

## CLAIMS

1. A method for data transmission, the method being performed by a terminal device, comprising:

determining uplink data to be transmitted;

sending, to a network device, identification information used to identify a service attribute of the uplink data;

receiving, from the network device, an identifier for identifying a determined numerology for transmission of the uplink data, the determined numerology being determined by the network device according to the identification information;

determining a numerology for transmission of the uplink data from a plurality of numerologies according to the identifier; and

sending the uplink data to the network device according to the numerology.

2. The method of claim 1, wherein the service attribute comprises at least one of: a logical channel used to send the uplink data, a bearer used to send the uplink data, a data stream used to send the uplink data, a data volume of the uplink data, or a quality of service level of the uplink data.

3. The method of claim 1 or 2, wherein the numerology comprises at least one of the following parameters: a subcarrier spacing, a number of subcarriers corresponding to a system bandwidth, a number of subcarriers corresponding to a Physical Resource Block (PRB), a length of an Orthogonal Frequency Division Multiplexing (OFDM) symbol, a number of Fast Fourier Transformation (FFT) or Inverse Fast Fourier Transform (IFFT) points for generation of an OFDM signal, a number of OFDM symbols in a Transmission Time Interval (TTI), a number of TTIs in a first duration, or a length of a signal prefix.

4. A method for data transmission, the method being performed by a terminal device, comprising:

determining uplink data to be transmitted;

determining, according to a service attribute of the uplink data and configured correspondences between service attributes and numerologies, a numerology for

transmission of the uplink data;

responsive to that it is determined that auxiliary information of the numerology is the same as auxiliary information of a stored numerology, not sending the auxiliary information of the numerology to a network device, the auxiliary information of the numerology being information used for the network device to acquire the numerology; and

sending the uplink data to the network device according to the numerology.

5. The method of claim 4, wherein the service attribute comprises at least one of: a logical channel used to send the uplink data, a bearer used to send the uplink data, a data stream used to send the uplink data, a data volume of the uplink data, or a quality of service level of the uplink data.

6. The method of claim 4, further comprising:

responsive to that it is determined that the auxiliary information of the numerology is different from the auxiliary information of the stored numerology, sending the auxiliary information of the numerology to the network device, the auxiliary information of the numerology being information used for the network device to acquire the numerology.

7. The method of any one of claims 4-6, wherein the numerology comprises at least one of the following parameters: a subcarrier spacing, a number of subcarriers corresponding to a system bandwidth, a number of subcarriers corresponding to a Physical Resource Block (PRB), a length of an Orthogonal Frequency Division Multiplexing (OFDM) symbol, a number of Fast Fourier Transformation (FFT) or Inverse Fast Fourier Transform (IFFT) points for generation of an OFDM signal, a number of OFDM symbols in a Transmission Time Interval (TTI), a number of TTIs in a first duration, or a length of a signal prefix.

8. The method of claim 4, further comprising:

receiving the configured correspondences between the service attributes and the numerologies from the network device.

9. The method of claim 8, wherein receiving the configured correspondences between the service attributes and the numerologies from the network device comprises:

receiving the configured correspondences between the service attributes and the numerologies from the network device via Radio Resource Control (RRC) signaling or Media Access Control (MAC) signaling.

10. A terminal device for data transmission, comprising:

a determination unit, configured to determine uplink data to be transmitted;

an acquisition unit, configured to:

send, to a network device, identification information used to identify a service attribute of the uplink data;

receive, from the network device, an identifier for identifying a determined numerology for transmission of the uplink data, the determined numerology being determined by the network device according to the identification information; and

determine a numerology for transmission of the uplink data from a plurality of numerologies according to the identifier; and

a sending unit, configured to send the uplink data to the network device according to the numerology.

11. The terminal device of claim 10, wherein the service attribute comprises at least one of: a logical channel used to send the uplink data, a bearer used to send the uplink data, a data stream used to send the uplink data, a data volume of the uplink data, or a quality of service level of the uplink data.

12. The terminal device of claim 10 or 11, wherein the numerology comprises at least one of the following parameters: a subcarrier spacing, a number of subcarriers corresponding to a system bandwidth, a number of subcarriers corresponding to a Physical Resource Block (PRB), a length of an Orthogonal Frequency Division Multiplexing (OFDM) symbol, a number of Fast Fourier Transformation (FFT) or Inverse Fast Fourier Transform (IFFT) points for generation of an OFDM signal, a

number of OFDM symbols in a Transmission Time Interval (TTI), a number of TTIs in a first duration, or a length of a signal prefix.

13. A terminal device for data transmission, comprising:

- a determination unit, configured to determine uplink data to be transmitted;

- an acquisition unit, configured to:

- determine, according to a service attribute of the uplink data and configured correspondences between service attributes and numerologies, a numerology for transmission of the uplink data;

- responsive to that it is determined that auxiliary information of the numerology is the same as auxiliary information of a stored numerology, not send the auxiliary information of the numerology to a network device, the auxiliary information of the numerology being information used for the network device to acquire the numerology; and

- a sending unit, configured to send the uplink data to the network device according to the numerology.

14. The terminal device of claim 13, wherein the service attribute comprises at least one of: a logical channel used to send the uplink data, a bearer used to send the uplink data, a data stream used to send the uplink data, a data volume of the uplink data, or a quality of service level of the uplink data.

15. The terminal device of claim 13, wherein the sending unit is specifically configured to:

- responsive to that it is determined that the auxiliary information of the numerology is different from the auxiliary information of the stored numerology, send the auxiliary information of the numerology to the network device, the auxiliary information being information used for the network device to acquire the numerology.

16. The terminal device of claim 13, wherein the auxiliary information of the stored numerology comprises auxiliary information of a numerology for previous uplink data, auxiliary information of a preconfigured numerology or auxiliary information of a

default numerology.

17. The terminal device of any one of claims 13, 15 and 16, wherein the auxiliary information comprises at least one of: an identifier of the numerology used to send the uplink data or next uplink data, an identifier of a logical channel, an identifier of a bearer, an identifier of a data volume, or an identifier of a quality of service level.

18. The terminal device of any one of claims 13-17, wherein the numerology comprises at least one of the following parameters: a subcarrier spacing, a number of subcarriers corresponding to a system bandwidth, a number of subcarriers corresponding to a Physical Resource Block (PRB), a length of an Orthogonal Frequency Division Multiplexing (OFDM) symbol, a number of Fast Fourier Transformation (FFT) or Inverse Fast Fourier Transform (IFFT) points for generation of an OFDM signal, a number of OFDM symbols in a Transmission Time Interval (TTI), a number of TTIs in a first duration, or a length of a signal prefix.

19. The terminal device of claim 13, further comprising:

a receiving unit, configured to receive the preconfigured correspondences between the service attributes and the numerologies from the network device.

20. The terminal device of claim 19, wherein the receiving unit is specifically configured to:

receive the preconfigured correspondences between the service attributes and the numerologies from the network device via Radio Resource Control (RRC) signaling or Media Access Control (MAC) signaling.