FS.COM

FiberstoreOS

IPv6 Service Command Line Reference

Contents

1 Tunnel Commands

1.1 interface

Use this command to create a new tunnel interface. Use the no form of this command to destroy the tunnel interface.

Command Syntax

interface tunnel *tunnelid*

no interface tunnel *tunnelid*

tunnelid	The id range should be 0~1023

Command Mode

Global Configuration

Default

None

Usage

None

Examples

This example shows how to create a tunnel interface.

Switch# configure terminal

Switch(config)# interface tunnel 1

Related Commands

show interface tunnel

1.2 tunnel mode ipv6ip

Use this command to specify the IPv6 transition tunnel protocol. Use the no form of this command to unset the tunnel protocol.

Command Syntax

tunnel mode ipv6ip (**6to4** | **isatap** |)

no tunnel mode

6to4	Set the tunnel as automatic tunnel 6to4, which use 2002::/16 as its prefix
isatap	Set the tunnel as automatic tunnel ISATAP, which use ::5efe:a.b.c.d as its suffix

Command Mode

Interface Configuration

Default

None

Usage

This command specifies a tunnel encapsulation mode for IPv6 in IPv4. When the keywords "**6to4**" or "**isatap**" is not specified, then it is a manual tunnel. Tunnel mode is not allowed to change from 6to4 to ISATAP when 6to4 relay routes are configured. Users should unset the tunnel destination before change from manual tunnel to automatic tunnel.

Examples

This example shows how to create a 6to4 Tunnel.

Switch# configure terminal

Switch(config)# interface tunnel 1

Switch(config-if)# tunnel mode ipv6ip 6to4

Related Commands

tunnel source

tunnel destination

1.3 tunnel source

Use this command to specify the tunnel source. Use the no form of this command to unset the tunnel source.

Command Syntax

tunnel source (**A.B.C.D** | *IFNAME*)

no tunnel source

A.B.C.D	Specify a tunnel source in the IPv4 address format
IFNAME	Specify a tunnel source in the IFNAME format, the IFNAME should be layer3 interface, like routed port, vlan interface, loopback.

Command Mode

Interface Configuration

Default

None

Usage

Every tunnel must have a tunnel source. If users specify the IFNAME format, system will choose the primary address as tunnel source.

Examples

This example shows how to set the tunnel source.

Switch# configure terminal

Switch(config)# interface tunnel 1

Switch(config-if)# tunnel source 3.3.3.3

Related Commands

tunnel mode ipv6ip

tunnel destination

1.4 tunnel destination

Use this command to specify a tunnel destination address in an IPv4 portion. Use the no parameter to un-specify the address.

Command Syntax

tunnel destination A.B.C.D

no tunnel destination

A.B.C.D	Specify the tunnel destination IPv4 address

Command Mode

Interface Configuration

Default

None

Usage

Automatic tunnel such as 6to4 and ISATAP must not configure tunnel destination.

Examples

This example shows how to set the tunnel destination.

Switch# configure terminal

Switch(config)# interface tunnel 1

Switch(config-if)# tunnel destination 4.4.4.4

Related Commands

tunnel source

tunnel mode ipv6ip

1.5 tunnel ttl

Use this command to specify a value of Time to Live (TTL) in the tunnel IPv4 encapsulation header. Use the no parameter to restore to the default value.

Command Syntax

tunnel ttl *value*

no tunnel ttl

value	The outer IPv4 header TTL, range is 1~254

Command Mode

Interface Configuration

Default

64

Usage

System does not support the TTL inherit mode.

Examples

This example shows how to specify the outer TTL.

Switch# configure terminal

Switch(config)# interface tunnel 1

Switch(config-if)# tunnel ttl 100

Related Commands

tunnel dscp

1.6 tunnel dscp

Use this command to specify a value of Differentiated Services Code Point (DSCP) in the tunnel IPv4 encapsulation header. Use the no parameter to inheriting the underlying physical interface value by default.

