WHAT IS CLAIMED IS:

1. A random access method, performed by a user equipment (UE), comprising:

receiving resource configuration information sent by a base station;

determining slice information of a target network slice that triggers a random access;

determining a first random access resource according to at least one of the resource configuration information and the slice information; and

initiating the random access based on the first random access resource;

wherein the resource configuration information is used to configure at least one of: a common random access resource; a specified random access resource corresponding to at least one network slice; a two-step random access resource; a four-step random access resource; a two-step common random access resource; a four-step common random access resource; a two-step specified random access resource; or a four-step specified random access resource.

2. The method according to claim 1, wherein determining the first random access resource according to at least one of the resource configuration information and the slice information comprises:

determining that the base station has configured at least a specified random access resource corresponding to the target network slice, according to the resource configuration information and the slice information;

determining the specified random access resource corresponding to the target network slice as a candidate resource; and

determining the first random access resource based on the candidate resource.

3. The method according to claim 1, wherein determining the first random access resource according to at least one of the resource configuration information and the slice information comprises:

determining that the base station has not configured a specified random access resource corresponding to the target network slice, but has configured the common random access resource, according to the resource configuration information and the slice information;

determining the common random access resource as a candidate resource; and

determining the first random access resource based on the candidate resource.

4. The method according to claim 1, wherein determining the first random access resource according to at least one of the resource configuration information and the slice information comprises:

determining that the base station has configured at least a specified random access resource corresponding to the target network slice and the common random access resource, according to

the resource configuration information and the slice information;

in response to determining that a signal quality is greater than a first threshold, determining the specified random access resource corresponding to the target network slice as a candidate resource;

in response to determining that the signal quality is less than or equal to the first threshold, determining the common random access resource as the candidate resource; and

determining the first random access resource based on the candidate resource.

~~5. The method according to claim 4, further comprising at least one of:~~

~~receiving a first system message broadcast by the base station, wherein the first system message is used to configure the first threshold corresponding to at least one network slice; or~~

~~receiving a first radio resource control (RRC) message sent by the base station, wherein the first RRC message is used to configure the first threshold corresponding to at least one network slice.~~

~~6~~5. The method according to claim 1, wherein determining the first random access resource according to at least one of the resource configuration information and the slice information comprises:

determining that the base station has configured the two-step random access resource or the four-step random access resource, according to the resource configuration information;

determining the two-step random access resource or the four-step random access resource as a candidate resource; and

determining the first random access resource based on the candidate resource.

~~7~~6. The method according to claim 1, wherein determining the first random access resource according to at least one of the resource configuration information and the slice information comprises:

determining that the base station has configured the two-step random access resource and the four-step random access resource, according to the resource configuration information and the slice information;

in response to determining that a signal quality is greater than a second threshold, determining the two-step random access resource as a candidate resource;

in response to determining that the signal quality is less than or equal to the second threshold, determining the four-step random access resource as the candidate resource; and

determining the first random access resource based on the candidate resource.

~~8. The method according to claim 7, further comprising any one of:~~

~~receiving a second system message broadcast by the base station, wherein the second system message is used to configure the second threshold corresponding to at least one network~~

~~slice; or~~

~~receiving a second RRC message sent by the base station, wherein the second RRC message is used to configure the second threshold corresponding to at least one network slice.~~

~~9~~7. The method according to any one of claims 2-~~8~~6, wherein determining the first random access resource based on the candidate resource comprises any one of:

in a case where the candidate resource comprises any one of the common random access resource, the specified random access resource corresponding to the target network slice, the two-step random access resource or the four-step random access resource, determining the candidate resource as the first random access resource;

in a case where the candidate resource comprises the common random access resource, determining the two-step common random access resource or the four-step common random access resource as the first random access resource;

in a case where the candidate resource comprises the specified random access resource corresponding to the target network slice, determining the two-step specified random access resource or the four-step specified random access resource as the first random access resource;

in a case where the candidate resource comprises the two-step random access resource, determining the two-step common random access resource or the two-step specified random access resource as the first random access resource; or

in a case where the candidate resource comprises the four-step random access resource, determining the four-step common random access resource or the four-step specified random access resource as the first random access resource.

