CLAIMS

1. A communication method in a communication network comprising a plurality of nodes, at least one node comprising a plurality of traffic queues for serving data traffic at different priorities; each traffic queue being associated with a respective queue backoff engine for computing, from contention parameters, a respective queue backoff value to be used to contend for access to a communication channel in order to transmit data stored in the respective traffic queue in an enhanced distributed channel access, EDCA, transmission opportunity, TXOP;

the method comprising, at the node:

using a plurality of timers, each one associated with one of the traffic queues, each timer counting down a predetermined duration during which the contention parameters remain set to MU-EDCA parameters for the corresponding traffic queue before being set back to EDCA parameters different from the MU-EDCA parameters.

2. The method of Claim 1, wherein the contention parameters for a traffic queue are set to the MU-EDCA parameters for the corresponding predetermined duration upon transmitting data stored in the traffic queue over one or more accessed resource units provided by another node within one or more transmission opportunities granted to the other node on the communication channel.

3. The method of Claim 1, wherein the predetermined durations used to initialize the timers associated with two respective traffic queues are different one from the other.

4. The method of Claim 2, wherein the predetermined durations used to initialize the timers associated with respective traffic queues are computed from a common initializing value received from the other node and from an adjusting parameter specific to the respective traffic queue.

5. The method of Claim 2, wherein the predetermined durations used to initialize the timers associated with respective traffic queues are set to respective initializing values directly received from the other node.

6. The method of Claim 2, wherein the timer associated with a respective traffic queue is reinitialized to the corresponding predetermined duration each time data from the associated traffic queue is transmitted in an accessed resource unit provided by the other node within any subsequent transmission opportunity granted to the other node on the communication channel.

7. The method of Claim 1, further comprising, at the node, periodically receiving a beacon frame from an access point, each beacon frame broadcasting network information about the communication network to the plurality of nodes,

wherein at least one received beacon frame includes the EDCA parameters and the MU-EDCA parameters for the queue contention parameters of the plurality of traffic queues and at least one initializing value to initialize the timers to the predetermined durations associated with the traffic queues.

8. The method of Claim 2, wherein the contention parameters for a traffic queue are set to the MU-EDCA parameters for the corresponding predetermined duration only upon successfully transmitting the data in the corresponding accessed resource unit.

9. The method of Claim 1, wherein the MU-EDCA parameters include a degraded Arbitration Inter-Frame Space Number, AIFSN, compared to the EDCA parameters.

10. The method of Claim 2, further comprising, at the node, upon accessing a resource unit provided by the other node within a subsequent transmission opportunity granted to the other node:

selecting data from the traffic queues having their contention parameters set to the MU-EDCA parameters or to the EDCA parameters, based on associated current queue backoff values,

transmitting the selected data in the accessed resource unit within the new transmission opportunity.

11. The method of Claim 2, further comprising, at the node, upon accessing a resource unit provided by the other node within a subsequent transmission opportunity granted to the other node:

selecting data from a preferred traffic queue indicated by the other node,

transmitting the selected data in the accessed resource unit within the new transmission opportunity.

12. 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 1.

13. A communication device comprising:

a plurality of traffic queues for serving data traffic at different priorities;

a plurality of queue backoff engines, each associated with a respective traffic queue, for computing, from contention parameters, a respective queue backoff value to be used to contend for access to a communication channel in order to transmit data stored in the respective traffic queue in an enhanced distributed channel access, EDCA, transmission opportunity, TXOP;

wherein the communication device further comprising a plurality of timers, each one associated with one of the traffic queues; and

wherein each timer is for counting down a predetermined duration during which the contention parameters remain set to MU-EDCA parameters for the corresponding traffic queue before being set back to EDCA parameters different from the MU-EDCA parameters.

14. A beacon frame designed to be sent by an access point, AP, of a wireless communication network comprising a plurality of nodes,

each node comprising a plurality of traffic queues for serving data traffic at different priorities, each traffic queue being associated with a respective queue backoff engine for computing, from contention parameters, a respective queue backoff value to be used to contend for access to a communication channel in order to transmit data stored in the respective traffic queue in an enhanced distributed channel access, EDCA, transmission opportunity, TXOP; each traffic queue being further associated with a timer for counting down a predetermined duration during which the contention parameters remain set to MU-EDCA parameters for the corresponding traffic queue before being set back to EDCA parameters different from the MU-EDCA parameters;

the beacon frame comprising:

an information element comprising the contention parameters, including a timer value per traffic queue, to be used by the nodes to set the predetermined duration of the corresponding timer.

15. The beacon frame of Claim 14, wherein the contention parameters comprised in the information element include the EDCA parameters and the MU-EDCA parameters.