D Commands

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

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

Syntax Description

always	(Optional) Generates the default route if the route is not in the EIGRP routing information base.
route-map *map-name*	(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.

Command Default

Disabled

Command Modes

Address-family configuration mode
Router configuration mode
Router VRF configuration mode

Command History

Release	Modification
5.2(1)N1(1)	This command was introduced.

Usage Guidelines

This command requires the LAN Base Services license.

Examples

This example shows how to originate a default route (0.0.0.0/0) to all routes that pass the Condition route map:

```
switch(config)# router eigrp 201
switch(config-router)# address-family ipv4 unicast
switch(config-router-af)# default-information originate route-map Condition
```

Related Commands

Command	Description
address-family	Enters address-family configuration mode.
copy running-config startup-config	Saves the configuration changes to the startup configuration file.
default-metric	Sets the metric for routes redistributed into EIGRP.
redistribute	Redistributes routes from other routing protocols into EIGRP.
show ip eigrp	Displays EIGRP information.

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

bandwidth	Minimum bandwidth of the route in kilobits per second. The range is from 1 to 16777215. The default value is 100000.
delay	Route delay in tens of microseconds. The range is from 1 to 16777215. The default value is 100 (tens of microseconds).
reliability	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.
loading	Effective bandwidth of the route expressed as a number from 1 to 255 (255 is 100-percent loading). The default value is 1.
mtu	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

Command Modes

Address-family configuration mode
Router configuration mode
Router VRF configuration mode

Command History

Release	Modification
5.2(1)N1(1)	This command was introduced.

Usage Guidelines

Use the **default-metric** command with the **redistribute** 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.

Examples

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

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

internal-distance	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.
external-distance	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
5.2(1)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
```

Related Commands

Command	Description
show ip eigrp	Displays EIGRP information.