



## DHCP Commands

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This chapter describes the commands used to configure and monitor Dynamic Host Configuration Protocol (DHCP) features.

For detailed information about DHCP concepts, configuration tasks, and examples, refer to the *IP Addresses and Services Configuration Guide for Cisco 8000 Series Routers*.

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# clear dhcp ipv6 relay binding

To clear DHCPv6 relay binding, use the **clear dhcp ipv6 relay binding** command in XR EXEC mode.

```
clear dhcp ipv6 relay binding [client-duid client-duid-number ] [interface type interface-path-id]
[vrf vrf-name] [location node-id]
```

Syntax Description		
<b>client-duid</b> <i>client-duid-number</i>	(Optional) Clears DHCPv6 relay client binding information.	The argument <i>client-duid-number</i> is the client's DHCP Unique Identifier (DUID) number.  <b>Note</b> Use the <b>show dhcp ipv6 relay binding</b> command to see the client DUID number.
<b>interface</b> <i>type interface-path-id</i>	(Optional) Clears DHCPv6 relay client binding information for an interface.	Specifies a physical interface or a virtual interface.  <b>Note</b> Use the <b>show interfaces</b> command to see a list of all possible interfaces currently configured on the router.
<b>vrf</b> <i>vrf-name</i>	(Optional) Clears DHCPv6 relay client binding information for a VPN routing and forwarding (VRF) instance.	
<b>location</b> <i>node-id</i>	(Optional) Clears DHCPv6 relay client binding information for a specified node.	The <i>node-id</i> argument is entered in the <i>rack/slot/module</i> notation.
<b>Command Default</b>	None.	
<b>Command Modes</b>	XR EXEC mode	

Command History	Release	Modification
	Release 7.2.12	This command was introduced.

**Usage Guidelines** No specific guidelines impact the use of this command.

Task ID	Task ID	Operation
	ip-services	execute
	root-system	read, write

This example shows how to clear DHCPv6 relay binding:

```
Router# clear dhcp ipv6 relay binding
```

# client-mac-mismatch

To enable DHCP MAC address verification.

## client-mac-mismatch action drop

### Syntax Description

**action** Specifies an action for the router when the DHCP MAC address is not a match.

**drop** Drops the packet with the mismatched DHCP MAC address.

### Command Default

None

### Command Modes

DHCP Relay Profile Configuration Mode

### Command History

Release	Modification
Release 7.2.12	This command was introduced.

### Usage Guidelines

Enables MAC address verification. If MAC address in the DHCPv4 protocol header does not match the L2 header source MAC address in the DHCPv4 relay profile, the frame is dropped.

### Example

Use the following example to configure DHCP MAC address verification.

```
Router# configure

Router(config)# dhcp ipv4
/* Configures DHCP for IPv4 and enters the DHCPv4 configuration submode. */

Router(config-dhcpv4)# profile client relay
/* Enables DHCP relay profile */

Router(config-dhcpv4)# client-mac-mismatch action drop
/* Enables MAC address verification. If MAC address in the DHCPv4 protocol header does not
match the L2 header source MAC address in the DHCPv4 relay profile,
the frame is dropped */

Router(config-dhcpv4-relay-profile)# commit

Router(config-dhcpv4-relay-profile)# exit
```

# dhcp ipv4

To enable Dynamic Host Configuration Protocol (DHCP) for IPv4 and to enter DHCP IPv4 configuration mode, use the **dhcp ipv4** command in Global Configuration mode. To disable DHCP for IPv4 and exit the DHCP IPv4 configuration mode, use the **no** form of this command.

**dhcp ipv4**  
**no dhcp ipv4**

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## Command Modes

None

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## Command Modes

Global Configuration mode

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## Command History

Release	Modification
Release 7.2.12	This command was introduced.

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## Usage Guidelines

Use the **dhcp ipv4** command to enter DHCP IPv4 configuration mode.

