

# ECMP (Equal-Cost Multipath Routing) Configuration

## NOTE:



- Enable IP routing function before using this feature, for details please refer to [Configuring IP Routing](#).
- IPv6 static ECMP routing is not supported.

In L2/L3, ECMP is supported. The maximum ECMP outgoing port group is 4\*128. If each ECMP route is configured to have up to 4 equal-cost paths, for example, the maximum ECMP outgoing port group support is 128. If each ECMP route is configured to have up to 16 equal-cost paths, the maximum ECMP outgoing port group support is 32. Several different ECMP routes can share the same outgoing port group. After configuring the ECMP equal-cost path maximum, reboot the switch to make it available.

## Configuring the Equal-Cost Path Maximum

```
admin@XorPlus# set interface ecmp path_max 8
admin@XorPlus# commit
Waiting for merging configuration.
Commit OK.
Save done.
ECMP max path changes, please reset the box!
admin@XorPlus# run request system reboot
The system is going down NOW!
Sending SIGTERM to all processes
Sending SIGKILL to all processes
Requesting system reboot
Restarting system.
rstcr compatible register does not exist!
uses the mpc8541's gpio to do a reset.
U-Boot 1.3.0 (Sep 8 2010 - 17:20:00)
CPU: 8541, Version: 1.1, (0x80720011)
Core: E500, Version: 2.0, (0x80200020)
Clock Configuration:
CPU: 825 MHz, CCB: 330 MHz,
DDR: 165 MHz, LBC: 41 MHz
L1: D-cache 32 kB enabled
I-cache 32 kB enabled
I2C: ready
DRAM: Initializing
```

## Configuring Static ECMP Routing

```
admin@XorPlus# set vlans vlan-id 2
admin@XorPlus# set vlans vlan-id 3
admin@XorPlus# set vlans vlan-id 4
admin@XorPlus# set interface gigabit-ethernet ge-1/1/3 family ethernet-switching native-vlan-id 2
admin@XorPlus# set interface gigabit-ethernet ge-1/1/4 family ethernet-switching native-vlan-id 3
admin@XorPlus# set interface gigabit-ethernet ge-1/1/5 family ethernet-switching native-vlan-id 4
admin@XorPlus# set vlans vlan-id 2 l3-interface vlan-2
admin@XorPlus# set vlans vlan-id 3 l3-interface vlan-3
admin@XorPlus# set vlans vlan-id 4 l3-interface vlan-4
admin@XorPlus# set l3-interface vlan-interface vlan-2 address 10.10.60.10 prefix-length 24
admin@XorPlus# set l3-interface vlan-interface vlan-3 address 10.10.61.10 prefix-length 24
admin@XorPlus# set l3-interface vlan-interface vlan-4 address 10.10.62.10 prefix-length 24
admin@XorPlus# commit
Waiting for merging configuration.
Commit OK.
Save done.
admin@XorPlus# set protocols static route 10.10.51.0/24 next-hop 10.10.61.20
admin@XorPlus# set protocols static route 10.10.51.0/24 next-hop 10.10.62.20
admin@XorPlus# commit
Waiting for merging configuration.
Commit OK.
Save done.
```

Check the static ECMP route for 10.10.51.0/24 in the RIB with command **run show route ipv4**.

## Configuring ECMP Hash Fields

In the default setting, all fields are hashed by IP-source, port-destination, port-source, and VLAN. Additional fields can be enabled, as shown below:

```
admin@XorPlus# set interface ecmp hash-mapping field ingress-interface disable false
admin@XorPlus# set interface ecmp hash-mapping field ip-destination disable false
admin@XorPlus# set interface ecmp hash-mapping field ip-protocol disable false
admin@XorPlus# set interface ecmp hash-mapping field ip-source disable false
admin@XorPlus# set interface ecmp hash-mapping field port-destination disable false
admin@XorPlus# set interface ecmp hash-mapping field port-source disable false
admin@XorPlus# set interface ecmp hash-mapping field vlan disable false
admin@XorPlus# commit
Waiting for merging configuration.
Commit OK.
Save done.
admin@XorPlus#
```