



# A Commands

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This chapter describes the Cisco NX-OS Virtual Router Redundancy Protocol (VRRP) commands that begin with A.

## address (VRRP)

To add a single, primary IP address to a virtual router, use the **address** command. To remove an IP address from a virtual router, use the **no** form of this command.

**address** *ip-address* [**secondary**]

**no address** [*ip-address* [**secondary**]]

Syntax Description		
<i>ip-address</i>		Virtual router address (IPv4). This address should be in the same subnet as the interface IP address.
<b>secondary</b>		(Optional) Specifies a secondary virtual router address.

Command Default	
None	

Command Modes	
VRRP configuration mode	

Command History	Release	Modified
	5.2(1)N1(1)	This command was introduced.

**Usage Guidelines**

You can configure one virtual router IP address for a virtual router. If the configured IP address is the same as the interface IP address, this switch automatically owns the IP address. You can configure an IPv4 address only.

The master VRRP router drops the packets addressed to the virtual router's IP address because the virtual router is only intended as a next-hop router to forward packets. In NX-OS devices, some applications require that packets addressed to the virtual router's IP address be accepted and delivered. By using the **secondary** option to the virtual router IPv4 address, the VRRP router will accept these packets when it is the master.

This command does not require a license.

**Examples**

This example shows how to configure a virtual router IP address:

```
switch(config)# interface ethernet 2/1
switch(config-if)# no switchport
switch(config-if)# vrrp 250
switch(config-if-vrrp)# address 10.0.0.10
```

This example shows how to remove all the IP addresses (primary and secondary) using a single command:

```
switch(config-if-vrrp)# show running-config interface ethernet 9/10
```

```
!Command: show running-config interface Ethernet9/10
!Time: Mon Apr 14 06:04:18 2008
```

```

version 5.2(1)N1(1)

interface Ethernet9/10
  vrrp 1
  address 10.10.10.1/24
  no shutdown

switch(config-if-vrrp)# no address
switch(config-if-vrrp)# show running-config interface ethernet 9/10

!Command: show running-config interface Ethernet1/5
!Time: Mon Apr 14 06:07:54 2008

version 5.2(1)N1(1)

interface Ethernet9/10
  no switchport
  vrrp 1
switch(config-if-vrrp)#

```

**Related Commands**

<b>Command</b>	<b>Description</b>
<b>clear vrrp</b>	Clears all the software counters for the specified virtual router.
<b>show vrrp</b>	Displays VRRP configuration information.
<b>vrrp</b>	Configures a VRRP group.

## advertisement-interval (VRRP)

To specify the time interval between the advertisement packets that are being sent to other Virtual Router Redundancy Protocol (VRRP) routers in the same group, use the **advertisement-interval** command. To return to the default interval value of 1 second, use the **no** form of this command.

**advertisement-interval** *seconds*

**no advertisement-interval** [*seconds*]

<b>Syntax Description</b>	<i>seconds</i>	Number of seconds between advertisement frames being sent. For IPv4, the range is from 1 to 255 seconds.
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<b>Command Default</b>	1 second
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<b>Command Modes</b>	VRRP configuration mode
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<b>Command History</b>	<b>Release</b>	<b>Modified</b>
	5.2(1)N1(1)	This command was introduced.

<b>Usage Guidelines</b>	VRRP advertisements communicate the priority and state of the virtual router master. The advertisements are encapsulated in IP packets and are sent to the IPv4 multicast address that is assigned to the VRRP group.
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VRRP uses a dedicated Internet Assigned Numbers Authority (IANA) standard multicast address (224.0.0.18) for VRRP advertisements. This addressing scheme minimizes the number of routers that must service the multicasts and allows test equipment to accurately identify VRRP packets on a segment. The IANA-assigned VRRP IP protocol number is 112.

<b>Examples</b>	This example shows how to specify an advertisement interval of 200 seconds for VRRP group 250:
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```
switch(config)# interface ethernet 2/1
switch(config-if)# no switchport
switch(config-if)# vrrp 250
switch(config-if-vrrp)# advertisement-interval 200
switch(config-if-vrrp)#
```

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>clear vrrp</b>	Clears all the software counters for the specified virtual router.
	<b>show vrrp</b>	Displays VRRP configuration information.
	<b>vrrp</b>	Configures a VRRP group.

# authentication (VRRP)

To configure an authentication for the Virtual Router Redundancy Protocol (VRRP), use the **authentication** command. To disable authentication, use the **no** form of this command.

**authentication text** *password*

**no authentication** [*text password*]

<b>Syntax Description</b>	<b>text</b> <i>password</i>	Selects to use simple text password of up to 8 alphanumeric characters.
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<b>Command Default</b>	No authentication
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<b>Command Modes</b>	VRRP configuration mode
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<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	5.2(1)N1(1)	This command was introduced.

## Examples

This example shows how to configure MD5 authentication for VRRP:

```
switch# configure terminal
switch(config)# interface ethernet 2/1
switch(config-if)# no switchport
switch(config-if)# vrrp 250
switch(config-if-vrrp)# authentication text mypasswd
switch(config-if-vrrp)#
```

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>clear vrrp</b>	Clears all the software counters for the specified virtual router.
	<b>show vrrp</b>	Displays VRRP configuration information.
	<b>vrrp</b>	Configures a VRRP group.