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## Task ID

Task ID	Operations
ip-services	read, write

---

## Examples

This example shows how to enable DHCP for IPv4:

```
Router# configure
Router(config)# dhcp ipv4
Router# (config-dhcpv4)#
```

# dhcp ipv6

To enable Dynamic Host Configuration Protocol (DHCP) for IPv6 and to enter DHCP IPv6 configuration mode, use the **dhcp ipv6** command in XR Config mode. To disable the DHCP for IPv6, use the **no** form of this command.

## dhcp ipv6

### Syntax Description

This command has no keywords or arguments.

### Command Modes

XR Config mode

### Command History

Release	Modification
Release 7.2.12	This command was introduced.

### Usage Guidelines

Use the **dhcp ipv6** command to enter DHCP IPv6 configuration mode.

### Task ID

Task ID	Operations
ip-services	read, write

### Examples

This example shows how to enable DHCP for IPv6:

```
Router(config)# dhcp ipv6
Router(config-dhcpv6)#
```

# giaddr policy

To configure how Dynamic Host Configuration Protocol (DHCP) IPv4 Relay processes BOOTREQUEST packets that already contain a nonzero giaddr attribute, use the **giaddr policy** command in DHCP IPv4 profile relay configuration submenu. To restore the default giaddr policy, use the **no** form of this command.

```
giaddr policy {replace | drop}
no giaddr policy {replace | drop}
```

## Syntax Description

**replace** Replaces the existing giaddr value with a value that it generates.

**drop** Drops the packet that has an existing nonzero giaddr value.

## Command Default

DHCP IPv4 relay retains the existing nonzero giaddr value in the DHCP IPv4 packet received from a client value.

## Command Modes

DHCP IPv4 profile relay configuration

## Command History

Release	Modification
Release 7.2.12	This command was introduced.

## Usage Guidelines

The **giaddr policy** command affects only the packets that are received from a DHCP IPv4 client that have a nonzero giaddr attribute.

## Task ID

Task ID	Operations
ip-services	read, write

## Examples

The following example shows how to use the **giaddr policy** command:

```
Router# config
Router(config)# dhcp ipv4
Router(config-dhcpv4)# profile client relay
Router(config-dhcpv4-relay-profile)# giaddr policy drop
```

## Related Commands

Command	Description
<a href="#">dhcp ipv4</a> , on page 5	Enables DHCP for IPv4 and enters DHCP IPv4 configuration mode.
<a href="#">helper-address</a> , on page 9	Configures the DHCP relay agent to relay packets to a specific DHCP Server.
<a href="#">profile (DHCP)</a> , on page 15	Configures a relay profile for the DHCP IPv4 component.

Command	Description
<a href="#">relay information, on page 17</a>	Configures a Dynamic Host Configuration Protocol (DHCP) IPv4 relay information options in forwarded BOOTREPLY messages.



# helper-address

To configure the Dynamic Host Configuration Protocol (DHCP) IPv4 relay agent to relay DHCP packets to a specific DHCP server, use the **helper-address** command in an DHCP IPv4 relay profile configuration mode. Use the **no** form of this command to clear the address.

```
helper-address { vrf vrf-name | address } giaddr [ gateway-address ]
no helper-address { vrf vrf-name | address } giaddr [ gateway-address ]
```

## Syntax Description

<i>vrf-name</i>	(Optional) Specifies the name of a particular VRF.
<i>address</i>	IPv4 in four part, dotted decimal format.
<b>giaddr</b> <i>gateway-address</i>	(Optional) Specifies the gateway address to use in packets relayed to server. This keyword is applicable for IPv4 helper address.

## Command Default

Helper address is not configured.

## Command Modes

DHCP IPv4 relay profile configuration

## Command History

Release	Modification
Release 7.2.12	This command was introduced.

## Usage Guidelines

A maximum of upto eight helper addresses can be configured.

