CLAIMS

1. A method for scheduling, comprising:

receiving, by a terminal, first information transmitted by a network device, wherein the first information comprises information of at least one logical function entity; and

processing, by the terminal, data of a first logical function entity based on information of the first logical function entity and a first characteristic of the data of the first logical function entity; wherein the first logic functional entity is one of the at least one logical function entity;

wherein the data of the first logical function entity has at least one relationship; and the processing comprises at least one of: resource allocation, transmission, discarding, reception, or delivery to an upper layer.

2. The method of claim 1, wherein the first characteristic comprises at least one of:

an importance, a delay, a delay budget, a reliability, a layer, a packet length, a jitter requirement, a jitter range, a packet error rate, a packet error rate requirement, a resolution, layer information, a Quality of Service Flow Identifier (QFI), a transmission format, a transmission bandwidth requirement, a type of slice, slice segmentation information, or a depth of parameter.

3. The method of claim 1, wherein the relationship that the data of the first logical function entity has comprises at least one of:

importances of part or all of the data being different;

layers of part or all of the data being different;

Quality of Service Flow Identifiers (QFIs) of part or all of the data being different;

the data belonging to at least one Protocol Data Unit (PDU) set;

the data belonging to at least one data burst;

the data belonging to at least one Quality of Service (QoS) flow; or

the data belonging to at least one QoS flow, the QoS flow comprising at least one PDU set.

4. The method of claim 3, wherein the QoS flow comprises at least one PDU set, and at least one of followings applies to one of the at least one PDU set:

the one PDU set forming a picture or a group of pictures (GoP);

the one PDU set forming one of an I-frame, a B-frame or a P-frame of a picture or a GoP;

the one PDU set forming at least one of an I-frame, a B-frame or a P-frame of a picture or a GoP;

the one PDU set forming at least one of an I-frame, a B-frame or a P-frame of a slice and/or a tile of a picture or a GoP;

the one PDU set forming one of an I-frame, a B-frame or a P-frame of a slice and/or a tile of a picture or a GoP;

the one PDU set forming at least one of different layers of a picture or a GoP; or

importances and/or layers of part of PDUs of the one PDU set being different.

5. The method of claim 1, wherein the information of the first logical function entity comprises at least one of:

at least one Protocol Data Unit (PDU) set;

at least one data burst;

at least one Quality of Service (QoS) flow;

at least one importance;

at least one of following parameters: at least one packet delay budget (PDB), a packet error rate (PER), a packet set delay budget (PSDB), or a packet set error rate (PSER);

at least one of: a PDU set, a data burst, a QoS flow, a Data Radio Bearer (DRB) or a PDU, which corresponds to at least one of following parameters: at least one PDB, a PER, a PSDB or a PSER;

an indication with an integrity processing requirement;

a range of at least one of followings that have an integrity processing requirement: a PDU set, a data burst, a QoS flow, a DRB or a PDU;

a multi-stream coordination indication;

a range of at least one of followings that have a multi-stream co-processing requirement: a PDU set, a data burst, a QoS flow, a DRB or a PDU;

at least one layer;

at least one projection type; or

at least one packet loss policy indication.

6. The method of claim 3, wherein in a case where one QoS flow is mapped to at least one Data

Radio Bearer (DRB) corresponding to the first logical function entity, the QoS flow comprises a plurality of PDU sets; and/or

in a case where a plurality of QoS flows are mapped to at least one DRB corresponding to the first logical function entity, each of the plurality of QoS flows comprises one PDU set;

wherein each PDU set comprises PDUs or data packets of one type or priority, or PDUs or data packets comprised in each PDU set correspond to a same 5G QoS indicator (5QI).

7. The method of claim 1, wherein the information of the first logical function entity comprises:

information of at least one of followings that correspond to the first logical function entity: at least one first Radio Link Control (RLC) entity, at least one Packet Data Convergence Protocol (PDCP) entity, or at least one L2 entity,

wherein the at least one first RLC entity corresponding to the first logical function entity comprises:

at least one PDCP entity corresponding to the at least one first RLC entity.

