



# VRRP Commands on Cisco IOS-XR Software

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This document describes the Cisco IOS-XR software commands used to configure and monitor the Virtual Router Redundancy Protocol (VRRP).

# interface (VRRP)

To enable VRRP interface configuration mode, use the **interface** command in router configuration mode. To terminate VRRP interface mode, use the **no** form of this command.

**interface** *type instance*

**no interface** *type instance*

Syntax Description	<i>type</i>	Interface type. For more information, use the question mark (?) online help function.
	<i>instance</i>	<p>Either a physical interface instance or a virtual interface instance:</p> <ul style="list-style-type: none"> <li>Physical interface instance. Naming notation is rack/slot/module/port and a slash mark between values is required as part of the notation. <ul style="list-style-type: none"> <li>rack: Chassis number of the rack.</li> <li>slot: Physical slot number of the line card.</li> <li>module: Module number. A Physical Layer Interface Module (PLIM) is always 0.</li> <li>port: Physical port number of the interface.</li> </ul> </li> </ul> <p><b>Note</b> In references to a Management Ethernet interface located on a Route Processor card, the physical slot number is alphanumeric (RP0 or RP1) and the module is CPU0. Example: interface MgmtEth0/RP1/CPU0/0.</p> <ul style="list-style-type: none"> <li>Virtual interface instance. Number range will vary depending on interface type.</li> </ul> <p>For more information about the syntax for the router, use the question mark (?) online help function.</p>

**Defaults** VRRP is disabled.

**Command Modes** Router configuration

Command History	Release	Modification
	Release 2.0	This command was introduced.

**Usage Guidelines**

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, refer to the *Configuring AAA Services on Cisco IOS-XR Software* module of the *Cisco IOS-XR System Security Configuration Guide*.

You must configure all VRRP configuration commands in VRRP interface configuration mode.

**Examples**

The following example shows how to configure VRRP and a virtual router 1 on Management Ethernet interface 0/RP1/CPU0/0:

```
RP/0/RP0/CPU0:router(config)# router vrrp
RP/0/RP0/CPU0:router(config-vrrp)# interface MgmtEth0/RP1/CPU0/0
RP/0/RP0/CPU0:router(config-vrrp-if)# vrrp 1 ipv4 10.0.1.20
```

**Related Commands**

Command	Description
<a href="#">router vrrp</a>	Configures a VRRP redundancy process.

# router vrrp

To configure the Virtual Router Redundancy Protocol (VRRP), use the **router vrrp** command in global configuration mode. To remove the VRRP configuration, use the **no** form of this command.

**router vrrp**

**no router vrrp**

**Syntax Description** The command has no argument or keywords.

**Defaults** VRRP is not configured.

**Command Modes** Global configuration

Command History	Release	Modification
	Release 2.0	This command was introduced.

**Usage Guidelines** To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, refer to the *Configuring AAA Services on Cisco IOS-XR Software* module of the *Cisco IOS-XR System Security Configuration Guide*.

You must configure all VRRP configuration commands in VRRP interface configuration mode.

**Examples** The following example shows how to configure a VRRP with virtual router 1 on Management Ethernet interface 0/RP1/CPU0/0:

```
RP/0/RP0/CPU0:router(config)# router vrrp
RP/0/RP0/CPU0:router(config-vrrp)# interface MgmtEth0/RP1/CPU0/0
RP/0/RP0/CPU0:router(config-vrrp-if)# vrrp 1 priority 254
```

Related Commands	Command	Description
	<a href="#">interface (VRRP)</a>	Enables VRRP interface configuration mode.

# show vrrp

To display a brief or detailed status of one or all Virtual Router Redundancy Protocol (VRRP) virtual routers, use the **show vrrp** command in EXEC mode.