## Task ID

Task ID	Operations
ip-services	read, write

## Examples

This example shows how to set the helper-address for a VRF using the **helper address** command in DHCP IPv4 relay profile class configuration mode:

```
RP/0/CPU0:router(config)# dhcp ipv4
RP/0/CPU0:router(config-dhcpv4)# profile profile1 relay
RP/0/CPU0:router(config-dhcpv4-relay-profile)# helper-address vrf my-server-vrf 192.0.2.1
```

## Related Commands

Command	Description
dhcp ipv4	Enables Dynamic Host Configuration Protocol (DHCP) for IPv4 and enters DHCP IPv4 configuration mode.
relay information check	Configures a DHCP server to validate the relay agent information option in forwarded BOOTREPLY messages.

<b>Command</b>	<b>Description</b>
relay information option	Enables the system to insert a DHCP relay agent information option in forwarded BOOTREQUEST messages to a DHCP server.
relay information option allow-untrusted	Configures the DHCP component to not drop BOOTREQUEST messages that have the relay information option set and the giaddr set to zero.

## helper-address (ipv6)

To configure the Dynamic Host Configuration Protocol (DHCP) IPv6 relay agent for prefix delegation to relay DHCP packets to a specific DHCP server, use the **helper-address** command in the DHCP IPv6 profile configuration submenu. Use the **no** form of this command to clear the address.

```
helper-address ipv6-address | vrf vrf-address [ interface type interface-path-id ]
no helper-address ipv6-address | vrf vrf-address [ interface type interface-path-id ]
```

Syntax Description	
<i>ipv6-address</i>	<p>The IPv6 address assigned to the interface.</p> <p>This argument must be in the form documented in RFC 2373 where the address is specified in hexadecimal format using 16-bit values between colons.</p>
<b>interface</b> <i>type</i>	Interface type. For more information, use the question mark (?) online help function.
<i>interface-path-id</i>	<p>(Optional) Either a physical interface instance or a virtual interface instance as follows:</p> <ul style="list-style-type: none"> <li>• Physical interface instance. Naming notation is <i>rack/slot/module/port</i> and a slash between value s is required as part of the notation. <ul style="list-style-type: none"> <li>• <i>rack</i>: Chassis number of the rack.</li> <li>• <i>slot</i>: Physical slot number of the modular services card or line card.</li> <li>• <i>module</i>: Module number. A physical layer interface module (PLIM) is always 0.</li> <li>• <i>port</i>: Physical port number of the interface.</li> </ul> </li> </ul> <p><b>Note</b> In references to a Management Ethernet interface located on a route processor card, the physical slot number is alphanumeric (RSP0) and the module is CPU0. Example: interface MgmtEth0/RSP0/CPU0/0.</p> <ul style="list-style-type: none"> <li>• Virtual interface instance. Number range varies depending on interface type.</li> </ul> <p>For more information about the syntax for the router, use the question mark (?) online help function.</p>
<b>Command Default</b>	No default behavior or values
<b>Command Modes</b>	DHCP IPv6 profile configuration

Command History	Release	Modification
	Release 7.2.12	This command was introduced.

**Usage Guidelines** No specific guidelines impact the use of this command.

Task ID	Task ID	Operation
	ip-services	read, write

### Example

This is a sample output that shows how to set the helper-address using the **helper-address** command

```
Router# config
Router(config)# dhcp ipv6
Router(config-dhcpv6)# profile p1 relay
Router(config-dhcpv6-profile)# helper-address 2001:DB8::1 HundredGigE 0/2/0/0
```

### Related Commands

Command	Description
<a href="#">dhcp ipv6, on page 6</a>	Enables Dynamic Host Configuration Protocol (DHCP) for IPv6.

# hop-count-seed

To configure the hop-count in relay-forward message for a DHCP relay agent as zero, use the `hop-count-seed` command in the DHCP IPv6 configuration mode. By default, hop-count in relay-forward message for DHCP relay agents is set to one.

