CLAIMS

1. A method for uplink transmission, comprising:

determining, by a terminal device, according to first mapping relationships, an identification manner for a first Quality of Service (QoS) flow corresponding to a data packet carried in a first Data Radio Bearer (DRB), the first mapping relationships being mapping relationships between QoS flows and DRBs;

wherein determining, by the terminal device, according to the first mapping relationships, the identification manner for the first QoS flow corresponding to the data packet carried in the first DRB comprises:

when the QoS flows are in multiple-to-one correspondences with the DRBs in the first mapping relationships, determining, by the terminal device, the identification manner for the first QoS flow according to a number of QoS flows corresponding to one DRB;

wherein determining, by the terminal device, the identification manner for the first QoS flow according to the number of QoS flows corresponding to one DRB comprises:

when the number of QoS flows corresponding to each DRB is identical in the first mapping relationships and the number of QoS flows corresponding to the first DRB is less than a first preset number threshold, determining that a second identification manner is adopted to identify the first QoS flow, the second identification manner being that identification information having a specific number of bits is determined according to the number of QoS flows corresponding to the first DRB, and the first QoS flow is identified by the identification information having the specific number of bits; when the number of QoS flows corresponding to each DRB is identical in the first mapping relationships and the number of QoS flows corresponding to the first DRB is greater than the first preset number threshold, determining that a third identification manner is adopted to identify the first QoS flow, the third identification manner being that the first QoS flow is identified by a QoS flow Identity (ID) of the first QoS flow; or

when the numbers of QoS flows corresponding to at least two DRBs are different from each other in the first mapping relationships and the number of QoS flows corresponding to the first DRB is less than a first preset number threshold, determining that a second identification manner is adopted to identify the first QoS flow,

the second identification manner being that identification information having a specific number of bits is determined according to the number of QoS flows corresponding to the first DRB, and the first QoS flow is identified by the identification information having the specific number of bits; when the numbers of QoS flows corresponding to at least two DRBs are different from each other in the first mapping relationships and the number of QoS flows corresponding to the first DRB is greater than the first preset number threshold, determining that a third identification manner is adopted to identify the first QoS flow, the third identification manner being that the first QoS flow is identified by a QoS flow Identity (ID) of the first QoS flow;

identifying, by the terminal device, according to the identification manner for the first QoS flow, the first QoS flow corresponding to the data packet carried in the first DRB; and

sending, by the terminal device, an identified data packet to a network device via the first DRB.

2. The method of claim 1, further comprising:

determining, by the terminal device, the first mapping relationships.

3. The method of claim 2, wherein determining, by the terminal device, the first mapping relationships comprises:

receiving, by the terminal device, high layer signaling sent by the network device, the high layer signaling being used by the network device to configure the first mapping relationships to the terminal device; and

determining, by the terminal device, the first mapping relationships according to the high layer signaling.

4. The method of claim 2, wherein determining, by the terminal device, the first mapping relationships comprises:

receiving, by the terminal device, high layer signaling sent by the network device, the high layer signaling indicating that the terminal device determines the first mapping relationships according to second mapping relationships, and the second mapping relationships being mapping relationships between DRBs and QoS flows for downlink data mapping; and

determining, by the terminal device, as the first mapping relationships, the second mapping relationships on which a mirror mapping has been performed.

5. A method for uplink transmission, comprising:

receiving, by a network device, a data packet sent by a terminal device via a first Data Radio Bearer (DRB);

determining, by the network device, according to first mapping relationships, an identification manner for a first Quality of Service (QoS) flow corresponding to the data packet, the first mapping relationships being mapping relationships between QoS flows and DRBs;

wherein determining, by the network device, according to the first mapping relationships, the identification manner for the first QoS flow corresponding to the data packet carried in the first DRB comprises:

when the QoS flows are in multiple-to-one correspondences with the DRBs in the first mapping relationships, determining, by the network device, the identification manner for the first QoS flow according to a number of QoS flows corresponding to one DRB;

wherein determining, by the network device, the identification manner for the first QoS flow according to the number of QoS flows corresponding to one DRB comprises:

when the number of QoS flows corresponding to each DRB is identical in the first mapping relationships and the number of QoS flows corresponding to the first DRB is less than a first preset number threshold, determining that a second identification manner is adopted to identify the first QoS flow, the second identification manner being that identification information having a specific number of bits is determined according to the number of QoS flows corresponding to the first DRB, and the first QoS flow is identified by the identification information having the specific number of bits; when the number of QoS flows corresponding to each DRB is identical in the first mapping relationships and the number of QoS flows corresponding to the first DRB is greater than the first preset number threshold, determining that a third identification manner is adopted to identify the first QoS flow, the third identification manner being that the first QoS flow is identified by a QoS flow Identity (ID) of the first QoS flow; or

when the numbers of QoS flows corresponding to at least two DRBs are

different from each other in the first mapping relationships and the number of QoS flows corresponding to the first DRB is less than a first preset number threshold, determining that a second identification manner is adopted to identify the first QoS flow, the second identification manner being that identification information having a specific number of bits is determined according to the number of QoS flows corresponding to the first DRB, and the first QoS flow is identified by the identification information having the specific number of bits; when the numbers of QoS flows corresponding to at least two DRBs are different from each other in the first mapping relationships and the number of QoS flows corresponding to the first DRB is greater than the first preset number threshold, determining that a third identification manner is adopted to identify the first QoS flow, the third identification manner being that the first QoS flow is identified by a QoS flow Identity (ID) of the first QoS flow;

determining, by the network device, the first QoS flow corresponding to the data packet carried in the first DRB, according to the identification manner for the first QoS flow; and

mapping, by the network device, the data packet carried in the first DRB to the first QoS flow.

6. The method of claim 5, further comprising:

determining, by the network device, the first mapping relationships.

7. The method of claim 6, wherein determining, by the network device, the first mapping relationships comprises:

determining, by the network device, as the first mapping relationships, second mapping relationships on which a mirror mapping has been performed, the second mapping relationships being mapping relationships between DRBs and QoS flows for downlink data mapping.

8. A terminal device, comprising:

a determination module, configured to determine, according to first mapping relationships, an identification manner for a first Quality of Service (QoS) flow corresponding to a data packet carried in a first Data Radio Bearer (DRB), the first mapping relationships being mapping relationships between QoS flows and DRBs;

wherein the determination module is further configured to:

when the QoS flows are in multiple-to-one correspondences with the DRBs in the first mapping relationships, determine the identification manner for the first QoS flow according to a number of QoS flows corresponding to one DRB;

wherein the determination module is further configured to:

when the number of QoS flows corresponding to each DRB is identical in the first mapping relationships and the number of QoS flows corresponding to the first DRB is less than a first preset number threshold, determine that a second identification manner is adopted to identify the first QoS flow, the second identification manner being that identification information having a specific number of bits is determined according to the number of QoS flows corresponding to the first DRB, and the first QoS flow is identified by the identification information having the specific number of bits; when the number of QoS flows corresponding to each DRB is identical in the first mapping relationships and the number of QoS flows corresponding to the first DRB is greater than the first preset number threshold, determine that a third identification manner is adopted to identify the first QoS flow, the third identification manner being that the first QoS flow is identified by a QoS flow Identity (ID) of the first QoS flow; or

when the numbers of QoS flows corresponding to at least two DRBs are different from each other in the first mapping relationships and the number of QoS flows corresponding to the first DRB is less than a first preset number threshold, determine that a second identification manner is adopted to identify the first QoS flow, the second identification manner being that identification information having a specific number of bits is determined according to the number of QoS flows corresponding to the first DRB, and the first QoS flow is identified by the identification information having the specific number of bits; when the numbers of QoS flows corresponding to at least two DRBs are different from each other in the first mapping relationships and the number of QoS flows corresponding to the first DRB is greater than the first preset number threshold, determine that a third identification manner is adopted to identify the first QoS flow, the third identification manner being that the first QoS flow is identified by a QoS flow Identity (ID) of the first QoS flow;

an identification module, configured to identify, according to the identification manner for the first QoS flow, the first QoS flow corresponding to the data packet carried in the first DRB; and

a communication module, configured to send an identified data packet to a network device via the first DRB.

