I Commands

This chapter describes the Cisco NX-OS Routing Information Protocol (RIP) commands that begin with I.

ip rip authentication key-chain

To enable authentication for the Routing Information Protocol (RIP) Version 2 packets and to specify the set of keys that can be used on an interface, use the **ip rip authentication key-chain** command. To prevent authentication, use the **no** form of this command.

ip rip authentication key-chain *name-of-chain*

no ip rip authentication key-chain [*name-of-chain*]

Syntax Description

name-of-chain	Group of valid keys.

Command Default

No authentication is provided for RIP packets.

Command Modes

Interface configuration mode

Command History

Release	Modification
5.0(3)N1(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Note Make sure the LAN Base Services license is installed on the switch to enable Layer 3 interfaces.

Examples

This example shows how to configure the interface to accept and send any key that belongs to the key-chain trees:

```
switch(config)# interface ethernet 1/2
switch(config-if)# no switchport
switch(config-if)# ip rip authentication key-chain trees
switch(config-if)#
```

Related Commands

Command	Description
copy running-config startup-config	Saves the configuration to the startup configuration file.
key-chain	Creates a set of keys that can be used by an authentication method.
show ip rip	Displays a summary of RIP information for all RIP instances.

ip rip authentication mode

To specify the type of authentication used in the Routing Information Protocol (RIP) Version 2 packets, use the **ip rip authentication mode** command. To restore clear text authentication, use the **no** form of this command.

ip rip authentication mode {**text** | **md5**}

no ip rip authentication mode

Syntax Description

text	Specifies the clear text authentication.
md5	Specifies the message Digest 5 (MD5) authentication.

Command Default

Clear text authentication is provided for RIP packets if you configured a key chain.

Command Modes

Interface configuration mode

Command History

Release	Modification
5.0(3)N1(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Note Make sure the LAN Base Services license is installed on the switch to enable Layer 3 interfaces.

Examples

This example shows how to configure the interface to use MD5 authentication:

```
switch(config)# interface ethernet 1/2
switch(config-if)# no switchport
switch(config-if)# ip rip authentication mode md5
switch(config-if)#
```

Related Commands

Command	Description
copy running-config startup-config	Saves the configuration to the startup configuration file.
ip rip authentication key-chain	Enables authentication for RIP Version 2 packets and specifies the set of keys that can be used on an interface.
key chain	Enables authentication for routing protocols.
show ip rip	Displays a summary of RIP information for all RIP instances.

ip rip metric-offset

To add an additional value to the incoming IP Routing Information Protocol (RIP) route metric for an interface, use the **ip rip metric-offset** command. To return the metric to its default value, use the **no** form of this command.

ip rip metric-offset *value*

no ip rip metric-offset

Syntax Description

value	Value to add to the incoming route metric for an interface. The range is from 1 to 15. The default is 1.

Command Default

value: 1

Command Modes

Interface configuration mode

Command History

Release	Modification
5.0(3)N1(1)	This command was introduced.

Usage Guidelines

Use the **ip route metric-offset** command to influence which routes are used by Cisco NX-OS. This command allows you to add a fixed offset to the route metric of all incoming routes on an interface. For example, if you set the metric-offset to 5 on an interface and the incoming route metric is 5, then Cisco NX-OS adds the route to the route table with a metric of 10.

This command does not require a license.

Note Make sure the LAN Base Services license is installed on the switch to enable Layer 3 interfaces.

Examples

This example shows how to configure a metric offset of 10 for all incoming RIP routes on Ethernet interface 2/1:

```
switch(config)# interface ethernet 2/1
switch(config-if)# no switchport
switch(config-if)# ip rip metric-offset 10
switch(config-if)#
```

Related Commands

Command	Description
ip rip offset-list	Adds an offset value to incoming RIP route metrics.

ip rip offset-list

To add an offset to incoming and outgoing metrics to routes learned via Routing Information Protocol (RIP), use the **ip rip offset-list** command. To remove an offset list, use the **no** form of this command.

ip rip offset-list *value*

no ip rip offset-list

Syntax Description

value	Value to add to the incoming route metric for an interface. The range is from 1 to 15. The default is 1.

Command Default

value: 1

Command Modes

Interface configuration mode

Command History

Release	Modification
5.0(3)N1(1)	This command was introduced.

Usage Guidelines

This command does not require a license.

Note Make sure the LAN Base Services license is installed on the switch to enable Layer 3 interfaces.

Examples

This example shows how to configure an offset of 10 for all incoming RIP routes on Ethernet interface 2/1:

```
switch# configure terminal
switch(config)# interface ethernet 2/1
switch(config-if)# no switchport
switch(config-if)# ip rip offset-list 10
switch(config-if)#
```

Related Commands

Command	Description
ip rip metric-offset	Adds an offset value to incoming RIP route metrics.

ip rip passive-interface

To suppress the sending of the Routing Information Protocol (RIP) updates on an interface, use the **ip rip passive-interface** command. To unsuppress updates, use the **no** form of this command.

ip rip passive-interface

no ip rip passive-interface

Syntax Description

This command has no arguments or keywords.

Command Default

RIP updates are sent on the interface.

Command Modes

Interface configuration mode

Command History

Release	Modification
5.0(3)N1(1)	This command was introduced.

Usage Guidelines

While RIP stops sending routing updates to the multicast (or broadcast) address on a passive interface, RIP continues to receive and process routing updates from its neighbors on that interface.