**show vrrp** [**interface** *type instance* [*vrid*]] [**brief** | **detail** | **statistics** [**all**]]

Syntax Description	
<b>interface</b>	(Optional) Displays the status of the virtual router interface.
<i>type</i>	Interface type. For more information, use the question mark (?) online help function.
<i>instance</i>	<p>Either a physical interface instance or a virtual interface instance:</p> <ul style="list-style-type: none"> <li>Physical interface instance. Naming notation is rack/slot/module/port and a slash mark between values is required as part of the notation. <ul style="list-style-type: none"> <li>rack: Chassis number of the rack.</li> <li>slot: Physical slot number of the line card.</li> <li>module: Module number. A Physical Layer Interface Module (PLIM) is always 0.</li> <li>port: Physical port number of the interface.</li> </ul> </li> </ul> <p><b>Note</b> In references to a Management Ethernet interface located on a Route Processor card, the physical slot number is alphanumeric (RP0 or RP1) and the module is CPU0. Example: interface MgmtEth0/RP1/CPU0/0.</p> <ul style="list-style-type: none"> <li>Virtual interface instance. Number range will vary depending on interface type.</li> </ul> <p>For more information about the syntax for the router, use the question mark (?) online help function.</p>
<i>vrid</i>	<p>(Optional) Virtual router identifier, which is the number identifying the virtual router for which status is displayed.</p> <p>The virtual router identifier is configured with the <b>vrrp ipv4</b> command. The range is from 1 to 255.</p>
<b>brief</b>	(Optional) Provides a summary view of the virtual router information.
<b>detail</b>	(Optional) Displays detailed running state information.
<b>statistics</b>	(Optional) Displays total statistics.
<b>all</b>	(Optional) Displays statistics for each virtual router.

**Command Modes** EXEC

**Command History**

Release	Modification
Release 2.0	This command was introduced.

**Usage Guidelines**

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, refer to the *Configuring AAA Services on Cisco IOS-XR Software* module of the *Cisco IOS-XR System Security Configuration Guide*.

If no interface is specified, all virtual routers are displayed.

**Examples**

The following is sample output from the **show vrrp** command:

```
RP/0/RP0/CPU0:router# show vrrp
                        A indicates IP address owner
                        | P indicates configured to preempt
                        | |
Interface  vrID Prio A P State  Master addr  VRouter addr
Mg0/5/0/4   120  90  P Backup  4.0.0.9      4.0.0.120
Mg0/5/0/4   200  90  P Master  local        4.0.0.200
```

The following is sample output from the **show vrrp detail** command:

```
RP/0/RP0/CPU0:router# show vrrp detail
MgmtEth0/5/0/4 - vrID 120
  State is Backup
    3 state changes, last state change 00:01:37
  Virtual IP address is 4.0.0.120
  Virtual MAC address is 0000.5E00.0178
  Master router is 4.0.0.9
  Advertise time 1 secs
    Master Down Timer 3.648 (3 x 1 + 166/256)
  Current priority 90
    Configured priority 90, may preempt
    minimum delay 0 secs
MgmtEht0/5/0/4 - vrID 200
  State is Master
    4 state changes, last state change 00:00:11
  Virtual IP address is 4.0.0.200
  Virtual MAC address is 0000.5E00.01c8
  Master router is local
  Advertise time 3 secs
    Master Down Timer 9.648 (3 x 3 + 166/256)
  Current priority 90
    Configured priority 110, may preempt
    minimum delay 0 secs
  Tracked items: 1/3 up: 20 decrement

                        Priority
Interface              State  Decrement
MgmtEth0/5/0/2        Down   10
MgmtEth0/5/0/1        Down   10
MgmtEth0/5/0/0        Up     10
```

The following is sample output from the **show vrrp interface detail** command for Management Ethernet interface 0/5/0/4:

```
RP/0/RP0/CPU0:router# show vrrp interface MgmtEth 0/5/0/4 detail
MgmtEth0/5/0/4 - vrID 120
  State is Backup
    3 state changes, last state change 00:02:14
```

```

Virtual IP address is 4.0.0.120
Virtual MAC address is 0000.5E00.0178
Master router is 4.0.0.9
Advertise time 1 secs
  Master Down Timer 3.648 (3 x 1 + 166/256)
Current priority 90
  Configured priority 90, may preempt
  minimum delay 0 secs
MgmtEth0/5/0/4 - vrID 200
State is Master
  4 state changes, last state change 00:00:48
Virtual IP address is 4.0.0.200
Virtual MAC address is 0000.5E00.01c8
Master router is local
Advertise time 3 secs
  Master Down Timer 9.648 (3 x 3 + 166/256)
Current priority 90
  Configured priority 110, may preempt
  minimum delay 0 secs
Tracked items: 1/3 up: 20 decrement

      Interface                State      Priority
      Decrement
MgmtEthE0/5/0/2                Down        10
MgmtEthE0/5/0/1                Down        10
MgmtEthE0/5/0/0                Up          10

```

**Related Commands**

Command	Description
<a href="#">vrrp ipv4</a>	Enables VRRP on an interface and identifies the IP address of the virtual router.