Command Syntax

tunnel dscp *DSCP*

no tunnel dscp

DSCP	The outer IPv4 header DSCP value, range is 0~63

Command Mode

Interface Configuration

Default

By default, the DSCP value is inherited from original IPv6 packet.

Usage

None

Examples

This example shows how to set the outer IPv4 header DSCP value as 40.

Switch# configure terminal

Switch(config)# interface tunnel 1

Switch(config-if)# tunnel dscp 40

Related Commands

tunnel ttl

1.7 ipv6 mtu

Use this command to specify the Tunnel interface MTU. Use the no form of this command to restore to 1480 by default.

Command Syntax

ipv6 mtu *MTU*

no ipv6 mtu

MTU	Set the tunnel interface MTU, range is 1280~9600

Command Mode

Interface Configuration

Default

1480

Usage

System does not support Path MTU Discovery on tunnel interface. This command is only allowed on tunnel interface.

Examples

This example sets the tunnel interface MTU to 1280.

Switch# configure terminal

Switch(config)# interface tunnel 1

Switch(config-if)# ipv6 mtu 1280

Related Commands

tunnel ttl

1.8 show interface tunnel

Use this command to display the tunnel information.

Command Syntax

show interface tunnel *tunnelid*

tunnelid	The id range should be 0~1023

Command Mode

Privileged EXEC

Default

None

Usage

None

Examples

This example displays the tunnel information.

Switch# show interface tunnel1

```
Interface tunnel1
  Interface current state: UP
  Hardware is Tunnel
  Index 8193 , Metric 1 , Encapsulation TUNNEL
  VRF binding: not bound
  Tunnel protocol/transport IPv6/IP, Status Valid
  Tunnel source 1.1.1.1(eth-0-1), destination 2.2.2.2
  Tunnel DSCP inherit,  Tunnel TTL 64
  Tunnel transport MTU 1480 bytes
```

Related Commands

show ipv6 interface tunnel

1.9 show resource tunnel

Use this command to display the tunnel peers resource information.

Command Syntax

show resource tunnel

Command Mode

Privileged EXEC

Default

None

Usage

None

Examples

This example displays the tunnel peers resource information.

Switch# show resource tunnel

```
Tunnel
Resource                      Used         Capability
============================================================
Peers                         1            64
```

Related Commands

None

2 IVI Commands

2.1 ivi translation prefix

Use this command to add IVI entry.

Command Syntax

ivi translation prefix *X:X::X:X/M A.B.C.D/M*

no ivi translation prefix *X:X::X:X/M*

X:X::X:X/M	IPv6 IVI prefix (e.g. 3ffe:506::/64)
A.B.C.D/M	IPv4 IVI prefix (e.g. 10.10.10.0/24)

Command Mode

Global Configuration

Default

None

Usage

This command is used to add IVI entry to system.

Examples

This example shows how to add an IVI entry.

Switch# configure terminal

Switch(config)# ivi translation prefix 1234:5678:ff00::/40 12.34.56.0/24

Related Commands

show ivi translation prefix

2.2 ivi enable

Enable IVI translation on L3 interface.

Command Syntax

ivi enable

no ivi enable

Command Mode

Interface Configuration

Default

None

Usage

This command is used to enable IVI translation on L3 interface.

Examples

This example shows how to enable IVI on L3 interface.

Switch(config)#interface eth-0-1

Switch(config-if)#ivi enable

Related Commands

None

2.3 show ivi translation prefix

To show configuration of IVI, use the show command in privileged EXEC mode.

Command Syntax

show ivi translation prefix

Command Mode

Privileged EXEC

Default

None

Usage

None

Examples

The following example shows how to display IVI configuration:

Switch# show ivi translation prefix

```
IVI translation prefix table:
NO.                      IPv6 prefix      IPv4 prefix
============================================================
 1               1234:5678:ff00::/40    12.34.56.0/24
```

Related Commands

ivi translation prefix

2.4 show resource ivi

To show resource of IVI, use the show command in privileged EXEC mode.

