WHAT IS CLAIMED IS:

1. A method for processing information, performed by a base station, the method comprising:

in case that the base station supports a first subgroup ID of a radio access network (RAN), broadcasting paging sub-grouping configuration information, wherein the paging sub-grouping configuration information is configured for a user equipment (UE) to determine the first subgroup ID, the paging sub-grouping configuration information comprises a total number of subgroups for the first subgroup ID; and

in response to not receiving the second subgroup ID from the CN, determining, according to whether the UE supports the first subgroup ID and whether the base station broadcasts the paging sub-grouping configuration information, whether to send the PEI according to the first subgroup ID;

wherein the first subgroup ID is determined by the base station according to a broadcasted total number of subgroups and an offset value, and according to the following formulas:

Subgroup ID' = floor(UE_ID / (N * Ns)) mod N_{UEID};

Subgroup ID = Subgroup ID' + offset;

wherein the Subgroup ID is the first subgroup ID; the N is the number of paging frames; the Ns is the number of paging occasions in a paging frame; the N_{UEID} is the total number of subgroups for the first subgroup ID, and the offset is the offset value;

wherein the offset value is configured to be a total number of subgroups assigned to the second subgroup ID in CN paging subgrouping based on a protocol agreement.

2. The method according to claim 1, further comprising: in case that the base station does not support the first subgroup ID, not broadcasting the paging sub-grouping configuration information.

3. The method according to claim 1 or 2, wherein the paging sub-grouping configuration information comprises one of:

a value range of the first subgroup ID;

a sub-grouping number for the first subgroup ID and an offset value for the first subgroup ID; or

an offset value, wherein the offset value is determined according to a sub-grouping number for a second subgroup ID from a core network (CN).

4. The method according to claim 3, wherein

in case that the base station does not support the second subgroup ID, the offset value is an extreme value of a sum of the sub-grouping number for the first subgroup ID and the sub-grouping number for the second subgroup ID;

in case that the base station supports the second subgroup ID, the offset value is not an

extreme value of a sum of the sub-grouping number for the first subgroup ID and the sub-grouping number for the second subgroup ID;

in case that the base station does not support the second subgroup ID, the sub-grouping number for the first subgroup ID is equal to a sum of the sub-grouping number for the first subgroup ID and the sub-grouping number for the second subgroup ID; and/or

in case that the base station supports the second subgroup ID, the sub-grouping number for the first subgroup ID is less than a sum of the sub-grouping number for the first subgroup ID and the sub-grouping number for the second subgroup ID.

5. The method according to any one of claims 1 to 3, wherein the paging sub-grouping configuration information further comprises: an indication bit, indicating whether the base station supports the second subgroup ID from the CN.

6. The method according to any one of claims 1 to 3, wherein in case that the base station supports the first subgroup ID of the RAN, broadcasting the paging sub-grouping configuration information, comprises:

in case that the base station supports the second subgroup ID from the CN and the first subgroup ID of the RAN, broadcasting the paging sub-grouping configuration information.

7. The method according to any one of claims 1 to 6, further comprising:

in case that the base station supports the second subgroup ID from the CN, broadcasting sub-grouping configuration information of a paging early indication (PEI).

8. The method according to any one of claims 1 to 7, further comprising:

in response to receiving the second subgroup ID from the CN, sending the PEI according to the second subgroup ID.

9. The method according to claim 1, wherein determining, according to whether the UE supports the first subgroup ID and whether the base station broadcasts the paging sub-grouping configuration information, whether to send the PEI according to the first subgroup ID comprises one of:

in case that the base station does not broadcast the paging sub-grouping configuration information, not sending the PEI according to the first subgroup ID;

in case that the UE supports the first subgroup ID and the base station broadcasts the paging sub-grouping configuration information, sending the PEI according to the first subgroup ID; or

in case that the UE does not support the first subgroup ID, not sending the PEI according to the first subgroup ID.

10. The method according to claim 1, wherein the second subgroup ID is acquired by the base station from the core network via an initial context setup response or a UE context

modification request.

