

WHAT IS CLAIMED IS:

1. A method for configuring a transmission configuration indicator (TCI) state, performed by a terminal device, comprising:

receiving configuration information sent by a network device, wherein the configuration information comprises at least one transmission configuration indicator state corresponding to at least one transmission configuration indicator codepoint; and

acquiring a transmission configuration indicator state corresponding to a communication transmission according to the transmission configuration indicator codepoint.

2. The method according to claim 1, wherein the configuration information further comprises: first indication information, configured to indicate that all elements in the at least one transmission configuration indicator codepoint correspond to joint transmission configuration indicators, or configured to indicate that all elements in the at least one transmission configuration indicator codepoint correspond to separate transmission configuration indicators,

wherein a separate transmission configuration indicator comprises at least one of a separate uplink transmission configuration indicator or a separate downlink transmission configuration indicator.

3. The method according to claim 1, wherein the configuration information further comprises: second indication information, configured to indicate that each element in the at least one transmission configuration indicator codepoint corresponds to a joint transmission configuration indicator or a separate transmission configuration indicator,

wherein the separate transmission configuration indicator comprises at least one of a separate uplink transmission configuration indicator or a separate downlink transmission configuration indicator.

4. The method according to claim 2 or 3, wherein acquiring the transmission configuration indicator state corresponding the communication transmission according to the transmission configuration indicator codepoint comprises:

acquiring the transmission configuration indicator state according to the first indication information and/or the second indication information.

5. The method according to claim 4, wherein acquiring the transmission configuration indicator state according to the first indication information and/or the second indication information comprises:

acquiring the transmission configuration indicator state according to the first indication information and/or the second indication information, and at least one of a first transmission configuration indication field, a second transmission configuration indication field, a first

information indication field or a second information indication field corresponding to a first codepoint.

6. The method according to claim 5, wherein acquiring the transmission configuration indicator state according to the first indication information and/or the second indication information, and at least one of the first transmission configuration indication field, the second transmission configuration indication field, the first information indication field or the second information indication field corresponding to the first codepoint comprises:

determining that the first codepoint corresponds to the joint transmission configuration indicator according to the first indication information and/or the second indication information, determining that the first information indication field corresponding to the first transmission configuration indication field included in the first codepoint indicates that the first transmission configuration indication field is in a displayed state, determining that the second information indication field corresponding to the second transmission configuration indication field included in the first codepoint indicates that the second transmission configuration indication field is in a non-displayed state, and acquiring the transmission configuration indicator state according to a first transmission configuration indicator state displayed in the first transmission configuration indication field; or

determining that the first codepoint corresponds to the joint transmission configuration indicator according to the first indication information and/or the second indication information, determining that the first information indication field corresponding to the first transmission configuration indication field included in the first codepoint indicates that the first transmission configuration indication field is in a non-displayed state, determining that the second information indication field corresponding to the second transmission configuration indication field included in the first codepoint indicates that the second transmission configuration indication field is in a displayed state, and acquiring the transmission configuration indicator state according to a second transmission configuration indicator state displayed in the second transmission configuration indication field.

7. The method according to claim 6, wherein the first transmission configuration indicator state or the second transmission configuration indicator state is a transmission configuration indicator state in a joint transmission configuration indicator state pool, and the transmission configuration indicator state in the joint transmission configuration indicator state pool is applicable to an uplink communication transmission and a downlink communication transmission.

8. The method according to claim 5, wherein acquiring the transmission configuration indicator state according to the first indication information and/or the second indication

information, and at least one of the first transmission configuration indication field, the second transmission configuration indication field, the first information indication field or the second information indication field corresponding to the first codepoint comprises one of:

determining that the first codepoint corresponds to the separate transmission configuration indicator according to the first indication information and/or the second indication information, determining that the first information indication field corresponding to the first transmission configuration indication field included in the first codepoint indicates that the first transmission configuration indication field is in a displayed state, determining that the second information indication field corresponding to the second transmission configuration indication field included in the first codepoint indicates that the second transmission configuration indication field is in a non-displayed state, and acquiring the transmission configuration indicator state according to a first transmission configuration indicator state displayed in the first transmission configuration indication field;

determining that the first codepoint corresponds to the separate transmission configuration indicator according to the first indication information and/or the second indication information, determining that the first information indication field corresponding to the first transmission configuration indication field included in the first codepoint indicates that the first transmission configuration indication field is in a non-displayed state, determining that the second information indication field corresponding to the second transmission configuration indication field included in the first codepoint indicates that the second transmission configuration indication field is in a displayed state, and acquiring the transmission configuration indicator state according to a second transmission configuration indicator state displayed in the second transmission configuration indication field; or

determining that the first codepoint corresponds to the separate transmission configuration indicator according to the first indication information and/or the second indication information, determining that the first information indication field corresponding to the first transmission configuration indication field included in the first codepoint indicates that the first transmission configuration indication field is in a displayed state, determining that the second information indication field corresponding to the second transmission configuration indication field included in the first codepoint indicates that the second transmission configuration indication field is in a displayed state, and acquiring the transmission configuration indicator state according to a first transmission configuration indicator state displayed in the first transmission configuration indication field and a second transmission configuration indicator state displayed in the second transmission configuration indication field.

