

Routing

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affinity-per-vrf

Use the **affinity-per-vrf** command in system configuration mode to configure a device to have an affinity value for traffic in a specific VRF or range of VRFs. Use the **no** form of the command to remove this configuration.

affinity-per-vrf *affinity-value* **vrf-range** *vrf-range*

no affinity-per-vrf

Syntax Description

affinity-per-vrf *affinity-value*	Affinity group to use for the VRF range.
vrf-range *vrf-range*	A single VRF value or range of values, separated by a hyphen. This parameter does not support a comma-separated list of individual VRF values. Examples: 1 3-6

Command Default

Disabled

Command Modes

System (config-system)

Command History

Release	Modification
Cisco IOS XE Catalyst SD-WAN Release 17.12.1a	This command was introduced.

Usage Guidelines

Specifying affinity group numbers for specific VRFs provides granular control of how routers choose the next hop for traffic in different VRFs.

Example

The following example configures affinity group 1 for VRF1:

```
Device(config)#system
Device (config-system)# affinity-per-vrf 1 vrf-range 1
```

Example

The following example configures affinity group 4 for the VRF range 3 to 6:

```
Device(config)#system
Device (config-system)# affinity-per-vrf 4 vrf-range 3-6
```

Related Commands

Command	Description
affinity-group	Configures an affinity group for a router.
affinity-group preference	Configures the affinity group preference order, from highest priority to lowest priority.

affinity-group preference-auto

Use the **affinity-group preference-auto** command in system configuration mode to configure a device to choose a next hop to a device with the lowest possible affinity group number. Use the **no** form of the command to remove this configuration.

affinity-group preference-auto

no affinity-group preference-auto

Command Default

Disabled

Command Modes

System (config-system)

Command History

Release	Modification
Cisco IOS XE Catalyst SD-WAN Release 17.12.1a	This command was introduced.

Usage Guidelines

As an alternative to the **affinity-group preference** command, which specifies affinity groups in order of preference, the **affinity-group preference-auto** command configures a device to choose a next hop to a device with the lowest possible affinity group number. Affinity group 1 has a higher priority than affinity group 2, and so on.

If you configure a router with both **affinity-group preference-auto** and **affinity-group preference** *list*, the **affinity-group preference-auto** command has priority for selecting a next hop. However, the **affinity-group preference** *list* command is still useful for path filtering using the **filter route outbound affinity-group**

preference command. For information about filtering out paths for routers that are not on the device's affinity list, see Information About Router Affinity Groups and see the filter route outbound affinity-group preference command reference.

Example

```
Device(config)#system
Device (config-system)# affinity-group preference-auto
```

Related Commands

Command	Description
affinity-group	Configures an affinity group for a router.
affinity-group preference	Configures the affinity group preference order, from highest priority to lowest priority.
filter route outbound affinity-group preference	Configures a Cisco SD-WAN Controller to restrict routers in the regions that it is managing to connect only to routers that are on their affinity list.

redistribute omp translate-rib-metric

Use the **redistribute omp translate-rib-metric** command in router configuration mode or address family configuration mode to configure a device to translate Overlay Management Protocol (OMP) route metrics for use with devices outside of the overlay network that use either the border gateway protocol (BGP) or open shortest path first (OSPF) protocol for the control plane. Use the **no** form of the command to remove this configuration.

redistribute omp translate-rib-metric
metric *metric*

no redistribute omp translate-rib-metric

Syntax Description

metric *metric*	Manually assign a metric value to a route. Routers prioritize routes with a lower value. Do not use this option together with **redistribute omp translate-rib-metric**. Range: 1 to 2^24–1

Command Default

Disabled

Command Modes

Router configuration mode (config-router)
Address family configuration mode (config-router-af)

Command History

Release	Modification
Cisco IOS XE Catalyst SD-WAN Release 17.12.1a	This command was introduced.

Usage Guidelines

Devices within the Cisco Catalyst SD-WAN overlay network use OMP for control plane information. Outside of the overlay, devices use other control plane protocols such as BGP or OSPF. A device at the interface between devices within the overlay network and devices outside of the overlay can translate OMP route metrics when redistributing routes to BGP or OSPF, to be usable by devices outside the overlay network.

An example is a router managed by Cisco Catalyst SD-WAN, serving as a hub for a data center. Data center routers may be outside of the overlay network. For traffic between the hub and the data center routers, it is helpful to translate route metrics from OMP to BGP. This enables the data center routers to make best path calculations that use the route metrics from the overlay network. In turn, this enables functionality such as preserving route symmetry, meaning that for traffic flows between the hub and data center routers, traffic in both directions can use the same route. For information, see Symmetric Routing in the Cisco Catalyst SD-WAN Routing Configuration Guide, Cisco IOS XE Release 17.x.



Note You cannot use both the **redistribute omp translate-rib-metric** command and the **redistribute omp metric metric-value** command together on the same device.

Example: BGP

This example applies to a scenario in which the underlay network uses BGP:

```
Device(config)#router bgp 1
Device(config-router)#address-family ipv4 vrf 2
Device(config-router-af)#redistribute omp translate-rib-metric
```

Example: OSPF

This example applies to a scenario in which the underlay network uses OSPF:

```
Device(config)#router ospf 1
Device(config-router)#redistribute omp translate-rib-metric
```

Example: OSPFv3

his example applies to a scenario in which the underlay network uses OSPFv3:

```
Device(config)#router ospf3 1
Device(config-router)#address-family ipv4 vrf 2
Device(config-router-af)#redistribute omp translate-rib-metric
```