

CLAIMS

1. An information transmission method, comprising:

in a case that transmission of random access request information in a two-step random access procedure conflicts with transmission of target information, transmitting the random access request information or the target information based on transmission priority;

wherein the random access request information includes data information in the random access request information;

in a case that transmission of the data information in the random access request information conflicts with transmission of the target information, and a transmission priority of the target information is lower than that of the data information, the transmitting the random access request information or the target information based on transmission priority, comprises: transmitting the data information.

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

~~data information in the random access request information and~~ control information in the random access request information.

~~3. The information transmission method according to claim 2, wherein the transmitting, in a case that transmission of random access request information conflicts with transmission of target information, the random access request information or the target information based on transmission priority comprises:~~

~~in a case that transmission of the data information in the random access request information conflicts with transmission of the target information, if a transmission priority of the target information is higher than that of the data information, transmitting the target information; or~~

~~in a case that transmission of the data information in the random access request information conflicts with transmission of the target information, if a transmission~~

~~priority of the target information is lower than that of the data information, transmitting the data information.~~

~~4. The information transmission method according to claim 3, further comprising:
in a case that transmission of the data information in the random access request information conflicts with transmission of the target information, if the transmission priority of the target information is higher than that of the data information, abandoning transmission of the control information in the random access request information.~~

~~53.~~The information transmission method according to claim 2, wherein the transmitting, in a case that transmission of random access request information conflicts with transmission of target information, the random access request information or the target information based on transmission priority comprises:

in a case that transmission of the control information in the random access request information conflicts with transmission of the target information, if a transmission priority of the target information is higher than that of the control information, transmitting the target information; or

in a case that transmission of the control information in the random access request information conflicts with transmission of the target information, if a transmission priority of the target information is lower than that of the control information, transmitting the control information.

~~64.~~ The information transmission method according to claim ~~53~~, further comprising:

in the case that transmission of the control information in the random access request information conflicts with transmission of the target information, if the transmission priority of the target information is higher than that of the control information, abandoning transmission of the data information in the random access request information.

~~7. The information transmission method according to claim 1, wherein when a transmission priority of the target information is higher than that of the random access request information:~~

~~the random access request information comprises data information, and the target information is one of the following information:~~

~~information corresponding to an uplink grant transmission which is dynamically scheduled by network;~~

~~information corresponding to an uplink grant transmission which is dynamically scheduled by network, wherein the uplink grant transmission which is dynamically scheduled by network is used for data retransmission;~~

~~retransmission information;~~

~~data information of a service preset with a high priority;~~

~~control information preset with a high priority;~~

~~preset data information; and~~

~~preset control information.~~

~~8. The information transmission method according to claim 1, wherein when a transmission priority of the target information is higher than that of the random access request information:~~

~~the random access request information comprises control information, and the target information is one of the following information:~~

~~retransmission information;~~

~~data information of a service preset with a high priority;~~

~~control information preset with a high priority;~~

~~preset data information; and~~

~~preset control information.~~

95. The information transmission method according to claim 1, wherein when a transmission priority of the target information is lower than that of the random access request information:

the random access request information comprises data information, and the target information is information corresponding to an uplink grant transmission which is dynamically scheduled by network; or

in a case that the random access request information comprises data information, and the target information is information corresponding to an uplink grant transmission

which is dynamically scheduled by network, a random access procedure is triggered by a preset high priority trigger condition or the data information is retransmission information; or

the random access request information comprises data information, and the target information is preset data information; or

the random access request information comprises data information, and the target information is preset control information; or

in a case that the random access request information comprises data information, and the target information is preset data information or preset control information, the data information is retransmission information, or a random access procedure is triggered by a preset high priority trigger condition, or the data information is data information of a service preset with a high priority.

406. The information transmission method according to claim 1, wherein when a transmission priority of the target information is lower than that of the random access request information:

the random access request information comprises control information in the random access request information, and the target information is preset data information; or

in a case that the random access request information comprises control information in the random access request information, and the target information is preset data information or preset control information, a random access procedure is triggered by a preset high priority trigger condition or the control information is control information preset with a high priority.