8. The method of claim 1, wherein processing, by the terminal, the data of the first logical function entity based on the information of the first logical function entity and the first characteristic of the data of the first logical function entity comprises:

mapping, by the terminal, at least one of a packet, a Protocol Data Unit (PDU), a PDU set or a data burst to at least one Data Radio Bearer (DRB) corresponding to the first logical function entity according to a first characteristic of the at least one of the packet, the PDU, the PDU set or the data burst.

9. The method of claim 1, wherein processing, by the terminal, the data of the first logical function entity based on the information of the first logical function entity and the first characteristic of the data of the first logical function entity comprises:

transmitting or delivering to a Medium Access Control (MAC) entity, by a first Radio Link Control (RLC) entity or an L2 entity of the terminal, first indication information of an application layer or a higher layer, and/or a first characteristic of at least one of followings that are transmitted or mapped to the first logical function entity: a packet, a Protocol Data Unit (PDU), a PDU set, a QoS flow or a data burst.

10. The method of claim 9, wherein transmitting or delivering to the MAC entity, by the first

RLC entity or the L2 entity of the terminal, the first indication information of the application layer or the higher layer, and/or the first characteristic of at least one of followings that are transmitted or mapped to the first logical function entity: the packet, the PDU, the PDU set, the QoS flow or the data burst, comprises:

transmitting, by the first RLC entity or the L2 entity of the terminal, control signaling and/or a data packet to the MAC entity, and the control signaling and/or packet header information of the data packet comprises the first indication information and/or the first characteristic,

wherein the first indication information comprises at least one of:

information indicating a picture quality; or

information indicating an air interface resource status.

11. The method of any one of claims 1 to 10, wherein a plurality of first rules are used in transmission of the data of the first logical function; and/or

the first logical function entity has a plurality of output interfaces for transmitting data; wherein each output interface corresponds to a respective one of the first rules,

wherein the first rule comprises at least one of:

preferentially allocating an uplink grant to data of the first logical function entity that arrives earlier and has an integrity parameter that reaches a first value;

preferentially allocating the uplink grant to data of the first logical function entity that arrives earlier and is at a highest importance parameter level;

preferentially allocating the uplink grant to data of the first logical function entity that is at the highest importance parameter level;

preferentially allocating the uplink grant to data of the first logical function that has an integrity requirement and/or a multi-stream co-processing requirement with one or more packets that have been successfully processed;

preferentially allocating the uplink grant to data of the first logical function entity that arrives earlier and has a highest quantity requirement in a layer parameter;

preferentially allocating the uplink grant to data of the first logical function entity that has the highest quantity requirement in the layer parameter;

in a case where data at a high importance parameter level is lost in data of a Protocol Data Unit (PDU) set with an integrity characteristic, discarding other data in the PDU set with the integrity characteristic;

in a case where data at high importance parameter level is lost in the data of the PDU set with the integrity characteristic, processing other data in the PDU set with the integrity characteristic normally;

in a case where a first integrity parameter of a first PDU set in which first data is located is same as a second integrity parameter of a second PDU set in which second data is located, in response to a first priority of the first data being higher than a second priority of the second data, preferentially allocating the uplink grant to the first data; or

in a case where a first integrity indicated by the first integrity parameter of the first PDU set in which the first data is located is higher than a second integrity indicated by the second integrity parameter of the second PDU set in which the second data is located, preferentially allocating the uplink grant to the first data.

12. The method of claim 10, wherein processing, by the terminal, the data of the first logical function entity based on the information of the first logical function entity and the first characteristic of the data of the first logical function entity comprises:

in a case where a picture quality indicated by the information indicating the picture quality is higher than a first threshold, and/or in a case where an air interface resource status indicated by the information indicating the air interface resource status is higher than a second threshold, processing data that is transmitted to and/or mapped to the first logical function entity by using the first rule, wherein the first rule is related at least to an integrity parameter of a PDU set, and the integrity parameter comprises at least one of a transmission completion rate, a transmission success rate or a transmission failure rate; or

in a case where an air interface resource state indicated by the information indicating the air interface resource state is not higher than a second threshold, processing data that is transmitted to and/or mapped to the first logical function entity by using a second rule, wherein the second rule is related at least to a priority of data.