Command Syntax

show resource ivi

Command Mode

Privileged EXEC

Default

None

Usage

None

Examples

The following example shows how to display IVI resource:

Switch# show resource ivi

```
IVI
Resource                        Used         Capability
============================================================
Entry                           28           1
```

Related Commands

ivi translation prefix

3 NDP Commands

3.1 ipv6 neighbor

Use this command to configure a static neighbor entry.

To delete the static neighbor entry, user the no form of this command.

Command Syntax

ipv6 neighbor *IPV6ADDR MAC* (*IFNAME*|)

no ipv6 neighbor *IPV6ADDR* (*IFNAME*|)

IPV6ADDR	IPv6 address in X:X::X:X format
MAC	MAC address in HHHH.HHHH.HHHH format
IFNAME	Interface name

Command Mode

Global Configuration

Default

By default, there is not any static ipv6 neighbor entry exist.

Usage

Use this command to configure a static neighbor entry. If the IPv6 address is link-local, the interface name must be specified.

Using the no form of this command should not remove any dynamic neighbor entries.

Examples

This example shows how to add a static neighbor entry:

Switch# configure terminal

Switch (config)# ipv6 neighbor 2001::1 0000.0000.0001

Switch (config)# ipv6 neighbor fe80::1 0000.0000.0002 eth-0-1

Related Commands

show ipv6 neighbors

3.2 clear ipv6 neighbors

Use this command to clear the dynamic neighbor entries.

Command Syntax

clear ipv6 neighbors (**interface** *IFNAME*|)

clear ipv6 neighbors *IPV6ADDR* (*INTERFACE*|)

interface *IFNAME*	Clear neighbor cache on the interface
IPV6ADDR	IPv6 address in X:X::X:X format. Clear IPv6 neighbor cache by address
INTERFACE	Interface name is required when IPV6ADDR is link-local

Command Mode

EXEC

Default

None

Usage

Use this command to clear the dynamic neighbor entries.

User can clear dynamic ipv6 address by interface or address. If the specified address is link-local, the interface is required.

Examples

This example shows how to clear the neighbor entries:

Switch# clear ipv6 neighbors

Related Commands

show ipv6 neighbors

3.3 ipv6 hop-limit

Use this command to set the ipv6 hop limit of the packets.

To restore the default configuration, use the no form of this command.

Command Syntax

ipv6 hop-limit *HOP_LIMIT*

no ipv6 hop-limit

hop-limit HOP_LIMIT	Hop limit. Between 1 and 255

Command Mode

Global Configuration

Default

By default, the value is 64.

Usage

The hop limit setting should affect all IPv6 packets send from this device, unless the hop-limit is overwritten by up layer application, for example, OSPF, etc.

Examples

This example shows how to set the hop limit:

Switch (config)# ipv6 hop-limit 255

Related Commands

None

3.4 ipv6 nd ra hop-limit

Use this command to set the "Current hop limit" in RA packets.

To restore the default configuration, use the no form of this command.

Command Syntax

ipv6 nd ra hop-limit *HOP_LIMIT*

no ipv6 nd ra hop-limit

hop-limit *HOP_LIMIT*	Set cur hop limit. Between 0 and 255

Command Mode

Interface Configuration

Default

By default, the value is 0.

Usage

None

Examples

This example shows how to set the "Current hop limit" in RA packets:

Switch(config-if)# ipv6 nd ra hop-limit 255

Related Commands

None

3.5 ipv6 nd dad attempts

Use this command to set the attempt times of DAD (Duplicate Address Detect).

To restore the default configuration, use the no form of this command.

Command Syntax

ipv6 nd dad attempts *DAD_ATTEMPTS*

no ipv6 nd dad attempts

DAD_ATTEMPTS	Set attempts number. Between 0 and 600

Command Mode

Interface Configuration

Default

By default, the value is 1.

Usage

Use this command to set the attempt times of DAD (Duplicate Address Detect). “0” means DAD feature is disabled

Examples

This example shows how to set the dad attempt:

Switch (config-if)# ipv6 nd dad attempts 3

Related Commands

Nnone

3.6 ipv6 nd ns-interval

Use this command to set the interval of NS packets.