**hop-count-seed**  
**no hop-count-seed**

## Syntax Description

This command has no keywords or arguments.

## Command Default

If this command is not configured, by default, hop-count in relay-forward message for DHCP relay agents is set to one.

## Command Modes

DHCP IPv6 configuration

## Command History

Release	Modification
Release 7.2.12	This command was introduced.

## Usage Guidelines

Use this command only on routers that are configured as DHCP relay agents. You can only configure this command in the DHCP IPv6 mode and not on DHCP IPv4 mode.

## Task ID

Task ID	Operations
ip-services	read, write

The following is an example of the **hop-seed-count** command:

```
Router# config
Router(config)# dhcp ipv6
Router(dhcp-ipv6)# hop-count-seed
```

# iana-route-add

To enable route addition for identity association for non-temporary address (IANA), use the **iana-route-add** command in DHCPv6 relay profile configuration submode. To disable route addition to IANA, use the **no** form of this command.

**iana-route-add**  
**no iana-route-add**

<b>Syntax Description</b>	This command has no keywords or arguments.				
<b>Command Default</b>	Disabled.				
<b>Command Modes</b>	DHCP IPv6 relay profile configuration submode				
<b>Command History</b>	<table border="1"> <thead> <tr> <th>Release</th> <th>Modification</th> </tr> </thead> <tbody> <tr> <td>Release 7.2.12</td> <td>This command was introduced.</td> </tr> </tbody> </table>	Release	Modification	Release 7.2.12	This command was introduced.
Release	Modification				
Release 7.2.12	This command was introduced.				

**Usage Guidelines** The DHCPv6 relay is capable of installing routes for multiple identity association for prefix delegation (IAPD) options within a DHCPv6 message. The route addition for IAPD is enabled by default. The DHCPv6 relay is capable of installing routes for IANA as well, but this feature is disabled by default. Users can enable the route addition to IANA feature by using **iana-route-add** command in DHCPv6 relay profile configuration submode.

<b>Task ID</b>	<b>Task ID</b>	<b>Operation</b>
	ip-services	read, write

## Example

This example shows how to enable route addition to IANA:

```
Router# config
Router(config)# dhcp ipv6
Router(config-dhcpv6)# profile client relay
Router(config-dhcpv6-relay-profile)# iana-route-add
```

## profile (DHCP)

To configure a DHCP relay profile, use the **profile** command in DHCP IPv4 or DHCP IPv6 configuration mode. To disable this feature and exit the profile mode, use the **no** form of this command.

**profile** *name* **relay**  
**no profile** *name* **relay**

Syntax Description		
	<i>name</i>	Name that uniquely identifies the relay or snoop profile.
	<b>relay</b>	<p>Configures a DHCP relay profile. A DHCP relay agent is a host that forwards DHCP packets between clients and servers. When the clients and servers are not on the same physical subnet, the relay agents are used to forward requests and replies between them.</p> <p>A DHCP relay agent is any host that forwards DHCP packets between clients and servers. Relay agents are used to forward requests and replies between clients and servers when they are not on the same physical subnet. Relay agent forwarding is distinct from the normal forwarding of an IP router, where IP datagrams are switched between networks rather transparently. By contrast, relay agents receive DHCP messages and then generate a new DHCP message to send out on another interface. The relay agent sets the gateway IP address (giaddr field of the DHCP packet) and, if configured, adds the relay agent information option (option82) in the packet and forwards it to the DHCP server. The reply from the server is forwarded back to the client after removing option 82.</p>
<b>Command Default</b>	None	
<b>Command Modes</b>	DHCP IPv4 configuration DHCP IPv6 configuration	

Command History	Release	Modification
	Release 7.2.12	This command was introduced.

