Enabling Multicast Performance Enhancement on VDCs

This chapter describes how to enable the multicast performance enhancement for Cisco Nexus 7000 Series M1-XL Ethernet modules that are allocated to virtual device contexts (VDCs) in Cisco NX-OS devices.

Information About Multicast Performance Enhancement

In Cisco NX-OS 6.2(2) and later releases, the multicast performance enhancement supports the optimized shim frame format in multicast-replicated frames to improve multicast performance. The enhancement is supported on both Cisco Nexus 7000 M1 and M3 Series Ethernet modules with an XL option (M1-XL / M3-XL) that are allocated as resources in virtual device contexts (VDCs).

Guidelines and Limitations for Enhanced Multicast Performance

Enhanced multicast performance can be enabled only on Cisco Nexus 7000 Series M1-XL Ethernet modules that are allocated to a virtual device context (VDC).

Enabling Multicast Performance Enhancement

Note If you are familiar with the Cisco IOS CLI, be aware that the Cisco NX-OS commands for this feature might differ from the Cisco IOS commands that you would use.

Before you begin

- You must create the VDC on which you want to enable the multicast performance enhancement. For information, see the *Cisco Nexus 7000 Series NX-OS Virtual Device Context Configuration Guide.*
- You have the name for the VDC to be configured.

Procedure

	Command or Action	Purpose

Step 1	**configure terminal**
	Example:
	`Switch# configure terminal`
	`Switch(config)#`
		Enables global configuration mode.

Step 2	**vdc** *vdc-name*
	Example:
	`Switch(config)# vdc MyVDC`
	`Switch(config-vdc)#`
		Specifies a VDC and enters VDC configuration mode.

Step 3	**limit-resource module-type m1xl**
	Example:
	`Switch(config-vdc)# limit resource module-type m1xl`
	`This will cause all ports of unallowed types to be removed from this vdc. Continue? [yes] Y`
	`Switch(config-vdc)#`
		Limits the resources for the VDC being configured to Cisco Nexus 7000 Series Ethernet modules with an XL Option only.

Step 4	**switchto vdc** *vdc-name*
	Example:
	`Switch(config-vdc)# switchto vdc MyVDC`
	`Switch-MyVDC(config-vdc#)`
		Switches from the default VDC to the specified VDC.
		Note You must be a network-admin or network-operator to use the **switchto** vdc command.

Step 5	**hardware forwarding shim** **Example:** `Switch-MyVDC(config-vdc)# hardware forwarding shim`	Enables shim optimization in frame header for this VDC.
Step 6	**show vdc** *vdc-name* [*detail*] **Example:** `Switch-MyVDC(config-vdc)# show vdc MyVDC`	(Optional) Displays information about the specified VDC.
Step 7	**copy running-config startup-config** **Example:** `Switch-MyVDC(config-vdc)# copy running-config startup-config`	(Optional) Copies the running configuration to the startup configuration.

Related Documents for Multicast Performance Enhancement

Related Topic	Document Title
Multicast commands	*Cisco Nexus 7000 Series NX-OS Multicast Routing Command Reference*
VDCs	*Cisco Nexus 7000 Series NX-OS Virtual Device Context Configuration Guide*
VDC commands	*Cisco Nexus 7000 Series NX-OS Virtual Device Context Command Reference*

Feature History for Multicast Performance Enhancement

This Table lists the release history for this feature.

Table 1: Feature History for Multicast Performance Enhancement

Feature Name	Releases	Feature Information
Multicast performance enhancement	6.2(2)	Enables enhanced multicast performance on Cisco Nexus 7000 Series Ethernet modules with an XL Option allocated to virtual device contexts (VDCs). The following command was introduced: **hardware forwarding shim**.