CLAIMS

1. A method of communication in a wireless network comprising, at a station belonging to a Basic Service Set, BSS, managed by an access point, AP, station:

in response to determining that a primary channel of an operating channel of the BSS is busy, performing channel access on a non-primary channel of the operating channel.

2. The method of Claim 1, wherein the non-primary channel is previously agreed with another station of the BSS.

3. The method of Claim 1, further comprising

exchanging a management frame with another station of the BSS, over the primary channel, the management frame advertising the non-primary channel of the operating channel, imposed by the AP, for non-primary channel access, NPCA, and

terminating NPCA operations on the non-primary channel upon expiry of a duration set by the station, to switch to the primary channel to perform channel access.

4. The method of Claim 3, wherein exchanging the management frames takes place during an association procedure between the two stations.

5. The method of Claim 3, wherein the management frames include one or more of the following frames:

a beacon frame from the AP station to advertise one or more non-primary channels eligible for channel access,

a probe request frame to the AP station for the other station to advertise one or more non-primary channels eligible for channel access,

a probe response frame from the AP station to advertise one or more non-primary channels eligible for channel access,

an association or reassociation request frame to the AP station for the other station to advertise one or more non-primary channels eligible for channel access,

an association or reassociation response frame from the AP station to advertise one or more non-primary channels eligible for channel access.

6. The method of Claim 3, wherein the other station is the AP station and, upon accessing the non-primary channel through channel access on the non-primary channel, the station exchanges frames with another non-AP station over the accessed non-primary channel.

7. The method of Claim 3, wherein upon accessing the non-primary channel through channel access on the non-primary channel, the station exchanges frames with the other station over the accessed non-primary channel, wherein the station and the other station

include the AP station and a non-AP station of the BSS.

8. The method of Claim 1, further comprising transmitting by the station a frame including a Control field to signal whether channel access on the non-primary channel is enabled or disabled at the station.

9. The method of Claim 1, wherein the station is the AP station and, upon agreeing with a non-AP station on one or more non-primary channels that form a subset of non-primary channels eligible for channel access signalled in a local register of the AP station, the AP station updates the local register to the subset in order to propose the subset of non-primary channels to any other non-AP stations willing to join the BSS.

10. The method of Claim 1, further comprising receiving at least two frames from at least two respective AP stations managing respective BSSs, each frame including support information signalling support of the channel access on the non-primary channel by the respective AP station and capabilities information advertising non-primary channel or channels eligible for channel access within the respective BSS in case of supported channel access on the non-primary channel,

selecting one of the AP stations based on the received support and capabilities information, and

requesting association with the selected AP station.

11. The method of Claim 1, further comprising receiving a frame from a non-AP station, the frame including support information signalling support of the channel access on the non-primary channel by the non-AP station and capabilities information advertising non-primary channel or channels eligible for channel access by the non-AP station in case of supported channel access on the non-primary channel,

deciding whether to accept or refuse association of the non-AP station based on the received support and capabilities information, and

transmitting, to the non-AP station, an association response frame according to the decided acceptance or refusal.

12. The method of Claim 1, wherein a frame exchanged between the station and another station of the BSS includes capabilities information advertising the non-primary channel or channels eligible for channel access in case of supported channel access on the non-primary channel.

13. The method of Claim 12, wherein the frame includes support information signalling support of the channel access on the non-primary channel by the station transmitting the frame and the frame includes a single Information Element to signal both support information and capabilities information.

14. The method of Claim 12, wherein the frame includes support information signalling

support of the channel access on the non-primary channel by the station transmitting the frame and the frame includes a first Information Element to signal the support information and a second separate Information element to signal the capabilities information.

15. The method of Claim 12, wherein the capabilities information includes a bitmap that advertises which non-primary channel or channels forming the operating channel are eligible for channel access.

16. The method of Claim 12, wherein the capabilities information includes a field that comprises an offset value defining a single non-primary channel eligible for channel access within the operating channel.

17. The method of Claim 12, wherein the capabilities information includes a switching delay field that indicates a time needed by the transmitting station to switch from one non-primary channel to another non-primary channel to perform channel access.

18. A wireless communication device comprising at least one microprocessor configured for carrying out the steps of the method of Claim 1.

19. A non-transitory computer-readable medium storing a program which, when executed by a microprocessor or computer system in a wireless device, causes the wireless device to perform the method of Claim 1.