CLAIMS

What is claimed is:

1. A communication method, comprising:

receiving indication information from a session management function SMF network element, wherein the indication information indicates that downlink data of a first terminal device arrives at a core network side; and

when an extended discontinuous reception eDRX cycle of the first terminal device is greater than or equal to a first threshold, sending an eDRX parameter to a first access network device based on capability information of the first terminal device and capability information of the first access network device, wherein the first access network device is any access network device in a tracking area TA list of the first terminal device.

2. The method according to claim 1, wherein the capability information of the first terminal device comprises type information of a radio access technology RAT for accessing an access network device, the capability information of the first access network device comprises information about a first RAT used by a terminal device to access the first access network device, the type information comprises information about a first-type RAT and/or information about a second-type RAT, eDRX corresponding to the first-type RAT supports a paging time window PTW, and eDRX corresponding to the second-type RAT does not support a PTW; and

the sending an eDRX parameter to a first access network device based on capability information of the first terminal device and capability information of the first access network device comprises:

when the first RAT belongs to the first-type RAT, sending a first eDRX parameter to the first access network device, wherein the first eDRX parameter comprises a PTW parameter; and

when the first RAT belongs to the second-type RAT, sending a second eDRX parameter to the first access network device, wherein the second eDRX parameter does not comprise the PTW parameter.

3. The method according to claim 2, wherein the method further comprises:

receiving the capability information of the first terminal device; and

when the eDRX cycle of the first terminal device is greater than or equal to the first threshold, sending the first eDRX parameter to the first terminal device based on the capability information

of the first terminal device.

4. The method according to claim 3, wherein the receiving the capability information of the first terminal device comprises:

receiving the capability information of the first terminal device from the first terminal device.

5. The method according to claim 3, wherein the receiving the capability information of the first terminal device comprises:

receiving the capability information of the first terminal device from a second access network device, wherein the second access network device is an access network device accessed by the first terminal device when the capability information of the first terminal device is received.

6. The method according to claim 1, wherein the method further comprises:

sending, by the session management function SMF network element indication information.

7. The method according to claim 1, wherein the method further comprises:

receiving, by the first access network device, the eDRX parameter.

~~6. A communication method, comprising:~~

~~receiving capability information of a first terminal device, wherein the capability information of the first terminal device comprises type information of a radio access technology RAT for accessing an access network device, the type information comprises information about a first-type RAT and/or information about a second-type RAT, extended discontinuous reception eDRX corresponding to the first-type RAT supports a paging time window PTW, and eDRX corresponding to the second-type RAT does not support a PTW; and~~

~~when an eDRX cycle of the first terminal device is greater than or equal to a first threshold, sending a first eDRX parameter to the first terminal device based on the capability information of the first terminal device, wherein the first eDRX parameter comprises a PTW parameter.~~

~~7. The method according to claim 6, wherein the receiving capability information of a first terminal device comprises:~~

~~receiving the capability information of the first terminal device from the first terminal device.~~

~~8. The method according to claim 6, wherein the receiving capability information of a first terminal device comprises:~~

~~receiving the capability information of the first terminal device from a second access network device, wherein the second access network device is an access network device accessed by the first terminal device when the capability information of the first terminal device is received.~~

9. The method according to any one of claims 6 to 8, wherein the method further comprises:

receiving indication information from a session management function SMF network element, wherein the indication information indicates that downlink data of the first terminal device arrives at a core network side; and

separately sending the first eDRX parameter to all access network devices in a tracking area TA list corresponding to the first terminal device.

10. A communication method, comprising:

11. The method according to claim 10, wherein the method further comprises:

when the current RAT corresponding to the first terminal device belongs to the first-type RAT, but the eDRX cycle of the first terminal device is less than the first threshold, or when the current RAT corresponding to the first terminal device belongs to the second-type RAT, determining the PO based on a parameter in the first eDRX parameter other than the PTW parameter.

12. A communication method, comprising:

receiving capability information of a first terminal device, wherein the capability information of the first terminal device comprises type information of a radio access technology RAT for accessing an access network device, the type information comprises information about a first-type RAT and/or information about a second-type RAT, extended discontinuous reception eDRX corresponding to the first-type RAT supports a paging time window PTW, and eDRX corresponding to the second-type RAT does not support a PTW; and

sending first information to the first terminal device, wherein the first information comprises information about a first tracking area TA list, the first TA list comprises a cell corresponding to a RAT in the first-type RAT, and a TA list of the first terminal device comprises the first TA list.

13. The method according to claim 12, wherein the sending first information to the first terminal device comprises:

when an eDRX cycle of the first terminal device is greater than or equal to a first threshold, sending the first information to the first terminal device.

