We Claim:

1. A method for processing an indication message by a user equipment, the method comprising:

at the user equipment:

if upper layers indicate that there is no more PS (packet switched) data for a prolonged period; and

if a count of how many indication messages have been triggered in at least one RRC (radio resource control) state is less than a maximum number:

incrementing the count of how many indication messages have been triggered in the at least one RRC state;

setting a cause in an indication message; and

sending the indication message.

2. The method of claim 1, wherein the indication messages in the count each have a cause set to "UE (user equipment) Requested PS Data session end".

3. The method of claim 1, wherein the cause is set to "UE Requested PS Data session end".

4. The method of claim 1, wherein the indication message is a signalling connection release indication message.

5. The method of claim 1, wherein the at least one RRC state comprises a CELL_PCH state or a URA_PCH state.

6. The method of claim 1, further comprising resetting the count upon satisfaction of at least one reset condition.

7. The method of claim 1 wherein the user equipment is in a CELL_PCH state or a URA_PCH state.

8. The method of claim 7 further comprising transitioning to a CELL_FACH state to send the indication message if the user equipment is in the URA_PCH state.

9. The method of claim 1, further comprising inhibiting the sending of the indication message while an inhibit timer is running.

10. The method of claim 1, wherein the maximum number is 1.

11. The method of claim 1, wherein the UE determines if the upper layers indicate that there is no more PS data for the prolonged period.

12. The method of claim 1, wherein the UE determines if the count of how many indication messages have been triggered while in the at least one RRC state is less than the maximum number.

13. A user equipment configured to process indication messages, the user equipment configured to:

if upper layers indicate that there is no more PS data for a prolonged period; and

if a count of how many indication messages have been triggered in at least one RRC state is less than a maximum number:

increment the count of how many indication messages have been triggered in the at least one RRC state;

set a cause in an indication message; and

send the indication message.

14. The user equipment of claim 13, wherein the indication messages in the count each have a cause set to "UE Requested PS Data session end".

16. The user equipment of claim 13, further configured to set the cause to "UE Requested PS Data session end".

17. The user equipment of claim 13, wherein the indication message is a signalling connection release indication message.

18. The user equipment of claim 13, wherein the at least one RRC state comprises a CELL_PCH state or a URA_PCH state.

19. The user equipment of claim 13, further configured to reset the count upon satisfaction of at least one reset condition.

20. The user equipment of claim 13 further configured to operate in a CELL_PCH state of a URA_PCH state.

21. The user equipment of claim 20 further configured to transition to a CELL_FACH state to send the indication message if the user equipment is in the URA_PCH state.

21. The user equipment of claim 12, further configured to inhibit the sending of the indication message with the cause set while an inhibit timer is running.

22. The user equipment of claim 12, wherein the maximum number is 1.

23. The user equipment of claim 12, further configured to determine if the upper layers indicate that there is no more PS data for the prolonged period.

24. The user equipment of claim 12, further configured to determine if the count of how many indication messages have been triggered while in the at least one RRC state is less than the maximum number.

CLAIMS:

1. A method comprising:

determining if, at an upper layer of a user equipment (UE), no more packet switched data is expected for a prolonged period;

determining if, at the UE, an inhibit timer is running;

determining if the UE is in a CELL_PCH state or a URA_PCH state;

determining, at the UE, if a count of signaling connection release indication (SCRI) messages sent by the UE is less than a maximum number, the count of SCRI messages associated with at least one RRC state comprising the CELL_PCH state or the URA_PCH state; and

if no more packet switched data is expected for a prolonged period, and if the inhibit timer is not running, and if the UE is in a CELL_PCH state or a URA_PCH state, and if the count of SCRI messages sent by the UE is less than the maximum number,

incrementing the count of SCRI messages sent by the UE,

setting a cause in a SCRI message to UE Requested PS Data session end,

sending the SCRI message to a network for a transition of the UE to a battery-efficient radio resource control (RRC) state or to an idle mode, and

resetting the count of SCRI messages upon satisfaction of at least one reset condition, the at least one reset condition comprising receiving packet switched data from the network.

