



# ECMP Recovery

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This chapter describes how to configure the automatic recovery of equal-cost multipathing (ECMP) protocol on the Cisco NX-OS switch.

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## Information About ECMP Recovery

The RIB adds ECMP routes to the FIB. When the hardware ECMP table becomes full, a single adjacency is created for all the subsequent ECMP routes. Until Cisco NX-OS Release 6.0(2)U2(2), when some entries in the ECMP table became free, these partially installed routes were not revisited to enable all paths.

Cisco NX-OS Release 6.0(2)U3(1) introduces the ECMP Recovery feature, which enables the FIB to automatically recover and reinstall partially installed ECMP routes when resources in the ECMP table become available. A threshold value can be configured for ECMP table resources to ensure that ECMP recovery is performed only when the configured percentage of ECMP table becomes free.

## Guidelines and Limitations for ECMP Recovery

ECMP recovery has the following configuration guidelines and limitations:

- Only ECMP or VOBJ objects that are used by IPv4 and IPv6 routes are recovered and installed completely. Other features that use hardware ECMP objects, such as Policy Based Routing and VXLAN, are not supported by this feature.

## Default Settings

ECMP recovery is disabled by default.

## Configuring ECMP Recovery

To configure ECMP recovery, use the following command in global configuration mode:

### Procedure

	Command or Action	Purpose
<b>Step 1</b>	<b>configure terminal</b>  <b>Example:</b> switch# configure terminal switch(config)#	Enters global configuration mode.
<b>Step 2</b>	<b>hardware profile ecmp auto-recovery threshold percentage</b>  <b>Example:</b> switch(config)# hardware profile ecmp auto-recovery threshold 15	Configures the threshold for ECMP recovery. The threshold range is from 1 percent to 100 percent.
<b>Step 3</b>	(Optional) <b>copy running-config startup-config</b>  <b>Example:</b> switch(config)# copy running-config startup-config	Saves this configuration change.
<b>Step 4</b>	(Optional) <b>reload</b>  <b>Example:</b> switch(config)# reload WARNING: This command will reboot the system Do you want to continue? (y/n) [n] y	Reloads the Cisco Nexus 3000 Series switches software.

## Verifying ECMP Recovery Configuration

To verify ECMP recovery configuration, use the following command in global configuration mode:

Command	Purpose
<b>show running-config   grep hardware profile ecmp</b>	Displays the ECMP running configuration.

## Configuration Examples for ECMP Recovery

This example shows how to configure ECMP recovery:

```
switch# configure terminal
switch(config)# hardware profile ecmp auto-recovery threshold 15
switch(config)# copy running-config startup-config
switch(config)# reload
```

This example show how to verify ECMP recovery:

```
switch# configure terminal
switch(config)# show running-config | grep "hardware profile ecmp"
hardware profile ecmp auto-recovery threshold 15
```

