CLAIMS

1. A communication apparatus comprising:

receiving means for receiving a signal transmitted from a base station constructing a wireless network conforming to IEEE802.11 series of standards, the signal including information on an AIFSN value, and

control means for performing control so that, in a case where the AIFSN value included in the signal received by the receiving means is zero, Enhanced Distributed Channel Access (EDCA) transmission of data of an access category that are to be addressed to the base station is disabled whereas EDCA transmission of data of the same access category that are to be addressed to another station different from the base station remains enabled,

wherein the access category is the same as an access category for data that the communication apparatus has successfully transmitted via a resource unit conforming to the IEEE802.11 series of standards.

2. The communication apparatus of Claim 1, wherein EDCA transmission of the data that are to be addressed to another station different from the base station is peer to peer traffic different from uplink traffic to the base station.

3. The communication apparatus of Claim 1, wherein EDCA transmission of the data that are to be addressed to another station different from the base station is performed without support from the base station.

4. The communication apparatus of Claim 1, wherein a peer to peer group which is used for EDCA transmission of the data that are to be addressed to another station different from the base station is maintained concurrent to the wireless network constructed by the base station.

5. The communication apparatus of Claim 1, wherein the communication apparatus and the another station are associated with the same base station.

6. The communication apparatus of Claim 1, wherein the AIFSN value equal to zero prevents the communication apparatus from EDCA transmission during a value specified by an HEMUEDCATimer timer.

7. The communication apparatus of Claim 1, wherein the control means are configured to switch the access category from a legacy contention mode to an MU contention mode not transmitting data of the access category that are to be addressed to the base station to the wireless network, upon transmitting data of the access category in an accessed uplink OFDMA resource unit provided by the base station.

8. The communication apparatus of Claim 7, wherein the control means are configured to switch to the MU contention mode only if the AIFSN value is zero.

9. The communication apparatus of claim 7, wherein, for the disabling of the transmission of data of the access category that are to be addressed to the base station, the control means are configured to draw a new EDCA backoff for the access category without transmitting data.

10. The communication apparatus of Claim 7, wherein the control means are configured to switch back the access category to the legacy contention mode upon expiry of an MU mode timer initialized when the access category switched to the MU contention mode.

11. The communication apparatus of Claim 7, wherein peer-to-peer data transmission transmitting data of the access category to another station different from the base station is allowed in EDCA transmissions although the access category is in the MU contention mode.

12. A communication method comprising, at a station:

receiving a signal transmitted from a base station constructing a wireless network conforming to IEEE802.11 series of standards, the signal including information on an AIFSN value, and

performing control so that, in a case where the AIFSN value included in the signal received by the receiving means is zero, Enhanced Distributed Channel Access (EDCA) transmission of data of an access category that are to be addressed to the base station is disabled whereas EDCA transmission of data of the same access category that are to be addressed to another station different from the base station remains enabled,

wherein the access category is the same as an access category for data that the communication apparatus has successfully transmitted via a resource unit conforming to the IEEE802.11 series of standards.

13. A non-transitory computer-readable medium storing a program which, when executed by a microprocessor or computer system in a device, causes the device to perform the method of Claim 12.