2. The method of claim 1, wherein the maximum number is one.

3. The method of claim 1, further comprising inhibiting the sending of the SCRI message while an inhibit timer is running.

4. The method of claim 1, further comprising receiving a state transition message from the network.

5. The method of claim 1, wherein the at least one reset condition further comprises the UE entering RRC Connected mode.

6. The method of claim 5, wherein the at least one reset condition further comprises at least one of:

transmitting packet switched data from the user equipment to the network; and

transmitting signaling on radio bearer 3 (RB3) or higher.

7. The method of claim 1, wherein the at least one reset condition further comprises at least one of:

transmitting packet switched data from the user equipment to the network; and

transmitting signaling on radio bearer 3 (RB3) or higher.

8. A user equipment (UE) comprising at least one memory and a processor, configured to:

determine if, at an upper layer of the UE, no more packet switched data is expected for a prolonged period;

determine if, at the UE, an inhibit timer is running;

determine if the UE is in a CELL_PCH state or a URA_PCH state;

determine, at the UE, if a count of signaling connection release indication (SCRI) messages sent by the UE is less than a maximum number, the count of SCRI messages associated with at least one RRC state comprising the CELL_PCH state or the URA_PCH state; and

if no more packet switched data is expected at the UE, and if the inhibit timer is not running, and if the UE is in a CELL_PCH state or a URA_PCH state, and if the count of SCRI messages sent by the UE is less than the maximum number,

increment the count of SCRI messages sent by the UE,

set a cause in a SCRI message to UE Requested PS Data session end,send the SCRI message to a network for a transition of the UE to a battery-efficient radio resource control (RRC) state or to an idle mode, and

reset the count of SCRI messages upon satisfaction of at least one reset condition, the at least one reset condition comprising receiving packet switched data from the network.

9. The UE of claim 8, wherein the maximum number is one.

10. The UE of claim 8, further configured to inhibit sending of the SCRI message while an inhibit timer is running.

11. The UE of claim 8, further configured to receive a state transition message from the network.

12. The UE of claim 8, wherein the at least one reset condition further comprises the UE entering RRC Connected mode.

13. The UE of claim 12, wherein the at least one reset condition further comprises at least one of:

transmitting packet switched data from the user equipment to the network; and

transmitting signaling on radio bearer 3 (RB3) or higher.

14. The UE of claim 8, wherein the at least one reset condition further comprises at least one of:

transmitting packet switched data from the user equipment to the network; and

transmitting signaling on radio bearer 3 (RB3) or higher.

15. A method comprising:

determining if, at an upper layer of a user equipment (UE), no more packet switched data is expected for a prolonged period;

determining if, at the UE, an inhibit timer is running;

determining if the UE is in a CELL_PCH state or a URA_PCH state;

determining, at the UE, if a count of signaling connection release indication (SCRI) messages sent by the UE is less than a maximum number, the count of SCRI messages associated with at least one RRC state comprising the CELL_PCH state or the URA_PCH state; and

if no more packet switched data is expected for a prolonged period, and if the inhibit timer is not running, and if the UE is in a CELL_PCH state or a URA_PCH state, and if the count of SCRI messages sent by the UE is less than the maximum number,

incrementing the count of SCRI messages sent by the UE,

setting a cause in a SCRI message to UE Requested PS Data session end,

sending the SCRI message to a network for a transition of the UE to a battery-efficient radio resource control (RRC) state or to an idle mode, and

resetting the count of SCRI messages upon satisfaction of at least one reset condition, the at least one reset condition comprising the UE entering RRC Connected mode.

