

Loopback Interface Configuration Mode Commands

Command Modes

The Loopback Interface Configuration Mode is used to create and manage an internal IP network address. The address must be configured with a 32-bit mask.

Exec > Global Configuration > Context Configuration > Ethernet Interface Configuration

configure > context *context_name* **> interface** *interface_name* **loopback**

Entering the above command sequence results in the following prompt:

`[context_name]host_name(config-if-loopback)#`

Important Available commands or keywords/variables vary based on platform type, product version, and installed license(s).

Important For information on common commands available in this configuration mode, refer to the Common Commands chapter.

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crypto-map

Applies the specified IPSec crypto-map to this interface.

Product All

Privilege

Security Administrator, Administrator

Command Modes

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configure > context *context_name* **> interface** *interface_name* **loopback**

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-if-loopback)#
```

Syntax Description

crypto-map *map_name* **[secondary-address** *sec_ipv4v6_addr* **]**
no crypto-map *map_name*

no

Deletes the application of the crypto map on this interface.

map_name

Specifies the name of the crypto map being applied as an alphanumeric string of 1 through 127 characters that is case sensitive.

secondary-address *sec_ipv4v6_addr*

Applies the crypto map to the secondary address for this interface. *sec_ipv4v6_addr* must be an IPv4 address in dotted-decimal notation or an IPv6 address in colon-separated hexadecimal notation.

Usage Guidelines

In order for ISAKMP and/or manual crypto maps to work, they must be applied to a specific interface using this command. Dynamic crypto maps should **not** be applied to interfaces.

The crypto map must be configured in the same context as the interface.

Example

The following command applies the IPSec crypto map named **cmap1** to this interface:

```
crypto-map cmap1
```

description

Sets the descriptive text for the current interface.

Product

All

Privilege

Security Administrator, Administrator

Command Modes

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configure > context *context_name* **> interface** *interface_name* **loopback**

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-if-loopback)#
```

Syntax Description

```
description text
no description
```

no

Clears the description for the interface.

text

Specifies the descriptive text as an alphanumeric string of 0 through 79 characters.

Usage Guidelines

Set the description to provide useful information on the interface's primary function, services, end users, etc. Any information useful may be provided.

Example

The following command sets the description **sampleInterfaceDescriptiveText** for the interface:

```
description sampleInterfaceDescriptiveText
```

ip address

Specifies the primary and optional secondary IPv4 addresses and subnets for this interface.

Product

All

Privilege

Security Administrator, Administrator

Command Modes

Exec > Global Configuration > Context Configuration > Ethernet Interface Configuration

configure > **context** *context_name* > **interface** *interface_name* **loopback**

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-if-loopback)#
```

Syntax Description

```
ip address ipv4_address { mask | /mask } [ secondary ipv4_address
] [ srp-activate ]
no ip address ipv4_address
```

no

Removes the IPv4 address from this interface.

***ipv4_address*{ mask | /*mask* }**

Configures the IPv4 address and mask for the interface. *ipv4_address* must be entered using IPv4 dotted-decimal notation. IPv4 dotted-decimal or CIDR notation is accepted for the mask.



Important For IPv4 addresses, 31-bit subnet masks are supported per RFC 3021.

secondary *ipv4_address*

Configures a secondary IPv4 address on the interface.



Important You must configure the primary IPv4 address before you will be allowed to configure a secondary address.

srp-activate

Activates the IPv4 address for Interchassis Session Recovery (ICSR). Enable this IPv4 address when the Service Redundancy Protocol (SRP) determines that this chassis is ACTIVE. Requires an ICSR license on the chassis to activate.

Usage Guidelines Use this command to specify the primary and optional secondary IPv4 addresses and subnets for this interface.

Example

The following command configures an IPv4 address **209.165.200.224/27** for this interface:

```
ip address 209.165.200.224/27
```

ip ranged-address

Specifies an IPv4 address and subnet; all addresses in the subnet are local. Configures the range or group of IP address for the loopback interface. This command enables support for multiple Enterprise HAs in one HA service.

Product All

Privilege Security Administrator, Administrator

Command Modes Exec > Global Configuration > Context Configuration > Ethernet Interface Configuration

configure > **context** *context_name* > **interface** *interface_name* **loopback**

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-if-loopback)#
```

Syntax Description **[no] ip ranged-address** *ipv4_address* **[mask | /***mask* **] [srp-activate]**

no

Removes the IPv4 ranged address from this interface.

***ipv4_address*[mask | /*mask*]**

Configures the IPv4 address and mask for the interface. *ipv4_address* must be entered using IPv4 dotted-decimal notation. IPv4 CIDR notation is accepted for the mask.

Important This interface configuration is allowed only for IPv4 addresses and must be bound to the HA Service.

srp-activate

Enables the IPv6 address when the Service Redundancy Protocol determines this chassis to be ACTIVE.