To restore the default configuration, use the no form of this command.

Command Syntax

ipv6 nd ns-interval *NS_INTERVAL*

no ipv6 nd ns-interval

NS_INTERVAL	Set IPv6 neighbor solicitation interval. Between 1000 and 3600000 (milliseconds)

Command Mode

Interface Configuration

Default

By default, the value is 1000

Usage

This configuration should affect the interval of NS packet during the DAD period or neighbor discovery period.

Examples

This example shows how to set the ns interval:

Switch (config-if)# ipv6 nd ns-interval 2000

Related Commands

None

3.7 ipv6 nd ra suppress

Use this command to enable the RA suppress function.

To disable this function, use the no form of this command.

Command Syntax

ipv6 nd ra suppress

no ipv6 nd ra suppress

Command Mode

Interface Configuration

Default

By default, RA suppress is enabled.

Usage

When RA suppress function is enabled, no RA/RS packet should be sent from this interface even a RS packet is received.

Examples

This example shows how to enable the RA suppress function:

Switch (config-if)# ipv6 nd ra suppress

This example shows how to disable the RA suppress function:

Switch (config-if)# no ipv6 nd ra suppress

Related Commands

ipv6 nd ra interval

ipv6 nd ra lifetime

3.8 ipv6 nd ra mtu suppress

Use this command to enable the RA MTU suppress function.

To disable this function, use the no form of this command.

Command Syntax

ipv6 nd ra mtu suppress

no ipv6 nd ra mtu suppress

Command Mode

Interface Configuration

Default

By default, RA MTU suppress is disabled.

Usage

When RA MTU suppress function is enabled, no MTU option should be sent in the RA packets from this interface.

Examples

This example shows how to enable the RA MTU suppress function:

Switch (config-if)# ipv6 nd ra mtu suppress

This example shows how to disable the RA MTU suppress function:

Switch (config-if)# no ipv6 nd ra mtu suppress

Related Commands

None

3.9 ipv6 nd ra interval

Use this command to set the interval of the RA packets.

To restore the default configuration, use the no form of this command.

Command Syntax

ipv6 nd ra interval *MAX* (*MIN* |)

no ipv6 nd ra interval

MAX	RA max interval (sec). Between 4 and 1800
MIN	RA min interval (sec). Between 3 and 1350

Command Mode

Interface Configuration

Default

By default, MAX interval should be 600 second; MIN interval should be 0.33*MAX.

Usage

The valid range should be between 4 and 1800 second for the max value. The valid range should be between 3 and 0.75 * MAX for the minimum value.

If the minimum value is not specified, it should be 0.33*MAX when MAX >= 9, and it should be equal to the MAX when MAX < 9.

Examples

This example shows how to set the RA interval:

Switch (config-if)# ipv6 nd ra interval 300

Related Commands

ipv6 nd ra suppress

ipv6 nd ra lifetime

3.10 ipv6 nd ra lifetime

Use this command to set the life time of the RA packets.

To restore the default configuration, use the no form of this command.

Command Syntax

ipv6 nd ra lifetime *LIFE_TIME*

no ipv6 nd ra lifetime

LIFE_TIME	Set IPv6 router advertisement lifetime. 0-9000 seconds

Command Mode

Interface Configuration

Default

By default, RA life time is 3* MAX RA interval.

Usage

None

Examples

This example shows how to set the ra life time:

Switch (config-if)# ipv6 nd ra lifetime 1000

Related Commands

ipv6 nd ra suppress

ipv6 nd ra interval

3.11 ipv6 nd reachable-time

Use this command to set reachable time of the neighbor entries.

To restore the default configuration, use the no form of this command.

Command Syntax

ipv6 nd reachable-time *REACHABLE_TIME*

no ipv6 nd reachable-time

REACHABLE_TIME	Reachablity time in milliseconds. Between 0 and 3600000 ms

Command Mode

Interface Configuration

Default

By default, the value is 30000 ms

Usage

A reachable time 0 means to restore the default value 30000.

