

FiberstoreOS

IP Service Configuration Guide

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1 Configuring DHCPv6 Snooping

1.1 Overview

DHCPv6 snooping is a security feature that acts like a firewall between entrusted hosts and trusted DHCPv6 servers. The DHCPv6 snooping feature performs the following activities:

- Validate DHCPv6 messages received from entrusted sources and filters out invalid messages.
- Build and maintain the DHCPv6 snooping binding database, which contains information about entrusted hosts with leased IPv6 addresses.
- The DHCPv6 snooping feature is implemented in software basis. All DHCPv6 messages are intercepted in the chip and directed to the CPU for processing.

1.2 Topology

This figure is the networking topology for testing DHCPv6 snooping functions. We need two Linux boxes and one switch to construct the test bed.

- Computer A is used as a DHCPv6 server.
- Computer B is used as a DHCPv6 client.
- Switch A is used as a DHCPv6 Snooping box.

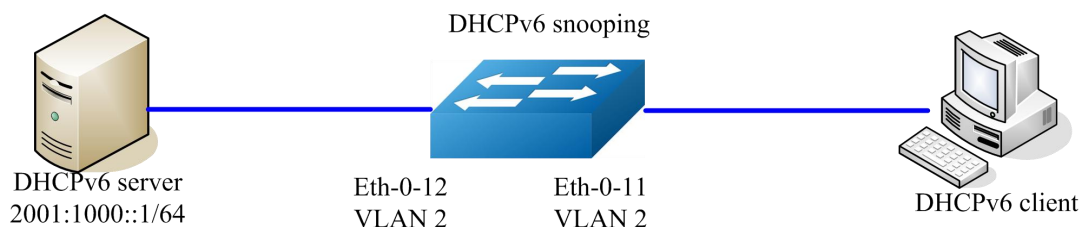


Figure 1-1 DHCPv6 Snooping Topology

1.3 Configuration

Configure vlan

Switch# configure terminal	Enter the Configure mode
Switch(config)# vlan database	Configure VLAN database.
Switch(config-vlan)# vlan 2	Create vlan 2
Switch(config-vlan)# exit	Exit to the Configure mode

Configure interface eth-0-12

Switch(config)# interface eth-0-12	Enter the Interface Configure mode
Switch(config-if)# switchport	Make sure the port is switch port
Switch(config-if)# switchport access vlan 12	Add the port to vlan 12
Switch(config-if)# dhcpv6 snooping trust	Trust all dhcp packets from this port
Switch(config-if)# no shutdown	Make sure the port is enabled
Switch(config-if)# exit	Exit the Interface Configure mode

Configure interface eth-0-11

Switch(config)# interface eth-0-11	Enter the Interface Configure mode
Switch(config-if)# switchport	Make sure the port is switch port
Switch(config-if)# switchport access vlan 2	Add the port to vlan 2
Switch(config-if)# no shutdown	Make sure the port is enabled
Switch(config-if)# exit	Exit the Interface Configure mode

Enable DHCPv6 snooping global feature

Switch(config)# service dhcpv6 enable	Enable dhcp services
Switch(config)# dhcpv6 snooping	Enable dhcp snooping feature
Switch(config)# dhcpv6 snooping vlan 2	Enable dhcp snooping feature on vlan 2

1.4 Validation

Step 1 Check the interface configuration.

Switch# show running-config interface eth-0-12

```
!  
interface eth-0-12  
switchport access vlan 2  
dhcpv6 snooping trust
```

!

Switch# show running-config interface eth-0-11

```
!  
interface eth-0-11  
switchport access vlan 2  
!
```

Step 2 Check the dhcpv6 service status.

Switch# show services

```
Networking services configuration:  
Service Name      Status  
=====
```

dhcp	disable
dhcpv6	enable

Step 3 Print dhcpv6 snooping configuration to check current configuration.

Switch# show dhcpv6 snooping config

```
dhcpv6 snooping service: enabled  
dhcpv6 snooping switch: enabled  
dhcpv6 snooping vlan 2
```

Step 4 Show dhcpv6 snooping statistics.

Switch# show dhcpv6 snooping statistics

```
DHCPv6 snooping statistics:  
=====
```

DHCPv6 packets	21
Packets forwarded	21
Packets invalid	0
Packets dropped	0

Step 5 Show dhcpv6 snooping binding information.

Switch# show dhcpv6 snooping binding all

```
DHCPv6 snooping binding table:  
VLAN MAC Address Lease(s) Interface IPv6 Address  
=====
```

2	0016.76a1.7ed9	978	eth-0-11	2001:1000::2
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