

Configuring Reflective Relay for Layer 2 Switching

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About Reflective Relay 802.10bg

Reflective relay is a tagless approach of IEEE standard 802.1Qbg. It forwards all traffic to an external switch that applies policy and sends the traffic back to the destination or target VM on the server as needed. There is no local switching. For broadcast or multicast traffic, reflective relay provides packet replication to each VM locally on the server.

Reflective relay leverages the external switch for switching features and management capabilities, freeing server resources to support the VMs. Reflective relay applies the policies you configure on the Cisco Nexus switches to traffic between the VMs on the same server.

You can enable reflective relay to turn back traffic out of the same port it came in on. You can enable reflective relay on a Layer 2 physical port or port-channel interface policy using the NX-OS CLI. This feature is disabled by default.

The term Virtual Ethernet Port Aggregator (VEPA) is also used to describe 802.1Qbg functionality.

Reflective Relay Support

Nexus Switches introduces support for Reflective relay in these releases:

Table 1: Feature Support Information

Nexus Switches	Introductory Release
N9K-C93180YC-EX	Release 7.0(3)I7(1)
N9K-C93180TC-EX	

Nexus Switches	Introductory Release
N9K-C93180YC-FX	Release 9.2(1)
N9K-C93180TC-FX	
N9K-C93180YC-EX	
N9K-C93180YC-FX3	Release 9.3(5)
N9K-C93108TC-FX3P	
Cisco N9K-9332D-GX2B	Release 10.2(2)F

Guidelines and Limitations for Reflective Relay

Reflective relay has these configuration guidelines or limitations:

- IEEE standard 802.1Qbg tagless approach, known as reflective relay.
- Physical domains—virtual domains are not supported.
- Physical ports and port channels—Does not support Cisco Fabric Extender (FEX) and blade servers. If reflective relay is enabled on an unsupported interface, a fault is raised, and the last valid configuration is retained. Disabling reflective relay on the port clears the fault.
- ARP suppression must be disabled before using the reflective relay feature.

Configuring Reflective Relay Using the NX-OS CLI

Reflective relay is disabled by default; however, you can enable it on a port or port channel as a Layer 2 interface policy on the switch. In the NX-OS CLI, you can use a template to enable reflective relay on multiple ports or you can enable it on individual ports.

Procedure

Step 1 configure terminal

Example:

switch# configure terminal
switch(config)#

Enters global configuration mode.

Step 2 interface ethernet 1/2

Example:

switch(config)# interface ethernet 1/2
switch(config-if)#

Enables the port.

Step 3 switchport virtual-ethernet-bridge

Example:

switch(config-if)# switchport virtual-ethernet-bridge
switch(config-if)#

Configures the Layer 2 port as a host port for the reflective relay feature.

Step 4 [no] switchport virtual-ethernet-bridge

Example:

switch(config-if)# no switchport virtual-ethernet-bridge

Enables the reflective relay feature.

Note

The reflective relay feature is only supported on access or trunk ports.

Configuring Reflective Relay Using the NX-OS CLI