

a downlink DAPS capability at a PerCC granularity. In a structure of the FeatureSetUpLink-v16xy, a new capability item dapsUpLinkParam is extended to report an uplink DAPS capability at the PerBand granularity; and a new capability item featureSetListPerUplinkCCDAPS is extended to report an uplink DAPS capability at the PerCC granularity.

5 **[00249]** Correspondingly, in the capability information sent by the terminal to the network device, the DAPS capability information supported by the terminal and corresponding to the first capability item includes: an uplink DAPS capability and a downlink DAPS capability at a per band granularity, and an uplink DAPS capability and a downlink DAPS capability at a per carrier granularity.

10 **[00250]** "An uplink DAPS capability at a per band granularity" may also be referred to as "an uplink DAPS capability of per band", and specifically refers to an uplink DAPS capability based on the PerBand granularity, or an uplink DAPS capability based on PerBand.

15 **[00251]** "A downlink DAPS capability at a per band granularity" may also be referred to as "a downlink DAPS capability of per band", and specifically refers to a downlink DAPS capability based on the PerBand granularity, or a downlink DAPS capability based on PerBand.

20 **[00252]** "An uplink DAPS capability at a per carrier granularity" may also be referred to as "an uplink DAPS capability of per carrier", and specifically refers to an uplink DAPS capability based on the per carrier granularity, an uplink DAPS capability based on per carrier, or an uplink DAPS capability based on per CC.

25 **[00253]** "A downlink DAPS capability at a per carrier granularity" may also be referred to as "a downlink DAPS capability of per carrier, and specifically refers to a downlink DAPS capability based on the per carrier granularity, a downlink DAPS capability based on per carrier, or a downlink DAPS capability based on per CC.

30 **[00254]** As described above, after obtaining the DAPS capability information of the terminal, the network device may initiate a DAPS handover of the terminal.

35 **[00255]** The following briefly describes a procedure in which a terminal performs a DAPS handover in the current technology with reference to FIG. 6. FIG. 6 is a schematic flowchart of an existing DAPS handover.

40 **[00256]** As shown in FIG. 6, a procedure of the existing DAPS handover may include S601 to S614.

45 **[00257]** S601: A terminal measures a target cell, and sends a report to a source base station.

[00258] The report sent by the terminal to the source base station includes an event that a signal strength of a current serving source cell is lower than a threshold and a signal strength of the target cell is higher than the threshold, and other events.

[00259] Correspondingly, the source base station receives the report from the terminal.

5 **[00260]** S602: The source base station determines to perform a terminal handover based on the report.

[00261] S603: The source base station sends a handover request (handover request) message to a target base station.

[00262] The target base station is a base station corresponding to the foregoing target cell.

10 **[00263]** S604: The target base station determines to allow the terminal to access.

[00264] For example, the target base station may determine, according to a situation such as a number of connections of the target base station, whether to allow the terminal to access, and send, if the terminal is allowed to access, a handover acknowledgment message to the source base station.

[00265] S605: The target base station sends a handover request acknowledgment (handover request acknowledge) message to the source base station.

15 **[00266]** Correspondingly, the source base station receives the handover request acknowledgment message from the target base station.

[00267] S606: The source base station sends a handover command to the terminal.

[00268] Correspondingly, the terminal device receives the handover command. The handover command may include related information of the target cell and a related configuration parameter required for the terminal to access the target cell.

20 **[00269]** S607: The terminal maintains a link communication with the source cell based on the handover command, and synchronizes with the target cell.

[00270] For example, the terminal may initiate random access to the target base station, to complete a configuration in the target cell.

25 **[00271]** S608: The terminal sends an RRC reconfiguration complete message to the target base station.

[00272] Correspondingly, the target base station receives the RRC reconfiguration complete message from the terminal.

30 **[00273]** S609: The target base station sends a handover success (handover success) indication to the source base station.