9. The method according to claim 8, wherein the first transmission configuration indicator

state is a transmission configuration indicator state in a separate downlink transmission configuration indicator state pool, and the second transmission configuration indicator state is a transmission configuration indicator state in a separate uplink transmission configuration indicator state pool, and wherein the transmission configuration indicator state in the separate downlink transmission configuration indicator state is applicable to a downlink communication transmission, and the transmission configuration indicator state in the separate uplink transmission configuration indicator state pool is applicable to an uplink communication transmission; or

wherein the first transmission configuration indicator state is a transmission configuration indicator state in a separate uplink transmission configuration indicator state pool, and the second transmission configuration indicator state is a transmission configuration indicator state in a separate downlink transmission configuration indicator state pool.

10. The method according to any one of claims 1-9, wherein the communication transmission comprises at least one of a downlink communication transmission or an uplink communication transmission,

wherein the downlink communication transmission comprises at least one of: a physical downlink control channel (PDCCH) transmission, a physical downlink shared channel (PDSCH) transmission, a physical broadcast channel (PBCH) transmission, a synchronization signal block (SSB) transmission, a channel state information reference signal (CSI-RS) transmission, a demodulation reference signal (DMRS) transmission, or a positioning reference signal (PRS) transmission; and

wherein the uplink communication transmission comprises at least one of: a physical uplink control channel (PUCCH) transmission, a physical uplink shared channel (PUSCH) transmission, a physical random access channel (PRACH) transmission, a sounding reference signal (SRS) transmission, or a demodulation reference signal (DMRS) transmission.

11. The method according to any one of claims 1-10, wherein the separate downlink transmission configuration indicator state pool, the separate uplink transmission configuration indicator state pool, and the joint transmission configuration indicator state pool are different from one another, or

at least two of the separate downlink transmission configuration indicator state pool, the separate uplink transmission configuration indicator state pool, and the joint transmission configuration indicator state pool are the same.

12. The method according to any one of claims 1-11, wherein the configuration information comprises a media access control (MAC) control element (CE).

13. The method according to any one of claims 1-12, wherein acquiring the transmission

configuration indicator state corresponding the communication transmission according to the transmission configuration indicator codepoint comprises:

- receiving downlink control information (DCI) from the network device, and
- determining the transmission configuration indicator codepoint according to the DCI.

14. A method for configuring a transmission configuration indicator (TCI) state, performed by a network device, comprising:

- sending configuration information to a terminal device, wherein the configuration information comprises at least one transmission configuration indicator state corresponding to at least one transmission configuration indicator codepoint.

15. The method according to claim 14, wherein the configuration information further comprises first indication information,

- wherein the first indication information is configured to indicate that all elements in the at least one transmission configuration indicator codepoint correspond to joint transmission configuration indicators, or

- the first indication information is configured to indicate that all elements in the at least one transmission configuration indicator codepoint correspond to separate transmission configuration indicators,

- wherein a separate transmission configuration indicator comprises at least one of a separate uplink transmission configuration indicator or a separate downlink transmission configuration indicator.

16. The method according to claim 14, wherein the configuration information further comprises second indication information,

- wherein the second indication information is configured to indicate that each element in the at least one transmission configuration indicator codepoint corresponds to a joint transmission configuration indicator or a separate transmission configuration indicator,

- wherein the separate transmission configuration indicator comprises at least one of a separate uplink transmission configuration indicator or a separate downlink transmission configuration indicator.

17. An apparatus for configuring a transmission configuration indicator (TCI) state, applicable to a terminal device, comprising:

- a receiving module, configured to receive configuration information sent by a network device, wherein the configuration information comprises at least one transmission configuration indicator state corresponding to at least one transmission configuration indicator codepoint; and

- an indicator state acquiring module, configured to acquire a transmission configuration indicator state corresponding to a communication transmission according to the transmission

configuration indicator codepoint.

18. An apparatus for configuring a transmission configuration indicator (TCI) state, applicable to a network device, comprising:

a configuration information sending module, configured to send configuration information to a terminal device, wherein the configuration information comprises at least one transmission configuration indicator state corresponding to at least one transmission configuration indicator codepoint.

19. A communication device, comprising:

a processor; and

a memory, having stored therein a computer program,

wherein the processor is configured to perform the method according to any one of claims 1-16.

20. A computer-readable storage medium having stored therein an instruction that, when executed, enables the method according to any one of claims 1-16 to be implemented.