CLAIMS

What is claimed is:

1. A paging method, executed by a first network function, wherein the method comprises:

sending service matching information and service–flow relationship information to a base station, or sending flow matching information to the base station; wherein

the service matching information is used for obtaining by the base station a matching value based on service information or service type information; the service–flow relationship information is used for obtaining by the base station service information or service type information based on a flow identifier, or for obtaining by the base station service information or service type information based on a session identifier and a flow identifier; and the flow matching information is used for obtaining by the base station a matching value based on a flow identifier, or for obtaining by the base station a matching value based on a session identifier and a flow identifier;

wherein a target matching value is carried in a paging message sent by the base station to a terminal device in a case that the base station receives data from a network, the data carries a target flow identifier, or carries a target flow identifier and a target session identifier, and the target matching value is obtained by the base station based on the target flow identifier or both the target flow identifier and the target session identifier according to the service matching information and the service–flow relationship information or according to the flow matching information.

2. The method according to claim 1, wherein the service matching information comprises one or more service matching relationships, and one target service matching relationship in the service matching information comprises:

a target matching value and one or more pieces of target service information; or,

a target matching value and one or more pieces of target service type information; wherein

the target service information is used to indicate a service related to the target matching value, and the target service type information is used to indicate a service type related to the target matching value.

3. The method according to claim 2, wherein the service matching information further comprises validity period information;

or, wherein the target service matching relationship further comprises at least one of the following:

one or more pieces of high-priority service information, wherein a service corresponding to the high-priority service information is capable of preempting resources for a service corresponding to the target service information;

one or more pieces of high-priority service type information, wherein a service corresponding to the high-priority service type information is capable of preempting a service corresponding to the target service type information;

one or more pieces of low-priority service information, wherein a service corresponding to the low-priority service information is incapable of preempting a service corresponding to the target service information;

one or more pieces of low-priority service type information, wherein a service corresponding to the low-priority service type information is incapable of preempting a service corresponding to the target service type information;

priority information of a service corresponding to the target service information; and

priority information of a service corresponding to the target service type information.

4. The method according to claim 1, wherein the flow matching information comprises one or more flow matching relationships, and one target flow matching relationship in the flow matching information comprises:

a target matching value and one or more target flow identifiers; or,

a target matching value and one or more target identifier pairs, wherein the target identifier pair comprises the target flow identifier and a target session identifier;

wherein the flow matching information further comprises validity period information.

5. The method according to claim 1, wherein the service–flow relationship information comprises one or more service–flow relationships, and one target service–flow relationship in the service–flow relationship information comprises:

a target flow identifier and one or more pieces of target service information; or

a target flow identifier, a target session identifier, and one or more pieces of target service information; or

a target flow identifier, and one or more pieces of target service type information; or

a target flow identifier, a target session identifier, and one or more pieces of target service type information.

6. The method according to claim 1, wherein the service information and/or the service type information comprises at least one of the following:

a name;

an identifier; and

rule information;

wherein the rule information comprises at least one of the following:

one or more IP addresses;

one or more port numbers; and

one or more pieces of protocol information; wherein

the IP address comprises a number or a wildcard, and the port number comprises a number or a wildcard.

7. A paging method executed by a base station, wherein the method comprises:

receiving service matching information and service–flow relationship information from a first network function, or receiving flow matching information from the first network function; wherein

the service matching information is used for obtaining by the base station a matching value based on service information or service type information; the service–flow relationship information is used for obtaining by the base station service information or service type information based on a flow identifier, or for obtaining by the base station service information or service type information based on a session identifier and a flow identifier; and the flow matching information is used for obtaining by the base station a matching value based on a flow identifier, or for obtaining by the base station a matching value based on a session identifier and a flow identifier;

wherein after the receiving service matching information and service–flow relationship information from a first network function, or receiving flow matching information from the first network function, the method further comprises:

receiving data from a network; and

sending a paging message to a terminal device, wherein the paging message carries a target matching value; wherein

the data carries a target flow identifier, or carries a target flow identifier and a target session identifier;

the target matching value is obtained by the base station based on the target flow identifier or both the target flow identifier and the target session identifier according to the service matching information and the service–flow relationship information or according to the flow matching information.

8. The method according to claim 7, wherein the service matching information comprises one or more service matching relationships, and one target service matching relationship in the service matching information comprises:

a target matching value and one or more pieces of target service information; or,

a target matching value and one or more pieces of target service type information; wherein

the target service information is used to indicate a service related to the target matching value, and the target service type information is used to indicate a service type related to the target matching value;

wherein the target service matching relationship further comprises at least one of the following:

one or more pieces of high-priority service information, wherein a service corresponding to the high-priority service information is capable of preempting a service corresponding to the target service information;

one or more pieces of high-priority service type information, wherein a service corresponding to the high-priority service type information is capable of preempting a service corresponding to the target service type information;

one or more pieces of low-priority service information, wherein a service corresponding to the low-priority service information is incapable of preempting a service corresponding to the target service information;

one or more pieces of low-priority service type information, wherein a service corresponding to the low-priority service type information is incapable of preempting a service corresponding to the target service type information;

priority information of a service corresponding to the target service information; and

priority information of a service corresponding to the target service type information.

9. The method according to claim 7, wherein the flow matching information comprises one or more flow matching relationships, and one target flow matching relationship in the flow matching information comprises:

a target matching value and one or more target flow identifiers; or,

a target matching value and one or more target identifier pairs, wherein the target identifier pair comprises the target flow identifier and a target session identifier.

