CLAIMS

What is claimed is:

1. A random access method, applied to a terminal and comprising:

obtaining beam measurement result(s) of at least one potential target cell;

selecting a target cell from the at least one potential target cell based on the beam measurement result(s) and a first trigger condition for conditional handover; and

initiating a random access procedure in the target cell;

wherein the first trigger condition for conditional handover is:

that a beam measurement result of a potential target cell satisfies a first determining condition;

wherein a precondition for adopting the first trigger condition for conditional handover is any one of the following:

that the terminal is configured with a parameter relevant to the first determining condition;

that the terminal is configured with no parameter relevant to a second determining condition;

that the terminal is configured with a parameter relevant to the first determining condition and a parameter relevant to a second determining condition; or

that the terminal is configured with indication information, wherein the indication information is used to explicitly or implicitly indicate that a trigger condition for conditional handover be determined based on beam measurement result(s), or the indication information is used to explicitly or implicitly indicate that a trigger condition for conditional handover be determined based on beam measurement result(s) and cell measurement result(s); wherein

the first determining condition is a condition corresponding to beam measurement result(s), and the parameter relevant to the first determining condition is a threshold parameter corresponding to the trigger condition for conditional handover based on the beam measurement result(s);

the second determining condition is a condition corresponding to cell measurement result(s), and the parameter relevant to the second determining condition is a threshold parameter corresponding to the trigger condition for conditional handover based on the cell measurement result(s).

2. The method according to claim 1, wherein before the selecting a target cell from the at least one potential target cell based on the beam measurement result(s) and a first conditional handover trigger condition, the method further comprises:

obtaining cell measurement result(s) of the at least one potential target cell; and

the selecting a target cell from the at least one potential target cell based on the beam measurement result(s) and the first trigger condition for conditional handover comprises:

selecting the target cell from the at least one potential target cell based on the beam measurement result(s), the cell measurement result(s), and the first conditional handover trigger condition.

3. The method according to claim 2, wherein the first trigger condition for conditional handover is:

that a beam measurement result of a potential target cell satisfies the first determining condition, and a cell measurement result of the potential target cell satisfies the second determining condition.

4. The method according to claim 1 or 3, wherein the first determining condition comprises any one of the following:

that a beam whose measurement result is not less than a first preset threshold is present in a potential target cell;

that a quantity of first beams in a potential target cell is greater than or equal to a first preset quantity, wherein a measurement result of the first beam is not less than a second preset threshold;

that a quantity of second beams in a potential target cell is greater than or equal to a quantity of third beams in a serving cell, wherein a measurement result of the second beam is not less than a third preset threshold, and a measurement result of the third beam is not less than a fourth preset threshold; or

that a difference between a quantity of fourth beams in a potential target cell and a quantity of fifth beams in a serving cell is greater than or equal to a second preset quantity, wherein a measurement result of the fourth beam is not less than a fifth preset threshold, and a measurement result of the fifth beam is not less than a sixth preset threshold.

5. The method according to claim 3, wherein the second determining condition comprises at least one of the following events:

that a cell measurement result of a serving cell is greater than a first absolute threshold;

that a cell measurement result of a serving cell is less than a second absolute threshold;

that a cell measurement result of a potential target cell is better than a cell measurement result of a serving cell;

that a cell measurement result of a potential target cell is greater than a third absolute threshold; or

that a cell measurement result of a serving cell is less than a fourth absolute threshold, and a cell measurement result of a potential target cell is greater than a fifth absolute threshold;

and/or

wherein a precondition for adopting the first trigger condition for conditional handover is any one of the following:

that the terminal is configured with a parameter relevant to the first determining condition and a parameter relevant to the second determining condition; or

that the terminal is configured with indication information, wherein the indication information is used to explicitly or implicitly indicate that a trigger condition for conditional handover be determined based on the beam measurement result(s) and cell measurement result(s).

6. The method according to claim 3, wherein the selecting the target cell from the at least one potential target cell based on the beam measurement result(s), the cell measurement result(s), and the first trigger condition for conditional handover comprises:

in a case that cell measurement results of a plurality of potential target cells satisfy the second determining condition, selecting a potential target cell with a largest quantity of sixth beams as the target cell, or selecting any one of potential target cells with a quantity of seventh beams greater than a third preset quantity as the target cell; wherein

a measurement result of the sixth beam satisfies the first determining condition; and a measurement result of the seventh beam satisfies the first determining condition.

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

obtaining cell measurement result(s) of the at least one potential target cell; and

selecting a target cell from the at least one potential target cell based on the cell measurement result(s) and a second trigger condition for conditional handover; wherein

the second trigger condition for conditional handover is:

that a cell measurement result of a potential target cell satisfies a second determining condition.