16. The method of claim 15, wherein the maximum number is one.

17. The method of claim 15, further comprising receiving a state transition message from the network.

18. The method of claim 15, wherein the at least one reset condition further comprises at least one of:

transmitting packet switched data from the user equipment to the network; and

transmitting signaling on radio bearer 3 (RB3) or higher.

19. The method of claim 15, wherein the at least one reset condition further comprises receiving packet switched data from the network.

20. The method of claim 19, wherein the at least one reset condition further comprises at least one of:

transmitting packet switched data from the user equipment to the network; and

transmitting signaling on radio bearer 3 (RB3) or higher.

21. A user equipment (UE) comprising at least one memory and a processor, configured to:

determine if, at an upper layer of the UE, no more packet switched data is expected for a prolonged period;

determine if, at the UE, an inhibit timer is running;

determine if the UE is in a CELL_PCH state or a URA_PCH state;

determine, at the UE, if a count of signaling connection release indication (SCRI) messages sent by the UE is less than a maximum number, the count of SCRI messages associated with at least one RRC state comprising the CELL_PCH state or the URA_PCH state; and

if no more packet switched data is expected at the UE, and if the inhibit timer is not running, and if the UE is in a CELL_PCH state or a URA_PCH state, and if the count of SCRI messages sent by the UE is less than the maximum number,

increment the count of SCRI messages sent by the UE,

set a cause in a SCRI message to UE Requested PS Data session end,

send the SCRI message to a network for a transition of the UE to a battery-efficient radio resource control (RRC) state or to an idle mode, and

reset the count of SCRI messages upon satisfaction of at least one reset condition, the at least one reset condition comprising the UE entering RRC Connected mode.

22. The UE of claim 21, wherein the maximum number is one.

23. The UE of claim 21, further configured to inhibit sending of the SCRI message while an inhibit timer is running.

24. The UE of claim 21, further configured to receive a state transition message from the network.

25. The UE of claim 21, wherein the at least one reset condition further comprises at least one of:

transmitting packet switched data from the user equipment to the network; and

transmitting signaling on radio bearer 3 (RB3) or higher.

26. The UE of claim 21, wherein the at least one reset condition further comprises receiving packet switched data from the network.

27. The UE of claim 26, wherein the at least one reset condition further comprises at least one of:

transmitting packet switched data from the user equipment to the network; and

transmitting signaling on radio bearer 3 (RB3) or higher.

28. A non-transitory computer-readable medium storing instructions which, when executed by a processor of a user equipment (UE), are configured to cause the UE to perform operations of:

determining if, at an upper layer of the UE, no more packet switched data is expected for a prolonged period;

determining if, at the UE, an inhibit timer is running;

determining if the UE is in a CELL_PCH state or a URA_PCH state;

determining, at the UE, if a count of signaling connection release indication (SCRI) messages sent by the UE is less than a maximum number, the count of SCRI messages associated with at least one RRC state comprising the CELL_PCH state or the URA_PCH state; and

if no more packet switched data is expected for a prolonged period, and if the inhibit timer is not running, and if the UE is in a CELL_PCH state or a URA_PCH state, and if the count of SCRI messages sent by the UE is less than the maximum number,

incrementing the count of SCRI messages sent by the UE,

setting a cause in a SCRI message to UE Requested PS Data session end,

sending the SCRI message to a network for a transition of the UE to a battery-efficient radio resource control (RRC) state or to an idle mode, and

resetting the count of SCRI messages upon satisfaction of at least one reset condition, the at least one reset condition comprising at least one of receiving packet switched data from the network and the UE entering RRC Connected mode .

29. The non-transitory computer-readable medium of claim 28, wherein the maximum number is one.

30. The non-transitory computer-readable medium of claim 28, wherein the instructions are further configured to cause the UE to perform an operation of receiving a state transition message from the network.

31. The non-transitory computer-readable medium of claim 28, wherein the at least one reset condition further comprises at least one of:

transmitting packet switched data from the user equipment to the network; and

transmitting signaling on radio bearer 3 (RB3) or higher.