CLAIMS

What is claimed is:

1. A communication method, comprising:

obtaining, by a session management network element, first indication information in a process of session establishment in a first network for a terminal device, wherein the first indication information indicates that user plane integrity protection in a second network is supported;

sending, by the session management network element, a first request message to an access and mobility management function network element in the first network based on the first indication information, wherein the first request message is used to request to assign a bearer identifier to the session, and the bearer identifier corresponds to a bearer context of the terminal device in the second network; and

receiving, by the session management network element, a first response message from the access and mobility management function network element, wherein the first response message comprises the bearer identifier.

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

mapping, by the session management network element, a user plane security policy of the terminal device in the first network to a user plane security policy of the terminal device in the second network; and

storing, by the session management network element, the user plane security policy in the second network in the bearer context.

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

obtaining, by the session management network element, third indication information, wherein the third indication information indicates to perform user plane security policy mapping; and

the mapping, by the session management network element, a user plane security policy of the terminal device in the first network to a user plane security policy of the terminal device in the second network comprises:

mapping, by the session management network element, the user plane security policy of the terminal device in the first network to the user plane security policy of the terminal device in the second network based on the third indication information.

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

sending, by the session management network element, the bearer context to a target mobility management entity in the second network via the access and mobility management function network element, wherein the target mobility management entity is a network element that serves the terminal device when the session is handed over to the second network.

5. The method according to any one of claims 1 to 4, wherein the user plane security policy of the terminal device in the first network comprises activating user plane integrity protection.

6. The method according to any one of claims 1 to 5, wherein the obtaining, by a session management network element, first indication information comprises:

receiving, by the session management network element, the first indication information from the access and mobility management function network element.

7. The method according to any one of claims 1 to 6, wherein the first network is a 5th generation communication system network, the second network is an evolved packet system network, and the bearer context is an evolved packet system bearer context.

8. A communication method, comprising:

receiving, by an access and mobility management function network element in a first network, a registration request message from a terminal device, wherein the registration request message comprises second indication information, and the second indication information indicates that the terminal device supports user plane integrity protection in a second network;

in a process of session establishment in the first network for the terminal device, sending, by the access and mobility management function network element, first indication information to a session management network element based on the second indication information, wherein the first indication information indicates that support user plane integrity protection in the second network is supported;

receiving, by the access and mobility management function network element, a first request message, wherein the first request message is used to request to assign a bearer identifier to the session, and the bearer identifier corresponds to a bearer context of the terminal device in the second network; and

sending, by the access and mobility management function network element, a first response message to the session management network element, wherein the first response message comprises the bearer identifier.

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

sending, by the access and mobility management function network element, a second request message to the session management function network element;

receiving, by the access and mobility management function network element, a second response message from the session management network element, wherein the second response message comprises the bearer context, the bearer context comprises a user plane security policy of the terminal device in the second network, and the user plane security policy in the second network is obtained according to a user plane security policy of the terminal device in the first network; and

sending, by the access and mobility management function network element, the bearer context to a target mobility management entity in the second network, wherein the target mobility management entity is a network element that serves the terminal device when the session is handed over to the second network.

10. The method according to claim 9, wherein

a granularity of the user plane security policy in the first network is a granularity of a protocol data unit session; and

a granularity of the user plane security policy in the second network is a granularity of an evolved packet system bearer.

11. The method according to any one of claims 8 to 10, wherein the first network is a 5th generation communication system network, the second network is an evolved packet system network, and the bearer context is an evolved packet system bearer context.

12. A communication method, comprising:

sending, by a communication device, second indication information to an access and mobility management function network element in a first network, wherein the second indication information indicates that a terminal device supports user plane integrity protection in a second network; and

receiving, by the communication device, radio resource control reconfiguration sent by an access network device in the second network, wherein the radio resource control reconfiguration comprises indication information for activating user plane integrity protection.

13. The method according to claim 12, wherein the second indication information is comprised in a registration request message.

14. A communication device, comprising:

a memory, wherein the memory is configured to store a computer program;

a transceiver, wherein the transceiver is configured to perform sending and receiving steps; and

a processor, wherein the processor is configured to invoke the computer program from the memory and run the computer program, to enable the communication device to perform the method according to any one of claims 1 to 13.

15. A communication device, comprising:

one or more functional units configured to perform the method according to any one of claims 1 to 13.

16. A computer-readable storage medium, wherein the computer-readable medium stores a computer program; and when the computer program is run on a computer, the computer is enabled to perform the method according to any one of claims 1 to 13.

17. A system comprising: a session management network element configured to perform the method according to any one of claims 1 to 7, and an access and mobility management function network element configured to perform the method according to any one of claims 8 to 11.

18.The system according to claim 17, further comprising:

a terminal device configured to perform the method according to any one of claims 12 to 13.

19. A communication method, comprising:

receiving, by an access and mobility management function network element in a first network, a registration request message from a terminal device, wherein the registration request message comprises second indication information, and the second indication information indicates that the terminal device supports user plane integrity protection in a second network;

in a process of session establishment in the first network for the terminal device, sending, by the access and mobility management function network element, first indication information to a session management network element based on the second indication information, wherein the first indication information indicates that support user plane integrity protection in the second network is supported;

sending, by the session management network element, a first request message to the access and mobility management function network element in the first network based on the first

indication information, wherein the first request message is used to request to assign a bearer identifier to the session, and the bearer identifier corresponds to a bearer context of the terminal device in the second network; and

sending, by the access and mobility management function network element, a first response message to the session management network element, wherein the first response message comprises the bearer identifier.

20. The method according to claim 19, wherein the method further comprises:

sending, by the terminal device, the registration request message to the access and mobility management function network element in the first network; and

receiving, by the communication device, radio resource control reconfiguration from an access network device in the second network, wherein the radio resource control reconfiguration comprises indication information for activating user plane integrity protection.