After the reachable time expired, the neighbor entries which state is "REACH" should change to "STALE".

Examples

This example shows how to set the reachable time:

Switch (config-if)# ipv6 nd reachable-time 3600000

Related Commands

None

3.12 ipv6 nd managed-config-flag

Use this command to set "Managed address configuration" flag.

To unset this configuration, use the no form of this command.

Command Syntax

ipv6 nd managed-config-flag

no ipv6 nd managed-config-flag

Command Mode

Interface Configuration

Default

By default, the "Managed address configuration" is not set.

Usage

None

Examples

This example shows how to set the "Managed address configuration" flag:

Switch (config-if)# ipv6 nd managed-config-flag

Related Commands

ipv6 nd other-config-flag

3.13 ipv6 nd other-config-flag

Use this command to set the "Other configuration" flag.

To unset this configuration, use the no form of this command.

Command Syntax

ipv6 nd other-config-flag

no ipv6 nd other-config-flag

Command Mode

Interface Configuration

Default

By default, the "Other configuration" flag is not set.

Usage

None

Examples

This example shows how to set the "Other configuration" flag:

Switch (config-if)# ipv6 nd other-config-flag

Related Commands

ipv6 nd managed-config-flag

3.14 ipv6 nd prefix

Use this command to set prefix for route advertise (RA).

To unset a prefix to advertise, use the no form of this command.

Command Syntax

ipv6 nd prefix *IPv6_PREFIX* (*VALID_TIME*|**infinite**) (*PERFERRED_TIME*|**infinite**) ({**off-link**|**no-autoconfig**}|)

no ipv6 nd prefix *IPv6_PREFIX*

ipv6 nd prefix default (*VALID_TIME* |**infinite**) (*PERFERRED_TIME* |**infinite**) ({**off-link**|**no-autoconfig**}|)

no ipv6 nd prefix default

IPv6_PREFIX	Configure IPv6 routing prefix advertisement. IPv6 prefix in X:X::X:X/M format
VALID_TIME	Valid lifetime. 0-4294967295 second
PERFERRED_TIME	Preferred lifetime. 0-4294967295 second

Command Mode

Interface Configuration

Default

The valid range of valid life time should be between 0 and 4294967295 seconds. User can also use the keyword "infinite" to indicate the value 4294967295(0xFFFFFFFF）. The default value should be 2592000 seconds (30 days).
The valid range of preferred life time should be between 0 and 4294967295 seconds. User can also use the keyword "infinite" to indicate the value 4294967295（0xFFFFFFFF）. The default value should be 604800 seconds (7 days).

Usage

None

Examples

This example shows how to set the prefix:

Switch (config-if)# ipv6 nd prefix 2001::1/64 3000 3000

Related Commands

show ipv6 interface *IFNAME* **prefix**

3.15 show ipv6 interface IFNAME prefix

Use this command to show the prefix for route advertise (RA) on the specified interface.

Command Syntax

show ipv6 interface ***IFNAME*** prefix

IFNAME	Name of the interface to show

Command Mode

EXEC

Default

None

Usage

None

Examples

This example shows the result of this command:

Switch # show ipv6 interface eth-0-1 prefix

```
IPv6 Prefix Advertisements eth-0-1
Codes: A - Address, P - Prefix-Advertisement
       D - Default, N - Not advertised
       L - On link, A - Auto-config
     default [LA] Valid lifetime 2592000, preferred lifetime 604800
P    2001::/64 [LA] Valid lifetime 3000, preferred lifetime 3000
```

Related Commands

ipv6 nd prefix

3.16 show ipv6 neighbors

Use this command to show all ipv6 neighbor entries.

Command Syntax

show ipv6 neighbors (dynamic|static|interface IFNAME| *IPV6_ADDR*|statistics|)

interface IFNAME	Name of the interface to show
IPV6_ADDR	IPv6 address in X:X::X:X format

Command Mode

EXEC

Default

None

Usage

Neighbor entries should be able to show globally, by interface, or by prefix. Dynamic and static entries can be displayed separately.