**Usage Guidelines** No specific guidelines impact the use of this command.

Task ID	Task ID	Operations
	ip-services	read, write

### Examples

This example shows how to use the **profile** command to configure DHCP IPv6 relay profile:

```
Router(config)# dhcp ipv6
Router(config-dhcpv6)# profile TEST relay
Router(config-dhcpv6-relay-profile)#
```

This example shows how to use the **profile** command to configure DHCP IPv4 relay profile:

```
Router(config)# dhcp ipv4
Router(config-dhcpv4)# profile TEST relay
Router(config-dhcpv4-relay-profile)#
```



## relay information

To configure Dynamic Host Configuration Protocol (DHCP) IPv4 relay information options, use the relay information command in DHCP IPv4 relay profile configuration submenu. To restore the default relay information policy, use the no form of this command.

```

relay information { check | option [ allow-untrusted | remote-id format-type { ascii
ascii-value | hex hex-value } | subscriber-id subscriber-value | vpn | vpn-mode {
cisco | rfc } ] | policy { drop | encapsulate | keep } }
no relay information { check | option [ allow-untrusted | remote-id format-type
{ ascii ascii-value | hex hex-value } | subscriber-id subscriber-value | vpn | vpn-mode
{ cisco | rfc } ] | policy { drop | encapsulate | keep } }

```

Syntax Description		
<b>check</b>		Validates the relay agent information option in forwarded BOOTREPLY messages.
<b>option</b>		Configures relay agent information options in forwarded BOOTREQUEST messages.
<b>allow-untrusted</b>		Forwards untrusted packets.
<b>remote-id format-type</b>		Configures the value of the remote-id in either ascii or hex format.
<b>subscriber-id</b> <i>subscriber-value</i>		Configures the value of the subscriber-id
<b>vpn</b>		Configures VPN suboptions in forwarded BOOTREQUEST messages.
<b>vpn-mode</b>		Configures VPN suboptions mode either in CISCO proprietary or RFC compliance.
<b>policy</b>		Configures relay agent information option policy
<b>drop</b>		Directs the DHCP IPv4 Relay to discard BOOTREQUEST packets with the existing relay information option
<b>keep</b>		Directs the DHCP IPv4 Relay not to discard a BOOTREQUEST packet that is received with an existing relay information option and to keep the existing relay information option value.
<b>encapsulate</b>		Encapsulates the DHCP relay agent information option received from a prior relay agent in forwarded BOOTREQUEST messages.

**Command Default** The DHCP IPv4 Relay does not discard a BOOTREQUEST packet that has an existing relay information option. The option and the existing relay information option value is replaced.

**Command Modes** DHCP IPv4 relay profile configuration

Command History	Release	Modification
	Release 7.2.12	This command was introduced.

**Usage Guidelines** The encapsulate keyword allows the second relay agent to encapsulate option 82 information in a message received from the first relay agent, if it is also configured to add its own option 82 information. This configuration allows the DHCP server to use option 82 information from both relay agents.

Task ID	Task ID	Operation
	ip-services	read, write
	basic-services	read, write

This is sample output from executing the relay information policy command:

```
Router# config
Router(config)# dhcp ipv4
Router(config-dhcpv4)# profile TEST relay
Router(config-dhcpv4-relay-profile)# relay information policy keep
```

This example shows how to encapsulate the DHCP relay agent information option:

```
Router# config
Router(config)# dhcp ipv4
Router(config-dhcpv4)# profile TEST relay
Router(config-dhcpv4-relay-profile)# relay information policy encapsulate
```

#### Related Commands

Command	Description
dhcp ipv4	Enables DHCP for IPv4 and enters DHCP IPv4 configuration mode.
helper-address	Configures the DHCP relay agent to relay packets to a specific DHCP Server.
relay information check	Configures a DHCP server to validate the relay agent information option in forwarded BOOTREPLY messages.
relay information option	Enables the system to insert a DHCP relay agent information option in forwarded BOOTREQUEST messages to a DHCP server.
relay information option allow-untrusted	Configures the DHCP component to not drop BOOTREQUEST messages that have the relay information option set and the giaddr set to zero.

