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AMENDED CLAIMS

(CLEAN VERSION)

1. A method of obtaining location service, comprising:

exchanging at least one message between a terminal and a location server once to establish an extended location session of a particular duration, including sending a first message from the terminal to the location server to initiate establishment of the extended location session, and receiving a second message sent by the location server to the terminal to acknowledge establishment of the extended location session, the first message comprising positioning capabilities of the terminal, and the second message comprising positioning capabilities of the location server; and

obtaining location service by the terminal a plurality of times from the location server as part of the extended location session at any time within the particular duration of the extended location session.

2. The method of claim 1, wherein the exchanging at least one message comprises exchanging the at least one message to further configure at least one parameter for the extended location session, and wherein the obtaining location service comprises obtaining location service from the location server based on the at least one configured parameter.

3. The method of claim 2, wherein the at least one configured parameter comprises a selected positioning method, or a selected positioning protocol, or Quality of Positioning (QoP), or a combination thereof.

4. Canceled.

5. The method of claim 1, wherein the first message comprises a requested duration for the extended location session, wherein the second message comprises a granted duration for the extended location session, and wherein the particular duration of the extended location session is equal to the granted duration.

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6. Canceled.

7. The method of claim 1, further comprising:

receiving a location service request from an application at the terminal, and wherein the extended location session is established by the terminal in response to the location service request.

8. The method of claim 1, further comprising:

receiving a location service request from an application external to the terminal, and wherein the extended location session is established by the terminal in response to the location service request.

9. The method of claim 1, further comprising:

receiving a location request from an application at the terminal, and wherein location service is obtained by the terminal in response to the location request.

10. The method of claim 1, wherein the obtaining location service comprises

sending a third message from the terminal to the location server to obtain location service, and

receiving a fourth message comprising location information from the location server.

11. The method of claim 10, wherein the third message comprises a request for assistance data, and wherein the location information in the fourth message comprises assistance data for the terminal.

12. The method of claim 10, wherein the third message comprises measurements, and wherein the location information in the fourth message comprises a location estimate for the terminal.

13. The method of claim 10, wherein the third message comprises a positioning method selected by the terminal.

14. The method of claim 10, wherein the third message comprises at least one positioning message for a selected positioning protocol.

15. The method of claim 1, further comprising:

determining a session identifier (ID) for the extended location session; and

using the session ID to identify messages exchanged between the terminal and the location server to obtain location service during the extended location session.

16. The method of claim 1, wherein the obtaining location service comprises using location information, received by the terminal from the plurality of times of obtaining location service, to emulate a periodic trigger location service or an area event trigger location service.

17. The method of claim 1, further comprising:

exchanging a message between the terminal and the location server to terminate the extended location session prior to expiration of the particular duration.

18. The method of claim 1, further comprising:

sending a message from the terminal to the location server to request for extension of the extended location session past the particular duration.

19. The method of claim 1, wherein the terminal is roaming away from a home network and communicates with a serving network, and wherein the location server is associated with the serving network.

20. The method of claim 1, wherein the terminal and the location server exchange Secure User Plane Location (SUPL) messages for the extended location session.

21. An apparatus for obtaining location service, comprising:

means for exchanging at least one message between a terminal and a location server once to establish an extended location session of a particular duration, including means for sending a first message from the terminal to the location server to initiate establishment of the extended location session, and means for receiving a second message sent by the location server to the terminal to acknowledge establishment of the extended location session, the first message comprising positioning capabilities of the terminal, and the second message comprising positioning capabilities of the location server; and

means for obtaining location service by the terminal a plurality of times from the location server as part of the extended location session at any time within the particular duration of the extended location session.

22. The apparatus of claim 21, wherein the means for exchanging at least one message comprises means for exchanging the at least one message to further configure at least one parameter for the extended location session, and wherein the means for obtaining location service comprises means for obtaining location service from the location server based on the at least one configured parameter.

23. Canceled.

24. The apparatus of claim 21, wherein the means for obtaining location service comprises

means for sending a third message from the terminal to the location server to obtain location service, and

means for receiving a fourth message comprising location information from the location server.

