Managing Cisco Virtual Machine Fabric Extender For VMware

This chapter contains the following sections:

About Cisco Virtual Machine Fabric Extender

A virtualized server implementation consists of one or more VMs that run as guests on a single physical server. The guest VMs are hosted and managed by a software layer called the hypervisor or virtual machine manager (VMM). Typically, the hypervisor presents a virtual network interface to each VM and performs Layer 2 switching of traffic from a VM to other local VMs or to another interface to the external network.

Working with a Cisco virtual interface card (VIC) adapter, the Cisco Virtual Machine Fabric Extender (VM-FEX) bypasses software-based switching of VM traffic by the hypervisor for external hardware-based switching in the fabric interconnect. This method reduces the load on the server CPU, provides faster switching, and enables you to apply a rich set of network management features to local and remote traffic.

Integrating Cisco VM-FEX in Cisco UCS Director

To successfully integrate Cisco VM-FEX in Cisco UCS Director, complete the tasks outlined in the table below:

Task	Description	Reference
Edit computing policy	To enable DirectPath I/O, full guest memory reservation is necessary on the VM. This can be achieved by editing the VM's computing policy.	Editing Computing Policy For Cisco VM-FEX Support, on page 2

Task	Description	Reference
Edit networking policy	The adapter type must be VMXNET3 and should be associated with the VM's DirectPath enabled portgroup.	Editing Network Policy For VM-FEX Support, on page 2

Editing Computing Policy For Cisco VM-FEX Support

Step 1 Choose **Policies** > **Virtual/Hypervisor Policies** > **Computing**.

Step 2 On the **Computing** page, click **VMware Computing Policy**.

Step 3 Click the row with the policy that you want to edit.

Step 4 Click **Edit**.

Step 5 On the **Edit Computing Policy** screen, check **Override Template** and **Reserve all guest memory**, and specify the reserved guest memory.

> **Note** The reserved guest memory should always be greater than 4096MB.

Step 6 Click **Submit**.

Editing Network Policy For VM-FEX Support

Step 1 Choose **Policies** > **Virtual/Hypervisor Policies** > **Network**.

Step 2 On the **Network** page, click **VMware Network Policy**.

Step 3 Click the row with the policy that you want to edit.

Step 4 Click **Edit**.

Step 5 On the **Network Policy Information** screen, click the + icon next to **VM Networks**.

Step 6 Click the + icon to add a new entry to the VM Networks table.

Step 7 On the **Add Entry to VM Networks** screen, choose **VMXNET3** in the **Adapter Type** drop-down list.

Step 8 Click the row with the portgroup that you want to add.

Step 9 Click the **Edit** icon.

Step 10 On the **Add Entry to Port Groups** screen, choose the VM DirectPath enabled portgroup.

Step 11 Click **Submit**.

Step 12 In the **Add VM Networks Entry** screen, click **Submit**.

Step 13 In the **Network Policy Information** screen, click **Submit**.