CLAIMS

What is claimed is:

1. A method for controlling a flow entry, applied to a first network device, the method comprising:

controlling a second network device to add the flow entry, so that the second network device performs message forwarding according to the flow entry; and

after controlling the second network device to add the flow entry, receiving a message matching the flow entry and controlling the second network device to delete the flow entry under a preset condition,

wherein the first network device is responsible for controlling time for deleting the flow entry based on a protocol state of the flow entry and wherein the controlling the second network device to add the flow entry comprises controlling the second network device to add the flow entry in response to determining that the protocol state of the flow entry is an established state for connection.

2. The method according to claim 1, wherein the control of the time for deleting the flow entry based on the protocol state of the flow entry comprises controlling an aging time of the flow entry of the second network device, wherein the aging time corresponds to the established state of the flow entry.

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

in response to determining that controlling the second network device to add the flow entry, setting for the flow entry a flag sent to the second network device; and

in response to determining that controlling the second network device to delete the flow entry, clearing the flag sent to the second network device,

wherein the control of the time for deleting the flow entry based on the protocol state of the flow entry further comprises:

in response to determining that an aging time corresponding to a current protocol state of the flow entry is reached, determining whether the flow entry is set with the flag sent to the second network device; and

in response to determining that the flow entry is set with the flag sent to the second network device, retaining the flow entry.

4. The method according to claim 2, wherein the controlling the time for deleting the flow entry based on the protocol state of the flow entry further comprises:

in response to determining that an aging time corresponding to a current protocol state of the flow entry is reached, determining whether the current protocol state of the flow entry is the established state; and

in response to determining that the current protocol state of the flow entry is the established state, retaining the flow entry.

5. The method according to claim 2, wherein the controlling the time for deleting the flow entry based on the protocol state of the flow entry further comprises:

determining that an aging time corresponding to a current protocol state of the flow entry has been reached, and the flow entry in the second network device has been deleted; and

deleting the flow entry thereof.

6. The method according to any one of claims 1-5, wherein the controlling the second network device to delete the flow entry under the preset condition according to the received message matching the flow entry comprises:

determining whether the received message matching the flow entry satisfies a preset deletion condition; and

in response to determining that the message satisfies the preset deletion condition, controlling the second network device to delete the flow entry.

7. The method according to claim 6, wherein:

the preset deletion condition is configured to determine whether the message corresponds to a connection release process; and

in response to a determination that the message corresponding to the connection release process, the preset deletion condition is satisfied.

8. A method for controlling a flow entry, applied to a second network device, the method comprising:

in response to control of a first network device, adding the flow entry;

according to the flow entry, performing forwarding processing on a received message matching the flow entry;

forwarding the message to the first network device, so that the first network device,

according to the message, controls the second network device to delete the flow entry under a preset condition,

wherein the first network device is responsible for controlling time for deleting the flow entry based on a protocol state of the flow entry and wherein the controlling the time for deleting the flow entry based on the protocol state of the flow entry comprises controlling an aging time of the flow entry of the second network device, wherein the aging time corresponds to an established state for connection of the flow entry; and

in response to the control of the first network device, determining the aging time of the flow entry and deleting the flow entry in response to determining that the flow entry reaches the aging time.

9. The method according to claim 8, wherein the forwarding the message to the first network device comprises:

determining whether the message satisfies a preset reporting condition; and

in response to determining that the message satisfies the preset reporting condition, forwarding the message to the first network device.

10. The method according to claim 9, wherein:

the preset reporting condition is configured to determine whether it is a message corresponding to a connection release process; and

in response to a determination that the message corresponds to the connection release process, the preset reporting condition is satisfied.

11. An apparatus for controlling a flow entry, comprising: a memory and a processor, wherein the memory is configured to store one or more computer instructions, and the one or more computer instructions, when executed by the processor, implement the method according to any one of claims 1 to 7.