14. The method according to claim 12 or 13, wherein the receiving capability information of a first terminal device comprises:

receiving the capability information of the first terminal device from the first terminal device.

15. The method according to claim 12 or 13, wherein the receiving capability information of

a first terminal device comprises:

receiving the capability information of the first terminal device from a second access network device, wherein the second access network device is an access network device accessed by the first terminal device when the capability information of the first terminal device is received.

16. The method according to any one of claims 12 to 15, wherein the sending first information to the first terminal device comprises:

sending the first information and a third eDRX parameter to the first terminal device; and the method further comprises:

receiving a mobility registration update request from the first terminal device, wherein the mobility registration update request indicates that the first terminal device moves out of an area corresponding to the first TA list; and

sending second information and a fourth eDRX parameter to the first terminal device, wherein the second information comprises information about a second TA list, the second TA list comprises of a cell corresponding to a RAT in the second-type RAT, and the TA list of the first terminal device comprises the second TA list, wherein

when the third eDRX parameter comprises a PTW parameter, the fourth eDRX parameter does not comprise the PTW parameter; or when the third eDRX parameter does not comprise a PTW parameter, the fourth eDRX parameter comprises the PTW parameter.

17. A communication method, comprising:

sending capability information of a first terminal device to an access and mobility management function AMF network element, wherein the capability information of the first terminal device comprises type information of a radio access technology RAT for accessing an access network device, the type information comprises information about a first-type RAT and/or information about a second-type RAT, extended discontinuous reception eDRX corresponding to the first-type RAT supports a paging time window PTW, and eDRX corresponding to the second-type RAT does not support a PTW; and

receiving first information from the AMF network element, wherein the first information comprises information about a first tracking area TA list, the first TA list comprises of a cell corresponding to a RAT in the first-type RAT, and a TA list of the first terminal device comprises the first TA list.

18. The method according to claim 17, wherein the sending capability information of a first

terminal device to an AMF network element comprises:

sending the radio capability information of the first terminal device to a second access network device, wherein the second access network device is an access network device accessed by the first terminal device when the radio capability information is sent.

19. The method according to claim 17 or 18, wherein the receiving first information from the AMF network element comprises:

receiving the first information and a third eDRX parameter from the AMF network element; and

the method further comprises:

when the first terminal device moves out of an area corresponding to the first TA list, sending a mobility registration update request to the AMF network element, wherein the mobility registration update request indicates that the first terminal device moves out of the area corresponding to the first TA list; and

receiving second information and a fourth eDRX parameter from the AMF network element, wherein the second information comprises information about a second TA list, the second TA list comprises of a cell corresponding to a RAT in the second-type RAT, and the TA list of the first terminal device comprises the second TA list, wherein

when the third eDRX parameter comprises a PTW parameter, the fourth eDRX parameter does not comprise the PTW parameter; or when the third eDRX parameter does not comprise a PTW parameter, the fourth eDRX parameter comprises the PTW parameter.

20. A communication apparatus, comprising:

a receiving unit, configured to receive indication information from a session management function SMF network element, wherein the indication information indicates that downlink data of a first terminal device arrives at a core network side; and

a sending unit, configured to: when an extended discontinuous reception eDRX cycle of the first terminal device is greater than or equal to a first threshold, send an eDRX parameter to a first access network device based on capability information of the first terminal device and capability information of the first access network device, wherein the first access network device is any access network device in a tracking area TA list of the first terminal device.

21. The apparatus according to claim 20, wherein the capability information of the first terminal device comprises type information of a radio access technology RAT for accessing an

~~access network device, the capability information of the first access network device comprises information about a first RAT used by a terminal device to access the first access network device, the type information comprises information about a first-type RAT and/or information about a second-type RAT, eDRX corresponding to the first-type RAT supports a paging time window PTW, and eDRX corresponding to the second-type RAT does not support a PTW; and~~

~~the sending unit is specifically configured to:~~

~~when the first RAT belongs to the first-type RAT, send a first eDRX parameter to the first access network device, wherein the first eDRX parameter comprises a PTW parameter; and~~

~~when the first RAT belongs to the second-type RAT, send a second eDRX parameter to the first access network device, wherein the second eDRX parameter does not comprise the PTW parameter.~~

~~22. The apparatus according to claim 21, wherein the receiving unit is further configured to receive the capability information of the first terminal device; and~~

~~the sending unit is further configured to: when the eDRX cycle of the first terminal device is greater than or equal to the first threshold, send the first eDRX parameter to the first terminal device based on the capability information of the first terminal device.~~

~~23. The apparatus according to claim 22, wherein that the receiving unit receives the capability information of the first terminal device comprises:~~

~~receiving the capability information of the first terminal device from the first terminal device.~~

~~24. The apparatus according to claim 22, wherein that the receiving unit receives the capability information of the first terminal device comprises:~~

