IPv6 to IPv4 Tunnel Interface Configuration Mode Commands

The IPv6 to IPv4 Tunnel Interface Configuration Mode is used to create and manage the IP interface for addresses, address resolution options, etc.

Command Modes

Exec > Global Configuration > Context Configuration > Tunnel Interface Configuration > IPv6 to IPv4 Tunnel Interface Configuration

configure > context *context_name* **> interface** *interface_name* **tunnel > tunnel-mode ipv6ip**

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-if-tunnel-ipv6ip)#
```

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Important

The commands or keywords/variables that are available are dependent on platform type, product version, and installed license(s).

destination address

Configures the destination of the tunnelled packets for a manual tunnel.

Product	All
Privilege	Administrator
Command Modes	Exec > Global Configuration > Context Configuration > Tunnel Interface Configuration > IPv6 to IPv4 Tunnel Interface Configuration

configure > context *context_name* **> interface** *interface_name* **tunnel > tunnel-mode ipv6ip**

Entering the above command sequence results in the following prompt:

`[`*context_name*`]`*host_name*`(config-if-tunnel-ipv6ip)#`

Syntax Description	**destination address** *address* **no destination address**

no

Removes configuration for the specified keyword.

address

Specifies the IP address of the destination device. *address* must be specified in IPv4 dotted decimal or IPv6 colon-separated-hexadecimal notation.

Usage Guidelines Use this command to configure the IP address of the destination end of the tunnel.

Example

The following command sets the destination address for packets on this tunnelled interface to *10.2.3.4*:

```
destination address 10.2.3.4
```

do show

Executes all **show** commands while in Configuration mode.

Product

All

Privilege

Security Administrator, Administrator

Syntax Description

`do show`

Usage Guidelines

Use this command to run all Exec mode **show** commands while in Configuration mode. It is not necessary to exit the Config mode to run a **show** command.

The pipe character | is only available if the command is valid in the Exec mode.

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Caution

There are some Exec mode **show** commands which are too resource intensive to run from Config mode. These include: **do show support collection**, **do show support details**, **do show support record** and **do show support summary**. If there is a restriction on a specific **show** command, the following error message is displayed:

```
Failure: Cannot execute 'do show support' command from Config mode.
```

end

Exits the current configuration mode and returns to the Exec mode.

Product	All
Privilege	Security Administrator, Administrator
Syntax Description	`end`
Usage Guidelines	Use this command to return to the Exec mode.

exit

Exits the current mode and returns to the parent configuration mode.

Product

All

Privilege

Security Administrator, Administrator

Syntax Description

`exit`

Usage Guidelines

Use this command to return to the parent configuration mode.

mode

Configures the mode of IPv6 to IPv4 tunneling. The default is set to manual mode.

Product	All
Privilege	Security Administrator, Administrator
Command Modes	Exec > Global Configuration > Context Configuration > Tunnel Interface Configuration > IPv6 to IPv4 Tunnel Interface Configuration

configure > context *context_name* **> interface** *interface_name* **tunnel > tunnel-mode ipv6ip**

Entering the above command sequence results in the following prompt:

`[`*context_name*`]`*host_name*`(config-if-tunnel-ipv6ip)#`

Syntax Description	**mode { 6to4	manual }**

default mode

6to4

Configures automatic IPv6-to-IPv4 (6to4) tunnels as specified in RFC 3056.

manual

Configures point-to-point manual IPv6-to-IPv4 tunnels by specifying the IPv4 address of the tunnel remote end.

default

Resets the mode of IPv6-to-IPv4 tunneling to manual mode.

Usage Guidelines	There can be only one IPv6-to-IPv4 tunnel possible in a context. Once an IPv6-to-IPv4 tunnel is configured, all subsequent tunnels will be configured as manual tunnels.

Example

The following command configures the mode to IPv6-to-IPv4 (*6to4*).

```
mode 6to4
```

The following command configures the mode to *6to4*.

```
mode manual
```

source

Configures the source of tunneled packets.

Product	PDSN
	HA
Privilege	Security Administrator, Administrator
Command Modes	Exec > Global Configuration > Context Configuration > Tunnel Interface Configuration > IPv6 to IPv4 Tunnel Interface Configuration

configure > context *context_name* **> interface** *interface_name* **tunnel > tunnel-mode ipv6ip**

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-if-tunnel-ipv6ip)#
```

Syntax Description

```
source { address ip_address | interface interface_name }
no source { address | interface }
```

address ip_address

Specifies the IPv4 address to use as the source address of the tunnel.

ip_address must be expressed in IPv4 dotted-decimal notation.

interface interface_name

Specifies the name of a non-tunnel IPv4 interface, whose address is used as the source address of the tunnel. *interface* must be an alphanumeric string of 1 through 79 characters.

no source { address | interface }

Removes configuration for the specified keyword.

Usage Guidelines

Configures the source IPv4 address of the tunnel by either specifying the IP address (host address) or by specifying another configured non-tunnel IPv4 interface. The source address must be an existing interface address before it is used. State of source address will affect the operational state of the tunnel.

Example

The following command configures the source address of the tunnel.

```
source address 10.2.3.4
```

The following command specifies the source interface as *testsource1*.

```
source interface testsource1
```

tos

Configures the type of service (TOS) settings of the outer IPv4 header of the tunneled packets.

Product	PDSN
	HA
Privilege	Security Administrator, Administrator
Command Modes	Exec > Global Configuration > Context Configuration > Tunnel Interface Configuration > IPv6 to IPv4 Tunnel Interface Configuration
	configure > context *context_name* **> interface** *interface_name* **tunnel > tunnel-mode ipv6ip**
	Entering the above command sequence results in the following prompt:
	[*context_name*]*host_name*(config-if-tunnel-ipv6ip)#

Syntax Description

```
tos { copy | value tos_value }
default tos
```

copy

Copies the DC octet of the IPv6 packet to the TOS octet of IPv4 packet.

default

Configures default setting for the specified keyword.

value *tos_value*

Configures the raw TOS value ranging from 0 to 255. The default is 0.

Usage Guidelines

Sets the TOS parameter to be used in the tunnel transport protocol or copies the TOS value from the original IPv6 DC byte to the TOS value of the encapsulating IPv4 header.

Example

The following command sets the tos value to *1*:

```
tos value 1
```

ttl

Configures the TTL (Time to live) value of the outer IPv4 header of the tunneled packets.

Product	PDSN
	HA
Privilege	Security Administrator, Administrator
Command Modes	Exec > Global Configuration > Context Configuration > Tunnel Interface Configuration > IPv6 to IPv4 Tunnel Interface Configuration
	configure > context *context_name* **> interface** *interface_name* **tunnel > tunnel-mode ipv6ip**
	Entering the above command sequence results in the following prompt:
	`[`*context_name*`]`*host_name*`(config-if-tunnel-ipv6ip)#`
Syntax Description	`ttl value` *ttl_value*
	default
	Configures default setting for the specified keyword.
	value *ttl_value*
	ttl_value is an integer from 1 through 255. The default is 16.
Usage Guidelines	Configures the TTL parameter to be used in the tunnel transport protocol.
	Example
	The following command sets the TTL value to *25*.
	`ttl value 25`