# vrrp assume-ownership

To configure a master router to assume ownership of the virtual IP address, use the **vrrp assume-ownership** command in VRRP interface configuration mode. To restore the default setting, use the **no** form of this command.

**vrrp vrid assume-ownership [disable | enable]**

**no vrrp vrid assume-ownership [disable | enable]**

## Syntax Description

<i>vrid</i>	Virtual router identifier, which is the number identifying the virtual router for which virtual IP address ownership is being configured.  The virtual router identifier is configured with the <b>vrrp ipv4</b> command. The range is from 1 to 255.
<b>disable</b>	(Optional) Does not accept VRRP packets.
<b>enable</b>	(Optional) Does accept VRRP packets.

## Defaults

The master router assumes ownership by default and accepts VRRP packets.

## Command Modes

VRRP interface configuration

## Command History

Release	Modification
Release 2.0	This command was introduced.

## Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, refer to the *Configuring AAA Services on Cisco IOS-XR Software* module of the *Cisco IOS-XR System Security Configuration Guide*.

This command specifies that the router assumes ownership of the virtual IP address if it is the master router regardless of whether it is the IP address owner, which means that it will accept packets sent to that IP address during verification of network configuration. If the **vrrp assume-ownership** command is enabled, a router that is not the IP address owner but is the master router for another IP address will accept and respond to pings and accept a Telnet to that router. Accepting packets sent to the other IP address is a useful tool during verification of network configuration.

This command is ignored (irrelevant) when the router is the IP address owner (section 6.4.3 of RFC 2338, *Virtual Router Redundancy Protocol*).

## Examples

The following configuration disables the vrrp assume-ownership command on Management Ethernet interface 0/RP0/CPU0/0:

```
RP/0/RP0/CPU0:router(config)# router vrrp
RP/0/RP0/CPU0:router(config-vrrp)# interface MgmtEth 0/RP0/CPU0/0
RP/0/RP0/CPU0:router(config-vrrp-if)# vrrp 1 ipv4 10.0.0.101
```

```
RP/0/RP0/CPU0:router(config-vrrp-if)# vrrp 1 assume-ownership disable
```

**Related Commands**

Command	Description
<a href="#">vrrp ipv4</a>	Configures VRRP on an interface and specifies the IP address of the virtual router.

# vrrp ipv4

To enable the Virtual Router Redundancy Protocol (VRRP) on an interface and specify the IP address of the virtual router, use the **vrrp ipv4** command in VRRP interface configuration mode. To disable VRRP on the interface and remove the IP address of the virtual router, use the **no** form of this command.

```
vrrp vrid ipv4 ip-address [secondary]
```

```
no vrrp vrid ipv4 ip-address [secondary]
```

## Syntax Description

<i>vrid</i>	Virtual router identifier, which is the number identifying the virtual router. The range is from 1 to 255.
<i>ip-address</i>	IP address of the virtual router.
<b>secondary</b>	(Optional) Indicates additional IP addresses supported by this group.

## Defaults

VRRP is not configured on the interface.

## Command Modes

VRRP interface configuration

## Command History

Release	Modification
Release 2.0	This command was introduced.

## Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, refer to the *Configuring AAA Services on Cisco IOS-XR Software* module of the *Cisco IOS-XR System Security Configuration Guide*.

Configure the **vrrp ipv4** command once without the **secondary** keyword to indicate the virtual router IP address. If you want to indicate additional IP addresses supported by the virtual router, include the **secondary** keyword.

Removing the VRRP configuration from the IP address owner and leaving the IP address of the interface active is considered a misconfiguration because duplicate IP addresses on the LAN will result.

## Examples

The following example enables VRRP on Management Ethernet interface 0/RP1/CPU0/0. The VRRP virtual router identifier is 1 and 10.0.1.20 is the IP address of the virtual router.

```
RP/0/RP0/1:router(config)# router vrrp
RP/0/RP0/1:router(config-vrrp)# interface MgmtEth 0/RP1/CPU0/0
RP/0/RP0/1:router(config-vrrp-if)# vrrp 1 ipv4 10.0.1.20
RP/0/RP0/1:router(config-vrrp-if)# vrrp 1 ipv4 10.0.2.20 secondary
```

Related Commands	Command	Description
	<a href="#">show vrrp</a>	Displays a summary or detailed status of one or all configured VRRP virtual routers.

## vrrp md5-authentication

To configure the Message Digest 5 (MD5) authentication used for Virtual Router Redundancy Protocol (VRRP) packets received from other routers running VRRP, use the **vrrp md5-authentication** command in VRRP interface configuration mode. To disable VRRP authentication, use the **no** form of this command.

