

[00156] At block 601, the network device sends first deactivation information to the terminal.

[00157] At block 602, the terminal receives the first deactivation information sent by the network device.

[00158] In the embodiment of the disclosure, the network device activates, by the first activation information, the terminal to send the first channel state information. When there is a need to deactivate the terminal for sending the first channel state information, the network device sends the first deactivation information to the terminal, and the terminal receives the first deactivation information, and stops sending the first channel state information based on the first deactivation information.

[00159] In some embodiments, the first deactivation information is MAC CE information.

[00160] At block 603, the terminal stops sending the first channel state information to the network device based on the first deactivation information.

[00161] In the embodiment of the disclosure, the first deactivation information instructs the terminal to stop sending the first channel state information. The terminal determines that there is no need to send the first channel state information to the network device after receiving the first deactivation information, and then stops sending the first channel state information to the network device.

[00162] With the method according to the embodiment of the disclosure, the network device instructs, by the number of transmissions in the first activation information or the first deactivation information, the terminal to stop sending the first channel state information, such that the terminal may determine that there is no need to send the first channel state information to the network device, thereby saving the signaling overhead.

[00163] On the basis of the embodiment illustrated in FIG. 2, the terminal may send the first channel state information non-periodically. Reference can be made to steps illustrated in FIG. 7.

[00164] At block 701, the network device sends first control information to the terminal, and the first control information indicates that the first channel state information is sent non-periodically.

[00165] At block 702, the terminal receives the first control information sent by the network device.

[00166] In the embodiment of the disclosure, the terminal sends the first channel state information to the network device in an aperiodic way. In this case, the terminal is instructed to send the first channel state information through the first control information sent by the network

channel state information to the network device.

[00401] In some embodiments, the second activation information and/or the second deactivation information is MAC CE information.

[00402] In some embodiments, referring to FIG. 18, the apparatus further includes:

[00403] the sending module 1702, configured to send second control information to the terminal. The second control information indicates that the second channel state information is sent non-periodically.

[00404] The second control information instructs the terminal to send the second channel state information to the network device within a time period after the first channel state information is sent.

[00405] In some embodiments, the first channel state information is sent periodically, and the terminal determines an i^{th} piece of first channel state information and an $(i+1)^{\text{th}}$ piece of first channel state information based on the second control information, where i is a positive integer; and sends the second channel state information to the network device within a time period between a time point of sending the i^{th} piece of first channel state information and a time point of sending the $(i+1)^{\text{th}}$ piece of first channel state information.

[00406] In some embodiments, the second control information includes indication information, and the indication information indicates the i^{th} piece of first channel state information and the $(i+1)^{\text{th}}$ piece of first channel state information ; or,

[00407] two pieces of first channel state information after a T time period of the terminal receives the second control information are determined as the i^{th} piece of first channel state information and the $(i+1)^{\text{th}}$ piece of first channel state information.

[00408] In some embodiments, the second control information includes a fifth cycle. The second control information instructs the terminal to send the second channel state information to the network device based on the fifth cycle within the time period after the first channel state information is sent.

[00409] In some embodiments, the second control information includes a third index identifier.

[00410] The terminal is configured to determine the fifth cycle corresponding to the third index identifier based on the third index identifier included in the second control information; and to send the second channel state information to the network device based on the fifth cycle.

CLAIMS

1. A method for reporting information, performed by a terminal, comprising:
sending first channel state information to a network device; and
sending first indication information to the network device, wherein the first indication information comprises a difference between the first channel state information and second state information.
2. The method of claim 1, wherein the first channel state information is reported at a first reporting time and the first indication information is reported at a second reporting time;
the first channel state information is sent based on a first cycle;
the first indication information is sent based on a second cycle; or
the first channel state information is sent based on a first cycle and the first indication information is sent based on a second cycle.
3. The method of claim 1 or 2, wherein each of the first channel state information and the second channel state information comprises at least one of:
a channel state information reference signal (CSI-RS) resource indicator (CRI);
a rank indicator (RI);
a precoding matrix indicator (PMI);
a channel quality indicator (CQI);
a layer indicator (LI);
a synchronization signal /physical broadcast signal block resource indicator (SSBRI);
a layer-1 reference signal received power (L1-RSRP);
a layer-1 signal to interference plus noise ratio (L1-SINR);
a Doppler migration;
a Doppler spread;
an average delay; or
a delay spread.
4. The method of any of claims 1 to 3, further comprising:
receiving second control information sent by the network device, wherein the second control information indicates that the first indication information is sent non-periodically;
wherein, the first indication information is sent to the network device based on the second

control information within a time period after the first channel state information is sent; or
wherein the first indication information is downlink control information (DCI).

5. The method of claim 4, wherein the first channel state information is sent periodically, and the method further comprises:

determining an i^{th} piece of first channel state information and an $(i+1)^{\text{th}}$ piece of first channel state information based on the second control information, where i is a positive integer;

wherein the first indication information is sent to the network device within a time period between a time point of sending the i^{th} piece of first channel state information and a time point of sending the $(i+1)^{\text{th}}$ piece of first channel state information.

