

CLAIMS

1. A data sending method applied to a terminal device, wherein the terminal device comprises a communication processor CP, the CP comprises a wireless-fidelity Wi-Fi driver and a service routing to link Wi-Fi to the CP, and the method comprises:

5 acquiring, by the CP of the terminal device, to-be-sent data; ~~and~~
 when it is determined a signal strength of a Wi-Fi network linked to the CP is greater than a preset threshold, determining that the terminal device resides in the Wi-Fi network, and
 sending, by the CP of the terminal device, directly the to-be-sent data through a ~~non-cellular mobile communication~~the Wi-Fi network, without sending the to-be-sent data to an application
10 processor AP of the terminal device; and

when it is determined the signal strength of the Wi-Fi network linked to the CP is not greater than the preset threshold, determining that the terminal device resides in a cellular mobile communication network, and sending, by the CP of the terminal device, the to-be-sent data through the cellular mobile communication network.

15 2. The method according to claim 1, wherein the to-be-sent data comprises at least one of the following: session initiation protocol SIP signaling, voice data, video data, access stratum AS data and non-access stratum NAS data.

 3. The method according to claim 1 or 2, wherein before the sending, by the CP of the terminal device, directly the to-be-sent data through the ~~non-cellular mobile communication~~Wi-
20 Fi network, the method further comprises:

 establishing a ~~non-cellular mobile communication~~Wi-Fi network link between the CP of the terminal device and a network device; and

 the sending, by the CP of the terminal device, directly the to-be-sent data through the ~~non-cellular mobile communication~~Wi-Fi network comprises:

25 sending, by the CP of the terminal device, directly the to-be-sent data through the ~~non-cellular mobile communication~~Wi-Fi network link.

4. The method according to claim 3, wherein the establishing the ~~non-cellular mobile communication~~Wi-Fi network link between the CP of the terminal device and the network device comprises:

determining, through negotiation between the terminal device and the network device, a set of IP addresses of the terminal device and port information of the terminal device, as well as a set of IP addresses of the network device and port information of the network device~~receiving, by the terminal device, an internet protocol IP address sent by the network device;~~

~~determining, by the terminal device, port information of the terminal device; and~~

based on the determined sets of IP addresses and port information, establishing, by the terminal device ~~according to the IP address and the port information,~~ the ~~non-cellular mobile communication~~Wi-Fi network link between the CP of the terminal device and the network device.

5. The method according to claim 1 or 2, wherein the to-be-sent data comprises session initiation protocol SIP signaling; and

the acquiring, by the CP of the terminal device, the to-be-sent data comprises:

receiving, by the CP of the terminal device, the session initiation protocol SIP signaling from ~~an application processor~~ the AP of the terminal device; or

5 acquiring, by the CP of the terminal device, the session initiation protocol SIP signaling locally.

6. The method according to claim 1 or 2, wherein the to-be-sent data comprises voice data; and

the acquiring, by the CP of the terminal device, the to-be-sent data comprises:

10 receiving, by the CP of the terminal device, the voice data from ~~an application processor~~ the AP of the terminal device; or

acquiring, by the CP of the terminal device, the voice data locally.

7. The method according to claim 1 or 2, wherein the to-be-sent data comprises video data; and

15 the acquiring, by the CP of the terminal device, the to-be-sent data comprises:

receiving, by the CP of the terminal device, the video data from ~~an application processor~~ the AP of the terminal device.

~~8. The method according to claim 1 or 2, wherein the non-cellular mobile communication network comprises a wireless fidelity Wi-Fi network.~~

20 98. A terminal device, wherein the terminal device comprises a communication processor; CP, the CP comprises a wireless-fidelity Wi-Fi driver and a service routing to link Wi-Fi to the CP, the CP of the terminal device is configured to acquire to-be-sent data, and the CP of the terminal device is further configured to:

25 when it is determined a signal strength of a Wi-Fi network linked to the CP is greater than a preset threshold, determine that the terminal device resides in the Wi-Fi network, and send directly the to-be-sent data through a non-cellular mobile communication the Wi-Fi network, without sending the to-be-sent data to an application processor AP of the terminal device; and

when it is determined the signal strength of the Wi-Fi network linked to the CP is not greater than the preset threshold, determine that the terminal device resides in a cellular mobile

communication network, and send, by the CP of the terminal device, the to-be-sent data through the cellular mobile communication network.

109. The terminal device according to claim 98, wherein the to-be-sent data comprises at least one of the following: session initiation protocol SIP signaling, voice data, video data,
5 access stratum AS data and non-access stratum NAS data.

110. The terminal device according to claim 9-8 or 109, wherein
the CP of the terminal device is further configured to establish a ~~non-cellular mobile communication~~ Wi-Fi network link between the CP of the terminal device and a network device;
and

the CP of the terminal device is further configured to directly send the to-be-sent data through the ~~non-cellular mobile communication~~ Wi-Fi network link.

111. The terminal device according to claim 110, wherein the CP of the terminal device is configured to:

determine, through negotiation between the terminal device and the network device, a set of IP addresses of the terminal device and port information of the terminal device, as well as a set of IP addresses of the network device and port information of the network device~~receive an internet protocol IP address sent by the network device;~~

~~determine port information of the terminal device; and~~

establish, based on the determined sets of~~according to the~~ IP addresses and the port information, the ~~non-cellular mobile communication~~ Wi-Fi network link between the CP of the terminal device and the network device.

112. The terminal device according to claim 9 or 10, wherein the to-be-sent data comprises session initiation protocol SIP signaling; and

the CP of the terminal device is configured to:

receive the session initiation protocol SIP signaling from ~~an application processor~~ the AP of the terminal device; or

acquire the session initiation protocol SIP signaling locally.

113. The terminal device according to claim 9 or 10, wherein the to-be-sent data comprises voice data; and

the CP of the terminal device is configured to:

receive the voice data from ~~an application processor~~ the AP of the terminal device; or

acquire the voice data locally.

114. The terminal device according to claim 9 or 10, wherein the to-be-sent data comprises video data; and

the CP of the terminal device is configured to:

receive the video data from ~~an application processor~~ the AP of the terminal device.

16. ~~The terminal device according to claim 9 or 10, wherein the non-cellular mobile communication network comprises a wireless fidelity Wi-Fi network.~~

1715. A terminal device, comprising:

an application processor AP and a communication processor CP, the CP comprises a wireless-fidelity Wi-Fi driver and a service routing to link Wi-Fi to the CP;

a memory; and

5 a computer program;

wherein the computer program is stored in the memory, and is configured to be executed by the processors, and the computer program comprises instructions used for executing the method according to any of claims 1-~~8~~7.

- 5 ~~18~~16. A computer-readable storage medium, wherein the computer-readable storage medium stores a computer program, and the computer program causes a terminal device to execute the method according to any of claims 1-~~8~~7.