25. The apparatus of claim 21, wherein the means for obtaining location service comprises means for using location information, received by the terminal from the plurality of times of obtaining location service, to emulate a periodic trigger location service or an area event trigger location service.

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26. An apparatus for wireless communication, comprising:

at least one processing unit configured to:

exchange at least one message between a terminal and a location server once to establish an extended location session of a particular duration, the at least one processing unit is configured to send a first message from the terminal to the location server to initiate establishment of the extended location session, and to receive a second message sent by the location server to the terminal to acknowledge establishment of the extended location session, the first message comprising positioning capabilities of the terminal, and the second message comprising positioning capabilities of the location server; and

obtain location service by the terminal a plurality of times from the location server as part of the extended location session at any time within the particular duration of the extended location session.

27. The apparatus of claim 26, wherein the at least one processing unit is configured to exchange the at least one message to further configure at least one parameter for the extended location session, and to obtain location service from the location server based on the at least one configured parameter.

28. Canceled.

29. The apparatus of claim 26, wherein the at least one processing unit is configured to send a third message from the terminal to the location server to obtain location service, and to receive a fourth message comprising location information from the location server.

30. The apparatus of claim 26, wherein the at least one processing unit is configured to use location information, received by the terminal from the plurality of times of obtaining location service, to emulate a periodic trigger location service or an area event trigger location service.

31. A computer program product, comprising:

a computer-readable medium comprising:

code to cause at least one processing unit to exchange at least one message between a terminal and a location server once to establish an extended location session of a particular duration, the at least one message including a first message from the terminal to the location server to initiate establishment of the extended location session, the first message comprising positioning capabilities of the terminal, and

code to cause the at least one processing unit to obtain location service by the terminal a plurality of times from the location server as part of the extended location session at any time within the particular duration of the extended location session.

32. A method of supporting location service, comprising:

exchanging at least one message between a location server once and a terminal to establish an extended location session of a particular duration, including receiving a first message sent by the terminal to the location server to initiate establishment of the extended location session, and sending a second message from the location server to the terminal to acknowledge establishment of the extended location session, the first message comprising positioning capabilities of the terminal, and the second message comprising positioning capabilities of the location server; and

providing location service a plurality of times to the terminal by the location server as part of the extended location session when requested by the terminal at any time within the particular duration of the extended location session.

33. The method of claim 32, wherein the exchanging at least one message comprises exchanging the at least one message to further configure at least one parameter for the extended location session, and wherein the providing location service comprises providing location service to the terminal based on the at least one configured parameter.

34. Canceled.

35. The method of claim 32, wherein the providing location service comprises

receiving a third message sent by the terminal to the location server to obtain location service, and

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sending a fourth message comprising location information from the location server to the terminal.

36. The method of claim 32, further comprising emulating a periodic trigger location service or an area event trigger location service.

37. The method of claim 32, further comprising:

exchanging a message between the location server and the terminal to terminate the extended location session prior to expiration of the particular duration.

38. The method of claim 32, further comprising:

receiving a message sent by the terminal to the location server to request for extension of the extended location session past the particular duration.

39. An apparatus for supporting location service, comprising:

means for exchanging at least one message between a location server and a terminal once to establish an extended location session of a particular duration, including means for receiving a first message sent by the terminal to the location server to initiate establishment of the extended location session, and means for sending a second message from the location server to the terminal to acknowledge establishment of the extended location session, the first message comprising positioning capabilities of the terminal, and the second message comprising positioning capabilities of the location server; and

means for providing location service a plurality of times to the terminal by the location server as part of the extended location session when requested by the terminal at any time within the particular duration of the extended location session.

40. The apparatus of claim 39, wherein the means for exchanging at least one message comprises means for exchanging the at least one message to further configure at least one parameter for the extended location session, and wherein the means for providing location service comprises means for providing location service to the terminal based on the at least one configured parameter.

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41. Canceled.

42. The apparatus of claim 39, wherein the means for providing location service comprises

means for receiving a third message sent by the terminal to the location server to obtain location service, and

means for sending a fourth message comprising location information from the location server to the terminal.

43. The apparatus of claim 39, further comprising means for emulating a periodic trigger location service or an area event trigger location service.