~~10~~8. The method according to claim ~~9~~7, wherein in the case where the candidate resource comprises the specified random access resource corresponding to the target network slice, determining the two-step specified random access resource or the four-step specified random access resource as the first random access resource comprises:

in the case where the candidate resource comprises the specified random access resource corresponding to the target network slice, determining that the base station has configured at least the two-step specified random access resource and the four-step specified random access resource according the resource configuration information;

in response to determining that a signal quality is greater than a second threshold, determining the two-step specified random access resource as the first random access resource; or

in response to determining that a signal quality is less than or equal to a second threshold, determining the four-step specified random access resource as the first random access resource.

~~11~~9. The method according to claim ~~9~~8, wherein in the case where the candidate resource

comprises the two-step random access resource, determining the two-step common random access resource or the two-step specified random access resource as the first random access resource comprises:

in the case where the candidate resource comprises the two-step random access resource, determining that the base station has configured the two-step common random access resource and the two-step specified random access resource according to the resource configuration information;

determine the two-step specified random access resource as the first random access resource; or

in response to determining that a signal quality is greater than a second threshold, determining the two-step specified random access resource as the first random access resource; or

in response to determining that a signal quality is less than or equal to a second threshold, determining the two-step common random access resource as the first random access resource.

~~12~~10. The method according to claim ~~9~~8, wherein in the case where the candidate resource comprises the four-step random access resource, determining the four-step common random access resource or the four-step specified random access resource as the first random access resource according to the resource configuration information comprises:

in the case where the candidate resource comprises the four-step random access resource, determining that the base station has configured the four-step common random access resource and the four-step specified random access resource according to the resource configuration information;

determining the four-step specified random access resource as the first random access resource; or

in response to determining that a signal quality is greater than a first threshold, determining the four-step specified random access resource as the first random access resource; or

in response to determining that a signal quality is less than or equal to a first threshold, determining the four-step common random access resource as the first random access resource.

~~13. The method according to claim 1, wherein the common random access resource is a random access resource shared by a plurality of UEs, and the plurality of UEs comprise a UE supporting a network slice function and a UE not supporting the network slice function, or the plurality of UEs comprise a UE supporting a network slice function.~~

~~14~~11. The method according to any one of claims 1-10, further comprising:

in response to meeting a preset fallback condition, not performing a resource fallback;

or

in response to meeting the preset fallback condition, determining a second random access resource to be fallen back to; and reinitiating the random access based on the second random access resource,

wherein the preset fallback condition comprises any one of:

a number of failures of the random access initiated based on the first random access resource reaching a first fallback threshold;

a first fallback timer expiring; or

receiving a random access resource fallback indication message corresponding to the target network slice.

~~15~~12. The method according to claim ~~14~~11, wherein in response to meeting the preset fallback condition, not performing the resource fallback comprises any one of:

in response to meeting the preset fallback condition when the random access is initiated by using a specified random access resource corresponding to the target network slice as the first random access resource, not performing the resource fallback; or

in response to meeting the preset fallback condition when the random access is initiated by using the common random access resource as the first random access resource, not performing the resource fallback.

