CLAIMS

1. A method for random access, applied to a User Equipment (UE), the method comprising:

receiving random access response (RAR) message based on first identification information, wherein the RAR message includes second identification information;

monitoring a physical downlink control channel (PDCCH) in a preset time window based on the second identification information or third identification information associated with the second identification information, wherein the PDCCH is scrambled through the second identification information or the third identification information;

sending a preamble on a configured physical random access channel (PRACH) resource, and

sending a UE Identifier (ID) on a configured uplink resource.

2. The method of claim 1, wherein the UE ID comprises any one of:

a 5th generation (5G) system architecture evolution (SAE) temporary mobile subscriber identity (5G-S-TMSI);

part of the 5G-S-TMSI;

a cell radio network temporary identifier (C-RNTI);

the C-RNTI, a physical cell identifier (PCI) and a short Media access control identifier (short MAC I); and

a resume ID.

3. The method of claim 1, wherein the configured uplink resource comprises a physical uplink control channel (PUCCH) resource and/or a physical uplink shared channel (PUSCH)

resource.

4. The method of claim 1, wherein the configured uplink resource has a mapping relationship with the PRACH resource.

5. The method of claim 1, wherein the first identification information comprises a random access radio network temporary identifier (RA-RNTI).

6. The method of claim 1, wherein, responsive to that the UE ID is a C-RNTI, receiving the RAR message based on the first identification information comprises:

receiving the RAR message based on the C-RNTI.

7. The method of claim 6, further comprising:

after the RAR message is received, stopping monitoring the PDCCH scrambled through the second identification information or the third identification information.

8. The method of claim 1, wherein the second identification information comprises any one of: a 5G-S-TMSI; part of the 5G-S-TMSI; a C-RNTI; the C-RNTI, a PCI and a short MAC I; and a resume ID.

9. The method of claim 8, wherein there is a possibility that a content in the second identification information is inconsistent with a content in the UE ID.

10. The method of claim 1, wherein the preset time window comprises an RAR window for monitoring the RAR message or a time window configured by a network device.

11. The method of any one of claims 1-10, wherein monitoring the PDCCH based on the second identification information comprises:

when the UE ID transmitted through the uplink resource is a C-RNTI and the second identification information included in the RAR message is the C-RNTI, monitoring the PDCCH through the C-RNTI or another ID associated with the C-RNTI; and

responsive to that the PDCCH is successfully detected, determining that a contention is resolved.

12. The method of any one of claims 1-10, wherein monitoring the PDCCH based on the second identification information comprises:

when the UE ID transmitted through the uplink resource is other ID than a C-RNTI and the second identification information included in the RAR message is a C-RNTI, monitoring the PDCCH through the C-RNTI or said other ID associated with the C-RNTI; and

responsive to that the PDCCH is successfully detected and an ID in a common control channel service data unit (CCCH SDU) transmitted by a physical downlink shared channel (PUSCH) scheduled by the PDCCH is consistent with the UE ID transmitted through the uplink resource, determining that a contention is resolved.

13. The method of any one of claims 1-10, wherein monitoring the PDCCH based on the third identification information associated with the second identification information comprises:

when the UE ID transmitted through the uplink resource is other ID than a C-RNTI and the second identification information included in the RAR message is matched with said other ID, determining that a contention is resolved, and monitoring the PDCCH based on a C-RNTI in a mapping relationship with the second identification information.

14. A method for random access, applied to a network device, the method comprising:

scrambling a random access response (RAR) message through first identification information, and sending the scrambled RAR message to user equipment (UE), wherein the RAR message includes second identification information;

scrambling a physical downlink control channel (PDCCH) to be sent based on the second identification information or third identification information associated with the second identification information;

sending the scrambled PDCCH to the UE;

receiving a preamble from the UE, and

receiving a UE Identifier (ID) on a configured uplink resource.

15. User Equipment (UE), comprising a first network interface, a first memory and a first processor, wherein the first network interface is configured to receive and send a signal in a process of receiving and sending information from and to another external network element; the first memory is configured to store a computer program capable of running in the first processor; and the first processor is configured to run the computer program to execute the operations of the method of any one of claims 1-13.