CLAIMS

1. A method for wireless communication, comprising:

receiving, by a first network device, a first message from a query device, wherein the first message comprises first area information, and the first message is used to request querying ~~a~~ terminal information within a first area indicated by the first area information; and

transmitting, by the first network device, a target terminal list within the first area to the query device.

2. The method of claim 1, further comprising:

determining, by the first network device, second area information according to the first area information, wherein the second area information is area information defined by 3rd generation partnership project (3GPP) ~~network~~.

3. The method of claim 2, wherein determining, by the first network device, the second area information according to the first area information comprises:

~~in response to that the first area information is area information defined by the 3GPP network,~~ determining ~~the~~ second ~~first~~ area information which is equal to or larger than ~~as~~ the ~~second~~ first area information as the second area information~~; or~~

~~in response to that the first area information is not the area information defined by the 3GPP network and the first area information is capable of being mapped to the area information defined by the 3GPP network, determining area information that is defined by the 3GPP network and mapped by the first area information as the second area information; or~~

~~in response to that the first area information is not the area information defined by the 3GPP network and the first area information is not capable of being mapped to the area information defined by the 3GPP network, determining area information that comprises the first area and is defined by the 3GPP network as the second area information~~.

4. The method of claim 2 or 3, further comprising:

transmitting, by the first network device, a second message to a second network device, wherein the second message comprises the second area information, and the second message is used to request querying ~~a~~ terminal information within the second area indicated by the

second area information.

5. The method of claim 4, further comprising:

receiving, by the first network device, a third message replied by the second network device, wherein the third message comprises a first terminal list, and the first terminal list comprises at least one~~the~~ terminal within the second area.

6. The method of claim 5, further comprising:

determining, by the first network device, the target terminal list according to the first terminal list; or

determining, by the first network device, the target terminal list according to the first terminal list and first information, wherein the first information comprises information of at least one specific terminal.

7. The method of claim 6, further comprising:

verifying, by the first network device, a query authority of the query device for the target terminal list.

~~wherein the target terminal list comprises at least one first type terminal, and the first type terminal is comprised in the first terminal list and is comprised in the at least one specific terminal of the first information; or~~

~~wherein the target terminal list comprises at least one second type terminal, the second type terminal is comprised in the first terminal list and is comprised in the at least one specific terminal of the first information, and the query device has a query authority for the second type terminal.~~

~~8. The method of any one of claims 5 to 7, wherein the third message further comprises a second terminal list, and the second terminal list comprises a terminal that may be within the second area.~~

~~9. The method of claim 8, wherein the terminal that may be within the second area comprises a terminal that is in an idle state and whose registration area intersects with the second area.~~

~~10~~8. The method of any one of claims 5 to ~~9~~7, further comprising:

transmitting, by the first network device, a fourth message to a third network device,

wherein the fourth message comprises a query terminal list, and the fourth message is used to request ~~querying~~ location information of ~~a~~at least one terminal in the query terminal list;

wherein the query terminal list comprises ~~at least one of~~ the first terminal list ~~or the second terminal list~~; or

the query terminal list comprises ~~a~~ at least one terminal determined according to ~~the at least one of~~ the first terminal list ~~or the second terminal list~~ and ~~combining~~ first information;

wherein the first information comprises information of at least one specific terminal.

~~11~~9. The method of claim ~~10~~8, further comprising:

receiving, by the first network device, location information of the at least one terminal in the query terminal list replied by the third network device.

~~12~~10. The method of claim ~~11~~9, further comprising:

determining, by the first network device, the target terminal list according to the location information of the at least one terminal in the query terminal list and combining the first area information~~; or~~

~~determining, by the first network device, the target terminal list according to the first terminal list, the location information of the terminal in the query terminal list and combining the first area information; or~~

~~determining, by the first network device, the target terminal list according to the location information of the terminal in the query terminal list and combining the first information and the first area information; or~~

~~determining, by the first network device, the target terminal list according to the first terminal list, the location information of the terminal in the query terminal list, and combining the first area information and the first information~~.