CLAIMS

1. A method of obtaining location service, comprising:

sending a first message from a terminal to a location server to initiate establishment of an extended location session of a particular duration, the first message comprising positioning capabilities of the terminal;

receiving a second message sent by the location server to the terminal to acknowledge establishment of the extended location session, the second message comprising positioning capabilities of the location server; and

obtaining location service by the terminal a plurality of times from the location server as part of the extended location session at any time within the particular duration of the extended location session.

2. The method of claim **1**, further comprising: exchanging at least one message between the terminal and the location server to further configure at least one parameter for the extended location session, and wherein the obtaining location service comprises obtaining location service from the location server based on the at least one configured parameter.

3. The method of claim **2**, wherein the at least one configured parameter comprises a selected positioning method, or a selected positioning protocol, or Quality of Positioning (QoP), or a combination thereof.

4. The method of claim **1**, wherein the first message comprises a requested duration for the extended location session, wherein the second message comprises a granted duration for the extended location session, and wherein the particular Duration of the extended location session is equal to the granted duration.

5. The method of claim **1**, wherein the first message comprises positioning capabilities of the terminal, and wherein the second message comprises positioning capabilities of the location server.

6. The method of claim **1**, further comprising:

receiving a location service request from an application at the terminal, and wherein the extended location session is established by the terminal in response to the location service request.

7. The method of claim **1**, further comprising:

receiving a location service request from an application external to the terminal, and wherein the extended location session is established by the terminal in response to the location service request.

8. The method of claim **1**, further comprising:

receiving a location request from an application at the terminal, and wherein location service is obtained by the terminal in response to the location request.

9. The method of claim **1**, wherein the obtaining location service comprises

sending a third message from the terminal to the location server to obtain location service, and

receiving a fourth message comprising location information from the location server.

10. The method of claim **9**, wherein the third message comprises a request for assistance data, and wherein the location information in the fourth message comprises assistance data for the terminal.

11. The method of claim **9**, wherein the third message comprises measurements, and wherein the location information in the fourth message comprises a location estimate for the terminal.

12. The method of claim **9**, wherein the third message comprises a positioning method selected by the terminal.

13. The method of claim **9**, wherein the third message comprises at least one positioning message for a selected positioning protocol.

14. The method of claim **1**, further comprising:

determining a session identifier (ID) for the extended location session; and

using the session ID to identify messages exchanged between the terminal and the location server to obtain location service during the extended location session.

15. The method of claim **1**, wherein the obtaining location service comprises

obtaining location service by the terminal a plurality of times during the extended location session, and

using location information, received by the terminal from the plurality of times of obtaining location service, to emulate a periodic trigger location service or an area event trigger location service.

16. The method of claim **1**, further comprising:

exchanging a message between the terminal and the location server to terminate the extended location session prior to expiration of the particular duration.

17. The method of claim **1**, further comprising:

sending a message from the terminal to the location server to request for extension of the extended location session past the particular duration.

18. The method of claim **1**, wherein the terminal is roaming away from a home network and communicates with a serving network, and wherein the location server is associated with the serving network.

19. The method of claim **1**, wherein the terminal and the location server exchange Secure User Plane Location (SUPL) messages for the extended location session.

20. An apparatus for obtaining location service, comprising:

means for sending a first message from a terminal to a location server to initiate establishment of an extended location session of a particular duration, the first message comprising positioning capabilities of the terminal;

means for receiving a second message sent by the location server to the terminal to acknowledge establishment of the extended location session, the second message comprising positioning capabilities of the location server; and

means for obtaining location service by the terminal a plurality of times from the location server as part of the extended location session at any time within the particular duration of the extended location session.

21. The apparatus of claim **20**, further comprising: means for exchanging at least one message between the terminal and the location server to further configure at least one parameter for the extended location session, and wherein the means for obtaining location service comprises means for obtaining location service from the location server based on the at least one configured parameter.

22. The apparatus of claim **20**, wherein the means for obtaining location service comprises

means for sending a third message from the terminal to the location server to obtain location service, and

means for receiving a fourth message comprising location information from the location server.

23. The apparatus of claim **20**, wherein the means for obtaining location service comprises

means for obtaining location service by the terminal a plurality of times during the extended location session, and

means for using location information, received by the terminal from the plurality of times of obtaining location

service, to emulate a periodic trigger location service or an area event trigger location service.

