CLAIMS

1. A method for wireless communication, comprising:

reporting, by a terminal, in a first protocol layer, a first event to a second protocol layer, the first event being used to indicate that quality of a signal in a first signal set is poor enough to meet a first condition; and

under the condition that the terminal determines, in the second protocol layer, occurrence of a second event based on an occurrence situation of the first event, determining, by the terminal, in the second protocol layer, at least one of a random access sequence or a random access resource for transmission based on a signal reporting situation provided by the first protocol layer about a second signal set, the random access sequence being a contention-based random access sequence or a contention-free random access sequence and the random access resource being a contention-based random access resource or a contention-free random access resource,

wherein the second event is used to indicate that link quality corresponding to the signal in the first signal set is poor enough to meet a second condition.

2. The method of claim 1, further comprising:

starting, by the terminal, a first timer in the second protocol layer, wherein

determining, by the terminal, in the second protocol layer, the at least one of the random access sequence or the random access resource for transmission based on the signal reporting situation provided by the first protocol layer comprises:

determining, by the terminal, in the second protocol layer, the at least one of the random access sequence or the random access resource based on the signal reporting situation about the second signal set during a duration of the first timer.

3. The method of claim 2, wherein determining, by the terminal, in the second protocol layer, the at least one of the random access sequence or the random access resource for transmission based on the signal reporting situation during the duration of the first timer comprises:

responsive to that the second protocol layer receives first report information from the first protocol layer during the duration of the first timer, determining, by the terminal, at least one of: the random access sequence for transmission is the

contention-free random access sequence or the random access resource for transmission is the contention-free random access resource, the first report information being used to indicate at least one signal, of which quality is good enough to meet a third condition, in the second signal set.

4. The method of claim 2, wherein determining, by the terminal, in the second protocol layer, the at least one of the random access sequence or the random access resource for transmission based on the signal reporting situation during the duration of the first timer comprises:

responsive to that the second protocol layer receives second report information from the first protocol layer during the duration of the first timer, determining, by the terminal, at least one of: the random access sequence for transmission is the contention-based random access sequence or the random access resource for transmission is the contention-based random access resource, the second report information being used to indicate that there is no signal, of which quality is good enough to meet a third condition, in the second signal set.

5. The method of claim 2, wherein determining, by the terminal, in the second protocol layer, the at least one of the random access sequence or the random access resource for transmission based on the signal reporting situation during the duration of the first timer comprises:

responsive to that the second protocol layer receives, from the first protocol layer during the duration of the first timer, no report information which is used to indicate at least one signal, of which quality is good enough to meet a third condition, in the second signal set, determining, by the terminal, at least one of: the random access sequence for transmission is the contention-based random access sequence or the random access resource for transmission is the contention-based random access resource.

6. The method of any one of claims 1-5, wherein starting, by the terminal, the first timer in the second protocol layer comprises:

starting, by the terminal, the first timer in the second protocol layer at a first moment, wherein the first moment comprises one of:

a moment at which occurrence of the second event is determined;

a moment at which the second protocol layer notifies the first protocol layer to stop reporting the first event after occurrence of the second event is determined;

a moment at which the second protocol layer notifies the first protocol layer to report a signal, of which signal quality is good enough to meet a third condition, in the second signal set after occurrence of the second event is determined; or

a moment at which the second protocol layer notifies the first protocol layer to measure a signal in the second signal set after occurrence of the second event is determined.

7. The method of claim 1, further comprising:

after the first protocol layer receives indication information which is sent by the second protocol layer after determining occurrence of the second event, sending, by the terminal, third report information to the second protocol layer based on a measurement result, the third report information being used to indicate at least one signal, of which quality is good enough to meet a third condition, in the second signal set or indicate that no signal, of which quality is good enough to meet a third condition, exists in the second signal set.

8. The method of claim 7, wherein determining, by the terminal, in the second protocol layer, the at least one of the random access sequence or the random access resource for transmission based on the signal reporting situation provided by the first protocol layer comprises:

when the third report information indicates the at least one signal, of which the quality is good enough to meet the third condition, in the second signal set, determining, by the terminal, at least one of: the random access sequence for transmission is the contention-free random access sequence or the random access resource for transmission is the contention-free random access resource; or

when the third report information indicates that no signal, of which the quality is good enough to meet the third condition, exists in the second signal set, determining, by the terminal, at least one of: the random access sequence for transmission is the contention-based random access sequence or the random access resource for transmission is the contention-based random access resource.