10. The method according to claim 7, wherein the service–flow relationship information comprises one or more service–flow relationships, and one target service–flow relationship in the service–flow relationship information comprises:

a target flow identifier and one or more pieces of target service information; or

a target flow identifier, a target session identifier, and one or more pieces of target service information; or

a target flow identifier, and one or more pieces of target service type information; or

a target flow identifier, a target session identifier, and one or more pieces of target service type information.

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

receiving currently active service information from the terminal device; and

based on the currently active service information, first information, and second information, determining to reject to send the paging message; wherein

the first information comprises the flow matching information, or the first information comprises the service matching information and the service–flow relationship information; and the second information comprises the target flow identifier; or the second information comprises the target session identifier and the target flow identifier.

12. A paging method executed by a second network function, wherein the method comprises:

sending service–flow relationship information to a first network function, so that the first network function generates flow matching information based on the service–flow relationship information and service matching information; or sending the service–flow relationship information to a base station through the first network function; wherein

the service matching information is used for obtaining by the base station a matching value based on service information or service type information; the service–flow relationship information is used for obtaining by the base station

service information or service type information based on a flow identifier, or for obtaining by the base station service information or service type information based on a session identifier and a flow identifier; and the flow matching information is used for obtaining by the base station a matching value based on a flow identifier, or for obtaining by the base station a matching value based on a session identifier and a flow identifier;

wherein a target matching value is carried in a paging message sent by the base station to a terminal device in a case that the base station receives data from a network, the data carries a target flow identifier, or carries a target flow identifier and a target session identifier, and the target matching value is obtained by the base station based on the target flow identifier or both the target flow identifier and the target session identifier according to the service matching information and the service–flow relationship information or according to the flow matching information.

13. The method according to claim 12, wherein the service–flow relationship information comprises one or more service–flow relationships, and one target service–flow relationship in the service–flow relationship information comprises:

a target flow identifier and one or more pieces of target service information; or

a target flow identifier, a target session identifier, and one or more pieces of target service information; or

a target flow identifier, and one or more pieces of target service type information; or

a target flow identifier, a target session identifier, and one or more pieces of target service type information.

14. A network device, comprising:

a first network function, configured to send service matching information and service–flow relationship information to a base station, or send flow matching information to the base station; wherein

the service matching information is used for obtaining by the base station a matching value based on service information or service type information; the service–flow relationship information is used for obtaining by the base station service information or service type information based on a flow identifier, or for obtaining by the base station service information or service type information based on a session identifier and a flow identifier; and the flow matching information is used for obtaining by the base station a matching value based on a flow identifier, or for obtaining by the base station a matching value based on a session identifier and a flow identifier;

wherein a target matching value is carried in a paging message sent by the base station to a terminal device in a case that the base station receives data from a network, the data carries a target flow identifier, or carries a target flow identifier and a target session identifier, and the target matching value is obtained by the base station based on the target flow identifier or both the target flow identifier and the target session identifier according to the service matching information and the service–flow relationship information or according to the flow matching information.

15. A base station, comprising:

a receiving module, configured to receive service matching information and service–flow relationship information from a first network function, or receive flow matching information from the first network function, wherein

the service matching information is used for obtaining by the base station a matching value based on service information or service type information; the service–flow relationship information is used for obtaining by the base station service information or service type information based on a flow identifier, or for obtaining by the base station service information or service type information based on a session identifier and a flow identifier; and the flow matching information is used for obtaining by the base station a matching value based on a flow identifier, or for obtaining by the base station a matching value based on a session identifier and a flow identifier;

wherein the receiving module is further configured to:

receive data from a network; and

send a paging message to a terminal device, wherein the paging message carries a target matching value; wherein

the data carries a target flow identifier, or carries a target flow identifier and a target session identifier;

the target matching value is obtained by the base station based on the target flow identifier or both the target flow identifier and the target session identifier according to the service matching information and the service–flow relationship information or according to the flow matching information.

16. A network device, comprising:

a second network function, configured to send service–flow relationship information to a first network function, so that the first network function generates flow matching information based on the service–flow relationship information and service matching information; or send the service–flow relationship information to a base station through the first network function; wherein

the service matching information is used for obtaining by the base station a matching value based on service information or service type information; the service–flow relationship information is used for obtaining by the base station service information or service type information based on a flow identifier, or for obtaining by the base station service information or service type information based on a session identifier and a flow identifier; and the flow matching information is used for obtaining by the base station a matching value based on a flow identifier, or for obtaining by the base station a matching value based on a session identifier and a flow identifier;

wherein a target matching value is carried in a paging message sent by the base station to a terminal device in a case that the base station receives data from a network, the data carries a target flow identifier, or carries a target flow identifier and a target session identifier, and the target matching value is obtained by the base station based on the target flow identifier or both the target flow identifier and the

target session identifier according to the service matching information and the service–flow relationship information or according to the flow matching information.

17. A network device, comprising a memory, a processor, and a computer program that is stored in the memory and capable of running on the processor, wherein when the computer program is executed by the processor, the steps of the paging method according to any one of claims 1 to 13 are implemented.

18. A computer-readable storage medium, wherein the computer-readable storage medium stores a computer program, and when the computer program is executed by a processor, the steps of the paging method according to any one of claims 1 to 13 are implemented.