



# CHAPTER 9

## List of Terms

The following terminology is used in the Cisco Nexus 1000V implementation.

**Table 9-1** Cisco Nexus 1000V Terminology

Term	Description
Control VLAN	One of two VLANs for the communication between VSM and VEM. The control VLAN is used to exchange control messages. The network administrator configures the control VLAN. See packet VLAN.
Distributed Resource Scheduler (DRS)	Balances the workload across your defined resources (hosts, shared storage, network presence, and resource pools) in a cluster.
Distributed Virtual Switch (DVS)	This is a logical switch that spans one or more VMware ESX 4.0 servers. It is controlled by one VSM instance.
ESX/ESXi	A virtualization platform used to create the virtual machines as a set of configuration and disk files that together perform all the functions of a physical machine.  Each ESX/ESXi host has a VI Client available for management use. If your ESX/ESXi host is registered with the vCenter Server, a VI Client that accommodates the vCenter Server features is available.
Managed Object Browser (MOB)	A tool that enables you to browse managed objects on VirtualCenter Server and ESX Server systems.
Network Interface Card (NIC)	Network Interface Card.  PNIC: physical network interface card  vNIC:
Open Virtual Appliance or Application (OVA) file	The package that contains the following files used to describe a virtual machine and saved in a single archive using .TAR packaging. <ul style="list-style-type: none"> <li>• Descriptor file (.OVF)</li> <li>• Manifest (.MF) and certificate files (optional)</li> </ul>
Open Virtual Machine Format (OVF)	A platform independent method of packaging and distributing virtual machines.
Packet VLAN	One of two VLANs for the communication between VSM and VEM. The packet VLAN forwards relevant data packets, such as CDP, from the VEM to the VSM. The network administrator configures the packet VLAN. See control VLAN.

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**Table 9-1 Cisco Nexus 1000V Terminology (continued)**

Term	Description
Port Profile	A collection of interface configuration commands that can be dynamically applied at either physical or virtual interfaces. A port profile can define a collection of attributes such as VLAN ID, private VLAN (PVLAN), access control list (ACL), and port security. Port profiles are integrated with the management layer for the virtual machines and allow virtual machine administrators to choose from profiles as they create virtual machines. When a virtual machine is powered on or off, its corresponding profiles are used to dynamically configure the vEth interface.
vCenter Server	A service that acts as a central administrator for VMware ESX/ESXi hosts that are connected on a network. vCenter Server directs actions on the virtual machines and the virtual machine hosts (the ESX/ESXi hosts).
Virtual Ethernet Interface (vEth)	Virtual equivalent of physical network access ports. vEths are dynamically provisioned based on network policies stored in the switch as the result of virtual machine provisioning operations at the hypervisor management layer.
Virtual Ethernet Module (VEM)	This is the part of Cisco Nexus 1000V that actually switches data traffic. It runs on a VMware ESX 4.0 host. Up to 64 VEMs are controlled by one VSM. All the VEMs that form a switch domain should be in the same virtual Data Center as defined by VMware vCenter Server.  This software replaces the vSwitch in each hypervisor. It performs switching between directly attached virtual machines, and provides uplink capabilities to the rest of the network.
Virtual Machine (VM)	A virtualized x86 PC environment in which a guest operating system and associated application software can run. Multiple virtual machines can operate on the same host system concurrently.
VMotion	The practice of migrating virtual machines live from server to server.
Virtual NIC (vNIC)	Logically connects a virtual machine to the vSwitch and allows the virtual machine to send and receive traffic through that interface. If two vNICs attached to the same vSwitch need to communicate with each other, the vSwitch performs the Layer 2 switching function directly, without any need to send traffic to the physical network.
Virtual Supervisor Module (VSM)	This is the control software of the Cisco Nexus 1000V distributed virtual switch. It runs on a virtual machine (VM) and is based on Cisco NX-OS.
VMware Infrastructure Bundle (VIB)	The package format used by VMware ESX 4.0 release.
VMware update manager (VUM)	The software application that manages Cisco Nexus 1000V software installation and VEM upgrades.  <b>Note</b> VUM is not a requirement. Software can be installed manually without using VUM.
vSphere Client	The user interface that lets users connect remotely to the vCenter Server or ESX/ESXi from any windows PC. The primary interface for creating, managing, and monitoring virtual machines, their resources, and their hosts. It also provides console access to virtual machines.