

CLAIMS

What is claimed is:

1. A transmission priority processing method, applied to a terminal and comprising:
performing P comparison operations in a case that at least one uplink signal is
5 having a transmission collision, wherein the i^{th} comparison operation is used to compare
priorities of N uplink signals under transmission collision at a first moment, the first
moment is an execution moment of the i^{th} comparison operation, a value of i ranges
from 1 to P, P is a positive integer greater than 1 and less than or equal to K, and both K
and N are integers greater than 1.
- 10 2. The method according to claim 1, wherein the performing P comparison
operations comprises:
in a case that the i^{th} comparison operation has been performed, performing the
($i+1$)th comparison operation if a first condition is satisfied, wherein the first condition
being satisfied comprises at least one of the following:
15 priority of an uplink signal under transmission collision having changed; and
the number of uplink signals under transmission collision having changed.
3. The method according to claim 2, wherein the priority of an uplink signal under
transmission collision having changed comprises at least one of the following:
priority of a first uplink signal in the N uplink signals at a second moment is higher
20 than priority of the first uplink signal at the first moment;
priority of a second uplink signal in the N uplink signals at the second moment is
lower than the priority of the first uplink signal at the first moment; and
a first comparison result is different from a second comparison result, wherein the
first comparison result is a comparison result between priorities of a third uplink signal
25 and a fourth uplink signal in the N uplink signals at the first moment, and the second
comparison result is a comparison result between priorities of the third uplink signal and
the fourth uplink signal at the second moment; wherein
the second moment is an execution time of the ($i+1$)th comparison operation.

4. The method according to claim 2, wherein the performing the $(i+1)^{\text{th}}$ comparison operation if a first condition is satisfied comprises:

if the first condition is satisfied, performing the $(i+1)^{\text{th}}$ comparison operation at or before a third moment; wherein

5 there is an interval T_1 between the third moment and a first sending moment of a first target uplink signal in M uplink signals, and the third moment is earlier than the first sending moment, and the M uplink signals are uplink signals under transmission collision at an execution moment of the $(i+1)^{\text{th}}$ comparison operation.

5. The method according to claim 4, wherein a value of T_1 is any one of the
10 following: a processing duration of the first target uplink signal and a first preset duration.

6. The method according to claim 1, wherein a value of K is configured by a network-side device or specified by a protocol, or

wherein the uplink signals under transmission collision comprise at least one of the
15 following signal types: physical random access channel PRACH signal, physical uplink control channel PUCCH signal, physical uplink shared channel PUSCH signal, and sounding reference signal SRS.

7. The method according to claim 1, wherein after the performing P comparison operations, the method further comprises:

20 sending a second target uplink signal, wherein the second target uplink signal is a highest-priority uplink signal in a comparison result of the P^{th} comparison operation.

8. A transmission priority processing method, applied to a terminal and comprising:

in a case that at least one uplink signal is having a transmission collision, performing a first comparison operation on priority of the at least one uplink signal at a
25 fourth moment; wherein

an interval T_2 is present between the fourth moment and a second sending moment of a third target uplink signal in the at least one uplink signal, and the fourth moment is earlier than the second sending moment.

9. The method according to claim 8, wherein a value of T_2 is any one of the following: a processing duration of the third target uplink signal and a second preset duration, or

wherein the uplink signals under transmission collision comprise at least one of the following signal types: physical random access channel PRACH signal, physical uplink control channel PUCCH signal, physical uplink shared channel PUSCH signal, and sounding reference signal SRS.

10. The method according to claim 8, wherein after the performing a first comparison operation on priority of the at least one uplink signal at a fourth moment, the method further comprises:

sending a fourth target uplink signal, wherein the fourth target uplink signal is a highest-priority uplink signal in a comparison result of the first comparison operation.

11. A transmission priority processing method, applied to a network-side device and comprising:

sending first indication information to a terminal, wherein the first indication information is used to indicate that the terminal performs P comparison operations in a case that at least one uplink signal is having a transmission collision, wherein the i^{th} comparison operation is used to compare priorities of N uplink signals under transmission collision at a first moment, the first moment is an execution moment of the i^{th} comparison operation, a value of i ranges from 1 to P , P is a positive integer greater than 1 and less than or equal to K , and both K and N are integers greater than 1.