**vrrp** *vrid* **md5-authentication** *string*

**no vrrp** *vrid* **md5-authentication** *string*

Syntax Description	<i>vrid</i>	Virtual router identifier, which is the number identifying the virtual router for which authentication is being configured.  The virtual router identifier is configured with the <b>vrrp ipv4</b> command. The range is from 1 to 255.
	<i>string</i>	The MD5 authentication key to use when sending and receiving VRRP packets.

**Defaults** No authentication of VRRP messages occurs.

**Command Modes** VRRP interface configuration

Command History	Release	Modification
	Release 2.0	This command was introduced.

**Usage Guidelines** To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, refer to the *Configuring AAA Services on Cisco IOS-XR Software* module of the *Cisco IOS-XR System Security Configuration Guide*.

When a VRRP packet arrives from another router running VRRP, its authentication string is compared to the string configured on the local system. If the strings match, the message is accepted. If they do not match, the packet is discarded.

All routers within the virtual router must be configured with the same authentication string.

**Examples** The following example shows how to configure an MD5 authentication string of x30dn78k:

```
RP/0/RP0/CPU0:router# router vrrp
RP/0/RP0/CPU0:router(config-vrrp)# interface MgmtEth 0/RP1/CPU0/0
RP/0/RP0/CPU0:router(config-vrrp-if)# vrrp 1 md5-authentication x30dn78k
```

**Related Commands**

<b>Command</b>	<b>Description</b>
<a href="#">vrrp ipv4</a>	Enables VRRP on an interface and specifies the IP address of the virtual router.

## vrrp preempt

To configure the router to take over as master router for a Virtual Router Redundancy Protocol (VRRP) virtual router if it has a higher priority than the current master router, use the **vrrp preempt** command in VRRP interface configuration mode. To disable this preemption, use the **no** form of this command.

```
vrrp vrid preempt [delay seconds] [disable | enable]
```

```
no vrrp vrid preempt [delay seconds] [disable | enable]
```

### Syntax Description

<i>vrid</i>	Virtual router identifier, which is the number identifying the virtual router for which preemption is being configured.  The virtual router identifier is configured with the <b>vrrp ipv4</b> command. The range is from 1 to 255.
<b>delay</b> <i>seconds</i>	(Optional) Specifies the number of seconds the router will delay before issuing an advertisement claiming virtual IP address ownership to be the master router. The range is from 0 to 3600 seconds (1 hour). The default is 0 seconds (no delay).
<b>disable</b>	(Optional) Disables preemption.
<b>enable</b>	(Optional) Enables preemption

### Defaults

VRRP preempt is enabled.

*seconds*: 0

### Command Modes

VRRP interface configuration

### Command History

Release	Modification
Release 2.0	This command was introduced.

### Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs.

For detailed information about user groups and task IDs, refer to the *Configuring AAA Services on Cisco IOS-XR Software* module of the *Cisco IOS-XR System Security Configuration Guide*.

By default, the router being configured with this command will take over as master router for the virtual router if it has a higher priority than the current master router. You can configure a delay, which will cause the VRRP router to wait the specified number of seconds before issuing an advertisement claiming virtual IP address ownership to be the master router.



#### Note

The router that is the virtual IP address owner will preempt, regardless of the setting of this command.

**Examples**

The following example shows how to configure the router to preempt the current master router when its priority of 200 is higher than that of the current master router. If the router preempts the current master router, it waits 15 seconds before issuing an advertisement claiming that it is the master router.

```
RP/0/RP0/CPU0:router(config)# router vrrp  
RP/0/RP0/CPU0:router(config-vrrp)# interface MgmtEth 0/RP1/CPU0/1  
RP/0/RP0/CPU0:router(config-vrrp-if)# vrrp 1 preempt delay 15  
RP/0/RP0/CPU0:router(config-vrrp-if)# vrrp 1 priority 200
```

**Related Commands**

Command	Description
<a href="#">vrrp ipv4</a>	Enables VRRP on an interface and specifies the IP address of the virtual router
<a href="#">vrrp priority</a>	Sets the priority of the virtual router.

# vrrp priority

To set the priority of the virtual router, use the **vrrp priority** command in VRRP interface configuration mode. To remove the priority of the virtual router, use the **no** form of this command.