6. The method of claim 5, wherein determining the i^{th} piece of first channel state information and the $(i+1)^{\text{th}}$ piece of first channel state information based on the second control information comprises:

determining the i^{th} piece of first channel state information and the $(i+1)^{\text{th}}$ piece of first channel state information based on second indication information, wherein the second control information comprises the second indication information; or,

determining two pieces of first channel state information recently after a T time period starting from receiving the second control information as the i^{th} piece of first channel state information and the $(i+1)^{\text{th}}$ piece of first channel state information.

7. The method of any of claims 4 to 6, wherein the second control information comprises a third cycle; and

based on the second control information, the first indication information is sent to the network device based on the third cycle within the time period after the first channel state information is sent.

8. The method of claim 7, wherein the second control information comprises index identifier; and the method further comprises:

determining the third cycle corresponding to the index identifier based on the index identifier comprised in the second control information;

wherein the first indication information is sent to the network device based on the third cycle within the time period after the first channel state information is sent.

9. The method of claim 8, further comprising:

receiving a radio resource control (RRC) signaling sent by the network device, wherein the third RRC signaling comprises a corresponding relationship between the index identifier and the third cycle.

10. The method of any of claims 1 to 9, wherein the second channel state information is carried on a physical uplink control channel (PUCCH), or the second channel state information is carried on a physical uplink shared channel (PUSCH); or

wherein feedback information of the second channel state information is generated based on any one of:

a broadband; or

a narrow band; or

multiple ports; or

each port in the multiple ports; or

multiple beams; or

each beam in the multiple beams.

11. A method for reporting information, performed by a network device, comprising:

receiving first channel state information sent by a terminal; and

receiving first indication information sent by the terminal, wherein the first indication information comprises a difference between the first channel state information and the second channel state information.

12. The method of claim 11, wherein the first channel state information is reported at a first reporting time and the first indication information is reported at a second reporting time,

the first channel state information is sent based on a first cycle;

the first indication information is sent based on a second cycle; or

the first channel state information is sent based on a first cycle and the first indication information is sent based on a second cycle.

13. The method of claim 11 or 12, wherein each of the first channel state information and the second channel state information comprises at least one of:

a channel state information reference signal (CSI-RS) resource indicator (CRI);

a rank indicator (RI);
a precoding matrix indicator (PMI);
a channel quality indicator (CQI);
a layer indicator (LI);
a synchronization signal /physical broadcast signal block resource indicator (SSBRI);
a layer-1 reference signal received power (L1-RSRP);
a layer-1 signal to interference plus noise ratio (L1-SINR);
a Doppler migration;
a Doppler spread;
an average delay; or
a delay spread.

14. The method of any of claims 11 to 13, further comprising:

sending second control information to the terminal, wherein the second control information indicates that the first indication information is sent non-periodically;

wherein the second control information instructs the terminal to send the first indication information to the network device within a time period after the first channel state information is sent; or

wherein the second control information is downlink control information (DCI).

15. The method of claim 14, wherein the first channel state information is sent periodically, and the terminal determines an i^{th} piece of first channel state information and an $(i+1)^{\text{th}}$ piece of first channel state information based on the second control information, where i is a positive integer; and sends the first indication information to the network device within a time period between a time point of sending the i^{th} piece of first channel state information and a time point of sending the $(i+1)^{\text{th}}$ piece of first channel state information,

wherein the second control information comprises second indication information, the second indication information indicates the i^{th} piece of first channel state information and the $(i+1)^{\text{th}}$ piece of first channel state information ; or

two pieces of first channel state information after the second control information are determined as the i^{th} piece of first channel state information and the $(i+1)^{\text{th}}$ piece of first channel state information.

16. The method of any of claims 14 to 15, wherein the second control information comprises a fifth cycle;

the second control information instructs the terminal to send the first indication information to the network device based on the fifth cycle within the time period after the first channel state information is sent; or

the second control information comprises a third cycle and an index identifier; and the second control information instructs the terminal to determine the third cycle corresponding to the index identifier based on the index identifier; and to send the first indication information to the network device based on the third cycle.

17. The method of claim 16, wherein the second control information comprises the third cycle and the index identifier, the method further comprises:

sending a radio resource control (RRC) signaling to the terminal, wherein the RRC signaling comprises a corresponding relationship between the index identifier and the third cycle.

18. The method according to any of claims 11 to 17, wherein the second channel state information is carried on a physical uplink control channel (PUCCH), or the second channel state information is carried on a physical uplink shared channel (PUSCH); or

wherein feedback information of the second channel state information is generated based on any one of:

a broadband; or

a narrow band; or

multiple ports; or

each port in the multiple ports; or

multiple beams; or

each beam in the multiple beams.

19. A terminal, comprising:

a processor; and

a transceiver, connected with the processor;

wherein the processor is configured to load and execute executable instructions to implement the method for reporting information according to any one of claims 1 to 10.

20. A network device, comprising:

a processor; and
a transceiver, connected with the processor;
wherein the processor is configured to load and execute executable instructions to implement the method for reporting information according to any one of claims 11 to 18.