	Command or Action	Purpose
	Example: `Device(config-router)# offset-list 21 in 10 gigabitethernet 0/0/1`	
Step 7	**metric weights** *tos k1 k2 k3 k4 k5* **Example:** `Device(config-router)# metric weights 0 2 0 2 0 0`	(Optional) Adjusts the EIGRP metric or K value. • EIGRP uses the following formula to determine the total metric to the network: EIGRP Metric = 256*((K1*Bw) + (K2*Bw)/(256-Load) + (K3*Delay)*(K5/(Reliability + K4))) **Note** If K5 is 0, then (K5/ (Reliability + K4)) is defined as 1.
Step 8	**no auto-summary** **Example:** `Device(config-router)# no auto-summary`	(Optional) Disables automatic summarization. **Note** Automatic summarization is enabled by default.
Step 9	**end** **Example:** `Device(config-router)# end`	Exits router configuration mode and returns to privileged EXEC mode.

Configuring Optional EIGRP Parameters in a Named Configuration

Perform this task to configure optional EIGRP named configuration parameters, which includes applying offsets to routing metrics, adjusting EIGRP metrics, setting the RIB-scaling factor, and disabling automatic summarization.

SUMMARY STEPS

1. **enable**
2. **configure terminal**
3. **router eigrp** *virtual-instance-name*
4. Enter one of the following:
   - **address-family ipv4** [**unicast**] [**vrf** *vrf-name*] [**multicast**] **autonomous-system** *autonomous-system-number*
   - **address-family ipv6** [**unicast**] [**vrf** *vrf-name*] **autonomous-system** *autonomous-system-number*
5. **network** *ip-address* [*wildcard-mask*]
6. **metric weights** *tos k1 k2 k3 k4 k5 k6*
7. **af-interface** {**default** | *interface-type interface-number*}
8. **passive-interface**
9. **bandwidth-percent** *maximum-bandwidth-percentage*
10. **exit-af-interface**
11. **topology** {**base** | *topology-name* **tid** *number*}
12. **offset-list** [*access-list-number* | *access-list-name*] {**in** | **out**} *offset* [*interface-type interface-number*]
13. **no auto-summary**
14. **end**

DETAILED STEPS

	Command or Action	Purpose
Step 1	**enable** **Example:** `Device> enable`	Enables privileged EXEC mode. • Enter your password if prompted.
Step 2	**configure terminal** **Example:** `Device# configure terminal`	Enters global configuration mode.
Step 3	**router eigrp** *virtual-instance-name* **Example:** `Device(config)# router eigrp virtual-name1`	Enables an EIGRP routing process and enters router configuration mode.

	Command or Action	Purpose

Step 4	Enter one of the following:
	• **address-family ipv4** [**unicast**] [**vrf** *vrf-name*] [**multicast**] **autonomous-system** *autonomous-system-number*
	• **address-family ipv6** [**unicast**] [**vrf** *vrf-name*] **autonomous-system** *autonomous-system-number*
	Example:
	`Device(config-router)# address-family ipv4 autonomous-system 45000`
	`Device(config-router)# address-family ipv6 autonomous-system 45000`
		Enters address family configuration mode to configure an EIGRP IPv4 or IPv6 routing instance.

Step 5	**network** *ip-address* [*wildcard-mask*] **Example:** `Device(config-router-af)# network 172.16.0.0`	Specifies a network for the EIGRP routing process.
Step 6	**metric weights** *tos k1 k2 k3 k4 k5 k6* **Example:** `Device(config-router-af)# metric weights 0 2 0 2 0 0 0`	(Optional) Adjusts the EIGRP metric or K value. • EIGRP uses the following formula to determine the total 32-bit metric to the network: EIGRP Metric = 256*((K1*Bw) + (K2*Bw)/(256-Load) + (K3*Delay)*(K5/(Reliability + K4))) • EIGRP uses the following formula to determine the total 64-bit metric to the network: EIGRP Metric = 256*((K1*Throughput) + (K2*Throughput)/(256-Load) + (K3*Latency)+ (K6*Extended Attributes))*(K5/(Reliability + K4))) **Note** If K5 is 0, then (K5/ (Reliability + K4)) is defined as 1.
Step 7	**af-interface** {**default** | *interface-type interface-number*} **Example:** `Device(config-router-af)# af-interface gigabitethernet 0/0/1`	Enters address family interface configuration mode and configures interface-specific EIGRP commands.
Step 8	**passive-interface** **Example:** `Device(config-router-af-interface)# passive-interface`	Suppresses EIGRP hello packets and routing updates on interfaces while still including the interface addresses in the topology database.

	Command or Action	Purpose
Step 9	**bandwidth-percent** *maximum-bandwidth-percentage* **Example:** `Device(config-router-af-interface)# bandwidth-percent 75`	Configures the percentage of bandwidth that may be used by an EIGRP address family on an interface.
Step 10	**exit-af-interface** **Example:** `Device(config-router-af-interface)# exit-af-interface`	Exits address family interface configuration mode.
Step 11	**topology** {**base** | *topology-name* **tid** *number*} **Example:** `Device(config-router-af)# topology base`	Configures an EIGRP process to route IP traffic under the specified topology instance and enters address family topology configuration mode.
Step 12	**offset-list** [*access-list-number* | *access-list-name*] {**in** | **out**} *offset* [*interface-type interface-number*] **Example:** `Device(config-router-af-topology)# offset-list 21 in 10 gigabitethernet 6/2`	(Optional) Applies an offset to routing metrics.
Step 13	**no auto-summary** **Example:** `Device(config-router-af-topology)# no auto-summary`	(Optional) Disables automatic summarization. **Note** Automatic summarization is enabled by default.
Step 14	**end** **Example:** `Device(config-router-af-topology)# end`	Returns to privileged EXEC mode.

Configuring the EIGRP Redistribution Autonomous System Configuration

Perform this task to configure redistribution of non-EIGRP protocol metrics into EIGRP metrics and to configure the EIGRP administrative distance in an EIGRP autonomous system configuration.

You must use a default metric to redistribute a protocol into EIGRP, unless you use the **redistribute** command.