module. A certain function of the above functions may be performed in the form of the hardware structure, the software module, or a combination of the hardware structure and the software module.

[00124] FIG. 5 is a structural diagram of a communication device 100 provided in an embodiment of the disclosure.

[00125] The communication device 100 shown in FIG. 5 may include a transceiver module 101 and a processing module 102. The transceiver module 101 may include a sending module and/or a receiving module. The sending module is configured to implement a sending function, the receiving module is configured to implement a receiving function, and the transceiver module 101 may implement the sending function and/or receiving function.

[00126] The communication device 100 may be a terminal device (such as the terminal device in the aforementioned method embodiments), a device within the terminal device, or a device that can be matched and used with the terminal device.

[00127] The communication device 100 is a terminal device (such as the terminal device in the aforementioned method embodiments).

[00128] The transceiver module 101 is configured to receive pre-configured first positioning assistance information.

[00129] The processing module 102 is configured to determine whether the first positioning assistance information is available, and use the first positioning assistance information when the first positioning assistance information is available.

[00130] Regarding the communication device in the above embodiment, the specific ways in which each module performs operations have been described in detail in the embodiments related to the method, and will not be elaborated here. The communication device provided in the above embodiments has the same or similar beneficial effects as the positioning method provided in some of the above embodiments, and will not be elaborated here.

[00131] As illustrated in FIG. 6, FIG. 6 is a structural diagram illustrating a communication device according to an embodiment of the disclosure. The communication device 1000 may be a terminal device (such as the terminal device in the aforementioned method embodiments), or a chip, a chip system, or a processor that supports the terminal device to implement the above method. The device may be used to implement the method

CLAIMS

WHAT IS CLAIMED IS:

1. A positioning method, performed by a terminal device, comprising:

receiving pre-configured first positioning assistance information; and

determining whether the first positioning assistance information is available, and using the first positioning assistance information in response to determining that the first positioning assistance information is available.

2. The method according to claim 1, further comprising:

sending a request message for positioning assistance information to a location management function (LMF) device in response to determining that the first positioning assistance information is unavailable.

3. The method according to claim 1, further comprising:

sending an error indication message to an LMF device to indicate that the first positioning assistance information is unavailable in response to determining that the first positioning assistance information is unavailable.

4. The method according to claim 1, further comprising:

sending a location providing information message to an LMF device in response to determining that the first positioning assistance information is unavailable, wherein the location providing information message contains error indication information for indicating that the first positioning assistance information is unavailable.

5. The method according to any one of claims 2 to 4, wherein determining that the first positioning assistance information is unavailable comprises:

receiving a message triggering the terminal device to use the first positioning assistance information, and determining that the terminal device is unable to measure a positioning reference signal (PRS) based on the first positioning assistance information.

6. The method according to any one of claims 2 to 4, wherein determining that the first positioning assistance information is unavailable comprises:

determining that the first positioning assistance information has a timeliness characteristic, and determining that the first positioning assistance information is being invalid.

7. The method according to claim 6, further comprising:

sending the request message for the positioning assistance information to the LMF device in response to determining that the first positioning assistance information is invalid.

8. The method according to any one of claims 1 to 7, wherein determining whether the

first positioning assistance information is available and using the first positioning assistance information in response to determining that the first positioning assistance information is available comprises:

receiving a message triggering the terminal device to use the first positioning assistance information, and determining whether a network device sends second positioning assistance information required for applying a current positioning technology;

determining whether the first positioning assistance information is consistent with the second positioning assistance information in response to determining that the network device sends the second positioning assistance information; and

using the first positioning assistance information or the second positioning assistance information in response to determining that the first positioning assistance information is consistent with the second positioning assistance information.

9. The method according to claim 8, further comprising:

using the second positioning assistance information in response to determining that the first positioning assistance information is inconsistent with the second positioning assistance information.

10. The method according to claim 8, further comprising:

sending a request message for positioning assistance information to an LMF device in response to determining that the first positioning assistance information is inconsistent with the second positioning assistance information.

11. The method according to any one of claims 1 to 10, wherein receiving the pre-configured first positioning assistance information comprises one of:

receiving the first positioning assistance information sent by an LMF device through a long term evolution positioning protocol (LPP) message; or

receiving the first positioning assistance information sent by a network device, the first positioning assistance information being provided by the LMF device.

12. A communication device, comprising:

a transceiver module, configured to receive pre-configured first positioning assistance information; and

a processing module, configured to determine whether the first positioning assistance information is available, and use the first positioning assistance information in response to determining that the first positioning assistance information is available.

13. A communication device, comprising:

a processor; and

a memory having at least one program code stored therein;

wherein the processor loads and executes the program code to perform the method according to any of claims 1 to 11.

14. A communication device, comprising: a processor and an interface circuit; wherein,

the interface circuit is configured to receive a code instruction and transmit the code instruction to the processor; and

the processor is configured to execute the code instruction to perform the method according to any of claims 1 to 11.

15. A non-transitory computer-readable storage medium having stored therein instructions that, when executed by a terminal, cause the terminal to perform he method according to any of claims 1 to 11.