CLAIMS

What is claimed is:

1. An information transmission method, wherein the method is applied to a terminal and the method comprises:

5 receiving capability enquiry signaling from a network device; and
 sending capability information of the terminal to the network device, wherein the capability information comprises: a first capability item and dual active protocol stack DAPS capability information supported by the terminal and corresponding to the first capability item; or
 wherein the capability information comprises: a first capability item and DAPS capability
10 information supported by the terminal and corresponding to the first capability item, and a second capability item and carrier aggregation CA capability information supported by the terminal and corresponding to the second capability item.

2. The method according to claim 1, wherein the capability information comprises a specific parameter of each band in multiple band combinations;

15 the DAPS capability information supported by the terminal and corresponding to the first capability item is a specific parameter of each band in one band combination of the multiple band combinations; and/or

 the CA capability information supported by the terminal and corresponding to the second capability item is a specific parameter of each band in one band combination of the multiple band
20 combinations.

3. The method according to claim 2, wherein when the DAPS capability information supported by the terminal is different from the CA capability information supported by the terminal, the first capability item and the second capability item correspond to a specific parameter of each band in different band combinations.

25 4. The method according to claim 2 or 3, wherein when the DAPS capability information supported by the terminal is same as the CA capability information supported by the terminal, the first capability item and the second capability item correspond to a specific parameter of each band in a same band combination.

5. The method according to any one of claims 2 to 4, wherein the DAPS capability
30 information supported by the terminal and corresponding to the first capability item comprises at

least one of the following: an uplink DAPS capability and a downlink DAPS capability at a per band granularity, or an uplink DAPS capability and a downlink DAPS capability at a per carrier granularity.

6. An information transmission method, wherein the method is applied to a network device
5 and the method comprises:

sending capability enquiry signaling to a terminal; and

receiving capability information from the terminal, wherein the capability information comprises a first capability item and dual active protocol stack DAPS capability information supported by the terminal and corresponding to the first capability item; or

10 wherein the capability information comprises a first capability item and DAPS capability information supported by the terminal and corresponding to the first capability item, and a second capability item and carrier aggregation CA capability information supported by the terminal and corresponding to the second capability item.

7. The method according to claim 6, wherein the capability information comprises a specific
15 parameter of each band in multiple band combinations;

the DAPS capability information supported by the terminal and corresponding to the first capability item is a specific parameter of each band in one band combination of the multiple band combinations; and/or

the CA capability information supported by the terminal and corresponding to the second
20 capability item is a specific parameter of each band in one band combination of the multiple band combinations.

8. The method according to claim 7, wherein when the DAPS capability information supported by the terminal is different from the CA capability information supported by the terminal, the first capability item and the second capability item correspond to a specific parameter of each
25 band in different band combinations.

9. The method according to claim 7 or 8, wherein when the DAPS capability information supported by the terminal is same as the CA capability information supported by the terminal, the first capability item and the second capability item correspond to a specific parameter of each band in a same band combination.

30 10. The method according to any one of claims 7 to 9, wherein the DAPS capability information supported by the terminal and corresponding to the first capability item comprises at

least one of the following: an uplink DAPS capability and a downlink DAPS capability at a per band granularity, or an uplink DAPS capability and a downlink DAPS capability at a per carrier granularity.

11. An information transmission apparatus, applied to a terminal, the apparatus comprising:

5 a receiving module, configured to receive capability enquiry signaling from a network device; and

a sending module, configured to send capability information of the terminal to the network device, wherein the capability information comprises: a first capability item and dual active protocol stack DAPS capability information supported by the terminal and corresponding to the first capability item; or

10 wherein the capability information comprises: a first capability item and DAPS capability information supported by the terminal and corresponding to the first capability item, and a second capability item and carrier aggregation CA capability information supported by the terminal and corresponding to the second capability item.

12. The apparatus according to claim 11, wherein the capability information comprises a specific parameter of each band in multiple band combinations;

the DAPS capability information supported by the terminal and corresponding to the first capability item is a specific parameter of each band in one band combination of the multiple band combinations; and/or

20 the CA capability information supported by the terminal and corresponding to the second capability item is a specific parameter of each band in one band combination of the multiple band combinations.