Usage Guidelines

This command provides Enterprise HA support on HA service for multiple enterprise nodes. Refer *HA Administration Guide* for more information.

This IP address range configuration must meet the following criteria:

- The ranged address must be a primary address.
- The ranged address must be unique across the interface configuration.
- The ranged address must be unique across the context.
- The IP address specified in the ranged address must not be part of any other interface.
- The ranged-address can be an SRP-activated address.

Example

The following command configures a ranged IPv4 address **209.165.201.0/27** for this interface:

```
ip ranged-address 209.165.201.0/27
```

ip vrf

Associates this interface with a specific Virtual Routing and Forwarding (VRF) table.

Product

All

Privilege

Security Administrator, Administrator

Command Modes

Exec > Global Configuration > Context Configuration > Ethernet Interface Configuration

configure > context *context_name* **> interface** *interface_name* **loopback**

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-if-loopback)#
```

Syntax Description

ip vrf forwarding *vrf_name*
no ip vrf forwarding

no

Removes the specified VRF table from this interface.

vrf_name

Specifies the name of an existing VRF table as an alphanumeric string of 1 through 63 characters.

Use the **ip vrf forwarding** command in the Context Configuration mode to preconfigure the VRF name.

Usage Guidelines Use this command to associate a preconfigured IP VRF instance for the current interface.

Example

The following command associates this interface with VRF named *vrf012*:

```
ip vrf forwarding vrf012
```

ipv6 address

Specifies an IPv6 address and subnet mask.

Product PDSN

HA

Privilege Security Administrator, Administrator

Command Modes Exec > Global Configuration > Context Configuration > Ethernet Interface Configuration

configure > context *context_name* **> interface** *interface_name* **loopback**

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-if-loopback)#
```

Syntax Description **[no] ipv6 address** *ipv6_address/mask* **[srp-activate]**

no

Removes the IPv6 address from this interface.

ipv6_address/mask

Specifies an individual host IP address to add to this host pool in IPv6 colon-separated hexadecimal CIDR notation.



Important On the ASR 5000, routes with IPv6 prefix lengths less than /12 and between the range of /64 and /128 are not supported.

srp-activate

Enables the IPv6 address when the Service Redundancy Protocol determines this chassis to be ACTIVE.

Usage Guidelines Configures the IPv6 address and subnet mask for a specific interface.

Example

The following command configures an IPv6 address *2002:0:0:0:0:0:c014:101/128* for this interface:

```
ipv6 address 2002:0:0:0:0:0:c014:101/128
```

ipv6 ospf

This command configures Open Shortest Path First Version 3 (OSPFv3) parameters on the IPv6 interface.

Product

PDSN

HA

GGSN

Privilege

Security Administrator, Administrator

Command Modes

Exec > Global Configuration > Context Configuration > Ethernet Interface Configuration

configure > context *context_name* **> interface** *interface_name* **loopback**

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-if-loopback)#
```

Syntax Description

`[ no ] ipv6 ospf [ area {` *`integer`* **`|`** *`ipv4_address`* **`} | cost`** *`cost_value`* **`| dead-interval`** *`dead_interval`* **`| hello-interval`** *`hello_interval`* **`| priority`** *`p_value`* **`| retransmit-interval`** *`retx_interval`* **`| transmit-delay`** *`td_interval`* **`]`**

no

Removes a previously configured access group association.

area { *integer* | *ipv4_address* }

Enables OSPFv3 routing on this interface.

decimal_value: Specifies the identification number of the area as an integer from 0 to 4294967295.

ipv4_address: Specifies the IP address of the area in IPv4 dotted-decimal notation.

cost *cost_value*

Configures the OSPF interface cost. The link cost is carried in the LSA updates for each link. The cost is an arbitrary number. *cost_value* is an integer from 1 to 65535.

dead-interval *dead_interval*

Configures the OSPF interface dead-interval in seconds, the interval after which a neighbor is declared dead when no hello packets are sent. *dead_interval* is an integer from 1 to 65535.

hello-interval *hello_interval*

Configures the OSPF interface hello-interval in seconds, the interval between hello packets that OSPFv3 sends on an interface. *hello_interval* is an integer from 1 to 65535.

priority *p_value*

Configures the priority of the OSPF interface. *p_value* is an integer from 0 to 255.

retransmit-interval *retx_interval*

Configures the OSPF interface retransmit-interval in seconds, the time between link-state advertisement (LSA) retransmission for adjacencies belonging to the OSPFv3 interface. *retx_interval* is an integer from 1 to 65535.

transmit-delay *td_interval*

Configures the OSPF interface transmit delay in seconds, the estimated time required to send a link-state update packet on the interface. *td_interval* is an integer from 1 to 65535.

Usage Guidelines

Use this command to configure an OSPFv3 interface in this context.

Example

The following command specifies the link cost as *555*:

```
ipv6 ospf cost 555
```