WHAT IS CLAIMED IS:

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

receiving first capability indication information, wherein the first capability indication information indicates that a user equipment (UE) supports a paging early indication (PEI) and the UE supports a UE identifier (UE_ID) paging grouping scheme, respectively; or the first capability indication information indicates that the UE supports the UE_ID paging grouping scheme when supporting the PEI;

wherein the method further comprises at least one of:

sending a grouped PEI to the UE, wherein the grouped PEI is used by a UE to which a core network assigns a subgroup ID to monitor the paging message, and the base station only supports a core network paging grouping scheme; wherein in response to the base station only supporting the core network paging grouping scheme and sending the grouped PEI, the grouped PEI is not monitored by a UE to which the core network does not assign the subgroup ID, or the UE that supports both the PEI and the UE_ID paging grouping scheme; or

sending a grouped PEI to the UE, wherein the grouped PEI is used by the UE that supports both the PEI and the UE_ID paging grouping scheme or the UE to which the core network assigns the subgroup ID to monitor the paging message, the grouped PEI is also used by a UE to which the core network does not assign the subgroup ID and that supports both the PEI and the UE_ID paging grouping scheme to monitor the paging message, the grouped PEI is not monitored by a UE to which the core network does not assign the subgroup ID and that does not support either the PEI or the UE_ID paging grouping scheme, and the base station supports both the core network paging grouping scheme and the UE_ID paging grouping scheme.

2. The method according to claim 1, wherein receiving the first capability indication information comprises at least one of:

receiving from the UE, the first capability indication information; or

receiving from a counterpart base station, the first capability indication information.

3. The method according to claim 1, further comprising at least one of:

sending to a counterpart base station, second capability indication information indicating whether the UE supports the PEI;

sending to the counterpart base station, second capability indication information indicating whether the UE supports the UE_ID paging grouping scheme;

sending to a core network device, second capability indication information indicating

whether the UE supports the PEI; or

sending to the core network device, second capability indication information indicating whether the UE supports the UE_ID paging grouping scheme.

4. The method according to any one of claims 1 to 3, further comprising:

sending third capability indication information to the UE, wherein the third capability indication information is configured for the UE to determine a PEI that the base station is capable of sending.

5. The method according to claim 4, wherein the third capability indication information is configured for the UE to determine at least one of the following that the base station is capable of sending an ungrouped PEI or the grouped PEI.

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

sending first capability indication information, wherein the first capability indication information indicates that the UE supports a paging early indication (PEI) and the UE supports a UE identifier (UE_ID) paging grouping scheme, respectively; or the first capability indication information indicates that the UE supports the UE_ID paging grouping scheme when supporting the PEI;

wherein the method further comprises at least one of:

in response to the base station only supporting a core network paging grouping scheme and sending the grouped PEI, monitoring by a UE to which a core network assigns a subgroup ID, the paging message with the grouped PEI, wherein the grouped PEI is not monitored by a UE to which the core network does not assign the subgroup ID, or the UE that supports both the PEI and the UE_ID paging grouping scheme; or

in response to the base station supporting both the core network paging grouping scheme and the UE_ID paging grouping scheme and sending the grouped PEI, monitoring by the UE that supports both the PEI and the UE_ID paging grouping scheme or the UE to which the core network assigns the subgroup ID, the paging message with the grouped PEI, and monitoring by a UE to which the core network does not assign the subgroup ID and that supports both the PEI and the UE_ID paging grouping scheme, the paging message with the grouped PEI, wherein the grouped PEI is not monitored by a UE to which the core network does not assign the subgroup ID and that does not support either the PEI or the UE_ID paging grouping scheme.

7. The method according to claim 6, wherein the first capability indication information also indicates whether the UE supports the core network paging grouping scheme.

8. The method according to claim 6, wherein sending the first capability indication information comprises at least one of:

sending to a base station, the first capability indication information indicating whether the UE supports the PEI;

sending to the base station, the first capability indication information indicating whether the UE supports the UE_ID paging grouping scheme; or

sending to a core network device, the first capability indication information indicating whether the UE supports the UE_ID paging grouping scheme.

9. The method according to any one of claims 6 to 8, further comprising:

receiving second capability indication information from a base station, wherein the second capability indication information is configured for the UE to determine a PEI that the base station is capable of sending.

10. The method according to claim 9, wherein the second capability indication information is configured for the UE to determine at least one of the following that the base station is capable of sending an ungrouped PEI or the grouped PEI.

11. The method according to claim 10, further comprising:

in response to the base station sending the ungrouped PEI, monitoring by a UE that supports the UE_ID paging grouping scheme, the paging message with the ungrouped PEI.

12. A base station, comprising: a processor, and a memory storing an executable program capable of being run by the processor which, when executed by the processor, implements steps in the method for information transmission according to any one of claims 1 to 5.

13. A user equipment, comprising: a processor, and a memory storing an executable program capable of being run by the processor which, when executed by the processor, implements steps in the method for information transmission according to any one of claims 6 to 11.