FiberstoreOS

IPv6 Security Command Line Reference
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1 DHCPv6 Snooping Commands

1.1 clear dhcpv6 snooping bindings

Use the clear dhcpv6 snooping bindings global configuration command on the switch to clear the dynamic DHCPv6 binding items.

**Command Syntax**

```
clear dhcpv6 snooping bindings learning (ipv6 IP-ADDRESS | mac MAC-ADDRESS | vlan VLAN-ID| interface IFNAME )
```

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ipv6 IP-ADDRESS</td>
<td>Clear the binding entry with the IPv6 address</td>
</tr>
<tr>
<td>mac MAC-ADDRESS</td>
<td>Clear the binding entry with the MAC address</td>
</tr>
<tr>
<td>vlan VLAN-ID</td>
<td>Clear the binding entry with the VLAN</td>
</tr>
<tr>
<td>interface IFNAME</td>
<td>Clear the binding entry with the Interface</td>
</tr>
</tbody>
</table>

**Command Mode**

Global Configuration

**Default**

No default is defined.

**Usage**

This command is used to clear dynamic DHCPv6 snooping binding item.

**Examples**

This example shows how to clear all DHCPv6 snooping binding items:

```
Switch# clear dhcpv6 snooping bindings learning
```

**Related Commands**

```
show dhcpv6 snooping binding
```

1.2 clear dhcpv6 snooping statistics

Use the clear dhcpv6 snooping statistics privileged EXEC command on the switch to clear the DHCPv6 snooping statistics counters.

**Command Syntax**

```
clear dhcpv6 snooping statistics
```

**Command Mode**

Privileged EXEC
Default

No default is defined.

Usage

This command is used to clear DHCPv6 snooping statistics.

Examples

This example shows how to clear the DHCPv6 snooping statistics counters:

Switch# clear dhcpv6 snooping statistics

Related Commands

show dhcpv6 snooping statistics

1.3 dhcpv6 snooping

Use the dhcpv6 snooping global configuration command on the switch to globally enable DHCPv6 snooping. Use the no form of this command to return to the default setting.

Command Syntax

```plaintext
dhcpv6 snooping
no dhcpv6 snooping
```

Command Mode

Global Configuration

Default

DHCPv6 snooping is disabled.

Usage

For any DHCPv6 snooping configuration to take effect, you must globally enable DHCPv6 snooping. DHCPv6 snooping is not active until you enable snooping on a VLAN by using the dhcpv6 snooping vlan global configuration command.

Examples

This example shows how to enable DHCPv6 snooping:

Switch(config)# dhcpv6 snooping

You can verify your settings by entering the show dhcpv6 snooping config privileged EXEC command.

Related Commands

```plaintext
dhcpv6 snooping vlan
show dhcpv6 snooping config
```

1.4 dhcpv6 snooping binding

Use the dhcpv6 snooping binding global configuration command on the switch to configure the DHCPv6 snooping binding database and to add binding entries to the database.

Command Syntax

```plaintext
dhcpv6 snooping binding mac MAC-ADDRESS vlan VLAN-ID ipv6 IP-ADDRESS interface IFNAME expiry SECONDS
```
no dhcpv6 snooping bindings (ipv6 IP-ADDRESS | mac MAC-ADDRESS | vlan VLAN-ID | interface IFNAME )

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>mac MAC-ADDRESS</td>
<td>Specify a MAC address</td>
</tr>
<tr>
<td>vlan VLAN-ID</td>
<td>Specify a VLAN number. The range is 1 to 4094</td>
</tr>
<tr>
<td>ipv6 IP-ADDRESS</td>
<td>Specify an IPv6 address</td>
</tr>
<tr>
<td>interface IFNAME</td>
<td>Specify an interface on which to add or delete a binding entry</td>
</tr>
<tr>
<td>expiry SECONDS</td>
<td>Specify the interval (in seconds) after which the binding entry is no longer valid. The range is 0 to 86400</td>
</tr>
</tbody>
</table>

**Command Mode**
Global Configuration

**Default**
No default database is defined.

**Usage**
Use this command when you are testing or debugging the switch.

In the DHCPv6 snooping binding database, each database entry, also referred to a binding, has an IP address, an associated MAC address, the lease time, the interface to which the binding applies, and the VLAN to which the interface belongs.

