What is claimed is

1. A method performed by a user equipment (UE) in a wireless communication system, the method comprising:

receiving, from a base station, a scaling factor for prioritized random access;

initiating a random access procedure;

receiving, from the base station, a random access response comprising a backoff indicator;

determining whether the random access procedure was initiated for a handover;

based on a determination that the random access procedure was initiated for the handover, applying the scaling factor to the backoff indicator to set a random access backoff time; and

transmitting, after the random access backoff time, a random access preamble to the base station.

2. The method of claim 1, wherein applying the scaling factor to the backoff indicator to set the random access backoff time comprises:

based on the determination that the random access procedure was initiated for the handover, determining the random access backoff time based on a product of the backoff indicator and the scaling factor.

3. The method of claim 1, wherein applying the scaling factor to the backoff indicator to set the random access backoff time comprises:

based on the determination that the random access procedure was initiated for the handover, adjusting the random access backoff time by the scaling factor, wherein the random access backoff time is related to the backoff indicator.

4. The method of claim 1, wherein the scaling factor has a value less than one.

5. The method of claim 4, wherein the scaling factor has a value of zero.

6. The method of claim 1, wherein applying the scaling factor to the backoff indicator to set the random access backoff time comprises:

based on the determination that the random access procedure was initiated for the handover, adjusting the random access backoff time to a value of zero based on the backoff indicator and the scaling factor.

7. The method of claim 1, wherein the random access backoff time is related to a second backoff value that is equal to a first backoff value multiplied by the scaling factor, and wherein the first backoff value corresponds to the backoff indicator.

8. The method of claim 7, wherein the random access backoff time is equal to a uniformly distributed value between 0 and the second backoff value.

9. The method of claim 1, wherein initiating the random access procedure comprises:

initiating the random access procedure for the handover from a first base station to a second base station with which the UE communicates.

10. A user equipment (UE) configured to operate in a wireless communication system, the UE comprising:

at least one transceiver;

at least one processor; and

at least one computer memory operably connectable to the at least one processor and storing instructions that, when executed, cause the at least one processor to perform operations comprising:

receiving, through the transceiver and from a base station, a scaling factor for prioritized random access;

initiating a random access procedure;

receiving, through the transceiver and from the base station, a random access response comprising a backoff indicator;

determining whether the random access procedure was initiated for a handover;

based on a determination that the random access procedure was initiated for the handover, applying the scaling factor to the backoff indicator to set a random access backoff time; and

transmitting, through the transceiver and after the random access backoff time, a random access preamble to the base station.

11. The UE of claim 10, wherein applying the scaling factor to the backoff indicator to set the random access backoff time comprises:

based on the determination that the random access procedure was initiated for the handover, determining the random access backoff time based on a product of the backoff indicator and the scaling factor.

12. The UE of claim 10, wherein applying the scaling factor to the backoff indicator to set the random access backoff time comprises:

based on the determination that the random access procedure was initiated for the handover, adjusting the random access backoff time by the scaling factor, wherein the random access backoff time is related to the backoff indicator.

13. The UE of claim 10, wherein the scaling factor has a value less than one.

14. The UE of claim 13, wherein the scaling factor has a value of zero.

15. The UE of claim 10, wherein applying the scaling factor to the backoff indicator to set the random access backoff time comprises:

based on the determination that the random access procedure was initiated for the handover, adjusting the random access backoff time to a value of zero based on the backoff indicator and the scaling factor.