~~13~~11. The method of claim ~~12~~10, further comprising:

verifying, by the first network device, a query authority of the query device for the target terminal list.~~wherein the target terminal list comprises at least one third type terminal, the third type terminal is comprised in at least one of the first terminal list or the second terminal list, and is comprised in the at least one specific terminal of the first information, and the third type terminal is within the first area; or~~

~~wherein the target terminal list comprises at least one fourth type terminal, the fourth type terminal is comprised in at least one of the first terminal list or the second terminal list,~~

~~and is comprised in the at least one specific terminal of the first information, the fourth type terminal is within the first area, and the query device has a query authority for the fourth type terminal.~~

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

~~transmitting, by the first network device, a fifth message to a third network device, wherein the fifth message comprises the first area information, and the fifth message is used to request querying the terminal within the first area.~~

~~15. The method of claim 14, further comprising:~~

~~receiving, by the first network device, a third terminal list from the third network device, wherein the third terminal list comprises the terminal within the first area.~~

~~16. The method of claim 15, further comprising:~~

~~determining, by the first network device, the target terminal list according to the third terminal list; or~~

~~determining, by the first network device, the target terminal list according to the third terminal list and first information, wherein the first information comprises information of at least one specific terminal.~~

~~17. The method of claim 16, wherein the target terminal list comprises at least one fifth type terminal, and the fifth type terminal is comprised in the third terminal list and is comprised in the at least one specific terminal of the first information; or~~

~~wherein the target terminal list comprises at least one sixth type terminal, the sixth type terminal is comprised in the third terminal list and is comprised in the at least one specific terminal of the first information, and the query device has a query authority for the sixth type terminal.~~

~~18~~12. The method of any one of claims 6 to ~~17~~11, wherein the first information comprises at least one of the following:

identification information of a ~~plurality of~~ specific terminal~~s~~;

type information of ~~the plurality of~~ a specific terminal~~s~~.~~;~~

~~slice information to which the plurality of specific terminals belong;~~

~~network information to which the plurality of specific terminals belong;~~

~~information of a query device with a query authority corresponding to the plurality of specific terminals.~~

~~19. The method of claim 18, wherein identification information of a specific terminal is a subscription permanent identifier (SUPI) or a generic public subscription identifier (GPSI) assigned by the 3GPP network to the specific terminal; or~~

~~the identification information of the specific terminal is an identification of the specific terminal outside the 3GPP network.~~

~~20. The method of claim 18 or 19, wherein information of the query device with a query authority corresponding to specific terminal comprises: identification information or address information of the query device that the specific terminal belongs to or is registered with, or identification information or address information of the query device having an authority to manage or query the specific terminal.~~

~~21~~13. The method of ~~any one of~~ claim~~s 18 to 20~~12, further comprising:

acquiring, by the first network device, the first information from ~~the~~ a ~~query device or a~~ second network device.

~~22~~14. The method of claim ~~21~~13, wherein acquiring, by the first network device, the first information from ~~the query device or~~ the second network device comprises:

acquiring, by the first network device, the first information from ~~the query device or~~ the second network device during ~~a process of registering to~~ ~~the~~a registration procedure in a 3GPP network~~;~~. ~~or~~

~~acquiring, by the first network device, the first information from the query device or the second network device after the process of registering to the 3GPP network.~~

~~23~~15. The method of any one of claims 1 to ~~22~~14, wherein the query device is an unmanned aerial system traffic management (UTM), an unmanned aerial vehicle service supplier (USS) or a third party authorized entity (TPAE).

~~24~~16. The method of claim 4, wherein the second network device is an access and mobility management function (AMF) entity.

~~25. The method of claim 14, wherein the third network device is a gateway mobile location centre (GMLC) entity.~~

~~26~~17. The method of any one of claims 1 to ~~25~~16, wherein the first network device is a network exposure function (NEF) entity.

~~27~~18. A method for wireless communication, comprising:

receiving, by a third network device, a fifth message from a first network device, wherein the fifth message comprises first area information, and the fifth message is used to request querying ~~a~~ terminal information within a first area indicated by the first area information; and

transmitting, by the third network device, a third terminal list to the first network device, wherein the third terminal list comprises ~~a~~ at least one terminal within the first area.

~~28~~19. The method of claim ~~27~~18, further comprising:

determining, by the third network device, second area information according to the first area information, wherein the second area information is area information defined by 3rd generation partnership project (3GPP) ~~network~~.

~~29. The method of claim 28, wherein determining, by the third network device, the second area information according to the first area information comprises:~~

~~in response to that the first area information is area information defined by the 3GPP network, determining the first area information as the second area information; or~~

~~in response to that the first area information is not the area information defined by the 3GPP network and the first area information is capable of being mapped to the area information defined by the 3GPP network, determining area information that is defined by the 3GPP network and mapped by the first area information as the second area information; or~~

~~in response to that the first area information is not the area information defined by the 3GPP network and the first area information is not capable of being mapped to the area information defined by the 3GPP network, determining area information that comprises the first area and is defined by the 3GPP network as the second area information.~~

~~30. The method of claim 28 or 29, further comprising:~~

transmitting, by the third network device, a sixth message to a second network device, wherein the sixth message comprises the second area information, and the sixth message is used to request querying a terminal list within the second area indicated by the second area information.