~~16. The method according to claim 1, further comprising:~~

~~in response to meeting the preset fallback condition, determining a second random access resource to be fallen back to; and~~

~~reinitiating the random access based on the second random access resource.~~

~~17. The method according to claim 16, further comprising any one of:~~

~~in response to meeting the preset fallback condition when the random access is reinitiated based on the second random access resource, not performing a resource fallback; or~~

~~in response to meeting the preset fallback condition when the random access is reinitiated based on the second random access resource, determining a third random access resource to be fallen back to; and~~

~~reinitiating the random access based on the third random access resource.~~

~~18. The method according to any one of claims 14-17, wherein the preset fallback condition comprises any one of:~~

~~a number of failures of the random access initiated based on the first random access resource reaching a first fallback threshold;~~

~~a first fallback timer expiring; or~~

~~receiving a random access resource fallback indication message corresponding to the target network slice.~~

~~19. The method according to claim 18, further comprising any one of:~~

~~receiving a third system message broadcast by the base station, wherein the third system message is used to configure the first fallback threshold corresponding to at least one network slice; or~~

~~receiving a third RRC message sent by the base station, wherein the third RRC message is used to configure the first fallback threshold corresponding to at least one network slice.~~

~~20. The method according to claim 18, further comprising any one of:~~

~~receiving a fourth system message broadcast by the base station, wherein the fourth system message is used to configure the first fallback timer; or~~

~~receiving a fourth RRC message sent by the base station, wherein the fourth RRC message is used to configure the first fallback timer.~~

~~21. The method according to claim 18, wherein the random access resource fallback indication message corresponding to the target network slice is used to configure at least one of a second fallback threshold or a second fallback timer.~~

~~22. The method according to claim 18, wherein the random access resource fallback indication message corresponding to the target network slice carries a fallback probability value,~~

~~wherein reinitiating the random access based on the second random access resource fallen back to comprises:~~

~~in response to determining to perform the fallback according to a random number generated and the fallback probability value, reinitiating the random access based on the second random access resource fallen back to.~~

~~23. The method according to claim 18, further comprising any one of:~~

~~receiving a random access response message carrying the random access resource fallback indication message corresponding to the target network slice; or~~

~~receiving a fifth RRC message carrying the random access resource fallback indication message corresponding to the target network slice.~~

~~24~~13. The method according to claim ~~16~~11, wherein the first random access resource is the two-step specified random access resource,

wherein determining the second random access resource to be fallen back to comprises any one of:

determining that the base station has configured the four-step specified random access resource according to the resource configuration information and the slice information; and determining the four-step specified random access resource as the second random access resource,

or

determining that the base station has configured the common random access resource according to the resource configuration information and the slice information; and determining the second random access resource from the common random access resource according to the resource configuration information and a signal quality,

or

determining that the base station has configured the common random access resource according to the resource configuration information and the slice information; determining to be capable of falling back to the common random access resource to reinitiate the random access, according to first indication information sent by the base station; and determining the second random access resource from the common random access resource according to the resource configuration information and a signal quality.

~~25. The method according to claim 16, wherein the first random access resource is the two-step specified random access resource,~~

~~wherein determining the second random access resource to be fallen back to comprises:~~

~~determining that the base station has configured the common random access resource according to the resource configuration information and the slice information; and~~

~~determining the second random access resource from the common random access resource according to the resource configuration information and a signal quality.~~

~~26. The method according to claim 16, wherein the first random access resource is the two-step specified random access resource,~~

~~wherein determining the second random access resource to be fallen back to comprises:~~

~~determining that the base station has configured the common random access resource according to the resource configuration information and the slice information;~~

~~determining to be capable of falling back to the common random access resource to reinitiate the random access, according to first indication information sent by the base station; and~~

~~determining the second random access resource from the common random access resource according to the resource configuration information and a signal quality.~~

~~27~~14. The method according to claim 13~~25 or 26~~, wherein determining the second random access resource from the common random access resource according to the resource configuration information and the signal quality comprises:

determining that the base station has configured the two-step common random access resource according to the resource configuration information;

determining that the signal quality is greater than a third threshold; and

determining the two-step common random access resource as the second random access

resource.

