may be integrated in one processing unit, or each unit may exist alone physically, or two or more units may be integrated in one unit.

[00175] The functions may also be stored in a computer-readable storage medium if being implemented in the form of a software functional unit and sold or used as an independent product. Based on such understanding, the essence of the technical solutions of the present disclosure, or the part contributing to the related art or a part of the technical solutions, may be embodied in the form of a software product. The computer software product is stored in a storage medium including a number of instructions such that a computer device (which may be a personal computer, a server, or a network device, etc.) performs all or a part of steps of the method described in each of the embodiments of the present disclosure. The foregoing storage medium includes: any medium that is capable of storing program codes such as a USB disk, a mobile hard disk, a Read-Only Memory (ROM), a Random Access Memory (RAM), a magnetic disk, or an optical disk.

WHAT IS CLAIMED IS:

1. A method for uplink transmission, comprising:

receiving, by a terminal device, a plurality of Scheduling Request (SR) configuration information of a network device, wherein each SR configuration information comprises a maximum number of transmissions of a corresponding SR; and

processing, by the terminal device, Physical Uplink Control Channel (PUCCH) resources corresponding to the plurality of SR configuration information according to the plurality of SR configuration information.

2. The method according to claim 1, wherein the plurality of SR configuration information comprises first SR configuration information, the first SR configuration information corresponds to a first SR, and the processing, by the terminal device, the Physical Uplink Control Channel (PUCCH) resources corresponding to the plurality of SR configuration information according to the plurality of SR configuration information comprises:

when a number of transmissions of the first SR reaches the maximum number of transmissions of the first SR, releasing, by the terminal device, a PUCCH resource corresponding to the first SR configuration information.

3. The method according to claim 2, further comprising:

initiating a random access procedure and requesting to acquire the PUCCH resource corresponding to the first SR configuration information, by the terminal device.

4. The method according to claim 1, wherein the plurality of SR configuration information comprises second SR configuration information, the second SR configuration information corresponds to a second SR, and the processing, by the terminal device, the Physical Uplink Control Channel (PUCCH) resources corresponding to the plurality of SR configuration information according to the plurality of SR configuration information comprises:

when a number of transmissions of the second SR reaches the maximum number of transmissions of the second SR, releasing, by the terminal device, the PUCCH resource corresponding to each SR configuration information.

5. The method according to claim 4, further comprising:

clearing downlink allocation information and uplink authorization information delivered by the network device, and cancelling sending each SR to be sent, by the terminal device; and

initiating a random access procedure and reconfiguring each of the SR configuration information, by the terminal device.

6. The method according to claim 1, wherein the plurality of SR configuration information comprises third SR configuration information, the third SR configuration information has a higher priority than other SR configuration information, said other SR configuration information comprises fourth SR configuration information, the fourth SR configuration information corresponds to a fourth SR, and the processing, by the terminal device, the Physical Uplink Control Channel (PUCCH) resources corresponding to the plurality of SR configuration information according to the plurality of SR configuration information comprises:

when a number of transmissions of the fourth SR reaches the maximum number of transmissions of the fourth SR, releasing, by the terminal device, a PUCCH resource corresponding to the fourth SR configuration information.

7. The method according to claim 6, further comprising:

sending, by the terminal device, the fourth SR by using the PUCCH resource corresponding to the third SR configuration information.

8. The method according to claim 1, 6 or 7, wherein the plurality of SR configuration information comprises third SR configuration information, the third SR configuration information has a higher priority than other SR configuration information, said other SR configuration information comprises fourth SR configuration information, the third configuration information corresponds to a third SR, and the processing, by the terminal device, the Physical Uplink Control Channel (PUCCH) resources corresponding to the plurality of SR configuration information according to the plurality of SR configuration information comprises:

when a number of transmissions of the third SR reaches the maximum number of transmissions of the third SR, releasing, by the terminal device, the PUCCH resource corresponding to each SR configuration information.

9. The method according to claim 8, further comprising:

clearing, by the terminal device, downlink allocation information and uplink authorization information delivered by the network device; and

initiating a random access procedure and cancelling sending each SR to be sent, by the terminal device.

10. The method according to any one of claims 6 to 9, wherein a transmission reliability of the PUCCH resource corresponding to the third SR configuration information is higher than a transmission reliability of the PUCCH resource corresponding to the fourth SR configuration information.

11. A method for uplink transmission, comprising:

receiving, by a terminal device, a plurality of Scheduling Request (SR) configuration information of a network device, wherein each SR configuration information comprises a maximum number of transmissions of the SR, and the maximum number of transmissions of the SR is used to indicate a cumulative maximum number of transmissions of all the SRs; and

processing, by the terminal device, Physical Uplink Control Channel (PUCCH) resources corresponding to the plurality of SR configuration information according to the plurality of SR configuration information.

12. The method according to claim 11, wherein the processing, by the terminal device, the Physical Uplink Control Channel (PUCCH) resources corresponding to the plurality of SR configuration information according to the plurality of SR configuration information comprises:

releasing, by the terminal device, the PUCCH resource corresponding to each SR configuration information, in a case that a cumulative number of transmissions of all the SRs reaches the maximum number of transmissions of the SR.

13. The method according to claim 12, further comprising:

clearing, by the terminal device, downlink allocation information and uplink authorization information delivered by the network device; and

initiating a random access procedure and cancelling sending each SR to be sent, by the terminal device.

14. A terminal device, comprising:

a memory;

a processor;

an input interface; and

an output interface,

wherein the memory, the processor, the input interface, and the output interface are connected by a bus system, the memory is configured for storing instructions, and the processor is configured for executing the instructions stored in the memory to perform the method for uplink transmission according to any one of claims 1-10.

15. A terminal device, comprising:

a memory;

a processor;

an input interface; and

an output interface,

wherein the memory, the processor, the input interface, and the output interface are connected by a bus system, the memory is configured for storing instructions, and the processor is configured for executing the instructions stored in the memory

to perform the method for uplink transmission according to any one of claims 11-13.