CLAIMS

What is claimed is:

1. An access point multi-link device, AP MLD, discovery method, comprising:

generating, by a reporting AP (1500, 1600), a management frame, wherein the management frame comprises a reduced neighbour report element, the reduced neighbour report element including a MLD index field of an AP MLD to which a reported AP is affiliated, wherein the MLD index field indicates an MLD identifier of the AP MLD to which the reported AP is affiliated;

wherein if the reported AP and the reporting AP (1500, 1600) are affiliated to a same AP MLD, a MLD index value 0 is carried in the MLD index field;

wherein if the reported AP is not affiliated to any AP MLD, a MLD index value 255 is carried in the MLD index field; and

sending, by the reporting AP (1500, 1600), the management frame to a station (101, 102).

2. The method according to claim 1, wherein the reported AP is affiliated to the same AP MLD as the reporting AP (1500, 1600), or the reduced neighbour report element comprised in the management frame sent by the reporting AP includes about the reported AP: all APs in an AP MLD to which a non-transmitted AP in a same multiple BSSID set as the reporting AP is affiliated.

3. The method according to claim 1 or 2, wherein the
management frame further comprises a link identifier of the reported AP.

4. The method according to claim 3, wherein the link identifier corresponds to an operating class, a channel number, or a MAC address of the reported AP.

5. The method according to claim 3 or 4, wherein the link identifier of the reported AP is unique in an AP MLD to which the reported AP is affiliated.

6. The method according to any one of claims 1 to 5, wherein the management frame further comprises a link identifier of the reporting AP (1500, 1600).

7. The method according to claim 6, wherein the link identifier of the reporting AP (1500, 1600) is carried in an MLD element.

8. The method according to any one of claims 1 to 6, wherein the management frame further comprises an MLD element, wherein the MLD element carries an MLD MAC address present field or a link ID present field.

9. The method according to any one of claims 1 to 8, wherein the management frame is a beacon frame or a probe response frame.

10. An apparatus (1500, 1600), comprising a memory (1502) storing program instructions, and a processor (1501, 1505, 1601) coupled to the memory (1502), wherein the program instructions, when executed by the processor (1501, 1505, 1601), enable the apparatus (1500, 1600) to perform the method according to any one of claims 1 to 9.

11. A computer program product, wherein when the computer program product runs on a computer, the computer is enabled to perform the method according to any one of claims 1 to 9.

12. A communication system, comprising the apparatus (1500, 1600) according to claim 10.