**vrrp vrid priority priority**

**no vrrp vrid priority priority**

Syntax Description		
<i>vrid</i>	Virtual router identifier, which is the number identifying the virtual router for which the priority is being configured.	The virtual router identifier is configured with the <b>vrrp ipv4</b> command. The range is from 1 to 255.
<i>priority</i>	Priority of the virtual router. The range is from 1 to 254. The default is 100.	

**Defaults** *priority*: 100

**Command Modes** VRRP interface configuration

Command History	Release	Modification
	Release 2.0	This command was introduced.

**Usage Guidelines** To use the **vrrp priority** command, you must be a member of a user group associated with the vrrp task ID. For detailed information about user groups and task IDs, refer to the *Configuring AAA Services on Cisco IOS-XR Software* module of the *Cisco IOS-XR System Security Configuration Guide*.

Use this command to control which router becomes the master router. This command is ignored while the router is the virtual IP address owner.

**Examples** The following example shows how to configure the router with a priority of 254:

```
RP/0/RP0/CPU0:router# router vrrp
RP/0/RP0/CPU0:router(config-vrrp)# interface MgmtEth 0/RP1/CPU0/0
RP/0/RP0/CPU0:router(config-vrrp-if)# vrrp 1 priority 254
```

Related Commands	Command	Description
	<a href="#">vrrp ipv4</a>	Enables VRRP and specifies the IP address of the virtual router.
	<a href="#">vrrp preempt</a>	Configures the router to take over as master router for a VRRP virtual router if it has a higher priority than the current master router.

# vrrp text-authentication

To configure the simple text authentication used for Virtual Router Redundancy Protocol (VRRP) packets received from other routers running VRRP, use the **vrrp text-authentication** command in VRRP interface configuration mode. To disable VRRP authentication, use the **no** form of this command.

**vrrp vrid text-authentication string**

**no vrrp vrid text-authentication [string]**

## Syntax Description

<i>vrid</i>	Virtual router identifier, which is the number identifying the virtual router for which authentication is being configured.  The virtual router identifier is configured with the <b>vrrp ipv4</b> command. The range is from 1 to 255.
<i>string</i>	Authentication string (up to eight alphanumeric characters) used to validate incoming VRRP packets.

## Defaults

No authentication of VRRP messages occurs.

## Command Modes

VRRP interface configuration

## Command History

Release	Modification
Release 2.0	This command was introduced.

## Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, refer to the *Configuring AAA Services on Cisco IOS-XR Software* module of the *Cisco IOS-XR System Security Configuration Guide*.

When a VRRP packet arrives from another router in the VRRP group, its authentication string is compared to the string configured on the local system. If the strings match, the message is accepted. If they do not match, the packet is discarded.

All routers within the group must be configured with the same authentication string.



### Note

Plain text authentication is not meant to be used for security. It simply provides a way to prevent a misconfigured router from participating in VRRP.

## Examples

The following example shows how to configure an authentication string of x30dn78k:

```
RP/0/RP0/CPU0:router# router vrrp
RP/0/RP0/CPU0:router(config-vrrp)# interface MgmtEth 0/1/0/1
RP/0/RP0/CPU0:router(config-vrrp-if)# vrrp 1 text-authentication x30dn78k
```

## ■ vrrp text-authentication

Related Commands	Command	Description
	<a href="#">vrrp ipv4</a>	Enables VRRP and identifies the IP address of the virtual router.

# vrrp timer

To configure the interval between successive advertisements by the master router in a Virtual Router Redundancy Protocol (VRRP) virtual router, use the **vrrp timer** command in VRRP interface configuration mode. To restore the default value, use the **no** form of this command.

```
vrrp vrid timer [msec] interval [force]
```

```
no vrrp vrid timer [msec] interval [force]
```

## Syntax Description

<i>vrid</i>	Virtual router identifier, which is the number identifying the virtual router for which timing is being configured.  The virtual router identifier is configured with the <b>vrrp ipv4</b> command. The range is from 1 to 255
<b>msec</b>	(Optional) Changes the unit of the advertisement time from seconds to milliseconds. Without this keyword, the advertisement interval is in seconds. The range is from 20 to 3000 milliseconds.
<i>interval</i>	Time interval between successive advertisements by the master router. The unit of the interval is in seconds, unless the <b>msec</b> keyword is specified. The interval range is from 1 to 255 seconds. The default is 1 second.
<b>force</b>	(Optional) Forces the configured value to be used. This keyword is required if milliseconds is specified.

## Defaults

*interval*: 1 second

## Command Modes

VRRP interface configuration

## Command History

Release	Modification
Release 2.0	This command was introduced.