Examples

This example shows the result of this command:

Switch # show ipv6 neighbors

```
IPv6 address                              Age     Link-Layer Addr State Interface
2001::2                                     7       40f2.fd60.ac00  REACH eth-0-9
fe80::42f2:fdff:fe60:ac00                   6       40f2.fd60.ac00  STALE eth-0-9
```

Related Commands

ipv6 neighbor

3.17 debug ipv6 nd

Use this command to open the debug of ipv6 ND feature.

To close the debug of ipv6 ND feature, use the no form of this command.

Command Syntax

debug ipv6 nd (packet|events|error|dump|info|all)

no debug ipv6 nd (packet|events|error|dump|info|all)

packet	IPv6 ND packet
events	IPv6 ND events
error	IPv6 ND Error message
dump	Dump message in hex format
info	IPv6 ND information
all	Turn all debugging on

Command Mode

EXEC

Default

By default, the ipv6 nd debug is closed.

Usage

None

Examples

This example shows how to open the ipv6 ND debug:

Switch # debug ipv6 nd all

Switch # terminal monitor

Related Commands

None

4 DHCPv6 Relay Commands

4.1 dhcpv6 relay

To enable the DHCPv6 relay service, use the dhcpv6 relay command in global configuration mode. To disable this function, use the no form of this command.

Command Syntax

dhcpv6 relay

no dhcpv6 relay

Command Mode

Global Configuration

Default

DHCPv6 relay is disabled.

Usage

The DHCPv6 service must be enabled with the dhcpv6 service command before DHCPv6 relay service can be used.

Examples

The following example shows how to enable DHCPv6 relay agent:

Switch(config)# dhcpv6 relay

Related Commands

service dhcpv6

4.2 dhcpv6-server (global)

To create a DHCPv6 server group, use the dhcpv6-server command in global configuration mode. To remove a DHCPv6 server group, use the no form of this command.

Command Syntax

dhcpv6-server *NUMBER ADDRESS* **interface** *IFNAME*

no dhcpv6-server *NUMBER* (*ADDRESS* (**interface** *IFNAME* |) |)

NUMBER	Number of the DHCPv6 server group. The range is from 1 to 16
ADDRESS	The IPv6 address list of the DHCPv6 server. The range in number of the servers in a list is 1 to 8
IFNAME	The name of supported interface

Command Mode

Global Configuration

Default

No DHCPv6 server group is defined.

Usage

This command is used to specify the remote DHCPv6 server or relay.

Examples

The following example shows how to configure dhcpv6-server group globally:

Switch(config)# dhcpv6-server 1 2001:1::1

Switch(config)# dhcpv6-server 1 fe80::1 interface vlan1

Related Commands

service dhcpv6

dhcpv6-server (interface)

4.3 dhcpv6-server (interface)

To add an interface into a DHCPv6 server group, use the dhcpv6-server command in interface configuration mode. To remove this interface from the DHCPv6 server group, use the no form of this command.

Command Syntax

dhcpv6-server *NUMBER*

no dhcpv6-server

NUMBER	Number of the DHCPv6 server group. The range is from 1 to 16

Command Mode

Interface Configuration

Default

No DHCPv6 server group is configured for the interface.

Usage

This command is used to specify DHCPv6 server group which is configed by the command dhcpv6-server in global mode.

Examples

The following example shows how to configure dhcpv6-server group for interface:

Switch(config-if)# dhcpv6-server 1

Related Commands

service dhcpv6

4.4 dhcpv6 relay remote-id option

To enable remote-id option, use the dhcpv6 relay remote-id option command in global configuration mode. To disable remote-id option, use the no form of this command.

Command Syntax

dhcpv6 relay remote-id option

no dhcpv6 relay remote-id option

Command Mode

Global Configuration

Default

Remote-id option is not added into DHCPv6 RELAY_FORW packet sent by relay.

Usage

None

Examples

The following example shows how to enable remote-id option:

Switch(config)# dhcpv6 relay remote-id option

Related Commands

dhcpv6 relay remote-id format

4.5 dhcpv6 relay remote-id format

To specify the format of remote-id , use the dhcpv6 relay remote-id format command in global configuration mode. To restore the default format, use the no form of this command.