9. The terminal device of claim 8, wherein the determination module is further configured to determine the first mapping relationships.

10. The terminal device of claim 9, wherein the communication module is further configured to:

receive high layer signaling sent by the network device, the high layer signaling being used by the network device to configure the first mapping relationships to the terminal device; and

the determination module is further configured to:

determine the first mapping relationships according to the high layer signaling.

11. The terminal device of claim 9, wherein the communication module is further configured to:

receive high layer signaling sent by the network device, the high layer signaling indicating that the terminal device determines the first mapping relationships according to second mapping relationships, and the second mapping relationships being mapping relationships between DRBs and QoS flows for downlink data mapping; and

the determination module is further configured to:

determine, as the first mapping relationships, the second mapping relationships on which a mirror mapping has been performed.

12. The terminal device of claim 11, wherein the communication module is further configured to:

receive third mapping relationships sent by the network device, the third mapping relationships comprising correspondences between the identification information having the specific number of bits and the QoS flows under a condition that the second identification manner.

13. The terminal device of any one of claims 12, wherein when at least two DRBs correspond to different numbers of QoS flows in the first mapping relationships, the communication module is further configured to:

receive indication information from the network device, the indication information indicating that the terminal device determines the identification manner for the first QoS flow according to the number of QoS flows corresponding to the first DRB.

14. A network device, comprising:

a communication module, configured to receive a data packet sent by a terminal device via a first Data Radio Bearer (DRB);

a determination module, configured to determine, according to first mapping relationships, an identification manner for a first Quality of Service (QoS) flow corresponding to the data packet, and determine the first QoS flow corresponding to the data packet carried in the first DRB according to the identification manner for the first QoS flow, the first mapping relationships being mapping relationships between QoS flows and DRBs,

wherein the determination module is further configured to:

when the QoS flows are in multiple-to-one correspondences with the DRBs in the first mapping relationships, determine the identification manner for the first QoS flow according to a number of QoS flows corresponding to one DRB;

wherein the determination module is further configured to:

when the number of QoS flows corresponding to each DRB is identical in the first mapping relationships and the number of QoS flows corresponding to the first DRB is less than a first preset number threshold, determine that a second identification manner is adopted to identify the first QoS flow, the second identification manner being that identification information having a specific number of bits is determined according to the number of QoS flows corresponding to the first DRB, and the first QoS flow is identified by the identification information having the specific number of bits; when the number of QoS flows corresponding to each DRB is identical in the first mapping relationships and the number of QoS flows corresponding to the first DRB is greater than the first preset number threshold, determine that a third identification manner is adopted to identify the first QoS flow, the third identification manner being that the first

QoS flow is identified by a QoS flow Identity (ID) of the first QoS flow; or

when the numbers of QoS flows corresponding to at least two DRBs are different from each other in the first mapping relationships and the number of QoS flows corresponding to the first DRB is less than a first preset number threshold, determine that a second identification manner is adopted to identify the first QoS flow, the second identification manner being that identification information having a specific number of bits is determined according to the number of QoS flows corresponding to the first DRB, and the first QoS flow is identified by the identification information having the specific number of bits; when the numbers of QoS flows corresponding to at least two DRBs are different from each other in the first mapping relationships and the number of QoS flows corresponding to the first DRB is greater than the first preset number threshold, determine that a third identification manner is adopted to identify the first QoS flow, the third identification manner being that the first QoS flow is identified by a QoS flow Identity (ID) of the first QoS flow; and

the communication module is further configured to map the data packet carried in the first DRB to the first QoS flow.

15. The network device of claim 14, wherein the determination module is further configured to determine the first mapping relationships.

16. The network device of claim 15, wherein the determination module is further configured to:

determine, as the first mapping relationships, second mapping relationships on which a mirror mapping has been performed, the second mapping relationships being mapping relationships between DRBs and QoS flows for downlink data mapping.