WHAT IS CLAIMED IS:

1. A method for transmitting data, applicable in a transmitting end, comprising:

generating m transmission blocks (TBs) based on data to be transmitted, wherein each TB includes partial data of the data to be transmitted, where m>=2;

determining the transmission unit based on first information predefined in the transmitting end; or calculating the transmission unit based on a predefined first rule; wherein the first information comprises a communication protocol, the first rule defines determining the transmission unit based on a time granularity corresponding to the TB and/or based on a number of sub-frames occupied by the TB;

dividing related transmission content of each TB into n transmission units in time domain, where n>=2; and

transmitting the n transmission units related to each TB to a receiving end alternately in the time domain, wherein the n transmission units are non-continuously transmitted in the time domain.

2. The method of claim 1, further comprising:

~~determining the transmission unit based on first information predefined in the transmitting end; or~~

~~calculating the transmission unit based on a predefined first rule; or~~

receiving a first signaling sent by an access network device when the transmitting end is a terminal, and determining the transmission unit based on the first signaling.

3. The method of claim 1, wherein when each TB is divided into i sub-TBs, the transmission unit includes a sub-TB, where i>=2.

4. The method of claim 3, wherein when the m TBs are not transmitted repeatedly and each alternate transmission period relates to s TBs,

when 2<=s<m, the v^{th} alternate transmission period includes s sub-TBs, each of the s sub-TBs is the v^{th} sub-TB of a respective TB of the s TBs, and the s TBs are the TBs which are not transmitted in the m TBs;

when s=m, the v^{th} alternate transmission period includes s sub-TBs, each of the s sub-TBs is the v^{th} sub-TB of a respective TB of the m TBs;

where 1<=v<=i.

5. The method of claim 3, wherein when the m TBs are transmitted repeatedly for j times, and each alternate transmission period relates to s TBs, for the k^{th} repeatedly transmitted s TBs, the s TBs are the TBs which are not transmitted in the m TBs,

when 2<=s<m, the v^{th} alternate transmission period includes s sub-TBs, each of the s sub-TBs is the v^{th} sub-TB of a respective TB of the s TBs;

when s=m, the v^{th} alternate transmission period includes s sub-TBs, each of the s sub-TBs is the v^{th} sub-TB of a respective TB of the m TBs;

where j>=2, 1<=k<=j, 1<=v<=i.

6. The method of claim 1, wherein when each TB is divided into i sub-TBs and each TB is transmitted repeatedly for j times, the transmission unit includes a set of sub-TBs, the set of sub-TBs includes k repetitions of the same sub-TB, where i>=2, j>=2 and 2<=k<=j.

7. The method of claim 6, wherein when each alternate transmission period relates to s sets of TBs and the set of TBs includes k repetitions of the same TB, for the p^{th} repeatedly transmitted s sets of TBs, the s sets of TBs are the sets of TBs which are not transmitted in m sets of TBs,

when 2<=s<m, the v^{th} alternate transmission period includes s sets of sub-TBs, each of the s sets of sub-TBs is the v^{th} set of sub-TBs of a respective set of TBs of the s sets of TBs;

when s=m, the v^{th} alternate transmission period includes s sets of sub-TBs, each of the s sets of sub-TBs is the v^{th} set of sub-TBs of a respective set of TBs of the m sets of TBs;

where 1<=p<=j/k, 1<=v<=i.

8. The method of claim 1, wherein when each TB is transmitted repeatedly for j times, the transmission unit includes a TB, where j>=2.

9. The method of claim 8, wherein when each alternate transmission period relates to s TBs,

when 2<=s<m, the v^{th} alternate transmission period includes s TBs, the s TBs are the TBs which are not transmitted in the m TBs;

when s=m, the v^{th} alternate transmission period includes s TBs which are the m TBs;

where 1<=v<=j.

10. The method of claim 1, wherein when each TB is transmitted repeatedly for j times, the transmission unit includes a set of TBs, and the set of TBs includes k repetitions of the same TB, where j>=2 and 2<=k<=j.

11. The method of claim 10, wherein when each alternate transmission period relates to s sets of TBs,

when 2<=s<m, the v^{th} alternate transmission period includes s sets of TBs, the s sets of TBs are the sets of TBs which are not transmitted in m sets of TBs;

when s=m, the v^{th} alternate transmission period includes s sets of TBs which are the m sets of TBs;

where 1<=v<=j/k.

12. The method of claim 4, 5, 7, 9, or 11, further comprising:

determining s based on second information predefined in the transmitting end; or

calculating s based on a predefined second rule; or

receiving a second signaling sent by an access network device when the transmitting end is a terminal, and determining s based on the second signaling.

13. A method for transmitting data, applicable in a receiving end, comprising:

receiving n transmission units related to each transmission block (TB) alternately transmitted by a transmitting end in time domain, in which the n transmission units are non-continuously transmitted in the time domain, the n transmission units are obtained by dividing in the time domain related transmission content of each of m TBs generated by the transmitting end based on data to be transmitted, and each TB includes partial data of the data to be transmitted, wherein the transmission unit is determined based on first information predefined in the transmitting end or a predefined first rule; wherein the first information comprises a communication protocol, the first rule defines determining the transmission unit based on a time granularity corresponding to the TB and/or based on a number of sub-frames occupied by the TB; where m>=2 and n>=2; and

combining the n transmission units related to each TB to obtain the data to be transmitted.

