

CLAIMS:

1. A method in a user equipment, UE, comprising:

receiving (502) a request from a radio access network for a measurement report for an application operating at a layer above a radio resource control, RRC, protocol layer;

generating (504) the measurement report in response to the request;

determining (506) a current RRC connected state of the UE when the measurement report is ready to be sent;

in response to determining that the current RRC connected state of the UE is not a CELL_DCH RRC state, sending (512) a cell update message to the radio access network;

receiving (514) instructions from the radio access network to transition to the CELL_DCH RRC state;

transitioning (516) to the CELL_DCH RRC state; and

transmitting (518) the measurement report while the UE is in the CELL_DCH RRC state.
2. The method of Claim 1, wherein sending the cell update message comprises sending the cell update message if the current RRC connected state of the UE is a CELL_FACH RRC state, a URA_PCH RRC state or a CELL_PCH RRC state.
3. The method of any previous Claim, wherein the cell update message comprises a cause value that indicates that the UE has the measurement report available to send.

4. The method of any previous Claim, wherein the instructions from the radio access network to transition to the CELL_DCH RRC state comprise a cell update confirm message.

5. The method of any previous Claim, wherein the measurement report comprises an application layer measurement report.

6. The method of any previous Claim, wherein the request is received via an RRC protocol message.

7. The method of Claim 1, wherein the sending the cell update message comprises sending the cell update message using an RRC protocol.

8. A method in a radio access network, RAN, node comprising:
transmitting (702) a request for a measurement report to a user equipment, UE, node, for an application operating in the UE at a layer above a radio resource control, RRC, protocol layer of the UE;

receiving (704) a cell update message from the UE, wherein the cell update message indicates that the UE has the measurement report available to send;

transmitting (706) instructions to the UE instructing the UE to transition to a CELL_DCH RRC state; and

receiving (708) the measurement report from the UE while the UE is in the CELL_DCH RRC state.

9. The method of Claim 8, wherein the cell update message comprises a cause value that indicates that the UE has the measurement report available to send.

10. The method of any of Claims 8-9, wherein the instructions to transition to the CELL_DCH RRC state comprise a cell update confirm message.

11. The method of any of Claims 8-10, wherein the measurement report comprises an application layer measurement report.

12. A user equipment, UE, node (1200), comprising:
a transceiver (1201) configured to provide wireless communication over a radio interface; and
a processor (1203) coupled with the transceiver, wherein the processor is configured to provide communication with a radio access network, RAN, node through the transceiver, and wherein the processor is configured to perform operations comprising:
receiving (502) a request from a radio access network for a measurement report for an application operating at a layer above a radio resource control, RRC, protocol layer;
generating (504) the measurement report in response to the request;

determining (506) a current RRC connected state of the UE when the measurement report is ready to be sent;

in response to determining that the current RRC connected state of the UE is not a CELL_DCH RRC state, sending (512) a cell update message to the radio access network;

receiving (514) instructions from the radio access network to transition to the CELL_DCH RRC state;

transitioning (516) to the CELL_DCH RRC state; and

transmitting (518) the measurement report while the UE is in the CELL_DCH RRC state.

13. The UE node of Claim 12, wherein sending the cell update message comprises sending the cell update message if the current RRC connected state of the UE is a CELL_FACH RRC state, a URA_PCH RRC state or a CELL_PCH RRC state.

14. The UE node of any of Claims 12-13, wherein the cell update message comprises a cause value that indicates that the UE has the measurement report available to send.

15. The UE node of any of Claims 12-14, wherein the instructions from the radio access network to transition to the CELL_DCH RRC state comprise a cell update confirm message.

16. The UE node of any of Claims 12-25, wherein the measurement report comprises an application layer measurement report.

17. The UE node of any of Claims 12-16, wherein the request is received via an RRC protocol message.

18. The UE node of Claim 12, wherein the sending the cell update message comprises sending the cell update message using an RRC protocol.

19. A radio access network, RAN, node (1100), comprising:
a network interface (1105) configured to provide communications over a network; and
a processor (1103) coupled with the network interface, wherein the processor is configured to provide communication with a user equipment (UE) node through the network interface, and wherein the processor is configured to perform operations comprising:

transmitting (702) a request for a measurement report to a user equipment, UE, node, for an application operating in the UE at a layer above a radio resource control, RRC, protocol layer of the UE;

receiving (704) a cell update message from the UE, wherein the cell update message indicates that the UE has the measurement report available to send;

transmitting (706) instructions to the UE instructing the UE to transition to a CELL_DCH RRC state; and

receiving (708) the measurement report from the UE while the UE is in the CELL_DCH RRC state.

20. The RAN node of Claim 19, wherein the cell update message comprises a cause value that indicates that the UE has the measurement report available to send.

21. The RAN node of any of Claims 19-20, wherein the instructions to transition to the CELL_DCH RRC state comprise a cell update confirm message.

22. The RAN node of any of Claims 19-21, wherein the measurement report comprises an application layer measurement report.