DHCPv6 Configuration

Table of Contents

Chapter 1 DHCPv6 Configuration

1.1 DHCPv6 Client PD Prefix Configuration

Run the following commands in vlan interface configuration mode.

Command	Purpose
Ipv6 dhcp client pd *prefix_name*	Enables DHCPv6 pd client function.
no ipv6 dhcp client pd *prefix_name*	Returns to the default setting.

This command is used to enable DHCPv6 pd client function. The command enables the device to monitor all DHCPv6 prefix agent request.

Among which prefix_name can be applied as the prefix, for instance, when configuring ipv6 port address.

1.2 Enabling DHCPv6 Relay Function

Run the following commands in vlan interface configuration mode.

Command	Purpose
ipv6 dhcp relay destination *ipv6_address*	Enables DHCPv6 relay function.
no ipv6 dhcp relay destination *ipv6_address*	Returns to the default setting.

The command "ipv6 dhcp relay destination" is used to configure the destination address of relay. It can be an address of relay agent or the server's address.

If multiple destination addresses need to configure, run the command in multiple times.

The client, relay and server function of DHCPv6 on an interface is mutually exclusive. In other words, one interface can only configure to one mode.

1.3 Configuring Dhcpv6 Server Function

1.3.1 Configuring Ipv6 Prefix Pool

Run the following commands in global configuration mode.

Command	Purpose
ipv6 local pool *poolname*	Configures ipv6 prefix pool

prefix/*prefix-length* *assigned-length*	
no ipv6 local pool poolname	Deletes ipv6 prefix pool

Configuring prefix pool is to enable dhcpv6 address pool to distribute the prefix address.

1.3.2 Configuring Dhcpv6 Prefix Server Function

The function can be enabled by configuring an ipv6 prefix pool first, for instance:

ipv6 local pool *pd1 100::1/56 64*
In the global configuration mode, enter dhcpv6 address special configuration mode:
ipv6 dhcp pool *dhpool1*

Run the following command in dhcpv6 special configuration mode:

Command	Purpose
prefix-delegation pool *poolname*	Designates ipv6 prefix pool.
no prefix-delegation pool *poolname*	Deletes ipv6 prefix pool.

Or run the following command:

Command	Purpose
prefix-delegation *ipv6_prefix/prefix_length* *client_DUID* [**iaid** *IAID*]	Designates ipv6 prefix.
no prefix-delegation *ipv6_prefix/prefix_length* *client_DUID* [**iaid** *IAID*]	Deletes ipv6 prefix.

Enable dhcpv6 server function in vlan interface configuration mode. Run the following command in vlan interface configuration mode:

Command	Purpose
ipv6 dhcp server *poolname* [**allow-hint** | **preference** *num*| **rapid-commit**]*	Enables dhcpv6 server function.
no ipv6 dhcp server *name*	Disables dhcpv6 server function.

1.3.3 Configuring Dhcpv6 Address Server Function

Run the following command in dhcpv6 address special configuration mode:

Command	Purpose
non-temporary-address range *ipv6_address_start* *ipv6_address_end*	Configures the IPv6 address.
no non-temporary-address range *ipv6_address_start* *ipv6_address_end*	Deletes the ipv6 address.

After the address pool is configured, enable dhcpv6 function on the interface.
Related Command
ipv6 dhcp server *poolname* [**allow-hint** | **preference** *num*| **rapid-commit**]*

1.3.4 Configuring DNS Server

Run the following command in dhcpv6 address special configuration mode:

Command	Purpose
Dns-server *ipv6_address*	Sets the address of DNS server, which is distributed to the client.
no dns-server	Deletes DNS server.

The command is used for distributing the DNS address to the client.

1.3.5 Configuring DNS IPv6 Domain Name

Run the following command in dhcpv6 address special configuration mode:

Command	Purpose
Domain-name *domain*	Configures dns domain name distributing to client.
no domain-name	Deletes domain name.

1.3.6 Configuring Leasing Time

Run the following command in dhcpv6 address special configuration mode:

Command	Purpose
Lifetime *valid-time preferred-time*	Configures leasing time distributing to client.

| no lifetime | Returns to the default leasing time. |

The default valid time is 43200 (30 days).

The default preferred time is 10080 (7 days).