



## D Commands

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

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# default-information originate (EIGRP)

To generate a default route into the Enhanced Interior Gateway Routing Protocol (EIGRP), use the **default-information originate** command. To disable this feature, use the **no** form of this command.

**default-information originate** [**always**] [**route-map** *map-name*]

**no default-information originate**

<b>Syntax Description</b>	<b>always</b>	(Optional) Generates the default route if the route is not in the EIGRP routing information base.
	<b>route-map</b> <i>map-name</i>	(Optional) Generates the default route only if the route is permitted by the route map. The map name is an alphanumeric string of up to 63 characters.
<b>Command Default</b>	Disabled	
<b>Command Modes</b>	Address-family configuration mode Router configuration mode Router VRF configuration mode	
<b>Command History</b>	<b>Release</b>	<b>Modification</b>
	6.0(2)N1(1)	This command was introduced.
<b>Usage Guidelines</b>	This command requires the LAN Base Services license.	
<b>Examples</b>	<p>This example shows how to originate a default route (0.0.0.0/0) to all routes that pass the Condition route map:</p> <pre>switch(config)# router eigrp 201 switch(config-router)# address-family ipv4 unicast switch(config-router-af)# default-information originate route-map Condition</pre>	
<b>Related Commands</b>	<b>Command</b>	<b>Description</b>
	<b>address-family</b>	Enters address-family configuration mode.
	<b>copy running-config startup-config</b>	Saves the configuration changes to the startup configuration file.
	<b>default-metric</b>	Sets the metric for routes redistributed into EIGRP.
	<b>redistribute</b>	Redistributes routes from other routing protocols into EIGRP.
	<b>show ip eigrp</b>	Displays EIGRP information.

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## default-metric (EIGRP)

To set metrics for an Enhanced Interior Gateway Routing Protocol (EIGRP), use the **default-metric** command. To remove the metric value and restore the default state, use the **no** form of this command.

**default-metric** *bandwidth delay reliability loading mtu*

**no default-metric**

Syntax Description	
<i>bandwidth</i>	Minimum bandwidth of the route in kilobits per second. The range is from 1 to 16777215. The default value is 100000.
<i>delay</i>	Route delay in tens of microseconds. The range is from 1 to 16777215. The default value is 100 (tens of microseconds).
<i>reliability</i>	Likelihood of successful packet transmission expressed as a number between 0 and 255. The value 255 means 100-percent reliability; 0 means no reliability. The default value is 255.
<i>loading</i>	Effective bandwidth of the route expressed as a number from 1 to 255 (255 is 100-percent loading). The default value is 1.
<i>mtu</i>	Minimum maximum transmission unit (MTU) size of the route in bytes. The range is from 128 to 4352.

Command Default	bandwidth: 100000 delay: 100 (tens of microseconds) reliability: 255 loading: 1
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Command Modes	Address-family configuration mode Router configuration mode Router VRF configuration mode
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Command History	Release	Modification
	6.0(2)N1(1)	This command was introduced.

Usage Guidelines	Use the <b>default-metric</b> command with the <b>redistribute</b> command to use the same metric value for all redistributed routes. A default metric helps to solve the problem of redistributing routes with incompatible metrics. Whenever external metrics do not convert to EIGRP metrics, you can use a default metric to provide a reasonable substitute to the external metric and enable the redistribution to proceed. This command requires the LAN Base Services license.
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This example shows how to take redistributed Routing Information Protocol (RIP) metrics and translate them into EIGRP metrics with the following values: bandwidth = 1000, delay = 100, reliability = 250, loading = 100, and MTU = 1500.

```
switch(config)# router eigrp 1
switch(config-router)# address-family ipv4 unicast
switch(config-router-af)# redistribute rip 100 route-map FilterRIP
switch(config-router-af)# default-metric 1000 100 250 100 1500
switch(config-router-af)#
```

**Related Commands**

Command	Description
<b>copy running-config startup-config</b>	Saves the configuration changes to the startup configuration file.
<b>redistribute</b>	Redistributes routes from one routing domain into another routing domain.
<b>show ip eigrp route-map statistics redistribute</b>	Displays information about EIGRP route map statistics.

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## distance (EIGRP)

To allow the use of two administrative distances (internal and external) for the Enhanced Interior Gateway Routing Protocol (EIGRP) that could provide a better route to a node, use the **distance** command. To return to the default setting, use the **no** form of this command.

**distance** *internal-distance external-distance*

**no distance**

### Syntax Description

<i>internal-distance</i>	Administrative distance for EIGRP internal routes. Internal routes are routes that are learned from another entity within the same autonomous system (AS). The distance can be a value from 1 to 255. The default value is 90.
<i>external-distance</i>	Administrative distance for EIGRP external routes. External routes are routes for which the best path is learned from a source external to this autonomous system. The distance can be a value from 1 to 255. The default value is 170.

### Command Default

internal-distance: 90  
external-distance: 170

### 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

An administrative distance is a rating of the trustworthiness of a routing information source, such as an individual router or a group of routers. Numerically, an administrative distance is an integer from 0 to 255. In general, a higher value indicates a lower trust rating. An administrative distance of 255 means that the routing information source cannot be trusted and should be ignored.

Use the **distance** command if another protocol is known to provide a better route to a node than was actually learned through the external EIGRP or some internal routes should be preferred by EIGRP.

This command requires the LAN Base Services license.

### Examples

This example shows how to set the administrative distance of all EIGRP 1 internal routes to 80 and all EIGRP external routes to 130:

```
switch(config)# router eigrp 1
switch(config-router)# distance 80 130
```

***Review Draft -- Cisco Confidential*****Related Commands**

Command	Description
show ip eigrp	Displays EIGRP information.