11. The method according to claim 10, wherein

in case that the base station does not support the second subgroup ID, the total number of subgroups for the first subgroup ID is equal to a sum of the total number of subgroups for the first subgroup ID and the total number of subgroups for the second subgroup ID; and/or,

in case that the base station supports the second subgroup ID, the total number of subgroups for the first subgroup ID is less than the sum of the total number of subgroups for the first subgroup ID and the total number of subgroups for the second subgroup ID.

12. A method for processing information, performed by a user equipment (UE), the method comprising:

receiving paging sub-grouping configuration information sent by a base station in case that the base station supports a first subgroup ID of a radio access network (RAN), wherein the paging sub-grouping configuration information is configured for the UE to determine the first subgroup ID, the paging sub-grouping configuration information comprises a total number of subgroups for the first subgroup ID; and

in response to not receiving the second subgroup ID from the CN, receiving the paging sub-grouping configuration information and the UE supporting the first subgroup ID, monitoring the PEI according to the first subgroup ID;

wherein the first subgroup ID is determined by the UE according to the broadcasted total number of subgroups and an offset value, and according to the following formulas:

Subgroup ID' = floor(UE_ID / (N * Ns)) mod N_{UEID};

Subgroup ID = Subgroup ID' + offset;

wherein the Subgroup ID is the first subgroup ID; the N is the number of paging frames; the Ns is the number of paging occasions in a paging frame; the N_{UEID} is the total number of subgroups for the first subgroup ID; and the offset is the offset value;

wherein the offset value is configured to be a total number of subgroups assigned to the second subgroup ID in CN paging subgrouping based on a protocol agreement.

13. The method according to claim 11, wherein the paging sub-grouping configuration information comprises one of:

a value range of the first subgroup ID;

a sub-grouping number for the first subgroup ID and an offset value for the first subgroup ID; or

an offset value, wherein the offset value is determined according to a sub-grouping number for a second subgroup ID from a core network (CN).

14. The method according to any one of claims 12 to 13, further comprising:

in response to determining according to the paging sub-grouping configuration information that the base station supports the second subgroup ID from the CN and in response to receiving the second subgroup ID, monitoring the PEI according to the second subgroup ID.

15. The method according to claim 14, wherein the paging sub-grouping configuration information comprises: an indication bit, indicating whether the base station supports the second subgroup ID from the CN.

16. The method according to claim 14, further comprising one of:

in case that an offset value comprised in the paging configuration information is not an extreme value of a sum of the sub-grouping number for the first subgroup ID and the sub-grouping number for the second subgroup ID, determining that the base station support the second subgroup ID from the CN; or

in case that an offset value comprised in the paging configuration information is equal to an extreme value of a sum of the sub-grouping number for the first subgroup ID and the sub-grouping number for the second subgroup ID, determining that the base station does not support the second subgroup ID from the CN.

17. The method according to claim 14, further comprising one of:

in case that a sub-grouping number for the first subgroup ID is equal to a sum of the sub-grouping number for the first subgroup ID and the sub-grouping number for the second subgroup ID, determining that the base station does not support the second subgroup ID; or

in case that a sub-grouping number for the first subgroup ID is less than a sum of the sub-grouping number for the first subgroup ID and the sub-grouping number for the second subgroup ID, determining that the base station supports the second subgroup ID.

18. The method according to claim 17, wherein the second subgroup ID is acquired by the base station from the core network via an initial context setup response or a UE context modification request.

19. The method according to claim 18, wherein

in case that the base station does not support the second subgroup ID, the total number of subgroups for the first subgroup ID is equal to a sum of the total number of subgroups for the first subgroup ID and the total number of subgroups for the second subgroup ID; and/or,

in case that the base station supports the second subgroup ID, the total number of subgroups for the first subgroup ID is less than the sum of the total number of subgroups for the first subgroup ID and the total number of subgroups for the second subgroup ID.

20. A communication device, comprising a processor, a transceiver, a memory and an executable program stored in the memory and capable of being run by the processor, wherein when the executable program is executed by the processor, the method according to any one of claims 1 to 11 or any one of claims 12 to 19 is implemented.