This command does not require a license.

Note Make sure the LAN Base Services license is installed on the switch to enable Layer 3 interfaces.

Examples

This example shows how to configure Ethernet 1/2 as a passive interface:

```
switch(config)# interface ethernet 1/2
switch(config-if)# no switchport
switch(config-if)# ip rip passive-interface
switch(config-if)#
```

Related Commands

Command	Description
copy running-config startup-config	Saves the configuration to the startup configuration file.
show ip rip	Displays a summary of RIP information for all RIP instances.

ip rip poison-reverse

To enable poison-reverse processing of the Routing Information Protocol (RIP) router updates, use the **ip rip poison-reverse** command. To disable poison-reverse processing of RIP updates, use the **no** form of this command.

ip rip poison-reverse

no ip rip poison-reverse

Syntax Description

This command has no arguments or keywords.

Command Default

Split horizon is always enabled. Poison-reverse processing is disabled.

Command Modes

Interface configuration mode

Command History

Release	Modification
5.0(3)N1(1)	This command was introduced.

Usage Guidelines

Use the **ip rip poison-reverse** command to enable poison-reverse processing of RIP router updates. By default, Cisco NX-OS does not advertise RIP routes out the interface over which they were learned (split horizon). If you configure both poison reverse and split horizon, then Cisco NX-OS advertises the learned routes as unreachable over the interface on which the route was learned.

This command does not require a license.

Note Make sure the LAN Base Services license is installed on the switch to enable Layer 3 interfaces.

Examples

This example shows how to enable poison-reverse processing for an interface running RIP:

```
switch(config)# interface ethernet 1/2
switch(config-if)# no switchport
switch(config-if)# ip rip poison-reverse
```

Related Commands

Command	Description
copy running-config startup-config	Saves the configuration to the startup configuration file.
show ip rip	Displays a summary of RIP information for all RIP instances.

ip rip route-filter

To filter the Routing Information Protocol (RIP) routes coming in or out of an interface, use the **route-filter** command. To remove filtering from an interface, use the **no** form of this command.

ip rip route filter {**prefix-list** *list-name* | **route-map** *map-name*} {**in** | **out**}

no ip rip route filter {**prefix-list** *list-name* | **route-map** *map-name*} {**in** | **out**}

Syntax Description

prefix-list *list-name*	Associates a prefix list to filter RIP packets.
route-map *map-name*	Associates a route map to set the redistribution policy for RIP.
in	Filters incoming routes.
out	Filters outgoing routes.

Command Default

Route filtering is disabled.

Command Modes

Interface configuration mode

Command History

Release	Modification
5.0(3)N1(1)	This command was introduced.

Usage Guidelines

Use the **ip rip route-filter** command to filter incoming or outgoing routes on an interface.

This command does not require a license.

Note Make sure the LAN Base Services license is installed on the switch to enable Layer 3 interfaces.

Examples

This example shows how to use a route map to filter routes for a RIP interface:

```
switch# configure terminal
switch(config)# interface ethernet 1/2
switch(config-if)# no switchport
switch(config-if)# ip rip route-filter route-map InRipFilter in
switch(config-if)#
```

Related Commands

Command	Description
prefix-list	Creates a prefix list.
route-map	Creates a route map.

ip rip summary-address

To configure a summary aggregate address under an interface for the Routing Information Protocol (RIP), use the **ip rip summary-address** command. To disable summarization of the specified address or subnet, use the **no** form of this command.

ip rip summary-address *ip-prefix/mask*

no ip rip summary-address *ip-prefix/mask*

Syntax Description

ip-prefix/length	IP prefix and prefix length to be summarized.

Command Default

Disabled

Command Modes

Interface configuration mode

Command History

Release	Modification
5.0(3)N1(1)	This command was introduced.

Usage Guidelines

The **ip rip summary-address** command summarizes an address or subnet under a specific interface.

This command does not require a license.

Note Make sure the LAN Base Services license is installed on the switch to enable Layer 3 interfaces.

Examples

This example shows how to configure the summary address 192.0.2.0 that is advertised out Ethernet interface 1/2:

```
switch(config)# interface ethernet 1/2
switch(config-if)# no switchport
switch(config-if)# ip summary-address rip 192.0.2.0/24
switch(config-if)#
```

Related Commands

Command	Description
copy running-config startup-config	Saves the configuration to the startup configuration file.
show ip rip	Displays a summary of RIP information for all RIP instances.

ip router rip

To specify the Routing Information Protocol (RIP) instance for an interface, use the **ip router rip** command. To return to the default, use the **no** form of this command.

ip router rip *instance-tag*

no ip router rip *instance-tag*

Syntax Description

instance-tag	Name of the RIP instance. The *instance-tag* can be any case-sensitive, alphanumeric string up to 20 characters.

Command Default

None

Command Modes

Interface configuration mode

Command History

Release	Modification
5.0(3)N1(1)	This command was introduced.

Usage Guidelines

Before you use this command, make sure that you enable RIP on the switch.

This command requires the LAN Base Services license.

Examples

This example shows how to set the RIP instance for an interface:

```
switch(config)# interface ethernet 1/2
switch(config-if)# no switchport
switch(config-if)# ip router rip Enterprise
switch(config-if)#
```

Related Commands

Command	Description
copy running-config startup-config	Saves the configuration to the startup configuration file.
feature rip	Enables RIP on the switch.
show ip rip	Displays a summary of RIP information for all RIP instances.