



## M Commands

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This chapter describes the Cisco NX-OS Enhanced Interior Gateway Routing Protocol (EIGRP) commands that begin with M.

## maximum-paths (EIGRP)

To control the maximum number of parallel routes that the Enhanced Interior Gateway Routing Protocol (EIGRP) can support, use the **maximum-paths** command. To remove the **maximum-paths** command from the configuration file and restore the default, use the **no** form of this command.

**maximum-paths** *maximum*

**no maximum-paths**

<b>Syntax Description</b>	<i>maximum</i>	Maximum number of parallel routes that EIGRP can install in a routing table. The range is from 1 to 16 routes.
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<b>Command Default</b>	8 <i>paths</i>
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<b>Command Modes</b>	Address-family configuration mode Router configuration mode Router VRF configuration mode
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<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	6.0(2)N1(1)	This command was introduced.

**Usage Guidelines** Use the **maximum-paths** command to allow EIGRP to install multiple paths into the routing table for each prefix. Multiple paths are installed for both internal and external routes that are learned in the same autonomous system and that have an equal cost (according to the EIGRP best path algorithm).

This command requires the LAN Base Services license.

**Examples** This example shows how to allow a maximum of 10 paths to a destination:

```
switch(config)# router eigrp 1
switch(config-router)# maximum-paths 10
switch(config-router)#
```

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>copy running-config startup-config</b>	Saves the configuration changes to the startup configuration file.
	<b>show ip eigrp</b>	Displays EIGRP information.

# metric maximum-hops

To advertise that those Enhanced Interior Gateway Routing Protocol (EIGRP) routes with a higher hop count than you specified are unreachable, use the **metric maximum-hops** command. To reset the value to the default, use the **no** form of this command.

**metric maximum-hops** *hops-number*

**no metric maximum-hops**

<b>Syntax Description</b>	<i>hops-number</i>	Maximum hop count. The range is from 1 to 255 hops.
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<b>Command Default</b>	<i>hops-number</i> : 100
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<b>Command Modes</b>	Address-family configuration mode Router configuration mode Router VRF configuration mode
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<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	6.0(2)N1(1)	This command was introduced.

<b>Usage Guidelines</b>	Use the <b>metric maximum-hops</b> command to provide a safety mechanism that causes EIGRP to advertise routes with a hop count greater than the value assigned to the <i>hops-number</i> argument as unreachable.  This command requires the LAN Base Services license.
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<b>Examples</b>	This example shows how to configure a hop count to 200:
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```
switch(config)# router eigrp 1
switch(config-router) address-family ipv4 unicast
switch(config-router-af)# metric maximum-hops 200
switch(config-router-af)#
```

<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>metric weights</b>	Tunes the EIGRP metric calculations.

# metric weights

To tune the Enhanced Interior Gateway Routing Protocol (EIGRP) metric calculations, use the **metric weights** command. To reset the values to their defaults, use the **no** form of this command.

```
metric weights tos k1 k2 k3 k4 k5
```

```
no metric weights
```

Syntax Description	
<i>tos</i>	Type of service (ToS). The range is from 0 to 8.
<i>k1 k2 k3 k4 k5</i>	Constants that convert an EIGRP metric vector into a scalar quantity. The arguments are as follows: <ul style="list-style-type: none"> <li>• <i>k1</i>—The range is from 0 to 255. The default is 1.</li> <li>• <i>k2</i>—The range is from 0 to 255. The default is 0.</li> <li>• <i>k3</i>—The range is from 1 to 255. The default is 1.</li> <li>• <i>k4</i>—The range is from 0 to 255. The default is 0.</li> <li>• <i>k5</i>—The range is from 0 to 255. The default is 0.</li> </ul>

Command Default	
<i>tos</i> : 0	
<i>k1</i> : 1	
<i>k2</i> : 0	
<i>k3</i> : 1	
<i>k4</i> : 0	
<i>k5</i> : 0	

Command Modes	
	Address-family configuration mode
	Router configuration mode
	Router VRF configuration mode

Command History	Release	Modification
	6.0(2)N1(1)	This command was introduced.

Usage Guidelines	
	Use the <b>metric weights</b> command to alter the default behavior of EIGRP routing and metric computation and allow the tuning of the EIGRP metric calculation for a particular type of service (ToS). This command requires the LAN Base Services license.

Examples	
	This example shows how to set the metric weights to change the default values: <pre>switch(config)# <b>router eigrp 1</b></pre>

```
switch(config-router) address-family ipv4 unicast
switch(config-router-af)# metric weights 0 2 0 2 0 0
switch(config-router-af)#
```

**Related Commands**

Command	Description
<b>bandwidth</b>	Sets the EIGRP bandwidth metric in interface configuration mode.
<b>copy running-config startup-config</b>	Saves the configuration changes to the startup configuration file.
<b>delay</b>	Sets the EIGRP delay metric in interface configuration mode.
<b>show ip eigrp</b>	Displays EIGRP information.