13. A method for scheduling, comprising:

transmitting, by a network device, first information to a terminal, wherein the first information comprises information of at least one logical function entity; the information of the first logical function entity is used for the terminal to process data of the first logical function entity; the first logical function entity is any one of the at least one logical function entity; the data of the first logical function entity has at least one relationship; and the

processing comprises at least one of: resource allocation, transmission, discarding, reception, or delivery to an upper layer.

receiving, by the network device, the data of the first logical function entity transmitted by the terminal.

14. The method of claim 13, wherein the relationship that the data of the first logical function entity has comprises at least one of:

importances of part or all of the data being different;

layers of part or all of the data being different;

Quality of Service Flow Identifiers (QFIs) of part or all of the data being different;

the data belonging to at least one Protocol Data Unit (PDU) set;

the data belonging to at least one data burst;

the data belonging to at least one Quality of Service (QoS) flow; or

the data belonging to at least one QoS flow, the QoS flow comprising at least one PDU set.

15. The method of claim 14, wherein the QoS flow comprises at least one PDU set, and at least one of followings applies to one of the at least one one PDU set:

the one PDU set forming a picture or a group of pictures (GoP);

the one PDU set forming one of an I-frame, a B-frame or a P-frame of a picture or a GoP;

the one PDU set forming at least one of an I-frame, a B-frame or a P-frame of a picture or a GoP;

the one PDU set forming at least one of an I-frame, a B-frame or a P-frame of a slice and/or a tile of a picture or a GoP;

the one PDU set forming one of an I-frame, a B-frame or a P-frame of a slice and/or a tile of a picture or a GoP;

the one PDU set forming at least one of different layers of a picture or a GoP; or

importances and/or layers of part of PDUs of the one PDU set being different.

16. The method of claim 13, wherein the information of the first logical function entity comprises at least one of:

at least one Protocol Data Unit (PDU) set;

at least one data burst;

at least one Quality of Service (QoS) flow;

at least one importance;

at least one of following parameters: at least one packet delay budget (PDB), a packet error rate (PER), a packet set delay budget (PSDB), or a packet set error rate (PSER);

at least one of: a PDU set, a data burst, a QoS flow, a Data Radio Bearer (DRB) or a PDU, which corresponds to at least one of following parameters: at least one PDB, a PER, a PSDB or a PSER;

an indication with an integrity processing requirement;

a range of at least one of followings that have an integrity processing requirement: a PDU set, a data burst, a QoS flow, a DRB or a PDU;

a multi-stream coordination indication;

a range of at least one of followings that have a multi-stream co-processing requirement: a PDU set, a data burst, a QoS flow, a DRB or a PDU;

at least one layer;

at least one projection type; or

at least one packet loss policy indication.

17. The method of claim 14, wherein in a case where one QoS flow is mapped to at least one Data Radio Bearer (DRB) corresponding to the first logical function entity, the QoS flow comprises a plurality of PDU sets; and/or

in a case where a plurality of QoS flows are mapped to at least one DRB corresponding to the first logical function entity, each of the plurality of QoS flows comprises one PDU set;

wherein each PDU set includes PDUs or data packets of one type or priority, or PDUs or data packets comprised in each PDU set correspond to a same 5G QoS indicator (5QI).

18. The method of claim 13, wherein the information of the first logical function entity comprises:

information of at least one of followings that correspond to the first logical function entity: at least one first Radio Link Control (RLC) entity, at least one Packet Data Convergence Protocol (PDCP) entity, or at least one L2 entity,

wherein the at least one first RLC entity corresponding to the first logical function entity comprises:

at least one PDCP entity corresponding to the at least one first RLC entity.

19. A computer-readable storage medium having stored thereon a computer program which, when executed by a processor, implements steps of the method of any one of claims 1 to 12, or

the program, when executed by the processor, implements steps of the method of any one of claims 13 to 18.

20. A communication device, comprising a memory, a processor, and a computer program stored on the memory and executable on the processor, the processor is configured to implement steps of the method of any one of claims 1 to 12 when the program is executed; or

the processor is configured to steps of the method of any one of claims 13 to 18 when the program is executed.