Use the show dhcpv6 snooping binding privileged EXEC command to display the configured bindings.

**Examples**
This example shows how to generate a DHCPv6 binding with an expiration time of 1000 seconds on a port in VLAN 1:

```
Switch(config)# dhcpv6 snooping binding mac 0001.000c.01ef vlan 1 ipv6 2001:1::1 interface eth-0-1 expiry 1000
```

**Related Commands**
show dhcpv6 snooping binding

**1.5 dhcpv6 snooping database**
Use the dhcpv6 snooping database global configuration command on the switch to configure the DHCPv6 snooping binding database agent. Use the no form of this command to reset the write-delay value.

**Command Syntax**

dhcpv6 snooping database auto-save interval SECONDS

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>interval SECONDS</td>
<td>Specify the interval (in seconds) that how long to save the binding database. The range is 15 to 1200</td>
</tr>
</tbody>
</table>

**Command Mode**
Global Configuration
Default

Default interval is 600 seconds.

Usage

The DHCPv6 snooping database is save as flash:/dhcpv6snooping.

Examples

The following is sample output from the dhcpv6 snooping database command:
Switch(config)# dhcpv6 snooping database auto-save interval 120

Related Commands

dhcpv6 snooping
dhcpv6 snooping binding

1.6 dhcpv6 snooping trust

Use the dhcpv6 snooping trust interface configuration command on the switch to configure a port as trusted for DHCPv6 snooping purposes. Use the no form of this command to return to the default setting.

Command Syntax

dhcpv6 snooping trust
no dhcpv6 snooping trust

Command Mode

Interface configuration

Default

DHCPv6 snooping trust is disabled.

Usage

Configure as trusted ports those that are connected to a DHCPv6 server or to other switches or routers. Configure as entrusted ports those that are connected to DHCPv6 clients.

Examples

This example shows how to enable DHCPv6 snooping trust on a port:
Switch(config-if)# dhcpv6 snooping trust

Related Commands

show dhcpv6 snooping trusted-sources

1.7 dhcpv6 snooping vlan

Use the dhcpv6 snooping vlan global configuration command on the switch to enable DHCPv6 snooping on a VLAN. Use the no form of this command to return to the default setting.

Command Syntax

dhcpv6 snooping vlan VLAN-RANGE
no dhcpv6 snooping vlan VLAN-RANGE
VLAN-RANGE | Specify a VLAN ID or a range of VLANs on which to enable DHCP snooping. The range is 1 to 4094

**Command Mode**
Global Configuration

**Default**
DHCPv6 snooping is disabled on all VLANs.

**Usage**
You can enter a single VLAN ID identified by VLAN ID number, a series of VLAN IDs separated by commas, a range of VLAN IDs separated by hyphens, or a range of VLAN IDs separated by entering the starting and ending VLAN IDs separated by a space.

You must first globally enable DHCPv6 snooping before enabling DHCPv6 snooping on a VLAN.

**Examples**
This example shows how to enable DHCPv6 snooping on VLAN 10:
Switch(config)# dhcpv6 snooping vlan 10

**Related Commands**
show dhcpv6 snooping config

1.8 debug dhcpv6 snooping

Use this command to turn on the debug switches of dhcpv6 snooping module.
To restore the default, use the no form of this command

**Command Syntax**

```
dump dhcpv6 snooping ( events | error | dump | packet | all )
no dump dhcpv6 snooping ( events | error | dump | packet | all )
```

<table>
<thead>
<tr>
<th>events</th>
<th>Snooping events</th>
</tr>
</thead>
<tbody>
<tr>
<td>error</td>
<td>Error DHCPv6 message</td>
</tr>
<tr>
<td>packet</td>
<td>DHCPv6 message fields</td>
</tr>
<tr>
<td>dump</td>
<td>Dump message in hex format</td>
</tr>
<tr>
<td>all</td>
<td>Turn all debugging on</td>
</tr>
</tbody>
</table>

**Command Mode**
Privileged EXEC

**Default**
None

**Usage**
Use command “terminal monitor” to make debug messages print on the VTY immediately.

Use command “show logging buffer” to check the debug messages in the logging buffer.
Examples

The following is sample to open dhcpv6 snooping debug switches:
Switch# debug dhcpv6 snooping all

Related Commands

terminal monitor
show logging buffer

1.9 show dhcpv6 snooping binding

Use the show dhcpv6 snooping binding privileged EXEC command to display the DHCPv6 snooping binding database and configuration information for all interfaces on a switch.