14. The method of claim 13, further comprising:

~~determining the transmission unit based on first information predefined in the receiving end; or~~

~~calculating the transmission unit based on a predefined first rule; or~~

receiving a first signaling sent by an access network device when the receiving end is a terminal, and determining the transmission unit based on the first signaling.

15. The method of claim 13, wherein when each TB is divided into i sub-TBs, the transmission unit includes a sub-TB, where i>=2.

16. The method of claim 15, wherein when the m TBs are not transmitted repeatedly and each alternate transmission period relates to s TBs,

when 2<=s<m, the v^{th} alternate transmission period includes s sub-TBs, each of the s sub-TBs is the v^{th} sub-TB of a respective TB of the s TBs, and the s TBs are the TBs which are not transmitted in the m TBs;

when s=m, the v^{th} alternate transmission period includes s sub-TBs, each of the s sub-TBs is the v^{th} sub-TB of a respective TB of the m TBs;

where 1<=v<=i.

17. The method of claim 15, wherein when the m TBs are transmitted repeatedly for j times, and each alternate transmission period relates to s TBs, for the k^{th} repeatedly transmitted s TBs, the s TBs are the TBs which are not transmitted in the m TBs,

when 2<=s<m, the v^{th} alternate transmission period includes s sub-TBs, each of the s sub-TBs is the v^{th} sub-TB of a respective TB of the s TBs;

when s=m, the v^{th} alternate transmission period includes s sub-TBs, each of the s sub-TBs is the v^{th} sub-TB of a respective TB of the m TBs;

where j>=2, 1<=k<=j, 1<=v<=i.

18. The method of claim 13, wherein when each TB is divided into i sub-TBs and each TB is transmitted repeatedly for j times, the transmission unit includes a set of sub-TBs, the set of sub-TBs includes k repetitions of the same sub-TB, where i>=2, j>=2 and 2<=k<=j.

19. The method of claim 18, wherein when each alternate transmission period relates to s sets of TBs and the set of TBs includes k repetitions of the same TB, for the p^{th} repeatedly transmitted s sets of TBs, the s sets of TBs are the sets of TBs which are not transmitted in m

sets of TBs,

when 2<=s<m, the v^{th} alternate transmission period includes s sets of sub-TBs, each of the s sets of sub-TBs is the v^{th} set of sub-TBs of a respective set of TBs of the s sets of TBs;

when s=m, the v^{th} alternate transmission period includes s sets of sub-TBs, each of the s sets of sub-TBs is the v^{th} set of sub-TBs of a respective set of TBs of the m sets of TBs;

where 1<=p<=j/k, 1<=v<=i.

20. The method of claim 13, wherein when each TB is transmitted repeatedly for j times, the transmission unit includes a TB, where j>=2.

21. The method of claim 20, wherein when each alternate transmission period relates to s TBs,

when 2<=s<m, the v^{th} alternate transmission period includes s TBs, the s TBs are the TBs which are not transmitted in the m TBs;

when s=m, the v^{th} alternate transmission period includes s TBs which are the m TBs;

where 1<=v<=j.

22. The method of claim 13, wherein when each TB is transmitted repeatedly for j times, the transmission unit includes a set of TBs, and the set of TBs includes k repetitions of the same TB, where j>=2 and 2<=k<=j.

23. The method of claim 22, wherein when each alternate transmission period relates to s sets of TBs,

when 2<=s<m, the v^{th} alternate transmission period includes s sets of TBs, the s sets of TBs are the sets of TBs which are not transmitted in m sets of TBs;

when s=m, the v^{th} alternate transmission period includes s sets of TBs which are the m sets of TBs;

where 1<=v<=j/k.

24. The method of claim 16, 17, 19, 21, or 23, further comprising:

determining s based on second information predefined in the receiving end; or

calculating s based on a predefined second rule; or

receiving a second signaling sent by an access network device when the receiving end is a terminal, and determining s based on the second signaling.

25. A transmitting end of a system for transmitting data, comprising:

a processor; and

memory configured to store instructions executable by the processor;

wherein the processor is configured to:

generate m transmission blocks, TBs, based on data to be transmitted, wherein each TB includes partial data of the data to be transmitted, where m>=2;

determine the transmission unit based on first information predefined in the transmitting end; or calculate the transmission unit based on a predefined first rule; wherein the first information comprises a communication protocol, the first rule defines determining the transmission unit based on a time granularity corresponding to the TB and/or based on a number of sub-frames occupied by the TB;

divide related transmission content of each TB into n transmission units in time domain, where n>=2; and

transmit the n transmission units related to each TB to a receiving end alternately in time domain, wherein the n transmission units are non-continuously transmitted in the time domain.

26. A receiving end of a system for transmitting data, comprising:

a processor; and

memory configured to store instructions executable by the processor;

wherein the processor is configured to:

receive n transmission units related to each transmission block (TB) alternately transmitted by a transmitting end in time domain, in which the n transmission units are non-continuously transmitted in the time domain, the n transmission units are obtained by dividing in the time domain related transmission content of each of m TBs generated by the transmitting end based on data to be transmitted, and each TB includes partial data of the data to be transmitted, wherein the transmission unit is determined based on first information predefined in the transmitting end or a predefined first rule; wherein the first information comprises a communication protocol, the first rule defines determining the transmission unit based on a time granularity corresponding to the TB and/or based on a

number of sub-frames occupied by the TB; where m>=2 and n>=2; and

combine the n transmission units related to each TB to obtain the data to be transmitted.