

CLAIMS

What is claimed is:

1. A method for sharing a channel occupancy time, applied to a terminal device and comprising:
determining uplink control information (UCI), wherein the UCI comprises first indication information, the first indication information is used to enable a network device to determine related information about downlink transmission in a target time period, the terminal device shares a target channel occupancy time (COT) in the target time period with the network device, and the target COT is obtained by the terminal device based on listen before talk (LBT); and

transmitting the UCI;

wherein the UCI further comprises fourth indication information, the fourth indication information is used to indicate a start time of the target time period and duration of the target time period, the start time of the target time period is configured by using a value of an offset relative to a transmission end time of a PUSCH carrying the UCI.

2. The method according to claim 1, wherein the related information comprises a type of downlink transmission information, and the first indication information is used to indicate the type of downlink transmission information.

3. The method according to claim 2, further comprising:

determining the type of downlink transmission information based on a channel access priority class used when the terminal device obtains the target COT based on LBT.

4. The method according to claim 3, wherein the determining the type of downlink transmission information according to a channel access priority class used when the terminal device obtains the target COT based on LBT comprises:

if the channel access priority class used when the terminal device obtains the target COT based on LBT is a target channel access priority class, determining that the type of downlink transmission information comprises control information and data information; or

if the channel access priority class used when the terminal device obtains the target COT based on LBT belongs to other channel access priority classes than the target channel access priority class, determining that the type of downlink transmission information comprises control information, wherein

the target channel access priority class is higher than any one of the other channel access priority classes.

5. The method according to claim 1, wherein the related information comprises a channel access priority class of downlink transmission data information, and the first indication information is used to indicate a channel access priority class used when the terminal device obtains the target COT based on LBT.

6. The method according to any one of claims 1 to 5, wherein the UCI further comprises second indication information, the second indication information is used to indicate whether the network device schedules uplink transmission of the terminal device in a remaining time period of the target COT, and the remaining time period is a time period between an end time of the target time period and an end time of the target COT.

7. The method according to claim 6, wherein the UCI is carried on a target physical uplink shared channel PUSCH, the second indication information indicates that the network device schedules the uplink transmission of the terminal device in the remaining time period of the target COT, the UCI further comprises third indication information, and the third indication information is used to enable the network device to determine the end time of the target COT.

8. The method according to claim 7, wherein the third indication information is used to indicate duration between a transmission end time of the target PUSCH and the end time of the target COT; or

the third indication information is used to indicate the end time of the target COT.

9. A method for sharing a channel occupancy time, applied to a network device and comprising: receiving uplink control information (UCI), wherein the UCI comprises first indication information, the first indication information is used to enable the network device to determine related information about downlink transmission in a target time period, the network device shares a target channel occupancy time (COT) in the target time period with a terminal device, and the target COT is obtained by the terminal device based on listen before talk (LBT); and

determining the related information based on the first indication information;

wherein the UCI further comprises fourth indication information, the fourth indication information is used to indicate a start time of the target time period and duration of the target time period, the start time of the target time period is configured by using a value of an offset relative to a transmission end time of a PUSCH carrying the UCI.

10. The method according to claim 9, wherein the related information comprises a type of downlink transmission information, and the first indication information is used to indicate the type of downlink transmission information; and

the determining the related information based on the first indication information comprises:
determining that the type of downlink transmission information is the type indicated by the first indication information; or

wherein the related information comprises a channel access priority class of downlink transmission data information, and the first indication information is used to indicate a channel access priority class used when the terminal device obtains the target COT based on LBT; and

the determining the related information based on the first indication information comprises:
determining that the channel access priority class satisfied by the downlink transmission data information is the channel access priority class indicated by the first indication information.

11. The method according to claim 9 or 10, wherein the UCI further comprises second indication information, the second indication information is used to indicate whether the network device schedules uplink transmission of the terminal device in a remaining time period of the target COT, and the method further comprises:

if the second indication information indicates that the network device schedules the uplink transmission of the terminal device in the remaining time period of the target COT, scheduling the uplink transmission of the terminal device in the remaining time period, wherein the remaining time period is a time period between an end time of the target time period and an end time of the target COT.

12. The method according to claim 11, wherein the UCI is carried on a target physical uplink shared channel PUSCH, the second indication information indicates that the network device schedules the uplink transmission of the terminal device in the remaining time period of the target COT, the UCI further comprises third indication information, and the third indication information is used to enable the network device to determine the end time of the target COT; and the method further comprises:

determining the remaining time period based on the third indication information and the target time period.

13. The method according to claim 12, wherein the third indication information is used to indicate duration between a transmission end time of the target PUSCH and the end time of the target COT; or

the third indication information is used to indicate the end time of the target COT.

14. The method according to claim 9 or 10, wherein the method further comprises:
determining the target time period based on the fourth indication information.

15. A terminal device, comprising:

a processing module, configured to determine uplink control information UCI, wherein the UCI comprises first indication information, the first indication information is used to enable a network device to determine related information about downlink transmission in a target time period, the terminal device shares a target channel occupancy time COT in the target time period with the network device, and the target COT is obtained by the terminal device based on listen before talk LBT; and

a transceiver module, configured to transmit the UCI;

wherein the UCI further comprises fourth indication information, the fourth indication information is used to indicate a start time of the target time period and duration of the target time period, the start time of the target time period is configured by using a value of an offset relative to a transmission end time of a PUSCH carrying the UCI.

16. A network device, comprising:

a transceiver module, configured to receive uplink control information UCI, wherein the UCI comprises first indication information, the first indication information is used to enable the network device to determine related information about downlink transmission in a target time period, the network device shares a target channel occupancy time COT in the target time period with a terminal device, and the target COT is obtained by the terminal device based on listen before talk LBT; and

a processing module, configured to determine the related information based on the first indication information;

wherein the UCI further comprises fourth indication information, the fourth indication information is used to indicate a start time of the target time period and duration of the target time period, the start time of the target time period is configured by using a value of an offset relative to a transmission end time of a PUSCH carrying the UCI.

17. A terminal device, comprising: a memory, a processor, and a computer program stored in the memory and executable on the processor, wherein when the computer program is executed by the processor, the steps of the method for sharing a channel occupancy time according to any one of claims 1 to 8 are implemented.

18. A network device, comprising: a memory, a processor, and a computer program stored in the memory and executable on the processor, wherein when the computer program is executed by the processor, the steps of the method for sharing a channel occupancy time according to any one of claims 9 to 14 are implemented.

19. A computer-readable medium, wherein the computer-readable medium stores a computer program, and when the computer program is executed by a processor, the steps of the method for sharing a channel occupancy time according to any one of claims 1 to 14 are implemented.