## Usage Guidelines

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, refer to the *Configuring AAA Services on Cisco IOS-XR Software* module of the *Cisco IOS-XR System Security Configuration Guide*.

The advertisements being sent by the master router communicate the state and priority of the current master router.

## Examples

The following example shows how to configure the master router to send advertisements every 4 seconds:

```
RP/0/RP0/CPU0:router(config)# router vrrp
RP/0/RP0/CPU0:router(config-vrrp)# interface MgmtEth 0/RP1/CPU0/0
RP/0/RP0/CPU0:router(config-vrrp-if)# vrrp 1 timer 4
```

Related Commands	Command	Description
	<a href="#">vrrp ipv4</a>	Enables VRRP and identifies the IP address of the virtual router.

# vrrp track

To configure the Virtual Router Redundancy Protocol (VRRP) to track an interface, use the **vrrp track** command in VRRP interface configuration mode. To disable the tracking, use the **no** form of this command.

```
vrrp vrid track type instance [decrement priority]
```

```
no vrrp vrid track type instance [decrement priority]
```

## Syntax Description

<i>vrid</i>	Virtual router identifier, which is the number identifying the virtual router to which tracking applies.
<i>type</i>	Interface type. For more information, use the question mark (?) online help function.
<i>instance</i>	<p>Either a physical interface instance or a virtual interface instance:</p> <ul style="list-style-type: none"> <li>Physical interface instance. Naming notation is rack/slot/module/port and a slash mark between values is required as part of the notation. <ul style="list-style-type: none"> <li>rack: Chassis number of the rack.</li> <li>slot: Physical slot number of the line card.</li> <li>module: Module number. A Physical Layer Interface Module (PLIM) is always 0.</li> <li>port: Physical port number of the interface.</li> </ul> </li> </ul> <p><b>Note</b> In references to a Management Ethernet interface located on a Route Processor card, the physical slot number is alphanumeric (RP0 or RP1) and the module is CPU0. Example: interface MgmtEth0/RP1/CPU0/0.</p> <ul style="list-style-type: none"> <li>Virtual interface instance. Number range will vary depending on interface type.</li> </ul> <p>For more information about the syntax for the router, use the question mark (?) online help function.</p>
<b>decrement</b> <i>priority</i>	(Optional) Amount by which the priority for the router is decremented (or incremented) when the tracked interface goes down (or comes back up). Decrements can be set to any value between 1 and 254. The default value is 10.

## Defaults

The default decrement value is 10. The range is from 1 to 254.

## Command Modes

Interface configuration

## Command History

Release	Modification
Release 2.0	This command was introduced.

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**Usage Guidelines**

To use this command, you must be in a user group associated with a task group that includes the proper task IDs. For detailed information about user groups and task IDs, refer to the *Configuring AAA Services on Cisco IOS-XR Software* module of the *Cisco IOS-XR System Security Configuration Guide*.

The **vrrp track** command ties the priority of the router to the availability of its interfaces. It is useful for tracking interfaces that are not configured for VRRP. Only IP interfaces are tracked. A tracked interface is up if IP on that interface is up. Otherwise, the tracked interface is down.

You can configure VRRP to track an interface that can alter the priority level of a virtual router for a VRRP virtual router. When the IP protocol state of an interface goes down or the interface has been removed from the router, the priority of the backup virtual router is decremented by the value specified in the **decrement** *priority* keyword and argument. When the IP protocol state on the interface returns to the up state, the priority is restored.

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**Examples**

In the following example, Managementt Ethernet interface 0/RP1/CPU0/0 tracks interface 0/RP1/CPU0/0 and 1/RP1/CPU0/0. If one or both of these two interfaces go down, the priority of the router decreases by 10. Because the default priority is 100, the priority becomes 90 when one of the tracked interfaces goes down and the priority becomes 80 when both go down.

```
RP/0/RP0/CPU0:router(config)# router vrrp
RP/0/RP0/CPU0:router(config-vrrp)# interface MgmtEth 0/RP1/CPU0/0
RP/0/RP0/CPU0:router(config-vrrp-if)# vrrp track MgmtEth 0/RP1/CPU0/0
RP/0/RP0/CPU0:router(config-vrrp-if)# vrrp track MgmtEth 1/RP0/CPU0/0
RP/0/RP0/CPU0:router(config-vrrp-if)# vrrp preempt
RP/0/RP0/CPU0:router(config-vrrp-if)# vrrp ipv4 192.92.72.46
```