



# 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.

- [crypto-map](#), on page 1
- [description](#), on page 2
- [ip address](#), on page 3
- [ip ranged-address](#), on page 4
- [ip vrf](#), on page 5
- [ipv6 address](#), on page 6
- [ipv6 ospf](#), on page 7

## crypto-map

Applies the specified IPsec crypto-map to this interface.

## Product

All

## description

**Privilege**

Security Administrator, Administrator

**Command Modes**

Exec &gt; Global Configuration &gt; Context Configuration &gt; 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****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**

Exec &gt; Global Configuration &gt; Context Configuration &gt; 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**    **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.

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**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.

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**Product**    All

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**Privilege**    Security Administrator, Administrator

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**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.

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**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 **192.154.3.5/24** for this interface:

```
ip address 192.154.3.5/24
```

## 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 **192.154.3.5/24** for this interface:

```
ip ranged-address 192.154.3.5/24
```

## 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:c014:101/128` for this interface:

```
ipv6 address 2002:0:0:0:0: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.

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**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
```