

CLAIMS

1. An information reporting method, applied to user equipment and comprising:
sending a Radio Resource Control (RRC) Resume Request message to a network device;
receiving a first RRC message sent by the network device in response to the RRC Resume Request message; and

sending a second RRC message in response to the first RRC message to the network device, wherein

in a case that the user equipment is in an inactive mode, when a public land mobile network (PLMN) reselects to an equivalent public land mobile network (EPLMN), or when PLMN reselects to EPLMN and Radio access network Notification Area (RNA) update conditions are met, the second RRC message carries the identity of EPLMN₁;

~~2. The method according to claim 1, wherein the RRC Resume Request message is sent by the user equipment when PLMN reselects to EPLMN, or PLMN reselects to EPLMN and RNA update conditions are met;~~

the RRC Resume Request message carries a first cause value, which is used to indicate PLMN reselecting to EPLMN in user equipment, or PLMN reselecting to EPLMN and RNA update conditions being met;

or

the RRC Resume Request message carries a second cause value, which is used to indicate the user equipment has uplink data transmission or uplink signaling transmission;

or

the RRC Resume Request message carries indication information, which is used to indicate whether PLMN reselects to EPLMN in the user equipment or not.

~~23. The method according to claim 1, wherein the first RRC message is an RRC Resume message, and the second RRC message is an RRC Resume Complete message;~~

or

the first RRC message is an RRC release message, which carries suspend configuration information including radio resource configuration information, which indicates resources occupied by the second RRC message.

~~34. The method according to claim 12, wherein when the RRC Resume Request message carries a first cause value,~~

which is determined by Non-Access Stratum (NAS) of the user equipment, and is provided to AS when NAS provides the identity of reselected EPLMN to Access Stratum (AS);

or

the first cause value is determined by AS of the user equipment after NAS provides the identity of reselected EPLMN to AS.

45. The method according to claim 12, wherein when the RRC Resume Request message carries a second cause value,

which is determined by NAS of the user equipment, and is provided to AS when NAS provides the identity of reselected EPLMN to AS;

or

the second cause value is determined by NAS of the user equipment, and is provided to AS when NAS provides the identity of reselected EPLMN to Access Stratum (AS), and triggers NAS signaling process;

or

the second cause value is determined by AS of the user equipment after NAS provides the identity of reselected EPLMN to AS.

56. The method according to claim 1, wherein the RRC Resume Request message is sent by the user equipment when RNA update conditions are met;

the first RRC message is sent on the condition that the network device judges the list of PLMN of cell broadcast to be restored excludes RPLMN of the user equipment.

67. An information reporting method, applied to user equipment and comprising:

sending a third RRC message that carries the identity of EPLMN to the network device in a case that user equipment is in an inactive mode, when PLMN reselects to EPLMN, or when PLMN reselects to EPLMN and RNA update conditions are met;

~~8. The method according to claim 7,~~ wherein the third RRC message further carries at least one of the following information:

user equipment identifier, message authentication code-Integrity (MAC-I) and truncated MAC-I.

79. The method according to claim 67, wherein after sending a third RRC message that carries the identity of EPLMN to the network device, the method further comprises:

receiving a fourth RRC message or RRC Release message sent by the network device in response to the third RRC message.

~~810~~. An information receiving method, applied to a network device and comprising:

receiving an RRC Resume Request message sent by user equipment;

sending a first RRC message in response to the RRC Resume Request message to the user equipment; and

receiving a second RRC message sent by the user equipment in response to the first RRC message, wherein

in a case that user equipment is in an inactive mode, when PLMN reselects to EPLMN, or PLMN reselects to EPLMN and RNA update conditions are met, the second RRC message carries the identity of EPLMN;

~~11. The method according to claim 10~~, wherein the RRC Resume Request message is sent by the user equipment when PLMN reselects to EPLMN, or PLMN reselects to EPLMN and RNA update conditions are met;

the RRC Resume Request message carries a first cause value, which is used to indicate PLMN reselecting to EPLMN in the user equipment, or PLMN reselecting to EPLMN and RNA update conditions being met;

or

the RRC Resume Request message carries a second cause value, which is used to indicate the user equipment has uplink data transmission or uplink signaling transmission;

or

the RRC Resume Request message carries indication information, which is used to indicate whether PLMN reselects to EPLMN in the user equipment or not.

~~129. The method according to claim 8~~10, wherein the first RRC message is an RRC Resume message, and the second RRC message is an RRC Resume Complete message;

or

the first RRC message is an RRC release message, which carries suspend configuration information including radio resource configuration information, which indicates resources occupied by the second RRC message.

