CLAIMS

1. A user access method, comprising:

receiving an access request comprising user information and path information; and

binding the user information and the path information together and saving the bound information;

wherein the path information comprises information about more than one intermediate device; and the user information is added to the access request by a terminal device, the information about the more than one intermediate device is added to the access requested by the intermediate devices.

2. The user access method according to claim 1, further comprising: allocating address information;

the binding the user information and path information together and saving the bound information comprising: binding the user information, path information and address information together, and saving the bound information.

3. The user access method according to claim 1, wherein the user information and the path information are carried in a hop-by-hop extension header of the access request.

4. The user access method according to claim 1 or 2, wherein

the more than one intermediate device comprises a Layer 2 intermediate device; and

adding, by the Layer 2 intermediate device, device information to the access request comprises:

adding the device information to a hop-by-hop extension header of the access request, when an interface which is of the Layer 2 intermediate device and on which a hop snooping function is enabled receives a data packet and it is determined, according to the data packet having the hop-by-hop extension header, that the data packet is the access request.

5. The user access method according to claim 1, wherein

the user information comprises a terminal device name, a user name, a device hardware number, or a network identifier corresponding to the device hardware number; and

the device information comprises a device system name, a device identifier, the quantity of device ports, an access port, an access virtual local area network, or an Internet protocol address of an access port.

6. An access server, comprising:

a receiving module, configured to receive an access request comprising user information

and path information;

a binding module, configured to bind the user information and the path information together; and

a saving module, configured to save the bound user information and path information;

wherein the path information comprises information about more than one intermediate device; and the user information is added to the access request by a terminal device, the information about the more than one intermediate device is added to the access requested by the intermediate devices.

7. The access server according to claim 6, further comprising: an allocating module, configured to allocate address information; wherein

the binding module is specifically configured to bind the user information, path information, and address information together; and

the saving module is specifically configured to save the bound user information, path information, and address information.

8. An access device, comprising:

a receiving module, configured to receive a data packet, wherein a hop snooping function is enabled on the receiving module;

a parsing module, configured to determine that the data packet is an access request according to the data packet having a hop-by-hop extension header; and

an adding module, configured to add device information to the hop-by-hop extension header of the access request.

9. The access device according to claim 8, further comprising:

a forwarding module, configured to perform Layer 2 transparent transmission for the access request.

10. A user access system, comprising:

a terminal device, configured to add user information to an access request and send the access request;

more than one intermediate device, configured to add information about the more than one intermediate device to the access request; and

an access server, configured to receive the access request comprising the user information and path information, bind the user information and the path information together, and save the bound information, wherein the path information comprises the information about the more than one intermediate device.

CLAIMS

1. A user access method, comprising:

receiving (101) an IPv6 access request comprising user information and path information; and

binding (102) the user information and the path information together and saving the bound information; wherein

the path information comprises information about more than one intermediate device;

the user information is added to the access request by a terminal device, the information about the more than one intermediate device is added to the IPv6 access request by the intermediate devices;

characterized in that

the more than one intermediate device comprises a Layer 2 intermediate device and the method comprises:

adding (302) device information to a hop-by-hop extension header of the IPv6 access request, when an interface which is of the Layer 2 intermediate device and on which a hop snooping function is enabled receives a data packet and it is determined (301), according to the data packet having the hop-by-hop extension header, that the data packet is the IPv6 access request.

2. The user access method according to claim 1, further comprising: allocating address information;

the binding the user information and path information together and saving the bound information comprising: binding the user information, path information and address information together, and saving the bound information.

3. The user access method according to claim 1, wherein the user information and the path information are carried in a hop-by-hop extension header of the access request.

4. The user access method according to claim 1, wherein

the user information comprises a terminal device name, a user name, a device hardware number, or a network identifier corresponding to the device hardware number; and

the device information comprises a device system name, a device identifier, the quantity of device ports, an access port, an access virtual local area network, or an Internet protocol address of an access port.

5. A Layer 2 intermediate device, comprising:

a receiving module (31), configured to receive an IPv6 data packet, wherein a hop snooping function is enabled on the receiving module;

a parsing module (32), configured to determine that the IPv6 data packet is an IPv6 access request according to the IPv6 data packet having a hop-by-hop extension header; and

an adding module (33), configured to add device information to the hop-by-hop extension header of the IPv6 access request.

6. The Layer 2 intermediate device according to claim 5, further comprising:

a forwarding module (34), configured to perform Layer 2 transparent transmission for the IPv6 access request.

7. A user access system, comprising:

a terminal device (41), configured to add user information to an IPv6 access request and send the IPv6 access request;

more than one intermediate device (42), configured to add information about the more than one intermediate device to the IPv6 access request, wherein the more than one intermediate device includes a Layer 2 intermediate device and the Layer 2 intermediate device is configured to add device information to a hop-by-hop extension header of the IPv6 access request, when an interface which is of the Layer 2 intermediate device and on which a hop snooping function is enabled receives a data packet and it is determined, according to the data packet having the hop-by-hop extension header, that the data packet is the IPv6 access request; and

an access server (43), configured to receive the IPv6 access request comprising the user information and path information, bind the user information and the path information together, and save the bound information, wherein the path information comprises the information about the more than one intermediate device.