Command Syntax

dhcpv6 relay remote-id format { vlan | ifname | duid}

no dhcpv6 relay remote-id format

vlan	The ID of the vlan attached by client
ifname	The name of the interface received packet from client
duid	The duid of relay

Command Mode

Global Configuration

Default

The remote-id format is “duid:ifname:”.

Usage

The format of remote-id can be a combination of vlan, interface name, DUID. This command specify the existing keywords in the combination.

Examples

The following example shows how to specify the format of remote-id.

Switch(config)# dhcpv6 relay remote-id format vlan

Related Commands

dhcpv6 relay remote-id option

4.6 dhcpv6 relay pd route

To enable learning route from prefix-delegation option, use the dhcpv6 relay pd route command in global configuration. To disable the function, use the no form of this command.

Command Syntax

dhcpv6 relay pd route

no dhcpv6 relay pd route

Command Mode

Global Configuration

Default

The DHCPv6 relay won’t learn prefix-delegation route.

Usage

The DHCPv6 relay can learn route from prefix delegated by server to client. This kind of route should not replace static one. Use this command to enable this function.

Examples

The following example shows how to enable learning route from prefix-delegation option

Switch(config)# dhcpv6 relay pd route

Related Commands

clear dhcpv6 relay pd route

dhcpv6 relay pd route distance

4.7 dhcpv6 relay pd route distance

To configure the default distance for route learned by relay, use the dhcpv6 relay pd route distance command in global configuration. To restore the default value, use the no form of this command..

Command Syntax

dhcpv6 relay pd route distance <1-255>

no dhcpv6 relay pd route distance

Command Mode

Global Configuration

Default

The default value of distance is 254.

Usage

Use this command to configure the distance of the route learned by relay from prefix-delegation.

Examples

The following example shows how to configure the distance of route added by DHCPv6 relay:

Switch(config)# dhcpv6 relay pd route distance 233

Related Commands

dhcpv6 relay pd route

4.8 service dhcpv6

To enable the Dynamic Host Configuration Protocol (DHCP)V6 relay agent features on your router, use the service dhcpv6 command in global configuration mode. To disable the DHCPv6 relay agent features, use the no form of this command.

Command Syntax

service dhcpv6 enable

service dhcpv6 disable

Command Mode

Global Configuration

Default

DHCPv6 service is disabled globally.

Usage

Only the main DHCPv6 service is enabled by the service dhcpv6 command, can other DHCPv6 services be used, such as dhcpv6 relay.

Examples

The following example shows how to enable DHCPv6 service globally:

Switch(config)# service dhcpv6 enable

Related Commands

dhcpv6 relay

4.9 debug dhcpv6 relay

Use this command to turn on the debug switches of DHCPv6 relay module.

To restore the default, use the **no** form of this command

Command Syntax

debug dhcpv6 relay (**events** | **error** | **dump** | **packet** | **all**)

no debug dhcpv6 relay (**events** | **error** | **dump** | **packet** | **all**)

events	Relay events
error	Error DHCP message
packet	DHCP message fields
dump	Dump message in hex format
all	Turn all debugging on

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 relay debug switches:

Switch# debug dhcpv6 relay all

Related Commands

terminal monitor

show logging buffer

4.10 show dhcpv6-server

To display the DHCPv6 server groups, use the show dhcpv6-server command in privileged EXEC mode.

Command Syntax

show dhcpv6-server

Command Mode

Privileged EXEC

Default

None

Usage

This command is used to display all the DHCPv6 server groups configured with command dhcpv6-server in global mode.

Examples

The following example shows how to display dhcpv6-server group information:

Switch# show dhcpv6-server

```
DHCPv6 server group information:
============================================================
group 1 ipv6 address list:
    [1] 2001:1::1
```

Related Commands

dhcpv6-server (global)

4.11 show dhcpv6 relay interfaces

To display to which dhcpv6-server group the interface belongs, use the show dhcpv6 relay interfaces command in privileged EXEC mode.