# show dhcp ipv4 relay

To display the Dynamic Host Configuration Protocol (DHCP) IPv4 relay agent packet information, use the **show dhcp ipv4 relay** command in the XR EXEC mode.

```
show dhcp ipv4 relay { profile [ name profile-name ] | statistics [ detail ] } [ location node-id ]
```

## Syntax Description

<b>profile name</b> <i>profile-name</i>	(Optional) Displays the profile name.
<b>statistics</b>	(Optional) Displays the profile statistics.
<b>location</b> <i>node-id</i>	(Optional) Displays the information for the specified node.

## Command Default

No default behavior or values

## Command History

Release	Modification
Release 7.2.12	This command was introduced.

## Usage Guidelines

No specific guidelines impact the use of this command.

## Task ID

Task ID	Operations
ip-services	read

## Examples

The following is sample output from the **show dhcp ipv4 relay statistics** command when none of the optional keywords or arguments are used command:

```
Router# show dhcp ipv4 relay statistics
-----
                Bridge                |      RX      |      TX      |      DR      |
-----|-----|-----|-----|
default                |              0 |              0 |              0 |
```

The following is sample output from the **show dhcp ipv4 relay profile** command:

```
Router# show dhcp ipv4 relay profile
DHCP IPv4 Relay Profiles
-----
r1
r2
```

The following is sample output from the **show dhcp ipv4 relay profile name profile-name** command:

```
Router# show dhcp ipv4 relay profile name R1
DHCP IPv4 Relay Profile R1:

Helper Addresses:
10.10.10.1, vrf default
Information Option: Disabled
Information Option Allow Untrusted: Disabled
```

```
Information Option Policy: Replace  
Information Option Check: Disabled  
Giaddr Policy: Keep  
Broadcast-flag Policy: Ignore
```

```
VRF References:
```

```
default
```

```
Interface References:
```

```
FINT0_RP0_CPU0
```

```
MgmtEth0_RP0_CPU0_0
```

# show dhcp ipv6 relay binding

To display DHCPv6 client bindings for relay, use the **show dhcp ipv6 relay binding** command in XR EXEC mode.

```
show dhcp ipv6 relay binding [ client-duid client-duid-number ] [ [detail] ] | [ [ interface type interface-path-id ] ] | [ [location node-id ] ] | [ [summary] ] | [ vrf vrf-name ]
```

Syntax Description		
<b>client-duid</b> <i>client-duid-number</i>		(Optional) Displays DHCPv6 relay client binding information.  The argument <i>client-duid-number</i> is the client's DHCP Unique Identifier (DUID) number.  <b>Note</b> Use the <b>show dhcp ipv6 relay binding</b> command to see the client DUID number.
<b>detail</b>		(Optional) Displays detailed DHCPv6 relay client binding information for all clients.
<b>interface</b> <i>type interface-path-id</i>		(Optional) Displays DHCPv6 relay client binding by interface.  Specifies a physical interface or a virtual interface.  <b>Note</b> Use the <b>show interfaces</b> command to see a list of all possible interfaces currently configured on the router.
<b>location</b> <i>node-id</i>		(Optional) Displays detailed DHCPv6 relay client binding information for a specified node.  The <i>node-id</i> argument is entered in the <i>rack/slot/module</i> notation.
<b>summary</b>		(Optional) Displays the summary of DHCPv6 relay client binding.
<b>vrf</b> <i>vrf-name</i>		(Optional) Displays DHCPv6 relay client binding information for a VPN routing and forwarding (VRF) instance.

