

Amendments to the Claims:

This listing of the claims will replace all prior versions of the claims in the application:

1-20. (canceled)

21. (Currently amended) A method for detecting coverage loss at a base station (BS), the method comprising:

starting a coverage loss detection (CLD) timer for a subscriber station (SS) to ~~commence~~ perform a CLD procedure;

on a condition that the CLD timer for the SS expires during the CLD procedure:

allocating an uplink (UL) grant to the SS to enable identification of the status of the SS during the CLD procedure;

receiving an UL data burst from the SS via the allocated UL grant during the CLD procedure;

resetting the CLD timer for the SS based on the received UL data burst from the SS during the CLD procedure; and

transmitting an unsolicited unicast ranging acknowledgement (RNG-ACK) to the SS based on the received UL data burst from the SS during the CLD

procedure, wherein the unsolicited unicast RNG-ACK enables the SS to reset a periodic ranging timer of the SS associated with a periodic ranging procedure.

22. (Previously presented) The method of claim 21, wherein the CLD timer for the SS is started upon an initial network entry of the SS.

23. (Previously presented) The method of claim 21, wherein the CLD timer for the SS is started upon a network reentry of the SS.

24. (Previously presented) The method of claim 21, wherein the UL data burst includes identification information of the SS.

25. (Previously presented) The method of claim 21, further comprising: determining whether an UL transmission parameter adjustment is required.

26. (Previously presented) The method of claim 21, further comprising: on a condition that the CLD timer for the SS expires during a scanning interval of the SS:

deferring allocating an uplink (UL) grant to the SS to identify the status of the SS to a next available interleaving interval of the SS.

27. (Previously presented) The method of claim 26, further comprising:
detecting the next available interleaving interval of the SS.

28. (Currently amended) A base station (BS) configured to detect
coverage loss, the BS comprising:

a coverage loss detection (CLD) timer capable of being started for a
subscriber station (SS) to ~~commence~~ perform a CLD procedure;

a transmitter configured to allocate an uplink (UL) grant to the SS to enable
identification of the status of the SS during the CLD procedure;

a receiver configured to receive an UL data burst from the SS via the
allocated UL grant during the CLD procedure;

a processor configured to reset the CLD timer for the SS based on the
received UL data burst from the SS during the CLD procedure; and

the transmitter further configured to transmit an unsolicited unicast ranging
acknowledgement (RNG-ACK) to the SS based on the received UL data burst from
the SS during the CLD procedure, wherein the unsolicited unicast RNG-ACK
enables the SS to reset a periodic ranging timer of the SS associated with a periodic
ranging procedure.

29. (Previously presented) The BS of claim 28, wherein the CLD timer
for the SS is started upon an initial network entry of the MS.

30. (Previously presented) The BS of claim 28, wherein the CLD timer for the MS is started upon a network reentry of the MS.

31. (Previously presented) The BS of claim 28, wherein the UL data burst includes identification information of the SS.

32. (Previously presented) The BS of claim 28, wherein the processor is further configured to determine whether an UL transmission parameter adjustment is required.

33. (Previously presented) The BS of claim 28, wherein the transmitter is further configured to defer allocating an uplink (UL) grant to the SS to identify the status of the SS to a next available interleaving interval of the SS on a condition that the CLD timer for the SS expires during a scanning interval of the SS.

34. (Previously presented) The BS of claim 33, wherein the receiver is further configured to detect the next available interleaving interval of the SS.