

IPv6 Tunnel Commands

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interface tunnel

To enter into the Interface Configuration (Tunnel) mode, use the **interface tunnel** command in Global Configuration mode.

Syntax

interface tunnel *number*

Parameters

- ***number***—Specifies the tunnel number.

Command Mode

Global Configuration mode

Example

The following example enters the Interface Configuration (Tunnel) mode.

```
switchxxxxxx(config)# interface tunnel 1
switchxxxxxx(config-if)# tunnel source auto
switchxxxxxx(config-if)# exit
```

tunnel destination

To specify the destination IPv4 address for the manual tunnel interface, use the **tunnel destination** command in Interface (Tunnel) Configuration mode. To remove the destination IPv4 address, use the **no** form of this command.

Syntax

tunnel destination {*host-name* | *ip-address*}

no tunnel destination

Parameters

- ***host-name***—DNS name of the remote host.
- ***ip-address***—IPv4 address of the remote host.

Default Configuration

No tunnel interface destination is specified.

Command Mode

Interface (Tunnel) Configuration mode

User Guidelines

You cannot configure two tunnels to use the same encapsulation mode with exactly the same source and destination address.

Example

The following example shows how to configure the tunnel destination address for Manual IPv6 tunnel:

```
switchxxxxxx(config)# interface vlan 1
switchxxxxxx(config-if)# ip address 10.0.0.1 255.255.255.0
switchxxxxxx(config-if)# exit
switchxxxxxx(config)# interface tunnel1
switchxxxxxx(config-if)# ipv6 address 3ffe:b00:c18:1::3/127
switchxxxxxx(config-if)# tunnel source vlan1
switchxxxxxx(config-if)# tunnel destination 192.168.30.1
switchxxxxxx(config-if)# tunnel mode ipv6ip
switchxxxxxx(config-if)# exit
```

tunnel isatap solicitation-interval

To set the time interval between unsolicited router solicitation messages, use the **tunnel isatap solicitation-interval** command in Global Configuration mode. To restore the default configuration, use the **no** form of this command.

Syntax

tunnel isatap solicitation-interval *seconds*

no tunnel isatap solicitation-interval

Parameters

- ***seconds***—Specifies the time interval in seconds between ISATAP router solicitation messages. (Range: 10–3600).

Default Configuration

The default time interval between ISATAP router solicitation messages is 10 seconds.

Command Mode

Global Configuration mode

User Guidelines

This command determines the interval between unsolicited router solicitation messages sent to discovery an ISATAP router.

Example

The following example sets the time interval between ISATAP router solicitation messages to 30 seconds.

```
switchxxxxxx(config)# tunnel isatap solicitation-interval 30
```

tunnel isatap robustness

To configure the number of router solicitation refresh messages that the device sends, use the **tunnel isatap robustness** command in Global Configuration mode. To restore the default configuration, use the **no** form of this command.

Syntax

tunnel isatap robustness *number*

no tunnel isatap robustness

Parameters

- ***number***—Specifies the number router solicitation refresh messages that the device sends. (Range: 1–20).

Default Configuration

The default number of router solicitation refresh messages that the device sends is 3.

Command Mode

Global Configuration mode

User Guidelines

The router solicitation interval (when there is an active ISATAP router) is the minimum-router-lifetime that is received from the ISATAP router, divided by (Robustness + 1).

Example

The following example sets the number of router solicitation refresh messages that the device sends to 5.

```
switchxxxxxx(config)# tunnel isatap robustness 5
```

show ipv6 tunnel

To display information on IPv6 tunnels, use the **show ipv6 tunnel** command in User EXEC mode.

Syntax

show ipv6 tunnel [**all**]

Parameters

- **all**—(Optional) The switch displays all parameters of the tunnel. If the keyword is not configured only the tunnel parameters corresponding to its type are displayed.

Command Mode

User EXEC mode

Example 1. The following example displays information on the ISATAP tunnel, when the all keyword is not configured:

```
switchxxxxxx# show ipv6 tunnel
Tunnel 1
  Tunnel type                     : Manual
  Tunnel status                   : UP
  Tunnel Local address type       : VLAN 100
  Tunnel Local Ipv4 address       : 192.1.3.4
  Tunnel Remote Ipv4 address      : 192.3.4.5
Tunnel 2
  Tunnel type                     : ISATAP
  Tunnel status                   : UP
  Tunnel Local address type       : auto
  Tunnel Local Ipv4 address       : 192.1.3.4
  Router DNS name                 : ISATAP
  Router IPv4 addresses
    1.1.1.1          Detected
    100.1.1.1        Detected
    14.1.100.1       Not Detected
  Router Solicitation interval    : 10 seconds
Robustness : 2

Tunnel 3
  Tunnel type                     : 6to4
  Tunnel status                   : UP
  Tunnel Local address type       : auto
  Tunnel Local Ipv4 address       : 192.1.3.4
```

Example 2. The following example displays information when the **all** keyword is configured:

```
switchxxxxxx# show ipv6 tunnel all
Tunnel 1
  Tunnel type                     : Manual
  Tunnel status                   : UP
  Tunnel Local address type       : VLAN 100
  Tunnel Local Ipv4 address       : 192.1.3.4
  Manual parameters
    Tunnel Remote Ipv4 address    : 192.3.4.5
  ISATAP Parameters
    Router DNS name               : ISATAP
```

```
    Router Solicitation interval   : 10 seconds
 Robustness : 2

Tunnel 2
  Tunnel type                      : Manual
  Tunnel status                    : DOWN
  Tunnel Local address type        : auto
  Manual parameters
    Tunnel Remote Ipv4 address     : 0.0.0.0
  ISATAP Parameters
    Tunnel Local Ipv4 address      : 0.0.0.0
    Router DNS name                : ISATAP
    Router Solicitation interval   : 10 seconds
Robustness : 2

Tunnel 3
  Tunnel type                      : ISATAP
  Tunnel status                    : UP
  Tunnel Local address type        : auto
  Manual parameters
    Tunnel Remote Ipv4 address     : 0.0.0.0
  ISATAP Parameters
    Tunnel Local Ipv4 address      : 192.1.3.4
    Router DNS name                : ISATAP
    Router IPv4 addresses
      1.1.1.1          Detected
      100.1.1.1        Detected
      14.1.100.1       Not Detected
    Router Solicitation interval   : 10 seconds
 Robustness : 2
```