

CLAIMS

1. A method for wireless communications by a base station, comprising:
configuring a first user equipment with at least one backoff adjustment parameter for one or more priority levels for random access requests;
receiving, from the first user equipment, a random access request; and
transmitting, to one or more user equipment including the first user equipment, a random access response including a base backoff interval to modify a backoff interval at the user equipment based on the priority level of the random access request, wherein the backoff adjustment parameter comprises a lower bound and upper bound for the backoff interval for each of the one or more priority levels.
2. The method of claim 1, wherein the random access request includes information identifying a type of a random access event being invoked.
3. The method of claim 1, wherein the at least one backoff adjustment parameter comprises a priority threshold and a scaling factor.
4. The method of claim 1, wherein the at least one backoff adjustment parameter comprises a lookup table including a plurality of priority levels associated with different types of random access events and a backoff scaling factor associated with each priority level.
5. The method of claim 4, wherein the backoff parameter lookup tables are transmitted to the user equipment via one or more system information blocks (SIBs).
6. The method of claim 1, further comprising:
transmitting, to the one or more user equipment, a mapping between ranking index information for each type of random access event and an access priority.
7. The method of claim 6, wherein the mapping is transmitted to the one or more user equipment via dedicated signaling or one or more system information blocks (SIBs).

8. A method for wireless communications by a user equipment, comprising:
 - receiving, from a base station, configuration information including at least one backoff adjustment parameter for one or more priority levels for random access requests;
 - transmitting, to the base station, a random access request;
 - receiving, from the base station, a random access response including a base backoff interval; and
 - based on a backoff adjustment parameter associated with a priority of the random access request and the base backoff interval, determining a backoff interval defining an amount of time to wait until retransmitting the random access request, wherein the configuration information comprises a lower bound and upper bound for a backoff interval for the one or more priority levels, and wherein determining the backoff interval comprises selecting a backoff interval based on the lower and upper bounds for the backoff interval.
9. The method of claim 8, wherein the at least one backoff adjustment parameter comprises a priority threshold and a scaling factor.
10. The method of claim 8, wherein determining the backoff interval comprises:
 - upon determining that the priority associated with a type of the random access request is less than a priority threshold, adjusting the backoff interval based on a scaling factor, the priority associated with the type of the random access request, and the base backoff interval.
11. The method of claim 8, wherein the at least one backoff adjustment parameter comprises an index in a lookup table.
12. The method of claim 11, wherein determining the backoff interval comprises identifying the backoff scaling factor associated with the index in a lookup table associated with the priority of the type of the random access request.
13. The method of claim 8, further comprising:
 - receiving access priority information and backoff parameter lookup tables from the base

station.

14. The method of claim 13, wherein the access priority information and backoff parameter lookup tables are received from the base station via one or more system information blocks (SIBs).
15. The method of claim 8, further comprising:
receiving a mapping between ranking index information for each type of random access event and an access priority from the base station.
16. The method of claim 15, wherein the mapping is received from the base station via dedicated signaling or one or more system information blocks (SIBs).
17. The method of claim 8, further comprising:
determining the one or more priority levels based on a type of random access event; and
determining a random access interval based at least on the one or more priority levels, the at least one backoff adjustment parameter and the base backoff interval.
18. The method of claim 8, further comprising:
delaying retransmitting the random access request by a random amount of time between the lower bound and the upper bound for the backoff interval for the one or more priority levels.
19. An apparatus for wireless communications, comprising:
a processor configured to:
configure a first user equipment with at least one backoff adjustment parameter for one or more priority levels for random access requests;
receive, from the first user equipment, a random access request, and
transmit, to one or more user equipment including the first user equipment, a random access response including a base backoff interval to modify a backoff interval at the user equipment based on the priority of the random access request, wherein the backoff adjustment parameter comprises a lower bound and upper bound for the backoff interval for each of the one or more priority levels; and

a memory.

20. The apparatus of claim 19, wherein the random access request includes information identifying a type of a random access event being invoked.
21. The apparatus of claim 19, wherein the at least one backoff adjustment parameter comprises a priority threshold and a scaling factor.
22. The apparatus of claim 19, wherein the at least one backoff adjustment parameter comprises a lookup table including a plurality of priority levels associated with different types of random access events and a backoff scaling factor associated with each priority level.
23. The apparatus of claim 22, wherein the backoff parameter lookup tables are transmitted to the user equipment via one or more system information blocks (SIBs).
24. The apparatus of claim 20, further comprising:
transmitting, to the one or more user equipment, a mapping between ranking index information for each type of random access event and an access priority.
25. The apparatus of claim 24, wherein the mapping is transmitted to the one or more user equipment via dedicated signaling or one or more system information blocks (SIBs).
26. An apparatus for wireless communications, comprising:
a processor configured to:
receive, from a base station, configuration information including at least one backoff adjustment parameter for one or more priority levels for random access requests,
transmit, to the base station, a random access request,
receive, from the base station, a random access response including a base backoff interval, and
based on a backoff adjustment parameter associated with a priority of the random access request and the base backoff interval, determine a backoff interval defining an

amount of time to wait until retransmitting the random access request, wherein the configuration information comprises a lower bound and upper bound for a backoff interval for the one or more priority levels, and wherein determining the backoff interval comprises selecting a backoff interval based on the lower and upper bounds for the backoff interval; and
a memory.

27. The apparatus of claim 26, wherein the at least one backoff adjustment parameter comprises a priority threshold and a scaling factor, and wherein the processor is configured to determine the backoff interval by:

upon determining that the priority associated with a type of the random access request is less than a priority threshold, adjusting the backoff interval based on a scaling factor, the priority associated with the type of the random access request, and the base backoff interval.

28. The apparatus of claim 26, wherein the at least one backoff adjustment parameter comprises an index in a lookup table, and wherein the processor is configured to determine the backoff interval by:

identifying the backoff scaling factor associated with the index in a lookup table associated with the priority of the type of the random access request.

29. The apparatus of claim 26, wherein the processor is further configured to:

receive access priority information and backoff parameter lookup tables from the base station.

30. The apparatus of claim 26, wherein the processor is further configured to:

receive a mapping between ranking index information for each type of random access event and an access priority from the base station.