13. The apparatus according to claim 12, wherein when the DAPS capability information supported by the terminal is different from the CA capability information supported by the terminal, the first capability item and the second capability item correspond to a specific parameter of each band in different band combinations.

14. The apparatus according to claim 12 or 13, wherein when the DAPS capability information supported by the terminal is same as the CA capability information supported by the terminal, the first capability item and the second capability item correspond to a specific parameter of each band in a same band combination.

15. The apparatus according to any one of claims 11 to 14, wherein the DAPS capability

information supported by the terminal and corresponding to the first capability item comprises at least one of the following: an uplink DAPS capability and a downlink DAPS capability at a per band granularity, or an uplink DAPS capability and a downlink DAPS capability at a per carrier granularity.

5 16. An information transmission apparatus, applied to a network device, the apparatus comprising:

 a sending module, configured to send capability enquiry signaling to a terminal; and

 a receiving module, configured to receive capability information from the terminal, wherein the capability information comprises a first capability item and dual active protocol stack DAPS
10 capability information supported by the terminal and corresponding to the first capability item; or

 wherein the capability information comprises a first capability item and DAPS capability information supported by the terminal and corresponding to the first capability item, and a second capability item and carrier aggregation CA capability information supported by the terminal and corresponding to the second capability item.

15 17. The apparatus according to claim 16, wherein the capability information comprises a specific parameter of each band in multiple band combinations;

 the DAPS capability information supported by the terminal and corresponding to the first capability item is a specific parameter of each band in one band combination of the multiple band combinations; and/or

20 the CA capability information supported by the terminal and corresponding to the second capability item is a specific parameter of each band in one band combination of the multiple band combinations.

 18. The apparatus according to claim 17, wherein when the DAPS capability information supported by the terminal is different from the CA capability information supported by the terminal,
25 the first capability item and the second capability item correspond to a specific parameter of each band in different band combinations.

 19. The apparatus according to claim 17 or 18, wherein when the DAPS capability information supported by the terminal is same as the CA capability information supported by the terminal, the first capability item and the second capability item correspond to a specific parameter
30 of each band in a same band combination.

 20. The apparatus according to any one of claims 16 to 19, wherein the DAPS capability

information supported by the terminal and corresponding to the first capability item comprises at least one of the following: an uplink DAPS capability and a downlink DAPS capability at a per band granularity, or an uplink DAPS capability and a downlink DAPS capability at a per carrier granularity.

5 21. A communication apparatus, comprising: a processor, configured to execute computer instructions stored in a memory, the computer instructions, when being executed, enabling the apparatus to perform the method according to any one of claims 1 to 5.

22. A communication apparatus, comprising: a processor, configured to execute computer instructions stored in a memory, the computer instructions, when being executed, enabling the
10 apparatus to perform the method according to any one of claims 6 to 10.

23. A communication apparatus, comprising: a processor and an interface circuit, wherein the processor is configured to communicate with another apparatus through the interface circuit, and perform the method according to any one of claims 1 to 5.

24. A communication apparatus, comprising: a processor and an interface circuit, wherein the
15 processor is configured to communicate with another apparatus through the interface circuit, and perform the method according to any one of claims 6 to 10.

25. A computer-readable storage medium, comprising computer software instructions, wherein

when the computer software instructions run in a terminal or a chip built in a terminal, the
20 terminal is enabled to perform the method according to any one of claims 1 to 5.

26. A computer-readable storage medium, comprising computer software instructions, wherein

when the computer software instructions run in a network device or a chip built in a network device, the network device is enabled to perform the method according to any one of claims 6 to
25 10.

27. A communication system, comprising: a network device and a terminal, wherein the terminal performs the method according to any one of claims 1 to 5; and the network device performs the method according to any one of claims 6 to 10.