9. The method of any one of claims 1-8, further comprising:

responsive to that it is determined, based on the signal reporting situation, at least one of: the random access sequence is the contention-based random access sequence or the random access resource is the contention-based random access resource, determining, by the terminal, at least one of a corresponding contention-based random access sequence or contention-based random access resource based on a Radio Link Monitoring (RLM) measurement result.

10. The method of any one of claims 1-9, wherein the first protocol layer is a physical layer and the second protocol layer is a Media Access Control (MAC) layer.

11. A terminal, comprising a communication unit and a processing unit, wherein

the communication unit is configured to report, in a first protocol layer, a first event to a second protocol layer, the first event being used to indicate that quality of a signal in a first signal set is poor enough to meet a first condition; and

the processing unit is configured to, under the condition that occurrence of a second event is determined in the second protocol layer based on an occurrence situation of the first event, determine, in the second protocol layer, at least one of a random access sequence or a random access resource for transmission based on a signal reporting situation provided by the first protocol layer about a second signal set, the random access sequence being a contention-based random access sequence or a contention-free random access sequence and the random access resource being a contention-based random access resource or a contention-free random access resource,

wherein the second event is used to indicate that link quality corresponding to the signal in the first signal set is poor enough to meet a second condition.

12. The terminal of claim 11, wherein the processing unit is further configured to:

start a first timer in the second protocol layer; and

determine, in the second protocol layer, the at least one of the random access sequence or the random access resource based on the signal reporting situation about the second signal set during a duration of the first timer.

13. The terminal of claim 12, wherein the processing unit is further configured to:

responsive to that the second protocol layer receives first report information from the first protocol layer during the duration of the first timer, determine at least one of: the random access sequence for transmission is the contention-free random access sequence or the random access resource for transmission is the contention-free random access resource, the first report information being used to indicate at least one signal, of which quality is good enough to meet a third condition, in the second signal set.

14. The terminal of claim 12, wherein the processing unit is further configured to:

responsive to that the second protocol layer receives second report information from the first protocol layer during the duration of the first timer, determine at least one of: the random access sequence for transmission is the contention-based random access sequence or the random access resource for transmission is the contention-based random access resource, the second report information being used to indicate that there is no signal, of which quality is good enough to meet a third condition, in the second signal set.

15. The terminal of claim 12, wherein the processing unit is further configured to:

responsive to that the second protocol layer receives, from the first protocol layer during the duration of the first timer, no report information which is used to indicate at least one signal, of which quality is good enough to meet a third condition, in the second signal set, determine at least one of: the random access sequence for transmission is the contention-based random access sequence or the random access resource for transmission is the contention-based random access resource.

16. The terminal of any one of claims 11-15, wherein the processing unit is further configured to:

start the first timer in the second protocol layer at a first moment, wherein the first moment comprises one of:

a moment at which occurrence of the second event is determined;

a moment at which the second protocol layer notifies the first protocol layer to stop reporting the first event after occurrence of the second event is determined;

a moment at which the second protocol layer notifies the first protocol layer to report a signal of, which signal quality is good enough to meet a third condition, in the

second signal set after occurrence of the second event is determined; or

a moment at which the second protocol layer notifies the first protocol layer to measure a signal in the second signal set after occurrence of the second event is determined.

17. The terminal of claim 11, wherein the communication unit is further configured to:

after the first protocol layer receives indication information which is sent by the second protocol layer after determining occurrence of the second event, send third report information to the second protocol layer based on a measurement result, the third report information being used to indicate at least one signal, of which quality is good enough to meet a third condition, in the second signal set or indicate that no signal, of which quality is good enough to meet a third condition, exists in the second signal set.

18. The terminal of claim 11, wherein the processing unit is further configured to:

after the first protocol layer receives indication information which is sent by the second protocol layer after determining occurrence of the second event, start a second timer in the first protocol layer; and

the communication unit is further configured to, during a duration of the second timer, send fourth report information to the second protocol layer based on a measurement result, the fourth report information being used to indicate at least one signal, of which quality is good enough to meet a third condition, in the second signal set or indicate that no signal, of which quality is good enough to meet a third condition, exists in the second signal set.

19. The terminal of claim 18, wherein the processing unit is further configured to:

when the fourth report information indicates the at least one signal, of which the quality is good enough to meet the third condition, in the second signal set, determine at least one of: the random access sequence is the contention-free random access sequence or the random access resource is the contention-free random access resource; or

when the fourth report information indicates that no signal, of which the

quality is good enough to meet the third condition, exists in the second signal set, determine at least one of: the random access sequence is the contention-based random access sequence or the random access resource is the contention-based random access resource.

20. The terminal of any one of claims 11-19, wherein the first protocol layer is a physical layer and the second protocol layer is a Media Access Control (MAC) layer.