Command Syntax

show dhcpv6 relay interfaces

Command Mode

Privileged EXEC

Default

None

Usage

This command is used to display the interface which is confined DHCPv6 relay.

Examples

The following example shows how to display dhcpv6 relay interfaces information:

Switch# show dhcpv6 relay interfaces

```
List of DHCPv6 relay enabled interface(s):
DHCPv6 relay service status: enabled
Interface Name          DHCPv6 server group
============================================================
eth-0-1                 1
```

Related Commands

show dhcpv6-server

4.12 show dhcpv6 relay pd client

To display the result of DHCPv6 relay's prefix-delegation route function, use the show dhcpv6 relay pd client command in privileged EXEC mode.

Command Syntax

show dhcpv6 relay pd client

Command Mode

Privileged EXEC

Default

None

Usage

None

Examples

The following example shows how to display information of prefix-delegation route:

Switch# show dhcpv6 relay pd client

```
DHCPv6 prefix-delegation client information:
```

```
============================================================
Interface  : vlan2
Client DUID  : 0001000117e9357b606da182030
Client IPv6 address  : fe80::626d:a1ff:fe82:300
   IA ID  : a18230
      IA Prefix :  2002:2:10::/64
         prefered/max lifetime : 280/300
         expired time :  2012-09-17 11:43:59
============================================================
```

Related Commands

dhcpv6 relay pd route

dhcpv6 relay pd route distance

4.13 show dhcpv6 relay statistics

To display the statistics of DHCPv6 packets relayed by the switch, use the show dhcpv6 relay statistics command in privileged EXEC mode.

Command Syntax

show dhcpv6 relay statistics

Command Mode

Privileged EXEC

Default

None

Usage

This command is used to display detail DHCPv6 statistics which processed by the switch.

Examples

The following example shows how to display DHCPv6 relay statistics:

Switch# show dhcpv6 relay statistics

```
DHCPv6 relay packet statistics:
============================================================
Client relayed packets :  0
Server relayed packets :  0
Client error packets   :  0
Server error packets   :  0
```

```
Unknown type packets   :  0

DHCPv6 Msg type      Receive    Send       Error
Solicit              0          0          0
Advertise            0          0          0
Request              0          0          0
Confirm              0          0          0
Renew                0          0          0
Rebind               0          0          0
Reply                0          0          0
Release              0          0          0
Decline              0          0          0
Reconfigure          0          0          0
Information-request  0          0          0
Relay-forward        0          0          0
Relay-reply          0          0          0
Leasequery           0          0          0
Leasequery-reply     0          0          0
```

Related Commands

clear dhcpv6 relay statistics

4.14 clear dhcpv6 relay statistics

To reset the statistics of DHCPv6 packets relayed by the switch, use the clear dhcpv6 relay statistics command in privileged EXEC mode.

Command Syntax

clear dhcpv6 relay statistics

Command Mode

Privileged EXEC

Default

None

Usage

This command is used to reset DHCPv6 statistics.

Examples

The following example shows how to clear DHCPv6 relay statistics:

Switch# clear dhcpv6 relay statistics

Related Commands

show dhcpv6 relay statistics

4.15 clear dhcpv6 relay pd route

To clear the route learned by DHCPv6 relay from prefix-delegation, use the clear dhcpv6 relay pd route command in privileged EXEC mode.

Command Syntax

clear dhcpv6 relay pd route (**prefix** *PREFIX*|) (**interface** *IFNAME*|) (*ADDRESS*|)

PREFIX	The prefix delegated to client
ADDRESS	The IPv6 address of PD client
IFNAME	The name of supported interface

Command Mode

Privileged EXEC

Default

None

Usage

If no parameter is specified, all route will be cleared.

Examples

The following example shows how to clear route learned by DHCPv6 relay:

Switch# clear dhcpv6 relay pd route interface eth-0-1

Related Commands

dhcpv6 relay pd route

show dhcpv6 relay pd client