



# Configuring the Interoperability of Modules for Unicast Routing

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## Finding Feature Information

Your software release might not support all the features documented in this module. For the latest caveats and feature information, see the Bug Search Tool at <https://tools.cisco.com/bugsearch/> and the release notes for your software release. To find information about the features documented in this module, and to see a list of the releases in which each feature is supported, see the "New and Changed Information" chapter or the Feature History table in this chapter.

## Configuring the Interoperability of Modules for Unicast Routing

This chapter describes how to configure the interoperability of F1 Series modules with M Series modules for unicast routing on the Cisco NX-OS device.

# Information About the Interoperability of Modules for Unicast Routing

A mixed chassis is a Cisco Nexus 7000 Series chassis that contains at least one F1 Series module and at least one M Series module. Because the F1 Series module processes only Layer 2 traffic, you must configure it to pass Layer 3 traffic through the chassis.

## Guidelines and Limitations for the Interoperability of Modules for Unicast Routing

The interoperability of modules for unicast routing has the following configuration guidelines and limitations:

- You cannot use F2, F2e, or F3 Series modules in the Cisco Nexus 7000 Series chassis to perform proxy Layer 3 routing for F1 series modules.
- To support the coexistence of an F2e Series module with an M Series module in the same VDC, the F2e Series module operates in a proxy mode so that all Layer 3 traffic is sent to an M Series module in the same VDC. For F2e proxy mode, having routing adjacencies connected through F2e interfaces with an M1 Series module is not supported. However, routing adjacencies connected through F2e interfaces with an M2 Series module is supported.

## Configuring the Interoperability of Modules for Unicast Routing

To configure a Layer 3 gateway in a mixed chassis, you use the proxy routing functionality. You enable routing on a specific VLAN by configuring a VLAN interface, and the system automatically provides load-balanced routing functionality. See the *Cisco Nexus 7000 Series NX-OS Interfaces Configuration Guide* for more information about Layer 3 routing and VLAN interfaces.

For interoperability between F1 Series and M Series modules, use the following procedure to specify which physical interfaces on the M Series modules you want to use for Layer 3 routing.

### Before you begin

You must configure a VLAN interface for each VLAN on the F1 Series module that you want to use with the proxy-routing functionality in a mixed chassis.

You must have interfaces from both the M Series modules and the F1 Series modules in the same VDC.

### Procedure

	Command or Action	Purpose
<b>Step 1</b>	switch# <b>configure terminal</b>	Enters global configuration mode.
<b>Step 2</b>	switch(config)# <b>hardware proxy layer-3 routing {use   exclude} {module mod-number   interface slot/port} [module-type f1]</b>	Configures specific modules and physical interfaces on the M Series module to provide the proxy routing on the F1 Series module.

	Command or Action	Purpose
Step 3	(Optional) switch(config)# <b>show hardware proxy layer-3 detail</b>	Displays information about the proxy Layer 3 functionality.
Step 4	(Optional) switch(config)# <b>copy running-config startup-config</b>	Saves the change persistently through reboots and restarts by copying the running configuration to the startup configuration.

## Verifying the Configuration for the Interoperability of Modules for Unicast Routing

To display the interoperability of modules for unicast routing configuration, perform one of the following tasks:

Command	Purpose
<b>show hardware proxy layer-3 counters {brief   detail}</b>	Displays the number of packets sent by F1 Series modules to each M Series module for proxy forwarding.  <b>Note</b> Enter the <b>clear hardware proxy layer-3 counters</b> command to clear the counters.
<b>show hardware proxy layer-3 detail</b>	Displays information about proxy routing from an F1 Series module to an M Series module in a chassis that contains both types of modules.

## Configuration Examples for the Interoperability of Modules for Unicast Routing

This example shows how to specify physical interfaces on M Series modules to perform proxy routing on F1 Series modules in a mixed chassis:

```
switch# configure terminal
switch(config)# hardware proxy layer-3 routing use module 1, 7
switch(config)# show hardware proxy layer-3 detail
```

## Related Documents for the Interoperability of Modules for Unicast Routing

Related Topic	Document Title
Interoperability of modules for unicast routing CLI	<i>Cisco Nexus 7000 Series NX-OS Unicast Routing Command Reference</i>
VDCs	<i>Cisco Nexus 7000 Series NX-OS Virtual Device Context Configuration Guide</i>

## Feature History for the Interoperability of Modules for Unicast Routing

This table includes only the updates for those releases that have resulted in additions or changes to the feature.

*Table 1: Feature History for the Interoperability of Modules for Unicast Routing*

Feature Name	Release	Feature Information
Interoperability of modules for unicast routing	6.1(1)	Added support for M2 Series modules.
Interoperability of modules for unicast routing	5.1(1)	This feature was introduced.