31. The method of claim 30, further comprising:

receiving, by the third network device, a seventh message from the second network device, wherein the seventh message comprises a fourth terminal list, and the fourth terminal list comprises the terminal within the second area.

32. The method of claim 31, further comprising:

determining, by the third network device, the third terminal list according to the fourth terminal list.

33. The method of claim 32, wherein the third terminal list is the fourth terminal list.

34. The method of any one of claims 31 to 33, wherein the seventh message further comprises a fifth terminal list, and the fifth terminal list comprises a terminal that may be within the second area.

35. The method of claim 35, wherein the terminal that may be within the second area comprises a terminal that is in an idle state and whose registration area intersects with the second area.

36. The method of any one of claims 31 to 35, further comprising:

determining, by the third network device according to location service (LCS) localization mechanism, location information of a terminal in at least one of the fourth terminal list or the fifth terminal list.

37. The method of claim 36, further comprising:

determining, by the third network device, the third terminal list according to the location information of the terminal in the at least one of the fourth terminal list or the fifth terminal list and combining the first area information.

~~38. The method of any one of claims 30 to 37, wherein the second network device is an access and mobility management function (AMF) entity.~~

~~39. The method of any one of claims 27 to 38, wherein the third network device is a gateway mobile location centre (GMLC) entity.~~

~~40. The method of any one of claims 27 to 39, wherein the first network device is a network exposure function (NEF) entity.~~

~~41. A method for wireless communication, comprising:~~

~~receiving, by a second network device, an eighth message, wherein the eighth message comprises second area information, and the eighth message is used to request querying a terminal within a second area indicated by the second area information.~~

~~42. The method of claim 41, further comprising:~~

~~replying, by the second network device, a ninth message, wherein the ninth message comprises a terminal list within the second area.~~

~~43. The method of claim 41 or 42, wherein the second network device is an access and mobility management function (AMF) entity.~~

~~44~~20. A network device, comprising a processor and a memory, wherein the memory is configured to store a computer program, and the processor is configured to call and run the computer program stored in the memory to execute the method of any one of claims 1 to 17.~~:~~

~~a communication unit, configured to receive a first message from a query device, wherein the first message comprises first area information, and the first message is used to request querying a terminal within a first area indicated by the first area information; and~~

~~transmit a target terminal list within the first area to the query device.~~

~~45. The network device of claim 44, further comprising:~~

~~a processing unit, configured to determine second area information according to the first area information, wherein the second area information is area information defined by 3rd generation partnership project (3GPP) network.~~

46. The network device of claim 45, wherein the processing unit is further configured to:

in response to that the first area information is area information defined by the 3GPP network, determine the first area information as the second area information; or

in response to that the first area information is not the area information defined by the 3GPP network and the first area information is capable of being mapped to the area information defined by the 3GPP network, determine area information that is defined by the 3GPP network and mapped by the first area information as the second area information; or

in response to that the first area information is not the area information defined by the 3GPP network and the first area information is not capable of being mapped to the area information defined by the 3GPP network, determine area information that comprises the first area and is defined by the 3GPP network as the second area information.

47. The network device of claim 45 or 46, wherein the communication unit is further configured to:

transmit a second message to a second network device, wherein the second message comprises the second area information, and the second message is used to request querying a terminal within the second area indicated by the second area information.

48. The network device of claim 47, wherein the communication unit is further configured to:

receive a third message replied by the second network device, wherein the third message comprises a first terminal list, and the first terminal list comprises the terminal within the second area.

49. The network device of claim 48, further comprising:

a processing unit, configured to determine the target terminal list according to the first terminal list; or

determine the target terminal list according to the first terminal list and first information, wherein the first information comprises information of at least one specific terminal.

50. The network device of claim 49, wherein the target terminal list comprises at least one first type terminal, and the first type terminal is comprised in the first terminal list and is comprised in the at least one specific terminal of the first information; or

wherein the target terminal list comprises at least one second type terminal, the second type terminal is comprised in the first terminal list and is comprised in the at least one

specific terminal of the first information, and the query device has a query authority for the second type terminal.

51. The network device of any one of claims 48 to 50, wherein the third message further comprises a second terminal list, and the second terminal list comprises a terminal that may be within the second area.

52. The network device of claim 51, wherein the terminal that may be within the second area comprises a terminal that is in an idle state and whose registration area intersects with the second area.

