

CLAIMS

1. A paging method, comprising:

determining, by a terminal device, a paging time of the terminal device by using at least one first bit, but not all bits, of a first identifier of the terminal device;

receiving a paging message during the paging time; and

transmitting a first paging response when the paging message carries identifier information of the terminal device;

wherein the first identifier is an international mobile subscriber identity (IMSI), and the identifier information is obtained based on a second bit, except the at least one first bit of the first identifier, or

the identifier information is obtained based on a second identifier of the terminal device, wherein the first identifier is an IMSI, the second identifier is a serving temporary mobile subscriber identity (S-TMSI) allocated by a core network, and a length of the identifier information is shorter than the second identifier;

wherein the method further comprises:

receiving a feedback message transmitted by a network device;

determining that the terminal device is a paging target if the feedback message carries other bits except the first bit and the second bit, when the paging message carries the identifier information obtained based on the second bit except the at least one first bit of the first identifier; or determining that the terminal device is the paging target if the feedback message carries the second identifier or other bits except a part of bits of the second identifier, when the paging message carries identifier information obtained based on the part of the bits of the second identifier; or determining that the terminal device is the paging target if the feedback message carries the second identifier, when the paging message carries identifier information calculated based on all bits of the second identifier; and

transmitting a second paging response to the network device, wherein the second paging

response is used to indicate whether the terminal device is the paging target.

2. The method according to claim 1, wherein the identifier information is calculated based on at least a part of bits of the second identifier.

3. The method according to claim 1, wherein the identifier information is equal to a part of bits of the second identifier.

4. The method according to any one of claims 1-3, wherein the at least one first bit is a lowest bit of the first identifier; and the at least one second bit is a lowest bit, except the at least one first bit, of the first identifier.

5. A network device, comprising: a processing unit and a communicating unit; wherein the processing unit is configured to determine a paging time of a first terminal device by using at least one first bit, but not all bits, of a first identifier of the first terminal device; and the communicating unit is configured to transmit a paging message during the paging time; wherein the first identifier is an international mobile subscriber identity (IMSI), the paging message carries identifier information of the first terminal device, and the identifier information is obtained based on at least one second bit, except the at least one first bit, of the first identifier of the first terminal device; or,

the identifier information is obtained based on a second identifier of the first terminal device, wherein the first identifier is an IMSI, the second identifier is a serving temporary mobile subscriber identity (S-TMSI) allocated by a core network, and a length of the identifier information is shorter than the second identifier of the first terminal device;

wherein the communicating unit is further configured to:

receive first paging responses transmitted by multiple terminal devices in response to the paging message;

transmit a feedback message to each terminal device of the multiple terminal devices; wherein, when the identifier information is obtained based on the second bit except the at least one first bit of the first identifier, the feedback message carries other bits except the first bit and the second bit of the first identifier; or when the identifier information is obtained based on a

part of bits of the second identifier, the feedback message carries the second identifier or other bits except the part of the bits of the second identifier; or when the identifier information is calculated based on all bits of the second identifier, the feedback message carries the second identifier; and

receive a second paging response transmitted by at least one terminal device, wherein the second paging response is used to indicate whether the paging message is a paging of a transmitting end of the second paging response.

6. The network device according to claim 5, wherein the identifier information is calculated based on at least a part of bits of the second identifier of the first terminal device.

7. A terminal device, comprising: a processing unit and a communicating unit; wherein the processing unit is configured to determine a paging time of the terminal device by using at least one first bit, but not all bits, of a first identifier of the terminal device;

the communicating unit is configured to:

receive a paging message during the paging time; and transmit a first paging response when the paging message carries identifier information of the terminal device;

wherein the first identifier is an international mobile subscriber identity (IMSI), and the identifier information is obtained based on a second bit, except the at least one first bit of the first identifier, or

the identifier information is obtained based on a second identifier of the terminal device, wherein the first identifier is an IMSI, the second identifier is a serving temporary mobile subscriber identity (S-TMSI) allocated by a core network, and a length of the identifier information is shorter than the second identifier;

wherein the communicating unit is further configured to:

receive a feedback message transmitted by a network device; and

transmit a second paging response to the network device, wherein the second paging response is used to indicate whether the terminal device is a paging target;

wherein the processing unit is further configured to:

determine that the terminal device is the paging target if the feedback message carries other bits except the first bit and the second bit of the first identifier, when the paging message carries the identifier information obtained based on the second bit except the at least one first bit of the first identifier; or determine that the terminal device is the paging target if the feedback message carries the second identifier or other bits except a part of bits of the second identifier, when the paging message carries identifier information obtained based on the part of the bits of the second identifier; or determine that the terminal device is the paging target if the feedback message carries the second identifier, when the paging message carries identifier information calculated based on all bits of the second identifier.

8. The terminal device according to claim 7, wherein the identifier information is calculated based on at least a part of bits of the second identifier.

9. The terminal device according to claim 7, wherein the identifier information is equal to a part of bits of the second identifier.

10. The terminal device according to any one of claims 7-9, wherein the at least one first bit is a lowest bit of the first identifier; and the at least one second bit is a lowest bit, except the at least one first bit, of the first identifier.