8. The method according to claim 7, wherein a precondition for adopting the second trigger condition for conditional handover is any one of the following:

that the terminal is configured with no parameter relevant to the first determining condition;

that the terminal is configured with a parameter relevant to the second determining condition;

that the terminal is configured with a parameter relevant to the first determining condition and a parameter relevant to the second determining condition; or

that the terminal is configured with indication information, wherein the indication information is used to explicitly or implicitly indicate that a trigger condition for conditional handover be determined based on cell measurement result(s), or the indication information is used to explicitly or implicitly indicate that a trigger condition for conditional handover be determined based on the beam measurement result(s) and cell measurement result(s).

9. The method according to claim 1, wherein the beam measurement result comprises at least one of the following:

a measurement result of a channel state information reference signal (CSI-RS);

a measurement result of a synchronization signal and PBCH block (SSB);

a measurement result of a demodulation reference signal (DMRS); ora measurement result of another reference signal;

wherein the measurement result comprises at least one of the following:

reference signal received power (RSRP);

reference signal received quality (RSRQ);

signal to interference plus noise ratio (SINR); or

channel quality indicator (CQI).

10. A terminal, comprising:

a first obtaining module, configured to obtain beam measurement result(s) of at least one potential target cell;

a first selecting module, configured to select a target cell from the at least one potential target cell based on the beam measurement result(s) and a first conditional handover trigger condition; and

an initiating module, configured to initiate a random access procedure in the target cell;

wherein the first trigger condition for conditional handover is:

that a beam measurement result of a potential target cell satisfies a first determining condition;

wherein a precondition for adopting the first trigger condition for conditional handover is any one of the following:

that the terminal is configured with a parameter relevant to the first determining condition;

that the terminal is configured with no parameter relevant to a second determining condition;

that the terminal is configured with a parameter relevant to a first determining condition and a parameter relevant to the second determining condition; or

that the terminal is configured with indication information, wherein the indication information is used to explicitly or implicitly indicate that a trigger condition for conditional handover be determined based on beam measurement result(s), or the indication information is used to explicitly or implicitly indicate that a trigger condition for conditional handover be determined based on beam measurement result(s) and cell measurement result(s); wherein

the first determining condition is a condition corresponding to beam measurement result(s), and the parameter relevant to the first determining condition is a threshold parameter corresponding to the trigger condition for conditional handover based on the beam measurement result(s);

the second determining condition is a condition corresponding to cell measurement result(s), and the parameter relevant to the second determining condition is a threshold parameter corresponding to the trigger condition for conditional handover based on the cell measurement result(s).

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

a second obtaining module, configured to obtain cell measurement result(s) of the at least one potential target cell; wherein

the first selecting module is specifically configured to:

select the target cell from the at least one potential target cell based on the beam measurement result(s), the cell measurement result(s), and the first conditional handover trigger condition.

12. The terminal according to claim 11, wherein the first trigger condition for conditional handover is:

that a beam measurement result of a potential target cell satisfies the first determining condition, and a cell measurement result of the potential target cell satisfies the second determining condition.

13. The terminal according to claim 10 or 12, wherein the first determining condition comprises any one of the following:

that a beam whose measurement result is not less than a first preset threshold is present in a potential target cell;

that a quantity of first beams in a potential target cell is greater than or equal to a first preset quantity, wherein a measurement result of the first beam is not less than a second preset threshold;

that a quantity of second beams in a potential target cell is greater than or equal to a quantity of third beams in a serving cell, wherein a measurement result of the second beam is not less than a third preset threshold, and a measurement result of the third beam is not less than a fourth preset threshold; and

that a difference between a quantity of fourth beams in a potential target cell and a quantity of fifth beams in a serving cell is greater than or equal to a second preset quantity, wherein a measurement result of the fourth beam is not less than a fifth preset threshold, and a measurement result of the fifth beam is not less than a sixth preset threshold.

14. The terminal according to claim 12, wherein the second determining condition comprises at least one of the following events:

that a cell measurement result of a serving cell is greater than a first absolute threshold;

that a cell measurement result of a serving cell is less than a second absolute threshold;

that a cell measurement result of a potential target cell is better than a cell measurement result of a serving cell;

that a cell measurement result of a potential target cell is greater than a third absolute threshold; and

that a cell measurement result of a serving cell is less than a fourth absolute threshold, and a cell measurement result of a potential target cell is greater than a fifth absolute threshold;

and/or

wherein a precondition for adopting the first trigger condition for conditional handover is any one of the following:

that the terminal is configured with a parameter relevant to the first determining condition and a parameter relevant to the second determining condition; or

that the terminal is configured with indication information, wherein the indication information is used to explicitly or implicitly indicate that a trigger condition for conditional handover be determined based on the beam measurement result(s) and cell measurement result(s).

15. A terminal, comprising a processor, a memory, and a computer program stored in the memory and capable of running on the processor, wherein when the computer program is executed by the processor, the steps of the random access method according to any one of claims 1 to 9 are implemented.

16. A computer-readable storage medium, storing a computer program, wherein when the computer program is executed by a processor, the steps of the random access method according to any one of claims 1 to 9 are implemented.