53. The network device of any one of claims 47 to 52, wherein the communication unit is further configured to:

transmit a fourth message to a third network device, wherein the fourth message comprises a query terminal list, and the fourth message is used to request querying location information of a terminal in the query terminal list;

wherein the query terminal list comprises at least one of the first terminal list or the second terminal list; or

the query terminal list comprises a terminal determined according to the at least one of the first terminal list or the second terminal list and combining first information;

wherein the first information comprises information of at least one specific terminal.

54. The network device of claim 53, wherein the communication unit is further configured to:

receive location information of the terminal in the query terminal list replied by the third network device.

55. The network device of claim 54, further comprising:

a processing unit, configured to determine the target terminal list according to the location information of the terminal in the query terminal list and combining the first area information; or

determine the target terminal list according to the first terminal list, the location information of the terminal in the query terminal list and combining the first area information; or

determine the target terminal list according to the location information of the terminal in

the query terminal list and combining the first information and the first area information; or

determine the target terminal list according to the first terminal list, the location information of the terminal in the query terminal list, and combining the first area information and the first information.

56. The network device of claim 55, wherein the target terminal list comprises at least one third type terminal, the third type terminal is comprised in at least one of the first terminal list or the second terminal list, and is comprised in the at least one specific terminal of the first information, and the third type terminal is within the first area; or

wherein the target terminal list comprises at least one fourth type terminal, the fourth type terminal is comprised in at least one of the first terminal list or the second terminal list, and is comprised in the at least one specific terminal of the first information, the fourth type terminal is within the first area, and the query device has a query authority for the fourth type terminal.

57. The network device of claim 44, wherein the communication unit is further configured to:

transmit a fifth message to a third network device, wherein the fifth message comprises the first area information, and the fifth message is used to request querying the terminal within the first area.

58. The network device of claim 57, wherein the communication unit is further configured to:

receive a third terminal list from the third network device, wherein the third terminal list comprises the terminal within the first area.

59. The network device of claim 57, further comprising:

a processing unit, configured to determine the target terminal list according to the third terminal list; or

determine the target terminal list according to the third terminal list and first information, wherein the first information comprises information of at least one specific terminal.

60. The network device of claim 59, wherein the target terminal list comprises at least one fifth type terminal, and the fifth type terminal is comprised in the third terminal list and is comprised in the at least one specific terminal of the first information; or

wherein the target terminal list comprises at least one sixth type terminal, the sixth type

terminal is comprised in the third terminal list and is comprised in the at least one specific terminal of the first information, and the query device has a query authority for the sixth type terminal.

61. The network device of any one of claims 49 to 60, wherein the first information comprises at least one of the following:

identification information of a plurality of specific terminals;

type information of the plurality of specific terminals;

slice information to which the plurality of specific terminals belong;

network information to which the plurality of specific terminals belong;

information of a query device with a query authority corresponding to the plurality of specific terminals.

62. The network device of claim 61, wherein identification information of a specific terminal is a subscription permanent identifier (SUPI) or a generic public subscription identifier (GPSI) assigned by the 3GPP network to the specific terminal; or

the identification information of the specific terminal is an identification of the specific terminal outside the 3GPP network.

63. The network device of claim 61 or 62, wherein information of the query device with a query authority corresponding to specific terminal comprises: identification information or address information of the query device that the specific terminal belongs to or is registered with, or identification information or address information of the query device having an authority to manage or query the specific terminal.

64. The network device of any one of claims 61 to 63, wherein the communication unit is further configured to:

acquire the first information from the query device or a second network device.

65. The network device of claim 64, wherein the communication unit is specifically configured to:

acquire the first information from the query device or the second network device during a process of registering to the 3GPP network; or

acquire the first information from the query device or the second network device after

the process of registering to the 3GPP network.

66. The network device of any one of claims 44 to 65, wherein the query device is an unmanned aerial system traffic management (UTM), an unmanned aerial vehicle service supplier (USS) or a third party authorized entity (TPAE).

67. The network device of claim 47, wherein the second network device is an access and mobility management function (AMF) entity.

68. The network device of claim 67, wherein the third network device is a gateway mobile location centre (GMLC) entity.

69. The network device of any one of claims 44 to 68, wherein the network device is a network exposure function (NEF) entity.

70. A network device, comprising:

a communication unit, configured to receive a fifth message from a first network device, wherein the fifth message comprises first area information, and the fifth message is used to request querying a terminal within a first area indicated by the first area information; and

transmit a third terminal list to the first network device, wherein the third terminal list comprises a terminal within the first area.

71. The network device of claim 70, further comprising:

a processing unit, configured to determine second area information according to the first area information, wherein the second area information is area information defined by 3rd generation partnership project (3GPP) network.

