wireless device according to claim 78, wherein the attribute information of the second NAN Cluster comprises at least one of the following types of information:

a number of wireless devices comprised in the second NAN cluster, an anchor master rank in the second NAN cluster, a hop count from the wireless device to an anchor master device in the second NAN cluster, and a transmission time of a beacon frame of the anchor master device in the second NAN cluster.

~~9. The wireless device according to any one of claim 7 or 8, wherein the operation of determining comprises: calculating a first score based on multiple pieces of attribute information of the first NAN cluster, and a second score based on multiple pieces of attribute information of the second NAN cluster;~~

~~comparing the first score and the second score;~~

~~determining to join the second NAN cluster when the second score is greater than the first score.~~

10. The wireless device according to ~~any one of~~ claims ~~7~~ 8 ~~to~~ or 9, wherein: the event message is:

a beacon frame or a service frame comprising~~,~~ a cluster ID, (CID) ~~the CID~~ and the attribute information of the second NAN cluster; or

a beacon frame or a service frame comprising the CID of the second NAN cluster and merging indication information for instructing other wireless network devices in the first NAN cluster to join the second NAN cluster.

11. The wireless device according to claim 10, wherein the operation of sending comprises:

placing the CID of the second NAN cluster in a destination address field of a beacon frame and placing attribute information of the second NAN Cluster in an attribute information field of the beacon frame, and sending the beacon frame as the event message; or

placing the ~~cluster ID~~ CID of the second NAN Cluster in a destination address field of a service frame and placing attribute information of the second NAN Cluster in a frame body of the service frame, and sending the service frame as the event message.

12. The wireless device according to any one of claims ~~7~~ 8 to 11, wherein the operation of discovering comprises:

receiving a beacon frame or service frame including a CID, and the attribute information of the second NAN cluster;.

~~comparing a cluster ID (CID) in the received beacon frame or service frame to a locally recorded CID of the first NAN Cluster;~~

~~determining that the second NAN cluster is discovered when the CID in the received beacon frame or service frame is different from the CID of the first NAN cluster; and~~

~~obtaining attribute information of the second NAN cluster from the received beacon frame or service frame.~~

13. The wireless device according to any one of claims 8 to 12, wherein the operation of leaving the first NAN cluster is after the operation of sending the event message.

14. The wireless device according to any one of claims 8 to 13, wherein the operation of leaving the first NAN cluster comprises:

stop participating in contending for serving as a synchronization device in the first NAN cluster.