IPv6

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ipv6 dhcp server vrf enable

To enable the DHCP for IPv6 server VRF-aware feature, use the **ipv6 dhcp server vrf enable** command in global configuration mode. To disable the feature, use the **no** form of this command.

ipv6 dhcp server vrf enable
no ipv6 dhcp server vrf enable

Syntax Description

This command has no arguments or keywords.

Command Default

The DHCPv6 server VRF-aware feature is not enabled.

Command Modes

Global configuration (config)

Command History

Release	Modification
	This command was introduced.

Usage Guidelines

The **ipv6 dhcp server option vpn** command allows the DHCPv6 server VRF-aware feature to be enabled globally on a device.

Examples

The following example enables the DHCPv6 server VRF-aware feature globally on a device:

```
Device(config)# ipv6 dhcp server option vpn
```

ipv6 flow monitor

This command activates a previously created flow monitor by assigning it to the interface to analyze incoming or outgoing traffic.

To activate a previously created flow monitor, use the **ipv6 flow monitor** command. To de-activate a flow monitor, use the **no** form of the command.

ipv6 flow monitor *ipv6-monitor-name* [**sampler** *ipv6-sampler-name*] **input** | **output**
no ipv6 flow monitor *ipv6-monitor-name* [**sampler** *ipv6-sampler-name*] **input** | **output**

Syntax Description

ipv6-monitor-name	Activates a previously created flow monitor by assigning it to the interface to analyze incoming or outgoing traffic.
sampler *ipv6-sampler-name*	Applies the flow monitor sampler.
input	Applies the flow monitor on input traffic.
output	Applies the flow monitor on output traffic.

Command Default

IPv6 flow monitor is not activated until it is assigned to an interface.

Command Modes

Interface Configuration.

Command History

Release	Modification
Cisco IOS XE Everest 16.6.1	This command was introduced.

Usage Guidelines

You cannot attach a NetFlow monitor to a port channel interface. If both service module interfaces are part of an EtherChannel, you should attach the monitor to both physical interfaces.

This example shows how to apply a flow monitor to an interface:

```
Device(config)# interface gigabitethernet 1/1/2
Device(config-if)# ip flow monitor FLOW-MONITOR-1 input
Device(config-if)# ip flow monitor FLOW-MONITOR-2 output
Device(config-if)# end
```

show ipv6 dhcp binding

To display automatic client bindings from the Dynamic Host Configuration Protocol (DHCP) for IPv6 server binding table, use the **show ipv6 dhcp binding** command in user EXEC or privileged EXEC mode.

show ipv6 dhcp binding [*ipv6-address*] [**vrf** *vrf-name*]

Syntax Description

ipv6-address	(Optional) The address of a DHCP for IPv6 client.
vrf *vrf-name*	(Optional) Specifies a virtual routing and forwarding (VRF) configuration.

Command Modes

User EXEC (>)

Privileged EXEC (#)

Command History

Release	Modification
	This command was introduced.

Usage Guidelines

The **show ipv6 dhcp binding** command displays all automatic client bindings from the DHCP for IPv6 server binding table if the *ipv6-address* argument is not specified. When the *ipv6-address* argument is specified, only the binding for the specified client is displayed.

If the **vrf** *vrf-name*keyword and argument combination is specified, all bindings that belong to the specified VRF are displayed.

Note The **ipv6 dhcp server vrf enable** command must be enabled for the configured VRF to work. If the command is not configured, the output of the **show ipv6 dhcp binding** command will not display the configured VRF; it will only display the default VRF details.

Examples

The following sample output displays all automatic client bindings from the DHCP for IPv6 server binding table:

```
Device# show ipv6 dhcp binding

Client: FE80::A8BB:CCFF:FE00:300
  DUID: 00030001AABBCC000300
  Username : client_1
  Interface: Virtual-Access2.1
  IA PD: IA ID 0x000C0001, T1 75, T2 135
    Prefix: 2001:380:E00::/64
            preferred lifetime 150, valid lifetime 300
            expires at Dec 06 2007 12:57 PM (262 seconds)
Client: FE80::A8BB:CCFF:FE00:300 (Virtual-Access2.2)
  DUID: 00030001AABBCC000300
  IA PD: IA ID 0x000D0001, T1 75, T2 135
    Prefix: 2001:0DB8:E00:1::/64
```

```
            preferred lifetime 150, valid lifetime 300
            expires at Dec 06 2007 12:58 PM (288 seconds)
```

The table below describes the significant fields shown in the display.

Table 1: show ipv6 dhcp binding Field Descriptions

Field	Description
Client	Address of a specified client.
DUID	DHCP unique identifier (DUID).
Virtual-Access2.1	First virtual client. When an IPv6 DHCP client requests two prefixes with the same DUID but a different identity association for prefix delegation (IAPD) on two different interfaces, these prefixes are considered to be for two different clients, and interface information is maintained for both.
Username : client_1	The username associated with the binding.
IA PD	Collection of prefixes assigned to a client.
IA ID	Identifier for this IAPD.
Prefix	Prefixes delegated to the indicated IAPD on the specified client.
preferred lifetime, valid lifetime	The preferred lifetime and valid lifetime settings, in seconds, for the specified client.
Expires at	Date and time at which the valid lifetime expires.
Virtual-Access2.2	Second virtual client. When an IPv6 DHCP client requests two prefixes with the same DUID but different IAIDs on two different interfaces, these prefixes are considered to be for two different clients, and interface information is maintained for both.

When the DHCPv6 pool on the Cisco IOS DHCPv6 server is configured to obtain prefixes for delegation from an authentication, authorization, and accounting (AAA) server, it sends the PPP username from the incoming PPP session to the AAA server for obtaining the prefixes. The PPP username is associated with the binding is displayed in output from the **show ipv6 dhcp binding** command. If there is no PPP username associated with the binding, this field value is displayed as "unassigned."

The following example shows that the PPP username associated with the binding is "client_1":

```
Device# show ipv6 dhcp binding

Client: FE80::2AA:FF:FEBB:CC
  DUID: 0003000100AA00BB00CC
  Username : client_1
  Interface : Virtual-Access2
  IA PD: IA ID 0x00130001, T1 75, T2 135
    Prefix: 2001:0DB8:1:3::/80
            preferred lifetime 150, valid lifetime 300
            expires at Aug 07 2008 05:19 AM (225 seconds)
```

The following example shows that the PPP username associated with the binding is unassigned:

```
Device# show ipv6 dhcp binding

Client: FE80::2AA:FF:FEBB:CC
  DUID: 0003000100AA00BB00CC
  Username : unassigned
  Interface : Virtual-Access2
  IA PD: IA ID 0x00130001, T1 150, T2 240
    Prefix: 2001:0DB8:1:1::/80
            preferred lifetime 300, valid lifetime 300
            expires at Aug 11 2008 06:23 AM (233 seconds)
```

Related Commands

Command	Description
ipv6 dhcp server vrf enable	Enables the DHCPv6 server VRF-aware feature.
clear ipv6 dhcp binding	Deletes automatic client bindings from the DHCP for IPv6 binding table.