<b>Command Default</b>	None.	
<b>Command Modes</b>	XR EXEC mode	
<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	Release 7.2.12	This command was introduced.
<b>Usage Guidelines</b>	No specific guidelines impact the use of this command.	
<b>Task ID</b>	<b>Task ID</b>	<b>Operation</b>
	ip-services	read

This is the sample output for show dhcp ipv6 relay binding command:

```
Router# show dhcp ipv6 relay binding
Summary:
Total number of clients: 1

IPv6 Address: fc00:35:0:ef5c:a932:239f:1b0e:e4ed/128 (BVI3500)
  Client DUID: 000100011b626e6f0000cae2da26
  IAID: 0x0
  VRF: default
  Lifetime: 172800 secs (2d00h)
  Expiration: 172766 secs (1d23h)
```

## show dhcp ipv6 relay statistics

To display DHCPv6 relay statistics, use the **show dhcp ipv6 relay statistics** command in XR EXEC mode.

```
show dhcp ipv6 relay statistics [ vrf vrf-name ] | [ detail ] [ location node-id ]
```

Syntax Description	detail	(Optional) Displays DHCPv6 relay statistics information in details.
	<b>location</b> <i>node-id</i>	(Optional) Displays DHCPv6 relay debug statistics information for for a specified node.  The <i>node-id</i> argument is entered in the <i>rack/slot/module</i> notation.
	<b>vrf</b> <i>vrf-name</i>	(Optional) Displays DHCPv6 relay statistics information for a VPN routing and forwarding (VRF) instance.
	<b>location</b> <i>node-id</i>	(Optional) Displays detailed DHCPv6 relay statistics information for a specified node.  The <i>node-id</i> argument is entered in the <i>rack/slot/module</i> notation.

**Command Default** None.

**Command Modes** XR EXEC mode

Command History	Release	Modification
	Release 7.2.12	This command was introduced.

**Usage Guidelines** No specific guidelines impact the use of this command.

Task ID	Task ID	Operation
	ip-services	read

This is the sample output for **show dhcp ipv6 relay statistics** command:

```
Router# show dhcp ipv6 relay statistics
VRF | RX | TX | DR
-----|-----|-----|-----
default | 241 | 5 | 236 |
```

## show dhcp ipv6 relay statistics

**nVSatellite		0		0		0	
red4		0		0		0	
red6		0		0		0	
**eint		0		0		0	



## vrf (relay profile)

To configure a relay profile on a VPN routing and forwarding (VRF) instance, use the **vrf (relay profile)** command in Dynamic Host Configuration Protocol (DHCP) IPv4 configuration mode. To disable this feature, use the **no** form of this command.

```
vrf { vrf-name | default | all } relay [ profile profile-name ]
no vrf { vrf-name | default | all } relay [ profile profile-name ]
```

Syntax Description		
	<i>vrf-name</i>	User-defined name for the VRF.
	<b>default</b>	Specifies a profile for the default VRF.
	<b>all</b>	Specifies a profile for all VRFs.
	<b>relay</b>	Specifies a relay profile.
	<b>profile</b> <i>profile-name</i>	Specifies a name for the profile.

**Command Default** If **default** is selected, then the configuration defaults to VRF.

**Command Modes** DHCP IPv4 configuration

Command History	Release	Modification
	Release 7.2.12	This command was introduced.

**Usage Guidelines** No specific guidelines impact the use of this command.

Task ID	Task ID	Operations
	ip-services	read, write

**Examples** The following example shows how to set the relay profile for all VRFs:

```
Router# config
Router(config)# dhcp ipv4
Router(config-dhcpv4)# vrf all
```

Related Commands	Command	Description
	<a href="#">dhcp ipv4 , on page 5</a>	Enables DHCP for IPv4 and enters DHCP IPv4 configuration mode.
	<a href="#">giaddr policy, on page 7</a>	Configures how a relay agent processes BOOTREQUEST messages that already contain a nonzero giaddr attribute.

Command	Description
<a href="#">helper-address, on page 9</a>	Configures the DHCP relay agent to relay packets to a specific DHCP Server.
<a href="#">relay information, on page 17</a>	Configures a Dynamic Host Configuration Protocol (DHCP) IPv4 relay information options in forwarded BOOTREPLY messages.