417. The information transmission method according to claim ~~7, 8, or 95~~, wherein the data information of a service preset with a high priority comprises at least one of the following:

data of a predetermined logical channel and data of predetermined control signaling.

128. The information transmission method according to claim 7, 8, or 106, wherein the control information preset with a high priority comprises at least one of the following:

channel quality feedback information preset with a high priority and control information corresponding to data transmission preset with a high priority.

139. The information transmission method according to claim 9-5 or 106, wherein the preset high priority trigger condition comprises at least one of the following:

a random access procedure triggered by initial access;

a random access procedure triggered by a connection re-establishment;

a random access procedure triggered by handover;

a random access procedure triggered in a case that downlink data arrives and a terminal is out of synchronization in uplink;

a random access procedure triggered in a case that uplink data arrives and a terminal is out of synchronization in uplink;

a random access procedure triggered by state transition;

a random access procedure triggered by an uplink timing advance TA for establishing uplink synchronization for a secondary cell SCell;

a random access procedure triggered by a system information request; and

a random access procedure triggered by beam failure recovery.

1410. A terminal, comprising:

a transmission module, configured to, in a case that transmission of random access request information in a two-step random access procedure conflicts with transmission of target information, transmit the random access request information or the target information based on transmission priority;

wherein the random access request information comprises data information in the random access request information;

in a case that transmission of the data information in the random access request information conflicts with transmission of the target information and a transmission priority of the target information is lower than that of the data information, when transmitting the random access request information or the target information based on

transmission priority, the transmission module is configured to transmit the data information.

~~1511.~~ The terminal according to claim ~~1410~~, wherein the random access request information further comprises ~~at least one of the following:~~

~~data information in the random access request information and control information in the random access request information.~~

~~16. The terminal according to claim 15, wherein the transmission module is configured to, in a case that transmission of the data information in the random access request information conflicts with transmission of the target information, if a transmission priority of the target information is higher than that of the data information, transmit the target information; or~~

~~configured to, in a case that transmission of the data information in the random access request information conflicts with transmission of the target information, if a transmission priority of the target information is lower than that of the data information, transmit the data information.~~

~~17. The terminal according to claim 16, wherein the transmission module is further configured to, in a case that transmission of the data information in the random access request information conflicts with transmission of the target information, if a transmission priority of the target information is higher than that of the data information, abandon transmission of the control information in the random access request information.~~

~~1812.~~ The terminal according to claim ~~1511~~, wherein the transmission module is configured to, in a case that transmission of the control information in the random access request information conflicts with transmission of the target information, if a transmission priority of the target information is higher than that of the control information, transmit the target information; or

configured to, in a case that transmission of the control information in the random access request information conflicts with transmission of the target information, if a transmission priority of the target information is lower than that of the control information, transmit the control information.

13. The terminal according to claim 12, wherein the transmission module is further configured to, in a case that transmission of the control information in the random access request information conflicts with transmission of the target information, if a transmission priority of the target information is higher than that of the control information, abandon transmission of the data information in the random access request information.

14. The terminal according to claim 10, wherein when a transmission priority of the target information is lower than that of the random access request information:

the random access request information comprises data information, and the target information is information corresponding to an uplink grant transmission which is dynamically scheduled by network; or

in a case that the random access request information comprises data information, and the target information is information corresponding to an uplink grant transmission which is dynamically scheduled by network, a random access procedure is triggered by a preset high priority trigger condition or the data information is retransmission information; or

the random access request information comprises data information, and the target information is preset data information; or

the random access request information comprises data information, and the target information is preset control information; or

in a case that the random access request information comprises data information, and the target information is preset data information or preset control information, the data information is retransmission information, or a random access procedure is triggered by a preset high priority trigger condition, or the data information is data information of a service preset with a high priority.

15. A terminal, comprising a memory, a processor, 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 information transmission method according to any one of claims 1 to ~~13~~9 are implemented.

2016. A computer-readable storage medium, wherein the computer-readable storage medium stores a computer program, and when the computer program is executed by a processor, the steps of the information transmission method according to any one of claims 1 to ~~13~~9 are implemented.