72. The network device of claim 71, wherein the processing unit is specifically configured to:

in response to that the first area information is area information defined by the 3GPP network, determine the first area information as the second area information; or

in response to that the first area information is not the area information defined by the 3GPP network and the first area information is capable of being mapped to the area information defined by the 3GPP network, determine area information that is defined by the 3GPP network and mapped by the first area information as the second area information; or

in response to that the first area information is not the area information defined by the 3GPP network and the first area information is not capable of being mapped to the area information defined by the 3GPP network, determine area information that comprises the first area and is defined by the 3GPP network as the second area information.

73. The network device of claim 71 or 72, wherein the communication unit is further configured to:

transmit a sixth message to a second network device, wherein the sixth message comprises the second area information, and the sixth message is used to request querying a terminal list within the second area indicated by the second area information.

74. The network device of claim 73, wherein the communication unit is further configured to:

receive a seventh message from the second network device, wherein the seventh message comprises a fourth terminal list, and the fourth terminal list comprises the terminal within the second area.

75. The network device of claim 74, further comprising:

a processing unit, configured to determine the third terminal list according to the fourth terminal list.

76. The network device of claim 75, wherein the third terminal list is the fourth terminal list.

77. The network device of any one of claims 74 to 76, wherein the seventh message further comprises a fifth terminal list, and the fifth terminal list comprises a terminal that may be within the second area.

78. The network device of claim 77, wherein the terminal that may be within the second area comprises a terminal that is in an idle state and whose registration area intersects with the second area.

79. The network device of any one of claims 74 to 78, further comprising: a processing unit, configured to determine, according to location service (LCS) localization mechanism, location information of a terminal in at least one of the fourth terminal list or the fifth terminal list.

80. The network device of claim 79, wherein the processing unit is specifically configured to:

determine the third terminal list according to the fourth terminal list, the fifth terminal list and the location information of the terminal in the fifth terminal list and combining the first area information, or determine the third terminal list according to the fourth terminal list, the location information of the terminal in the fourth terminal list, the fifth terminal list and the location information of the terminal in the fifth terminal list, and combining the first area information.

81. The network device of any one of claims 74 to 80, wherein the second network device is an access and mobility management function (AMF) entity.

82. The network device of any one of claims 70 to 81, wherein the network device is a gateway mobile location centre (GMLC) entity.

83. The network device of any one of claims 70 to 82, wherein the first network device is a network exposure function (NEF) entity.

84. A network device, comprising:

a communication unit, configured to receive an eighth message, wherein the eighth message comprises second area information, and the eighth message is used to request querying a terminal within a second area indicated by the second area information.

85. The network device of claim 84, wherein the communication unit is further configured to:

reply a ninth message, wherein the ninth message comprises a terminal list within the second area.

86. The network device of claim 84 or 85, wherein the network device is an access and mobility management function (AMF) entity.

87. A network device, comprising a processor and a memory, wherein the memory is configured to store a computer program, and the processor is configured to call and run the computer program stored in the memory to execute the method of any one of claims 1 to 26.

88. A chip, comprising a processor, configured to call and run a computer program in a memory to cause a device equipped with the chip to execute the method of any one of claims 1 to 26.

89. A computer-readable storage medium, configured to store a computer program that causes a computer to execute the method of any one of claims 1 to 26.

90. A computer program product, comprising computer program instructions that cause a computer to execute the method of any one of claims 1 to 26.

91. A computer program, causing a computer to execute the method of any one of claims 1 to 26.

92. A network device, comprising a processor and a memory, wherein the memory is configured to store a computer program, and the processor is configured to call and run the computer program stored in the memory to execute the method of any one of claims 27 to 40.

93. A chip, comprising a processor, configured to call and run a computer program in a memory to cause a device equipped with the chip to execute the method of any one of claims 27 to 40.

94. A computer-readable storage medium, configured to store a computer program that causes a computer to execute the method of any one of claims 27 to 40.

95. A computer program product, comprising computer program instructions that cause a computer to execute the method of any one of claims 27 to 40.

96. A computer program, causing a computer to execute the method of any one of claims 27 to 40.

97. A network device, comprising a processor and a memory, wherein the memory is configured to store a computer program, and the processor is configured to call and run the computer program stored in the memory to execute the method of any one of claims 41 to 43.

~~98. A chip, comprising a processor, configured to call and run a computer program in a memory to cause a device equipped with the chip to execute the method of any one of claims 41 to 43.~~

~~99. A computer-readable storage medium, configured to store a computer program that causes a computer to execute the method of any one of claims 41 to 43.~~

~~100. A computer program product, comprising computer program instructions that cause a computer to execute the method of any one of claims 41 to 43.~~

~~101. A computer program, causing a computer to execute the method of any one of claims 41 to 43.~~