What is claimed is:

1. A random access method, performed by a terminal, comprising:

obtaining configuration information of a target random access;

determining a first physical uplink shared channel (PUSCH) resource for transmitting a message 1, according to the configuration information;

on the first PUSCH resource, transmitting the message 1 of the target random access;

wherein the configuration information comprises association relationship between reference signals and PUSCH resources.

2. The random access method according to claim 1, wherein the configuration information further comprises at least one of the following information:

at least one reference signal monitored by the terminal;

~~association relationship between reference signals and PUSCH resources;~~

a performance indicator according to which the terminal selects a first reference signal from the at least one reference signal;

a preset threshold value for a performance indicator, according to which the terminal selects a first reference signal from the at least one reference signal.

3. The random access method according to claim 2, wherein the association relationship comprises at least one of the following information:

there is a one-to-one relationship between the reference signals and the PUSCH resources;

one PUSCH resource corresponds to at least one reference signal;

one reference signal corresponds to at least one PUSCH resource.

4. The random access method according to claim 2, wherein the at least one reference signal comprises at least one synchronization signal block (SSB) and/or at least one channel state information reference signal (CSI-RS).

5. The random access method according to claim 2, wherein the PUSCH resource comprises: a grant-free resource and/or a pre-configured resource for the target random access.

6. The random access method according to claim 1, wherein the obtaining configuration information of a target random access, comprises at least one of the following ways:

receiving the configuration information of the target random access transmitted by a network device through a system broadcast message;

receiving the configuration information of the target random access transmitted by the network device through a radio resource control (RRC) release message.

7. The random access method according to claim 2, wherein the determining a first physical uplink shared channel (PUSCH) resource for transmitting a message 1, according to the configuration information, comprises:

determining a first reference signal;

determining one PUSCH resource from PUSCH resources associated with the first reference signal, as the first PUSCH resource for transmitting the message 1.

8. The random access method according to claim 7, wherein the determining a first reference signal, comprises:

when there is a reference signal with a performance indicator being greater than or equal to a preset threshold value, determining one reference signal from at least one reference signal with the performance indicator being greater than or equal to the preset threshold value, as the first reference signal; or,

when there is no reference signal with a performance indicator being greater than or equal to the preset threshold value, determining one reference signal from reference signals configured by a network device for the terminal, as the first reference signal.

9. The random access method according to claim 8, wherein the determining one reference signal from at least one reference signal with the performance indicator being greater than or equal to the preset threshold value, as the first reference signal, comprises:

when there are at least two reference signals with performance indicators being greater than or equal to the preset threshold value, determining one of the at least two reference signals with performance indicators being greater than or equal to the preset threshold value, as the first reference signal;

wherein the first reference signal is one randomly selected from the at least two reference signals; or, the first reference signal is one, which meets a first preset condition, from the at least two reference signals;

or,

wherein the determining one reference signal from reference signals configured by a network device for the terminal, as the first reference signal, comprises:

randomly selecting one of the reference signals configured by the network device for the terminal, as the first reference signal; or,

selecting one, which meets a first preset condition, from the reference signals configured by the network device for the terminal, as the first reference signal.

10. The random access method according to claim 9, wherein the first preset condition comprises at least one of the following conditions:

~~time domain is less than or equal to a first preset threshold value;~~

~~frequency domain is less than or equal to a second preset threshold value~~

a reference signal corresponding to an earliest random opportunity (RO) in time domain and/or an earliest RO in frequency domain.

11. The random access method according to claim 7, wherein the determining one PUSCH resource from PUSCH resources associated with the first reference signal, as the first PUSCH resource for transmitting the message 1, comprises:

when the first reference signal is associated with one PUSCH resource, determining the PUSCH resource corresponding to the first reference signal as the first PUSCH resource; or,

when the first reference signal is associated with at least two PUSCH resources, selecting a target PUSCH resource from the at least two PUSCH resources associated with the first reference signal, as the first PUSCH resource.

12. The random access method according to claim 11, wherein the target PUSCH resource is a random one of the at least two PUSCH resources associated with the first reference signal, or, the target PUSCH resource is one PUSCH resource, which meets a second preset condition, of the at least two PUSCH resources associated with the first reference signal.

13. The random access method according to claim 12, wherein the second preset condition comprises: an earliest available PUSCH resource in time domain ~~is less than or equal to a third preset threshold value~~.

14. The random access method according to claim 2, wherein the performance indicator comprises one of the following information:

reference signal receiving power (RSRP), reference signal receiving quality (RSRQ), and signal-to-noise ratio (SINR).

15. A random access method, performed by a network device, comprising:

transmitting configuration information of a target random access to a terminal;

receiving a message 1 of the target random access fed back by the terminal;

wherein the message 1 is transmitted on a first PUSCH resource which is determined by the terminal for transmitting the message 1 according to the configuration information;

wherein the configuration information comprises association relationship between reference signals and PUSCH resources.

16. The random access method according to claim 15, wherein the configuration information further comprises at least one of the following information:

at least one reference signal monitored by the terminal;

~~association relationship between reference signals and PUSCH resources;~~

a performance indicator according to which the terminal selects a first reference signal from the at least one reference signal;

a preset threshold value for a performance indicator, according to which the terminal selects a first reference signal from the at least one reference signal.

17. The random access method according to claim 16, wherein the association relationship comprises at least one of the following information:

there is a one-to-one relationship between the reference signals and the PUSCH resources;

one PUSCH resource corresponds to at least one reference signal;

one reference signal corresponds to at least one PUSCH resource;

or,

wherein the at least one reference signal comprises at least one synchronization signal block (SSB) and/or at least one channel state information reference signal (CSI-RS);

or,

wherein the PUSCH resource comprises: a grant-free resource and/or a pre-configured resource for the target random access;

or,

wherein the performance indicator comprises one of the following information:

reference signal receiving power (RSRP), reference signal receiving quality (RSRQ), and signal-to-noise ratio (SINR).

18. The random access method according to claim 15, wherein the transmitting configuration information of a target random access to a terminal, comprises at least one of the following ways:

transmitting the configuration information of the target random access to the terminal through a system broadcast message;

transmitting the configuration information of the target random access to the terminal through a radio resource control (RRC) release message.

19. A terminal, comprising:

an obtaining module configured to obtain configuration information of a target random access;

a determining module configured to determine, according to the configuration information, a first physical uplink shared channel (PUSCH) resource for transmitting a message 1;

a first transmission module configured to transmit the message 1 of the target random access on the first PUSCH resource;

wherein the configuration information comprises association relationship between reference signals and PUSCH resources.

20. A network device, comprising:

a second transmission module configured to transmit configuration information of a target random access to a terminal;

a receiving module configured to receive a message 1 of the target random access fed back by the terminal;

wherein the message 1 is transmitted on a first PUSCH resource which is determined by the terminal for transmitting the message 1 according to the configuration information;

wherein the configuration information comprises association relationship between reference signals and PUSCH resources.