CLAIMS

1. A method of operation of a wireless device in a cellular communications system, wherein the wireless device is in an RRC INACTIVE state, the method comprising:

transmitting ~~(700),~~ to a Radio Access Network, RAN, node, a Radio Resource Control, RRC, resume request triggered by a RAN-based Notification Area Update, RNAU;

in response to the RRC resume request, receiving ~~(702),~~ from the RAN node, an RRC resume reject message comprising a wait timer value;

starting ~~(704)~~ a wait timer initialized with the wait timer value; ~~and~~

~~sending (708) the RNAU when the wait timer has expired.~~

~~2. The method of claim 1 further comprising~~ monitoring ~~(706)~~ for RAN paging and core network paging while the wait timer is running~~.~~

~~3. The method of claim 2 further comprising,~~; upon receiving a RAN paging or core network paging while the wait timer is running, responding ~~(706)~~ to the RAN paging or core network paging~~.~~; and

~~4.~~ sending the RNAU when the wait timer has expired.

2. The method of ~~any one of claims~~claim 1 ~~to 3~~, wherein the RNAU is a periodic RNAU~~.~~

~~5. The method of any one of claims 1 to 3 wherein the~~ or the RNAU is due to mobility.

3. ~~6.~~ A wireless device for a cellular communications system, wherein the wireless device is in an RRC INACTIVE state, the wireless device adapted to:

transmit, to a Radio Access Network, RAN, node, a Radio Resource Control, RRC,

resume request triggered by a RAN-based Notification Area Update, RNAU;

in response to the RRC resume request, receive, from the RAN node, an RRC resume

reject message comprising a wait timer value;

start a wait timer initialized with the wait timer value; ~~and~~

monitor for RAN paging and core network paging while the wait timer is running;

upon receiving a RAN paging or core network paging while the wait timer is running,

respond to the RAN paging or core network paging; and

send the RNAU when the wait timer has expired.

4.~~7.~~ The wireless device of claim ~~6 wherein the wireless device is further adapted to monitor for RAN paging and core network paging while the wait timer is running.~~

~~8. The wireless device of claim 7 wherein the wireless device is further adapted to, upon receiving a RAN paging or core network paging while the wait timer is running, respond to the RAN paging or core network paging.~~

~~9. The wireless device of any one of claims 6 to 8~~3, wherein the RNAU is a periodic RNAU~~.~~

~~10. The wireless device of any one of claims 6 to 8 wherein~~ or the RNAU is due to mobility.

~~11. A wireless device for a cellular communications system, the wireless device comprising:~~

~~radio front-end circuitry; and~~

~~processing circuitry associated with the radio front-end circuitry, the processing circuitry configured to cause the wireless device to:~~

~~transmit, to a Radio Access Network, RAN, node, a Radio Resource Control,~~

~~RRC, resume request triggered by a RAN-based Notification Area Update, RNAU; in response to the RRC resume request, receive, from the RAN node, an RRC resume reject message comprising a wait timer value;~~

~~start a wait timer initialized with the wait timer value; and~~

~~send the RNAU when the wait timer has expired.~~

~~12. The wireless device of claim 11 wherein the processing circuitry is further configured to cause the wireless device to monitor for RAN paging and core network paging while the wait timer is running.~~

~~13. The wireless device of claim 12 wherein the processing circuitry is further configured to cause the wireless device to, upon receiving a RAN paging or core network paging while the wait timer is running, respond to the RAN paging or core network paging.~~

~~14. The wireless device of any one of claims 11 to 13 wherein the RNAU is a periodic RNAU.~~

~~15. The wireless device of any one of claims 11 to 13 wherein the RNAU is due to mobility.~~

5. ~~16.~~ A method of operation of a wireless device in a cellular communications system, wherein the wireless device is in an RRC INACTIVE state, the method comprising:

transmitting ~~(800),~~ to a Radio Access Network, RAN, node, a Radio Resource Control, RRC, resume request;

in response to the RRC resume request, receiving ~~(802),~~ from the RAN node, an RRC resume reject message comprising a wait timer value;

starting ~~(804)~~ a wait timer initialized with the wait timer value;

performing ~~(806)~~ a cell reselection to a target cell while the wait timer is running; and

upon performing the cell reselection to the target cell while the wait timer is running, re-

initiating ~~(810)~~ a pending Access Stratum, AS, layer procedure in the target cell.

6. ~~17.~~ The method of claim ~~16~~5 further comprising:

determining ~~(808)~~ whether an upper layer event has occurred;

wherein re-initiating ~~(810)~~ the pending AS layer procedure in the target cell comprises re-

initiating ~~(810)~~ the pending AS layer procedure in the target cell if an upper layer event has occurred.

7. ~~18.~~ The method of claim ~~17~~6 further comprising discarding ~~(812)~~ the pending AS layer procedure if an upper layer event has occurred.