~~28. The method according to claim 27, further comprising any one of:~~

~~receiving a fifth system message sent by the base station, wherein the fifth system message is used to configure the third threshold corresponding to at least one network slice; or~~

~~receiving a sixth RRC message sent by the base station, wherein the sixth RRC message is used to configure the third threshold corresponding to at least one network slice.~~

~~29~~15. The method according to claim ~~16~~11, wherein the first random access resource belongs to the common random access resource,

wherein determining the second random access resource to be fallen back to comprises any one of:

determining that the base station has configured the four-step common random access resource according to the resource configuration information and the slice information; determining the four-step common random access resource as the second random access resource,

or

determining that the base station has configured a specified random access resource corresponding to the target network slice according to the resource configuration information and the slice information; and determining the second random access resource from the specified random access resource corresponding to the target network slice according to the resource configuration information and a signal quality,

or

determining that the base station has configured a specified random access resource corresponding to the target network slice according to the resource configuration information and the slice information; determining to be capable of falling back to the specified random access resource corresponding to the target network slice to reinitiate the random access, according to second indication information sent by the base station; and determining the second random access resource from the specified random access resource corresponding to the target network slice according to the resource configuration information and a signal quality.

~~30. The method according to claim 16, wherein the first random access resource belongs to the common random access resource,~~

~~wherein determining the second random access resource to be fallen back to comprises:~~

~~determining that the base station has configured a specified random access resource corresponding to the target network slice according to the resource configuration information and the slice information; and~~

~~determining the second random access resource from the specified random access resource~~

~~corresponding to the target network slice according to the resource configuration information and a signal quality.~~

~~31. The method according to claim 16, wherein the first random access resource belongs to the common random access resource,~~

~~wherein determining the second random access resource to be fallen back to comprises:~~

~~determining that the base station has configured a specified random access resource corresponding to the target network slice according to the resource configuration information and the slice information;~~

~~determining to be capable of falling back to the specified random access resource corresponding to the target network slice to reinitiate the random access, according to second indication information sent by the base station; and~~

~~determining the second random access resource from the specified random access resource corresponding to the target network slice according to the resource configuration information and a signal quality.~~

~~32~~16. The method according to claim ~~30 or 31~~15, wherein determining the second random access resource from the specified random access resource corresponding to the target network slice according to the resource configuration information and the signal quality comprises:

determining that the base station has configured the four-step specified random access resource according to the resource configuration information; and determining the four-step specified random access resource as the second random access resource,

or

determining that the base station has configured the four-step specified random access resource according to the resource configuration information; determining that the signal quality is greater than a fourth threshold; and determining the four-step specified random access resource as the second random access resource.

~~33. The method according to claim 30 or 31, wherein determining the second random access resource from the specified random access resource corresponding to the target network slice according to the resource configuration information and the signal quality comprises:~~

~~determining that the base station has configured the four-step specified random access resource according to the resource configuration information;~~

~~determining that the signal quality is greater than a fourth threshold; and~~

~~determining the four-step specified random access resource as the second random access resource.~~

~~34. The method according to claim 33, further comprising any one of:~~

~~receiving a sixth system message broadcast by the base station, wherein the sixth system~~

~~message is used to configure the fourth threshold corresponding to at least one network slice; or~~

~~receiving a seventh RRC message sent by the base station, wherein the seventh RRC message is used to configure the fourth threshold corresponding to at least one network slice.~~

~~35~~17. A random access method, ~~preformed~~ performed by a base station, comprising:

sending resource configuration information to a user equipment (UE);

wherein the resource configuration information is used to configure at least one of: a common random access resource; a specified random access resource corresponding to at least one network slice; a two-step random access resource; a four-step random access resource; a two-step common random access resource; a four-step common random access resource; a two-step specified random access resource; or a four-step specified random access resource.