Command Syntax

show dhcpv6 snooping binding ( (all | manual | learning ) (ipv4 IP-ADDRESS | mac MAC-ADDRESS | vlan VLAN-ID | interface IFNAME ) ) summary]

<table>
<thead>
<tr>
<th>Command</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>all</td>
<td>Display all entries</td>
</tr>
<tr>
<td>manual</td>
<td>Display static entries</td>
</tr>
<tr>
<td>learning</td>
<td>Display dynamic entries</td>
</tr>
<tr>
<td>mac MAC-ADDRESS</td>
<td>Specify MAC address</td>
</tr>
<tr>
<td>vlan VLAN-ID</td>
<td>Specify a VLAN number. The range is 1 to 4094</td>
</tr>
<tr>
<td>ipv4 IP-ADDRESS</td>
<td>Specify an IP address</td>
</tr>
<tr>
<td>interface IFNAME</td>
<td>Specify an interface on which to add or delete a binding entry</td>
</tr>
<tr>
<td>summary</td>
<td>Display summary information of DHCPv6 snooping bindings</td>
</tr>
</tbody>
</table>

Command Mode

Privileged EXEC

Default

None

Usage

If DHCPv6 snooping is enabled and an interface changes to the down state, the switch does not delete the statically configured bindings.

Examples

The following is sample output from the show dhcpv6 snooping binding command:
Switch# show dhcpv6 snooping binding all

DHCPv6 snooping binding table:
VLAN MAC Address Interface Lease(s) IPv6 Address
--------------------------------------------------------------------------------------
1 0001.0001.0001 eth-0-2 static 1:1::1:1
Switch# show dhcpv6 snooping binding summary

Total 1 DHCPv6 snooping binding entries
Related Commands

dhcpv6 snooping binding

1.10  show dhcpv6 snooping config

Use the show dhcpv6 snooping privileged EXEC command to display the DHCPv6 snooping configuration.

Command Syntax

show dhcpv6 snooping config

Command Mode

Privileged EXEC

Default

None

Usage

This command is used to display the configuration of DHCPv6 snooping.

Examples

The following is sample output from the show dhcpv6 snooping config command:

Switch# show dhcpv6 snooping config

dhcpv6 snooping service: enabled
dhcpv6 snooping switch: enabled
dhcpv6 snooping vlan 3

Related Commands

dhcpv6 snooping
dhcpv6 snooping vlan

1.11  show dhcpv6 snooping trusted-sources

Use the show dhcpv6 snooping trusted-sources privileged EXEC command to display the DHCPv6 snooping trusted interface.

Command Syntax

show dhcpv6 snooping trusted-sources

Command Mode

Privileged EXEC

Default

None

Usage

This command is used to display the trusted interface of DHCPv6 snooping.
Examples

The following is sample output from the show dhcpv6 snooping trusted-sources command:

Switch# show dhcpv6 snooping trusted-source

<table>
<thead>
<tr>
<th>List of DHCPv6 snooping trusted interface(s):</th>
</tr>
</thead>
<tbody>
<tr>
<td>eth-0-20</td>
</tr>
</tbody>
</table>

Related Commands

dhcpv6 snooping trust

1.12 show dhcpv6 snooping statistics

Use the show dhcpv6 snooping statistics privileged EXEC command to display DHCPv6 snooping statistics.

Command Syntax

show dhcpv6 snooping statistics

Command Mode

Privileged EXEC

Default

None

Usage

This command is used to display the statistics of DHCPv6 snooping.

Examples

The following is sample output from the show dhcpv6 snooping statistics command:

Switch# show dhcpv6 snooping statistics

<table>
<thead>
<tr>
<th>DHCPv6 snooping statistics:</th>
</tr>
</thead>
<tbody>
<tr>
<td>----------------------------</td>
</tr>
<tr>
<td>DHCPv6 packets</td>
</tr>
<tr>
<td>Packets forwarded</td>
</tr>
<tr>
<td>Packets invalid</td>
</tr>
<tr>
<td>Packets dropped</td>
</tr>
</tbody>
</table>

Related Commands

clear dhcpv6 snooping statistics