8. ~~19.~~ The method of claim ~~17~~6 or ~~18~~claim 7, wherein the upper layer event is mobile originating data or mobile originating signaling.

9. ~~20.~~ The method of any one of claims ~~16~~5 to ~~19~~8, wherein the pending AS layer procedure is a RAN-based Notification Area Update, RNAU, procedure.

10.~~21.~~ A wireless device for a cellular communications system, wherein the wireless device is in an RRC INACTIVE state adapted to:

transmit, to a Radio Access Network, RAN, node, a Radio Resource Control, RRC, resume request;

in response to the RRC resume request, receive, from the RAN node, an RRC resume reject message comprising a wait timer value;

start a wait timer initialized with the wait timer value;

perform a cell reselection to a target cell while the wait timer is running; and

upon performing the cell reselection to the target cell while the wait timer is running, re initiate a pending Access Stratum, AS, layer procedure in the target cell.

11. ~~22.~~ The wireless device of claim ~~21~~10 wherein the wireless device is further adapted to perform the method of any one of claims ~~17~~6 to ~~20~~9.

12.~~23.~~A method of operation of a wireless device ~~for~~in a cellular communications system, wherein the wireless device is in an RRC INACTIVE state, the method comprising:

~~radio front-end circuitry; and~~

~~processing circuitry associated with the radio front-end circuitry, the processing circuitry configured to cause the wireless device to:~~

~~transmit~~transmitting, to a Radio Access Network, RAN, node, a Radio Resource Control, RRC, resume request;

~~in response to the RRC resume request, receive, from the RAN node, an RRC resume reject message comprising a wait timer value;~~

~~start a wait timer initialized with the wait timer value;~~

~~perform~~starting a timer;

performing a cell reselection to a target cell while the ~~wait~~ timer is running; and upon performing the cell reselection to the target cell while the ~~wait~~ timer is running, ~~re-initiate a pending Access Stratum, AS, layer procedure in the target cell.~~

~~24. The wireless device of claim 23 wherein the processing circuitry is further configured to cause the wireless device to perform the method of any one of claims 17 to 20.~~

~~25. A method of operation of a wireless device in a cellular communications system, the method comprising:~~

~~transmitting (900), to a Radio Access Network, RAN, node, a Radio Resource Control, RRC, resume request;~~

~~starting (902) a timer;~~

~~performing (904) a cell reselection to a target cell while the timer is running; and upon performing the cell reselection to the target cell while the timer is running, re initiating (908)~~reinitiating a pending Access Stratum, AS, layer procedure in the target cell.

13.~~26.~~ The method of claim ~~25~~12 wherein the timer is a timer that is started upon initiation of an RRC resume procedure during which the RRC resume request is transmitted.

14.~~27.~~ The method of claim ~~25~~12 or ~~26~~13 further comprising:

determining ~~(906)~~ whether an upper layer event has occurred;

wherein re-initiating ~~(908)~~ the pending AS layer procedure in the target cell comprises re-

initiating ~~(908)~~ the pending AS layer procedure in the target cell if an upper layer event has occurred.

15.~~28.~~ The method of ~~claim 27~~any one of claims 12 to 14 further comprising discarding ~~(910)~~ the pending AS layer procedure if an upper layer event has occurred.

16.~~29.~~ The method of ~~claim 27 or 28~~any one of claims 12 to 15 wherein the upper layer event is mobile originating data or mobile originating signaling.

17.~~30.~~ The method of any one of claims ~~25~~12 to ~~29~~16 wherein the pending AS layer procedure is a RAN-based Notification Area Update, RNAU, procedure.

18.~~31.~~ A wireless device for a cellular communications system, wherein the wireless device is in an RRC INACTIVE state, the wireless device adapted to:

transmit, to a Radio Access Network, RAN, node, a Radio Resource Control, RRC,

resume request;

start a timer;

perform a cell reselection to a target cell while the timer is running; and

upon performing the cell reselection to the target cell while the timer is running, re initiate a pending Access Stratum, AS, layer procedure in the target cell.

19. ~~32~~. The wireless device of claim ~~31~~18 wherein the wireless device is further adapted to perform the method of any one of claims ~~26 to 30~~13 to 16.

~~33. A wireless device for a cellular communications system, the wireless device comprising:~~

~~radio front-end circuitry; and~~

~~processing circuitry associated with the radio front-end circuitry, the processing circuitry configured to cause the wireless device to: transmit, to a Radio Access~~

~~Network, RAN, node, a Radio Resource Control, RRC, resume request; start a timer; perform a cell reselection to a target cell while the timer is running; and upon performing the cell reselection to the target cell while the timer is running, re-initiate a pending Access Stratum, AS, layer procedure in the target cell.~~

~~34. The wireless device of claim 33 wherein the processing circuitry is further configured to cause the wireless device to perform the method of any one of claims 26 to 30.~~