~~1310. The method according to claim 11~~8, wherein when the RRC Resume Request message carries a first cause value,

which is determined by Non-Access Stratum (NAS) of the user equipment, and is provided to AS when NAS provides the identity of reselected EPLMN to Access Stratum (AS);

or

the first cause value is determined by AS of the user equipment after NAS provides the identity of reselected EPLMN to AS.

~~1411. The method according to claim 8~~11, wherein when the RRC Resume Request message carries a second cause value,

which is determined by NAS of the user equipment, and is provided to AS when NAS provides the identity of reselected EPLMN to AS;

or

the second cause value is determined by NAS of the user equipment, and is provided to AS when NAS provides the identity of reselected EPLMN to AS, and triggers NAS signaling process;

or

the second cause value is determined by AS of the user equipment after NAS provides the identity of reselected EPLMN to AS.

~~1512.~~ The method according to claim ~~840~~, wherein the RRC Resume Request message is sent by the user equipment when RNA update conditions are met; and

the first RRC message is sent on the condition that the network device judges the list of PLMN of cell broadcast to be restored excludes RPLMN of the user equipment.

~~136.~~ An information receiving method, applied to a network device and comprising:

receiving a third RRC message that carries the identity of EPLMN when PLMN reselects to EPLMN, or PLMN reselects to EPLMN and RNA update conditions are met in a case that user equipment is in an inactive mode₁

wherein the third RRC message further carries at least one of the following information:
user equipment identifier, MAC-I and truncated MAC-I.

~~147.~~ User equipment, comprises:

a first sending module, configured to send an RRC Resume Request message to a network device;

a first receiving module, configured to receive a first RRC message by the network device in response to the RRC Resume Request message; and

a second sending module, configured to send a second RRC message in response to the first RRC message to the network device, wherein

in a case that the user equipment is in an inactive mode, when PLMN reselects to EPLMN, or PLMN reselects to EPLMN and RNA update conditions are met, the second RRC message carries the identity of EPLMN₂

wherein the RRC Resume Request message is sent by the user equipment when PLMN reselects to EPLMN, or PLMN reselects to EPLMN and RNA update conditions are met;

the RRC Resume Request message carries a first cause value, which is used to indicate PLMN reselecting to EPLMN in user equipment, or PLMN reselecting to EPLMN and RNA update conditions being met;

or

the RRC Resume Request message carries a second cause value, which is used to indicate the user equipment has uplink data transmission or uplink signaling transmission;

or

the RRC Resume Request message carries indication information, which is used to indicate whether PLMN reselecs to EPLMN in the user equipment or not.

158. User equipment, comprising:

a third sending module, configured to send a third RRC message that carries the identity of EPLMN to a network device when PLMN reselecs to EPLMN, or PLMN reselecs to EPLMN and RNA update conditions are met in a case that user equipment is in an inactive mode,

wherein the third RRC message further carries at least one of the following information: user equipment identifier, MAC-I and truncated MAC-I.

169. A network device, comprising:

a second receiving module, configured to receive an RRC Resume Request message from user equipment;

a fourth sending module, configured to send a first RRC message corresponding to the RRC Resume Request message to the user equipment; and

a third receiving module, configured to receive a second RRC message sent by the user equipment in response to the first RRC message, wherein

in a case that the user equipment is in an inactive mode, when PLMN reselecs to EPLMN, or PLMN reselecs to EPLMN and RNA update conditions are met, the second RRC message carries the identity of EPLMN,

wherein the RRC Resume Request message is sent by the user equipment when PLMN reselecs to EPLMN, or PLMN reselecs to EPLMN and RNA update conditions are met;

the RRC Resume Request message carries a first cause value, which is used to indicate PLMN reselecs to EPLMN in the user equipment, or PLMN reselecs to EPLMN and RNA update conditions being met;

or

the RRC Resume Request message carries a second cause value, which is used to indicate the user equipment has uplink data transmission or uplink signaling transmission;

or

the RRC Resume Request message carries indication information, which is used to indicate whether PLMN reselecs to EPLMN in the user equipment or not.

1720. A network device, comprising:

a fourth receiving module, configured to receive a third RRC message that carries the identity of EPLMN when PLMN reselects to EPLMN, or PLMN reselects to EPLMN and RNA update conditions are met in a case that user equipment is in an inactive mode,

wherein the third RRC message further carries at least one of the following information:
user equipment identifier, MAC-I and truncated MAC-I.

18. A computer readable storage medium, storing a computer program, characterized in that when the computer program is executed by a processor, the information reporting method according to any one of claims 1 to 7 is implemented, or the information receiving method according to any one of claims 8 to 13 is implemented.