

CLAIMS

1. A method for determining a trigger condition, performed by a terminal, comprising:
determining a feature for triggering a random access, wherein the feature comprises at least small data transmission (SDT);

selecting a random access channel (RACH) resource partition, and determining whether a selected RACH resource supports the feature;

determining that a trigger condition of the feature is met in response to the selected RACH resource supporting the feature;

determining that the trigger condition of the feature is not met in response to the selected RACH resource not supporting the feature; and

indicating, by a medium access control (MAC) layer, to an upper layer whether the trigger condition of the feature is met, to enable the upper layer to determine whether to trigger the feature.

2. The method according to claim 1, further comprising:

determining whether a feature specific RACH resource is configured on a network side;
and

determining that the trigger condition of the feature is not met in response to the feature specific RACH resource being not configured;

wherein selecting the RACH resource partition, and determining whether the selected RACH resource supports the feature comprises:

in response to the feature specific RACH resource being configured, selecting the RACH resource, and determining whether the selected RACH resource supports the feature.

3. The method according to claim 1 or 2, further comprising:

determining that a type of initiated random access is feature random access in response to the selected RACH resource supporting the feature; and

determining that the type of the initiated random access is non-feature random access in response to the selected RACH resource not supporting the feature.

4. The method according to any one of claims 1 to 3, further comprising:
determining whether a feature specific RACH resource is configured on a network side;
determining that a type of initiated random access is feature random access in response to the feature specific RACH resource being configured; and
determining that the type of the initiated random access is non-feature random access in response to the feature specific RACH resource being not configured.

5. The method according to any one of claims 1 to 4, wherein the RACH resource comprises a feature combination specific RACH resource, and a feature combination comprises at least two features.

6. The method according to claim 5, wherein the selected RACH resources supporting the feature comprises:
a feature combination corresponding to the RACH resource comprising the feature for triggering the random access.

7. The method according to any one of claims 1 to 6, wherein the feature comprises at least one of:
a reduced capability (Redcap);
coverage enhancement (CE);
radio access network (RAN) slicing; or
small data transmission (SDT).

8. A method for configuring resource partitions, performed by a network side device, comprising:
configuring random access channel (RACH) resource partitions for a terminal, to enable the terminal to select a RACH resource partition from configured RACH resource partitions, and determine whether a selected RACH resource supports a feature for triggering random access, wherein the feature comprises at least small data transmission (SDT);

wherein, in response to the selected RACH resource supporting the feature, the terminal determines that the trigger condition of the feature is met; and in response to the selected RACH resource not supporting the feature, the terminal determines that the trigger condition of the feature is not met; and

whether the trigger condition of the feature is met is indicated to an upper layer by a medium access control (MAC) layer by the terminal, to enable the upper layer to determine whether to trigger the feature.

9. The method according to claim 8, wherein the RACH resource partitions configured for the terminal are further configured to cause the terminal to determine whether the network side is configured with a feature specific RACH resource;

wherein, in response to the feature specific RACH resource being not configured, the terminal determines that the trigger condition of the feature is not met; and in response to the feature specific RACH resource being configured, the terminal selects the RACH resource, and determines whether the selected RACH resource supports the feature.

10. The method according to claim 8 or 9, wherein the RACH resource partitions configured for the terminal are further configured to cause the terminal to determine a type of initiated random access;

wherein, in response to the selected RACH resource supporting the feature, the terminal determines that the type of the initiated random access is feature random access; and in response to the selected RACH resource not supporting the feature, the terminal determines that the type of the initiated random access is non-feature random access.

11. The method according to any one of claims 8 to 10, wherein the RACH resource partitions configured for the terminal are further configured to cause the terminal to determine whether the network side is configured with a feature specific RACH resource;

wherein, in response to the feature specific RACH resource being configured, the terminal determines that the type of the initiated random access is feature random access; and in response to the feature specific RACH resource being not configured, the terminal

determines that the type of the initiated random access is non-feature random access.

12. The method according to any one of claims 8 to 11, wherein the RACH resource comprises a feature combination specific RACH resource, and a feature combination comprises at least two features.

13. The method according to any one of claims 8 to 12, wherein the feature further comprises at least one of:

- a reduced capability (Redcap);
- coverage enhancement (CE); or
- radio access network (RAN) slicing.

14. An apparatus for determining a trigger condition, applicable for a terminal, comprising:

- a processing module, configured to determine a feature for triggering random access; select a random access channel (RACH) resource partition, and determine whether a selected RACH resource supports the feature, wherein the feature comprises at least small data transmission (SDT);

- determine that a trigger condition of the feature is met in response to the selected RACH resource supporting the feature; and determine that the trigger condition of the feature is not met in response to the selected RACH resource not supporting the feature;

- wherein the processing module is configured to: indicate, by a medium access control (MAC) layer, to an upper layer whether the trigger condition of the feature is met, to enable the upper layer to determine whether to trigger the feature.

15. An apparatus for configuring resource partitions, applicable for a network side device, comprising:

- a transmitting module, configured to configure random access channel (RACH) resource partitions for a terminal, to enable the terminal to select a RACH resource partition from configured RACH resource partitions, and determine whether a selected RACH

resource supports a feature for triggering random access, wherein the feature comprises at least small data transmission (SDT);

wherein, in response to the selected RACH resource supporting the feature, the terminal determines that the trigger condition of the feature is met; in response to the selected RACH resource not supporting the feature, the terminal determines that the trigger condition of the feature is not met;

whether the trigger condition of the feature is met is indicated to an upper layer by a medium access control (MAC) layer by the terminal, to enable the upper layer to determine whether to trigger the feature.

16. A communication device, comprising:

a processor; and

a memory, configured to store a computer program;

wherein, when the computer program is executed by the processor, the method for determining the trigger condition according to any one of claims 1 to 7 or the method for configuring resource partitions according to any one of claims 8 to 13 is implemented.