24. An apparatus for wireless communication, comprising:

at least one processing unit configured to send a first message from a terminal to a location server to initiate establishment of an extended location session of a particular duration, and to receive a second message sent by the location server to the terminal to acknowledge establishment of the extended location session, the first message comprising positioning capabilities of the terminal, and the second message comprising positioning capabilities of the location server, and to obtain location service by the terminal a plurality of times from the location server as part of the extended location session at any time within the particular duration of the extended location session.

25. The apparatus of claim **24**, wherein the at least one processing unit is configured to exchange at least one message between the terminal and the location server to further configure at least one parameter for the extended location session, and to obtain location service from the location server based on the at least one configured parameter.

26. The apparatus of claim **24**, wherein the at least one processing unit is configured to send a third message from the terminal to the location server to obtain location service, and to receive a fourth message comprising location information from the location server.

27. The apparatus of claim **24**, wherein the at least one processing unit is configured to obtain location service by the terminal a plurality of times during the extended location session, and to use location information, received by the terminal from the plurality of times of obtaining location service, to emulate a periodic trigger location service or an area event trigger location service.

28. A computer program product, comprising:
a non-transitory computer-readable medium comprising:
code to cause the at least one processing unit to receive at a location server a first message from the terminal to initiate establishment of an extended location session of a particular duration, the first message comprising positioning capabilities of the terminal,
code to cause the at least one processing unit to send a second message from the location server to the terminal to acknowledge establishment of the extended location session, the second message comprising positioning capabilities of the location server, and
code to cause the at least one processing unit to obtain location service by the terminal a plurality of times from the location server as part of the extended location session at any time within the particular duration of the extended location session.

29. A method of supporting location service, comprising:
receiving a first message sent by a terminal to a location server to initiate establishment of an extended location session of a particular duration, the first message comprising positioning capabilities of the terminal;
sending a second message from the location server to the terminal to acknowledge establishment of the extended location session, the second message comprising positioning capabilities of the location server; and
providing location service to the terminal a plurality of times by the location server as part of the extended location session when requested by the terminal at any time within the particular duration of the extended location session.

30. The method of claim **29**, further comprising: exchanging at least one message between the terminal and the location

server to further configure at least one parameter for the extended location session, and wherein the providing location service comprises providing location service to the terminal based on the at least one configured parameter.

31. The method of claim **29**, wherein the providing location service comprises

receiving a third message sent by the terminal to the location server to obtain location service, and

sending a fourth message comprising location information from the location server to the terminal.

32. The method of claim **29**, wherein the providing location service comprises providing location service to the terminal a plurality of times during the extended location session to enable the terminal to emulate a periodic trigger location service or an area event trigger location service.

33. The method of claim **29**, further comprising:

exchanging a message between the location server and the terminal to terminate the extended location session prior to expiration of the particular duration.

34. The method of claim **29**, further comprising:

receiving a message sent by the terminal to the location server to request for extension of the extended location session past the particular duration.

35. An apparatus for supporting location service, comprising:

means for receiving a first message sent by a terminal to a location server to initiate establishment of an extended location session of a particular duration;

means for sending a second message from the location server to the terminal to acknowledge establishment of

the extended location session, the first message comprising positioning capabilities of the terminal, and the second message comprising positioning capabilities of the location server; and

means for providing location service to the terminal a plurality of times by the location server as part of the extended location session when requested by the terminal at any time within the particular duration of the extended location session.

36. The apparatus of claim **35**, further comprising: means for exchanging at least one message between the terminal and the location server to further configure at least one parameter for the extended location session, and wherein the means for providing location service comprises means for providing location service to the terminal based on the at least one configured parameter.

37. The apparatus of claim **35**, wherein the means for providing location service comprises

means for receiving a third message sent by the terminal to the location server to obtain location service, and

means for sending a fourth message comprising location information from the location server to the terminal.

38. The apparatus of claim **35**, wherein the means for providing location service comprises means for providing location service to the terminal a plurality of times during the extended location session to enable the terminal to emulate a periodic trigger location service or an area event trigger location service.