

CLAIMS

1. A method for anchor master, AM, selection, where the method comprises:

receiving (101, 301, 401), by a device, a neighbor awareness networking beacon, NAN Beacon, frame, wherein the NAN Beacon frame carries first AM information and first time synchronization function, TSF, information, and the first AM information comprises: a first anchor master rank, ~~AMR~~ (AMR) value, a first hop count, ~~HC~~ (HC) value, and a first anchor master beacon transmission time, ~~AMBTT~~ (AMBTT) value; and second AM information and second TSF information are recorded in the device, wherein the second AM information comprises: a second AMR value, a second HC value, and a second AMBTT value;

if the NAN Beacon frame is used for AM selection, when the first AMR value is less than the second AMR value, and a master rank, ~~MR~~ (MR) value, of the device is greater than the first AMR, switching (102, 303, 402), by the device, a role of the device to AM; and

if the NAN Beacon frame is used for AM selection, when the first AMR value is less than the second AMR value, and the MR value of the device is less than the first AMR value, updating (103, 304, 403), by the device according to the NAN Beacon frame, the second AM information and the second TSF information that are recorded in the device.

2. The method according to claim 1, wherein the updating, by the device according to the NAN Beacon frame, the second AM information and the second TSF information that are recorded in the device comprises:

updating, by the device, the second AMR value to equal the first AMR value;

updating, by the device, the second HC value to equal the first HC value plus 1;

if the NAN Beacon frame is sent by ~~the-an~~ an AM, updating, by the device, the second AMBTT value to equal a value of a preset byte/preset bytes of the first TSF information; or if the NAN Beacon frame is not sent by ~~the-an~~ an AM, updating, by the device, the second AMBTT value to equal the first AMBTT value; and

updating, by the device, a value of the second TSF information to equal a value of the first TSF information.

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

if the NAN Beacon frame is used for AM selection and the first AMR is equal to

the second AMR,

if the first AMBTT value is greater than the second AMBTT value, or the first AMBTT value is equal to the second AMBTT value and the first HC value is less than the second HC value minus 1, updating (306, 307), by the device according to the NAN Beacon frame, the second TSF information and some information or all information of the second AM information that are recorded in the device.

4. The method according to any one of claims 1 to 3, wherein the switching, by the device, the role of the device to AM comprises:

updating, by the device, the second AMR value to equal the MR value of the device;

updating, by the device, the second HC value to equal 0; and

updating, by the device, the second AMBTT value to equal 0x00000000.

5. The method according to any one of claims 1 to 4, wherein when the role of the device is an AM, the method further comprises:

when the MR of the device is updated, maintaining (408), by the device, the role of the device as an AM-role, and updating, by the device, the recorded second AMR value to equal an updated MR value of the device.

6. A device (800) for anchor master, AM, selection, where the device comprises:
a memory (803) storing instructions;

a receiver (801) configured to receive a neighbor awareness networking beacon, NAN Beacon, frame, where the NAN Beacon frame carries first AM information and first time synchronization function, TSF, information, and the first AM information includes: a first anchor master rank, AMR (AMR) value, a first hop count, HC (HC) value, and a first anchor master beacon transmission time, AMBTT (AMBTT) value; and second AM information and second TSF information are recorded in the device, wherein the second AM information comprises: a second AMR value, a second HC value, and a second AMBTT value;

a processor (802) configured to execute the instructions to perform operations of:

after the NAN Beacon frame is received, if the NAN Beacon frame is used for AM selection, when the first AMR value is less than the second AMR value, and a master rank, (MR,-) value of the device is greater than the first AMR value, switching a role of the device to AM; and

if the NAN Beacon frame is used for AM selection, when the first AMR value is less than the second AMR value, and the MR value of the device is less than the first

AMR value, updating, according to the NAN Beacon frame, the second AM information and the second TSF information that are recorded in the device.

7. The device according to claim 6, wherein the operation of updating comprises:

updating the second AMR value to equal the first AMR value;

updating the second HC value to equal the first HC value plus 1;

if the NAN Beacon frame is sent by ~~the~~ an AM, updating the second AMBTT value to equal a value of a preset byte/preset bytes of the first TSF information; or if the NAN Beacon frame is not sent by ~~the~~ an AM, updating the second AMBTT value to equal the first AMBTT value; and

updating a value of the second TSF information to equal a value of the first TSF information.

8. The device according to claim 6 or 7, wherein the processor (802) is further configured to execute the instructions to perform operations of:

if the NAN Beacon frame is used for AM selection and the first AMR value is equal to the second AMR value,

if the first AMBTT value is greater than the second AMBTT value, or the first AMBTT value is equal to the second AMBTT value and the first HC value is less than the second HC value minus 1, updating, according to the NAN Beacon frame, the second TSF information and some information or all information of the second AM information that are recorded in the device.

9. The device according to any one of claims 6-8, wherein the operation of switching comprises:

updating the second AMR value to equal the MR value of the device;

updating the second HC value to equal 0; and

updating the second AMBTT value to equal 0x00000000.

10. The device according to any one of claims 6-9, wherein when the role of the device is an AM, the processor (802) is further configured to execute the instructions to perform operations of:

when the MR of the device is updated, maintaining the role of the device as an AM ~~role~~, and updating the recorded second AMR value to equal an updated MR value of the device.

~~11. A computer program product, comprising computer program code, which, when executed by a computer unit, will cause the computer unit to perform the method of any one of claims 1 to 5.~~