

SUMMARY

A method and apparatus for sending data, a method and apparatus for processing data, a network communication method, a network sending device, a network receiving device, a computer-readable storage medium, a network side device and a terminal are provided in the embodiments of the present invention to at least solve the problem, in the related art, that the terminal cannot determine the received data is transmitted by the network side in which transmission.

A method for sending data is provided in an embodiment of the present invention. The method includes: performing first predetermined processing on data to be transmitted to obtain a first processing result; concatenating the first processing result with the data to be transmitted to obtain concatenated data; performing second predetermined processing on the concatenated data to obtain processed data, where the processed data includes a plurality of segments of data, and each segment of the plurality of segments of data corresponds to a data transmission; and transmitting a segment of data in the processed data and corresponding to a current data transmission of a network side device.

A method for processing data is provided in an embodiment of the present invention. The method includes: receiving data sent by a network side device, where the data is a segment of data among data obtained from pre-processing data to be transmitted by the network side device; and determining, according to preset correspondence between segments of data and the numbers of data transmissions and the received data, the number of data transmissions corresponding to the received data.

An apparatus for processing data is provided in an embodiment of the present invention. The apparatus includes a reception module and a determination module. The reception module is configured to receive data sent by a network side device, where the data is a segment of data among data obtained from pre-processing data to be transmitted by the network side device. The determination module is configured to determine, according to preset correspondence between segments of data and the numbers of data transmissions and the received data, the number of data transmissions corresponding to the received data.

A network communication method is provided in an embodiment of the present invention. The method includes: performing, by a network sending device, a first processing on data to be transmitted to obtain a first processing result, the first processing comprising performing a cyclic redundancy check on the data to obtain a first check result and performing an XOR operation on a cell radio network temporary identifier and last 16 bits of the first check result to obtain the first processing result, wherein the cell radio network temporary identifier has 16 bits

and the first check result has 24 bits; performing, by the network sending device, a second processing on concatenated data to obtain processed data, wherein the concatenated data comprises the first processing result concatenated with the data; and transmitting, by the network sending device, one of a plurality of segments of the processed data.

A network sending device and a network receiving device are provided in an embodiment of the present invention and includes a processor. The processor is configured to perform the network communication method described above.

A computer-readable storage medium is provided in an embodiment of the present invention and has instructions stored that, when executed by a processor, cause the processor to implement the network communication method described above.

A computer program product is provided in an embodiment of the present invention and includes computer-readable program medium instructions stored thereupon. The instructions, when executed by a processor, cause the processor to implement the network communication method described above.

A network side device is provided in an embodiment of the present invention and includes a processor and a memory. The processor is configured to perform first predetermined processing on data to be transmitted to obtain a first processing result; concatenate the first processing result with the data to be transmitted to obtain concatenated data; perform second predetermined processing on the concatenated data to obtain processed data; and transmit a segment of data in the processed data and corresponding to a current data transmission of the network side device, where the processed data includes a plurality of segments of data, and each segment of the plurality of segments of data corresponds to a data transmission. The memory is coupled to the

What is claimed is

1. A network communication method, comprising:

performing, by a network sending device, a first processing on data to be transmitted to obtain a first processing result, the first processing comprising performing a cyclic redundancy check on the data to obtain a first check result and performing an XOR operation on a cell radio network temporary identifier and last 16 bits of the first check result to obtain the first processing result, wherein the cell radio network temporary identifier has 16 bits and the first check result has 24 bits;

performing, by the network sending device, a second processing on concatenated data to obtain processed data, wherein the concatenated data comprises the first processing result concatenated with the data; and

transmitting, by the network sending device, one of a plurality of segments of the processed data.

2. The network communication method of claim 1, wherein performing a second processing on the concatenated data to obtain processed data further comprises:

coding, by the network sending device, the concatenated data to obtain coded data; and
scrambling, by the network sending device, the coded data to obtain the processed data.

3. The network communication method of claim 1, wherein each of the plurality of segments of the processed data corresponds to a data transmission of the network sending device.

4. A network sending device, comprising:

a processor configured to:

perform a first processing on data to be transmitted to obtain a first processing result, the first processing comprising performing a cyclic redundancy check on the data to obtain a first check result and performing an XOR operation on a cell radio network temporary identifier and last 16 bits of the first check result to obtain the first processing result, wherein the cell radio network temporary identifier has 16 bits and the first check result has 24 bits;

perform a second processing on concatenated data to obtain processed data, wherein the concatenated data comprises the first processing result concatenated with the data; and

a transmitter, coupled to the processor, and configured to:

transmit one of a plurality of segments of the processed data.

5. The network sending device of claim 4, wherein the processor is further configured to:
code the concatenated data to obtain coded data; and
scramble the coded data to obtain the processed data.
6. The network sending device of claim 4, wherein each of the plurality of segments of the processed data corresponds to a data transmission of the network sending device.
7. A computer-readable storage medium having instructions stored that, when executed by a processor, cause the processor to implement a method recited in any one of claims 1 to 3.
8. A network communication method, comprising:
receiving, by a network receiving device, one of a plurality of segments of data processed by a network sending device;
wherein the processed data is obtained by performing a first processing on data to obtain a first processing result and a second processing on concatenated data comprising the first processing result concatenated with the data;
wherein the first processing comprising performing a cyclic redundancy check on the data to obtain a first check result and performing an XOR operation on a cell radio network temporary identifier and the first check result to obtain the first processing result;
wherein the cell radio network temporary identifier has 16 bits and the first check result has 24 bits; and the performing the XOR operation comprises:
performing the XOR operation on the cell radio network temporary identifier and last 16 bits of the first check result to obtain the first processing result.
9. A computer-readable storage medium having instructions stored that, when executed by a processor, cause the processor to implement a method recited in claim 8.
10. A network receiving device, comprising:
a processor configured to receive one of a plurality of segments of data processed by a network sending device;
wherein the processed data is obtained by performing a first processing on data to obtain a first processing result and a second processing on concatenated data comprising the first processing result concatenated with the data;

wherein the first processing comprising performing a cyclic redundancy check on the data to obtain a first check result and performing an XOR operation on a cell radio network temporary identifier and the first check result to obtain the first processing result;

wherein the cell radio network temporary identifier has 16 bits and the first check result has 24 bits; and the performing the XOR operation comprises:

performing the XOR operation on the cell radio network temporary identifier and last 16 bits of the first check result to obtain the first processing result.