CLAIMS

What is claimed is:

1. A communication method, comprising:

determining, by a policy control function network element, that a category of a backhaul network of a terminal device is a satellite backhaul category;

determining, by the policy control function network element, policy information of the terminal device based on the satellite backhaul category and service deployment information, wherein the service deployment information comprises information about a service deployed on a satellite, the policy information comprises a correspondence between the service deployed on the satellite and a first-type routing policy, and the first-type routing policy is used for determining a user plane function network element on the satellite as a session anchor of the terminal device; and

sending, by the policy control function network element, the policy information to the terminal device.

2. The method according to claim 1, wherein the determining, by a policy control function network element, that a category of a backhaul network of a terminal device is a satellite backhaul category comprises:

obtaining, by the policy control function network element, the satellite backhaul category from an access and mobility management function network element.

3. The method according to claim 1 or 2, wherein the method further comprises:

obtaining, by the policy control function network element, the service deployment information.

4. The method according to any one of claims 1 to 3, wherein the satellite backhaul category is a geostationary earth orbit (GEO) satellite backhaul category.

5. The method according to any one of claims 1 to 4, wherein the service deployment information further comprises information about a service deployed on the ground, and the service deployed on the ground is different from the service deployed on the satellite; and

the policy information further comprises a correspondence between the service deployed on the ground and a second-type routing policy.

6. The method according to any one of claims 1 to 5, wherein the method further comprises:

sending, by the policy control function network element, subscription information to the access and mobility management function network element, wherein the subscription information is used for subscribing to a change indication of the category of the backhaul network of the terminal device;

receiving, by the policy control function network element, indication information from the access and mobility management function network element, wherein the indication information

indicates that the category of the backhaul network of the terminal device changes; and

updating, by the policy control network element, the policy information of the terminal device based on the indication information.

7. A communication method, comprising:

obtaining, by a terminal device, first indication information from an access and mobility management function network element, wherein the first indication information indicates that a category of a backhaul network of the terminal device is a satellite backhaul category;

receiving, by the terminal device, policy information from a policy control function network element, wherein the policy information comprises a correspondence among a first-type service, a first-type routing policy, and second indication information, the first-type service is a service deployed on a satellite, the first-type routing policy is used for determining a user plane function network element on the satellite as a session anchor of the terminal device, and the second indication information indicates that the policy information is used when the category of the backhaul network is the satellite backhaul category; and

determining, by the terminal device based on the first indication information and the policy information, the first-type routing policy corresponding to the first-type service.

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

storing, by the terminal device, the first indication information.

9. The method according to claim 7 or 8, wherein the obtaining, by a terminal device, first indication information from an access and mobility management function network element comprises:

receiving, by the terminal device, a registration accept message from the access and mobility management function network element, wherein the registration accept message comprises the first indication information; or

receiving, by the terminal device, a configuration update message from the access and mobility management function network element, wherein the configuration update message comprises the first indication information.

10. The method according to any one of claims 7 to 9, wherein the satellite backhaul category is a geostationary earth orbit (GEO) satellite backhaul category.

11. The method according to any one of claims 7 to 10, wherein the policy information further comprises a correspondence between the first-type service and a second-type routing policy, and the second-type routing policy is used for determining a user plane function network element on the ground as the session anchor of the terminal device.

12. The method according to any one of claims 7 to 11, wherein the method further comprises:

sending, by the terminal device, a non-access stratum message to the access and mobility management function network element, wherein the non-access stratum message comprises the first-type routing policy.

13. The method according to any one of claims 7 to 11, wherein the second indication information is comprised in the first-type routing policy.

14. The method according to any one of claims 7 to 13, wherein the method further comprises:

receiving, by the terminal device, third indication information from the access and mobility management function network element, wherein the third indication information indicates an updated category of the backhaul network of the terminal device; and

updating, by the terminal device based on the third indication information, the routing policy corresponding to the first-type service.

15. A communication method, comprising:

determining, by an access and mobility management function network element, that a category of a backhaul network of a terminal device is a satellite backhaul category; and

sending, by the access and mobility management function network element, first indication information to the terminal device, wherein the first indication information indicates that the category of the backhaul network of the terminal device is the satellite backhaul category.

16. The method according to claim 15, wherein the sending, by the access and mobility management function network element, first indication information to the terminal device comprises:

sending, by the access and mobility management function network element, a registration accept message to the terminal device, wherein the registration accept message comprises the first indication information; or

sending, by the access and mobility management function network element, a configuration update message to the terminal device, wherein the configuration update message comprises the first indication information.

17. The method according to claim 15 or 16, wherein the satellite backhaul category is a GEO satellite backhaul category.

18. The method according to any one of claims 15 to 17, wherein the method further comprises:

determining, by the access and mobility management function network element, that the category of the backhaul network of the terminal device changes; and

sending, by the access and mobility management function network element, third indication information to the terminal device, wherein the third indication information indicates an updated category of the backhaul network of the terminal device.

19. A communication apparatus, comprising a memory, a processor, and a transceiver, wherein

the memory is configured to store computer instructions;

the transceiver is configured to receive and send information; and

the processor is coupled to the memory, and is configured to invoke the computer instructions in the memory, to perform the method according to any one of claims 1 to 6, 7 to 14, or 15 to 18 by using the transceiver.

20. A communication apparatus, comprising a memory, a processor, and a transceiver, wherein

the memory is configured to store computer instructions;

the transceiver is configured to receive and send information; and

the processor is coupled to the memory, and is configured to invoke the computer instructions in the memory, to perform the method according to any one of claims 19 to 22 by using the transceiver.

21. A computer-readable storage medium, wherein the computer-readable storage medium stores computer-executable instructions, and when the computer-executable instructions are invoked by a computer, the computer-executable instructions are used for performing the method according to any one of claims 1 to 6, or performing the method according to any one of claims 7 to 14, or performing the method according to any one of claims 15 to 18.

22. A computer program product, comprising instructions, wherein when the instructions are run on a computer, the method according to any one of claims 1 to 6, the method according to any one of claims 7 to 14, the method according to any one of claims 15 to 18.

23. A chip, wherein the chip is coupled to a memory, and is configured to read and execute program instructions stored in the memory, to implement the method according to any one of claims 1 to 6, or implement the method according to any one of claims 7 to 14, or implement the method according to any one of claims 15 to 18.

24. A communication system, comprising a policy control function network element and an access and mobility management function network element, wherein

the access and mobility management function network element is configured to send a satellite backhaul category to the policy control function network element; and

the policy control function network element is configured to: obtain the satellite backhaul category from the access and mobility management function network element; determine policy information of a terminal device based on the satellite backhaul category and service deployment information, wherein the service deployment information comprises information about a service deployed on a satellite, the policy information comprises a correspondence between the service deployed on the satellite and a first-type routing policy, and the first-type routing policy is used for

determining a user plane function network element on the satellite as a session anchor of the terminal device; and send the policy information to the terminal device.

25. The communication system according to claim 24, wherein

the policy control function network element is further configured to obtain the service deployment information.

26. The communication system according to claim 24 or 25, wherein the satellite backhaul category is a geostationary earth orbit GEO satellite backhaul category.

27. The communication system according to any one of claims 24 to 26, wherein the service deployment information further comprises information about a service deployed on the ground, wherein the service deployed on the ground is different from the service deployed on the satellite; and

the policy information further comprises a correspondence between the service deployed on the ground and a second-type routing policy.