12. The method according to claim 11, wherein the first indication information is specifically used to indicate that the terminal performs the $(i+1)^{\text{th}}$ comparison operation if a first condition is satisfied in a case that the terminal has performed the i^{th} comparison operation, wherein the first condition satisfies at least one of the following:

priorities of uplink signals under transmission collision being changed; and
the number of uplink signals under transmission collision being changed.

13. The method according to claim 12, wherein the priority of an uplink signal under transmission collision having changed comprises at least one of the following:

priority of a first uplink signal in the N uplink signals at a second moment is higher than priority of the first uplink signal at the first moment;

priority of a second uplink signal in the N uplink signals at the second moment is lower than the priority of the first uplink signal at the first moment; and

5 a first comparison result is different from a second comparison result, wherein the first comparison result is a comparison result between priorities of a third uplink signal and a fourth uplink signal in the N uplink signals at the first moment, and the second comparison result is a comparison result between priorities of the third uplink signal and the fourth uplink signal at the second moment; wherein

10 the second moment is an execution time of the $(i+1)^{\text{th}}$ comparison operation,

or,

wherein the first indication information is specifically used to indicate that the terminal performs the $(i+1)^{\text{th}}$ comparison operation at or before a third moment if the first condition is satisfied in the case that the terminal has performed the i^{th} comparison

15 operation; wherein

there is an interval T_1 between the third moment and a first sending moment of a first target uplink signal in M uplink signals, and the third moment is earlier than the first sending moment, and the M uplink signals are uplink signals under transmission collision at an execution moment of the $(i+1)^{\text{th}}$ comparison operation.

20 14. The method according to claim 13, wherein a value of T_1 is any one of the following: a processing duration of the first target uplink signal and a first preset duration,

wherein the uplink signals under transmission collision comprise at least one of the following signal types: physical random access channel PRACH signal, physical uplink control channel PUCCH signal, physical uplink shared channel PUSCH signal, and
25 sounding reference signal SRS.

15. The method according to claim 11, further comprising:

sending second indication information to the terminal, wherein the second indication information is used to indicate a value of K, or

wherein after the sending first indication information to a terminal, the method comprises:

receiving a second target uplink signal sent by the terminal, wherein the second target uplink signal is a highest-priority uplink signal in a comparison result of the Pth comparison operation.

16. A transmission priority processing method, applied to a network-side device and comprising:

sending third indication information to a terminal, wherein the third indication information is used to indicate that the terminal performs a first comparison operation on priority of at least one uplink signal at a fourth moment in a case that the at least one uplink signal is having a transmission collision; wherein

an interval T₂ is present between the fourth moment and a second sending moment of a third target uplink signal in the at least one uplink signal, and the fourth moment is earlier than the second sending moment.

17. The method according to claim 16, wherein a value of T₂ is any one of the following: a processing duration of the third target uplink signal and a second preset duration, or

wherein the uplink signals under transmission collision comprise at least one of the following signal types: physical random access channel PRACH signal, physical uplink control channel PUCCH signal, physical uplink shared channel PUSCH signal, and sounding reference signal SRS.

18. The method according to claim 16, wherein after the sending third indication information to a terminal, the method further comprises:

receiving a fourth target uplink signal, wherein the fourth target uplink signal is a highest-priority uplink signal in a comparison result of the first comparison operation.

19. A terminal, comprising a processor, a memory, and a program stored in the memory and capable of running on the processor, wherein when the program is executed by the processor, the processor is configured to perform steps of the transmission priority processing method according to any one of claims 1 to 7, or the steps of the

transmission priority processing method according to any one of claims 8 to 10 are implemented.

20. A network-side device, comprising a processor, a memory, and a program stored in the memory and capable of running on the processor, wherein when the program is executed by the processor, the processor is configured to perform steps of the transmission priority processing method according to any one of claims 11 to 15, or the steps of the transmission priority processing method according to any one of claims 16 to 18 are implemented.