CHAPTER **8**

Configuring ECMP for Host Routes

This chapter describes how to configure the equal-cost multipathing (ECMP) protocol for host routes on the Cisco NX-OS switch.

This chapter includes the following sections:

Information About ECMP for Host Routes

When you enable ECMP support for host routes, all unicast host routes are programmed into the longest-prefix match algorithm (LPM) table. ECMP for host routes is provided in the switch hardware. You configure this feature in the CLI using the **hardware profile unicast enable-host-ecmp** command.

Note Host entries are stored in the LPM routing table instead of the host table when ECMP is configured for IPv4 (/32) routes and IPv6 (/128) routes.

Licensing Requirements for ECMP for Host Routes

The following table shows the licensing requirements for this feature:

Product	License Requirement
Cisco NX-OS	ECMP for host routes requires no license. Any feature not included in a license package is bundled with the Cisco NX-OS system images and is provided at no extra charge to you. For a complete explanation of the Cisco NX-OS licensing scheme, see the Cisco NX-OS Licensing Guide.

Prerequisites for ECMP for Host Routes

ECMP for host routes has the following prerequisites:

- Before you use this command, we recommend that you disable Unicast Reverse Path Forwarding (URPF) globally on the switch using the **system urpf disable** command, and then save the configuration and reload the switch. Disabling URPF globally extends the LPM table size.

Default Settings

ECMP for host routes is disabled by default.

Configuring ECMP for Host Routes

This section includes the following topics:

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Enabling the EMCP for Host Routes Feature

You can enable the ECMP for host routes feature.

SUMMARY STEPS

1. **configure terminal**
2. (Optional) **system urpf disable**
3. **hardware profile unicast enable-host-ecmp**
4. **copy running-config startup-config**

DETAILED STEPS

	Command	Purpose
Step 1	**configure terminal** **Example:** switch# configure terminal switch(config)#	Enters configuration mode.
Step 2	**system urpf disable** **Example:** switch(config)# system urpf disable	(Optional) Disables URPT globally on the switch.
Step 3	**hardware profile unicast enable-host-ecmp** **Example:** switch(config)# hardware profile unicast enable-host-ecmp	Enables ECMP for host routes globally on the switch.
Step 4	**copy running-config startup-config** **Example:** switch(config)# copy running-config startup-config	Saves this configuration change.

Disabling the EMCP for Host Routes Feature

You can disable the ECMP for host routes feature.

SUMMARY STEPS

1. **configure terminal**
2. **no hardware profile unicast enable-host-ecmp**
3. **copy running-config startup-config**

DETAILED STEPS

	Command	Purpose
Step 1	**configure terminal** **Example:** switch# configure terminal switch(config)#	Enters configuration mode.

	Command	Purpose

Step 2	`no hardware profile unicast enable-host-ecmp`
	
	Example:
	`switch(config)# no hardware profile unicast enable-host-ecmp`
		Disables ECMP for host routes globally on the switch and removes all associated configuration.

Step 3	`copy running-config startup-config`
	
	Example:
	`switch(config)# copy running-config startup-config`
		Saves this configuration change.

Verifying the ECMP for Host Routes Configuration

To display the ECMP for host routes configuration information, perform one of the following tasks:

Command	Purpose
show hardware profile status	Displays the unicast and multicast routing entries in hardware tables.
show running-config	Displays the running system configuration.

Configuration Examples for ECMP for Host Routes

This example shows how to disable URPF and configure ECMP for host routes:

```
switch# configure terminal
switch(config)# system urpf disable
switch(config)# hardware profile unicast enable-host-ecmp
switch(config)# copy running-config startup-config
```

This example show how to disable ECMP for host routes:

```
switch# configure terminal
switch(config)# no hardware profile unicast enable-host-ecmp
switch(config)# copy running-config startup-config
```

Additional References

For additional information related to implementing ECMP for host routes, see the following sections:

- Related Documents, page 8-5
- Feature History for ECMP for Host Routes, page 8-5

Related Documents

Related Topic	Document Title
ECMP for host routes CLI commands	*Cisco Nexus 3000 Series Command Reference,*

Feature History for ECMP for Host Routes

Table 8-1 lists the release history for this feature.

Table 8-1   Feature History for ECMP for Host Routes

Feature Name	Releases	Feature Information
ECMP for Host Routes	5.0(3)U1(2)	This feature was introduced.

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