~~36. The method according to claim 35, further comprising any one of:~~

~~broadcasting a first system message, wherein the first system message is used to configure a first threshold corresponding to at least one network slice; or~~

~~sending a first RRC message to the UE, wherein the first RRC message is used to configure a first threshold corresponding to at least one network slice.~~

~~37. The method according to claim 35, further comprising any one of:~~

~~broadcasting a second system message, wherein the second system message is used to configure a second threshold corresponding to at least one network slice; or~~

~~sending a second RRC message to the UE, wherein the second RRC message is used to configure a second threshold corresponding to at least one network slice.~~

~~38. The method according to claim 35, further comprising any one of:~~

~~broadcasting a third system message, wherein the third system message is used to configure a first fallback threshold corresponding to at least one network slice; or~~

~~sending a third RRC message to the UE, wherein the third RRC message is used to configure a first fallback threshold corresponding to at least one network slice.~~

~~39. The method according to claim 35, further comprising any one of:~~

~~broadcasting a fourth system message, wherein the fourth system message is used to configure a first fallback timer; or~~

~~sending a fourth RRC message to the UE, wherein the fourth RRC message is used to configure a first fallback timer.~~

~~40. The method according to claim 35, further comprising any one of:~~

~~sending a random access response message carrying a random access resource fallback indication message corresponding to a target network slice to the UE; or~~

~~sending a fifth RRC message carrying a random access resource fallback indication message corresponding to the target network slice to the UE.~~

~~41. The method according to claim 35, further comprising:~~

~~sending first indication information to the UE, wherein the first indication information is used to indicate to be capable of falling back to the common random access resource to reinitiate a random access.~~

~~42. The method according to claim 35, further comprising any one of:~~

~~sending second indication information to the UE, wherein the second indication information is used to indicate to be capable of falling back to a specified random access resource corresponding to a target network slice to reinitiate a random access.~~

~~43. The method according to claim 35, further comprising any one of:~~

~~broadcasting a fifth system message, wherein the fifth system message is used to configure a third threshold corresponding to at least one network slice; or~~

~~sending a sixth RRC message to the UE, wherein the sixth RRC message is used to configure a third threshold corresponding to at least one network slice.~~

~~44. The method according to claim 35, further comprising any one of:~~

~~broadcasting a sixth system message, wherein the sixth system message is used to configure a fourth threshold corresponding to at least one network slice; or~~

~~sending a seventh RRC message to the UE, wherein the seventh RRC message is used to configure a fourth threshold corresponding to at least one network slice.~~

~~45~~18. A random access device, applicable to a user equipment (UE), comprising:

a receiving module configured to receive resource configuration information sent by a base station;

a first determining module configured to determine slice information of a target network slice that triggers a random access;

a second determining module configured to determine a first random access resource according to at least one of the resource configuration information and the slice information; and

a random access module configured to initiate the random access based on the first random access resource;

wherein the resource configuration information is used to configure at least one of: a common random access resource; a specified random access resource corresponding to at least one network slice; a two-step random access resource; a four-step random access resource; a two-step common random access resource; a four-step common random access resource; a two-step specified random access resource; or a four-step specified random access resource.

~~46. A random access device, applicable to a base station, comprising:~~

~~a sending module configured to send resource configuration information to a user equipment (UE);~~

~~wherein the resource configuration information is used to configure at least one of: a common random access resource; a specified random access resource corresponding to at least one network slice; a two-step random access resource; a four-step random access resource; a two-step common random access resource; a four-step common random access resource; a two-step specified random access resource; or a four-step specified random access resource.~~

~~47~~19. A computer-readable storage medium having stored therein a computer program for executing the random access method according to any one of claims 1-17~~34~~.

~~48. A computer-readable storage medium having stored therein a computer program for executing the random access method according to any one of claims 35-44.~~

~~49~~20. A random access device, comprising:

a processor; and

a memory for storing an instruction executable by the processor;

wherein the processor is configured to execute the random access method according to any one of claims 1-~~34~~17.

~~50. A random access device, comprising:~~

~~a processor; and~~

~~a memory for storing an instruction executable by the processor;~~

~~wherein the processor is configured to execute the random access method according to any one of claims 35-44.~~