~~receiving the capability information of the first terminal device from a second access network device, wherein the second access network device is an access network device accessed by the first terminal device when the capability information of the first terminal device is received.~~

~~25. A communication apparatus, comprising:~~

~~a receiving unit, configured to receive capability information of a first terminal device, wherein the capability information of the first terminal device comprises type information of a radio access technology RAT for accessing an access network device, the type information comprises information about a first-type RAT and/or information about a second-type RAT, extended discontinuous reception eDRX corresponding to the first-type RAT supports a paging time window PTW, and eDRX corresponding to the second-type RAT does not support a PTW;~~

and

a sending unit, configured to: when an eDRX cycle of the first terminal device is greater than or equal to a first threshold, send a first eDRX parameter to the first terminal device based on the capability information of the first terminal device, wherein the first eDRX parameter comprises a PTW parameter.

26. The apparatus according to claim 25, wherein the receiving unit is specifically configured to receive the capability information of the first terminal device from the first terminal device.

27. The apparatus according to claim 25, wherein the receiving unit is specifically configured to receive the capability information of the first terminal device from a second access network device, wherein the second access network device is an access network device accessed by the first terminal device when the capability information of the first terminal device is received.

28. The apparatus according to any one of claims 25 to 27, wherein the receiving unit is further configured to receive indication information from a session management function SMF network element, wherein the indication information indicates that downlink data of the first terminal device arrives at a core network side; and

the sending unit is further configured to separately send the first eDRX parameter to all access network devices in a tracking area TA list corresponding to the first terminal device.

29. A communication apparatus, comprising:

a sending unit, configured to send capability information of a first terminal device to an access and mobility management function AMF network element, wherein the capability information of the first terminal device comprises type information of a radio access technology RAT for accessing an access network device, the type information comprises information about a first-type RAT and/or information about a second-type RAT, extended discontinuous reception eDRX corresponding to the first-type RAT supports a paging time window PTW, and eDRX corresponding to the second-type RAT does not support a PTW;

a receiving unit, configured to receive a first eDRX parameter from the AMF network element, wherein the first eDRX parameter comprises a PTW parameter; and

a determining unit, configured to: when a current RAT corresponding to the first terminal device belongs to the first-type RAT, and an eDRX cycle of the first terminal device is greater than or equal to a first threshold, determine a paging occasion PO based on the first eDRX parameter.

30. The apparatus according to claim 29, wherein the determining unit is further configured

to: when the current RAT corresponding to the first terminal device belongs to the first-type RAT, but the eDRX cycle of the first terminal device is less than the first threshold, or when the current RAT corresponding to the first terminal device belongs to the second-type RAT, determine the PO based on a parameter in the first eDRX parameter other than the PTW parameter.

31. A communication apparatus, comprising:

a receiving unit, configured to receive capability information of a first terminal device, wherein the capability information of the first terminal device comprises type information of a radio access technology RAT for accessing an access network device, the type information comprises information about a first-type RAT and/or information about a second-type RAT, extended discontinuous reception eDRX corresponding to the first-type RAT supports a paging time window PTW, and eDRX corresponding to the second-type RAT does not support a PTW; and

a sending unit, configured to send first information to the first terminal device, wherein the first information comprises information about a first tracking area TA list, the first TA list comprises of a cell corresponding to a RAT in the first-type RAT, and a TA list of the first terminal device comprises the first TA list.

32. The apparatus according to claim 31, wherein the sending unit is specifically configured to: when an eDRX cycle of the first terminal device is greater than or equal to a first threshold, send the first information to the first terminal device.

33. The apparatus according to claim 31 or 32, wherein the receiving unit is specifically configured to receive the capability information of the first terminal device from the first terminal device.

34. The apparatus according to claim 31 or 32, wherein the receiving unit is specifically configured to receive the capability information of the first terminal device from a second access network device, wherein the second access network device is an access network device accessed by the first terminal device when the capability information of the first terminal device is received.

35. The apparatus according to any one of claims 31 to 34, wherein that the sending unit sends the first information to the first terminal device comprises:

sending the first information and a third eDRX parameter to the first terminal device;

the receiving unit is further configured to receive a mobility registration update request from the first terminal device, wherein the mobility registration update request indicates that the first

terminal device moves out of an area corresponding to the first TA list; and

the sending unit is further configured to send second information and a fourth eDRX parameter to the first terminal device, wherein the second information comprises information about a second TA list, the second TA list comprises of a cell corresponding to a RAT in the second-type RAT, and the TA list of the first terminal device comprises the second TA list, wherein

when the third eDRX parameter comprises a PTW parameter, the fourth eDRX parameter does not comprise the PTW parameter; or when the third eDRX parameter does not comprise a PTW parameter, the fourth eDRX parameter comprises the PTW parameter.

36. A communication apparatus, comprising:

a sending unit, configured to send capability information of a first terminal device to an access and mobility management function AMF network element, wherein the capability information of the first terminal device comprises type information of a radio access technology RAT for accessing an access network device, the type information comprises information about a first-type RAT and/or information about a second-type RAT, extended discontinuous reception eDRX corresponding to the first-type RAT supports a paging time window PTW, and eDRX corresponding to the second-type RAT does not support a PTW; and

a receiving unit, configured to receive first information from the AMF network element, wherein the first information comprises information about a first tracking area TA list, the first TA list comprises of a cell corresponding to a RAT in the first-type RAT, and a TA list of the first terminal device comprises the first TA list.

37. The apparatus according to claim 36, wherein the sending unit is specifically configured to send the radio capability information of the first terminal device to a second access network device, wherein the second access network device is an access network device accessed by the first terminal device when the radio capability information is sent.

38. The apparatus according to claim 36 or 37, wherein the receiving unit is specifically configured to receive the first information and a third eDRX parameter from the AMF network element;

the sending unit is further configured to: when the first terminal device moves out of an area corresponding to the first TA list, send a mobility registration update request to the AMF network element, wherein the mobility registration update request indicates that the first terminal device moves out of the area corresponding to the first TA list; and

the receiving unit is further configured to receive second information and a fourth eDRX parameter from the AMF network element, wherein the second information comprises information about a second TA list, the second TA list comprises of a cell corresponding to a RAT in the second type RAT, and the TA list of the first terminal device comprises the second TA list, wherein

when the third eDRX parameter comprises a PTW parameter, the fourth eDRX parameter does not comprise the PTW parameter; or when the third eDRX parameter does not comprise a PTW parameter, the fourth eDRX parameter comprises the PTW parameter.

398. A communication apparatus, comprising a processor, a memory, an input interface, and an output interface, wherein the input interface is configured to receive information from another communication apparatus different from the communication apparatus, the output interface is configured to output information to the another communication apparatus different from the communication apparatus, and the processor invokes a computer program stored in the memory to implement the method according to any one of claims 1 to 9:

receiving indication information from a session management function SMF network element, wherein the indication information indicates that downlink data of a first terminal device arrives at a core network side; and

when an extended discontinuous reception eDRX cycle of the first terminal device is greater than or equal to a first threshold, sending an eDRX parameter to a first access network device based on capability information of the first terminal device and capability information of the first access network device, wherein the first access network device is any access network device in a tracking area TA list of the first terminal device.

40. A communication apparatus, comprising a processor, a memory, an input interface, and an output interface, wherein the input interface is configured to receive information from another communication apparatus different from the communication apparatus, the output interface is configured to output information to the another communication apparatus different from the communication apparatus, and the processor invokes a computer program stored in the memory to implement the method according to claim 10 or 11.

41. A communication apparatus, comprising a processor, a memory, an input interface, and an output interface, wherein the input interface is configured to receive information from another communication apparatus different from the communication apparatus, the output interface is configured to output information to the another communication apparatus different from the

~~communication apparatus, and the processor invokes a computer program stored in the memory to implement the method according to any one of claims 12 to 16.~~

~~42. A communication apparatus, comprising a processor, a memory, an input interface, and an output interface, wherein the input interface is configured to receive information from another communication apparatus different from the communication apparatus, the output interface is configured to output information to the another communication apparatus different from the communication apparatus, and the processor invokes a computer program stored in the memory to implement the method according to any one of claims 17 to 19.~~

~~43.~~9 A communication system, comprising:

the apparatus according to claim ~~39~~ 8; and

~~the~~ an apparatus ~~according to claim 40~~that is configured to receive the eDRX parameter.~~; or the apparatus according to claim 41 and the apparatus according to claim 42.~~

10. The communication system according to claim 9, further comprising:

An appratatus that is configured to send the indication information.

~~44~~11. A computer-readable storage medium, wherein the computer-readable storage medium stores a computer program or computer instructions; and when the computer program or the computer instructions are run, the method according to any one of claims 1 to ~~19~~ 5 is implemented.

12. A communication method, comprising:

sending, by a session management function SMF network element, indication information to an access and mobility management function network element, wherein the indication information indicates that downlink data of a first terminal device arrives at a core network side; and

when an extended discontinuous reception eDRX cycle of the first terminal device is greater than or equal to a first threshold, sending, by the access and mobility management function network element, an eDRX parameter to a first access network device based on capability information of the first terminal device and capability information of the first access network device, wherein the first access network device is any access network device in a tracking area TA list of the first terminal device.

13. The communication method according to claim 12, further comprising:

receiving, by the first access network device, the eDRX parameter.