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1.Virtual Switch
???? bridge ??????? networking,???????? VM Guest ????????????? Hub ?? Switch ?,??????? IP ?????.????????
?????????? bonding ???.????????????????.

2.VM Network (VM????)
????????? VM Guest ????????????? Virtual switch ?.

3.VM Kernel Port
iSCSI,Vmotion,NFS ???????.

4.Physical Adapters
??????????????????????????.

5.Service console
ESX ???Service console.??ESX???????Service console port. ESXi??.

?iscsi ????? VM Kernel ,**Service console** ??????????????(???)

??????

http://kb.vmware.com/selfservice/mic...rnalId=1001805

Only those network adapters that are appropriate for the virtual machine you are creating are available configuration options in the Choose Networks window.

Vlance:
This is an emulated version of the AMD 79C970 PCnet32- LANCE NIC, and it is an older 10 Mbps NIC with drivers available in most 32-bit guest operating systems except Windows Vista and later. A virtual machine configured with this network adapter can use its network immediately.

VMXNET:
The VMXNET virtual network adapter has no physical counterpart. VMXNET is optimized for performance in a virtual machine. Because operating system vendors do not provide built-in drivers for this card, you must install VMware Tools to have a driver for the VMXNET network adapter available.

Flexible:
The Flexible network adapter identifies itself as a Vlance adapter when a virtual machine boots, but initializes itself and functions as either a Vlance or a VMXNET adapter, depending on which driver initializes it. With VMware Tools installed, the VMXNET driver changes the Vlance adapter to the higher performance VMXNET adapter.

E1000:
An emulated version of the Intel 82545EM Gigabit Ethernet NIC. A driver for this NIC is not included with all guest operating systems. Typically Linux versions 2.4.19 and later, Windows XP Professional x64 Edition and later, and Windows Server 2003 (32-bit) and later include the E1000 driver.

Note: E1000 does not support jumbo frames prior to ESXi/ESX 4.1.

E1000e:
This feature emulates a newer model of Intel Gigabit NIC (number 82574) in the virtual hardware. This is

known as the "e1000e" vNIC. e1000e is available only on hardware version 8 (and newer) virtual machines in vSphere 5. It is the default vNIC for Windows 8 and newer (Windows) guest operating systems. For Linux guests, e1000e is not available from the UI (e1000, flexible vmxnet, enhanced vmxnet, and vmxnet3 are available for Linux).

VMXNET 2 (Enhanced):
The VMXNET 2 adapter is based on the VMXNET adapter but provides some high-performance features commonly used on modern networks, such as jumbo frames and hardware offloads. This virtual network adapter is available only for some guest operating systems on ESXi/ESX 3.5 and later. Because operating system vendors do not provide built-in drivers for this card, you must install VMware Tools to have a driver for the VMXNET 2 network adapter available.

VMXNET 2 is supported only for a limited set of guest operating systems:

32- and 64-bit versions of Microsoft Windows 2003 (Enterprise, Datacenter, and Standard Editions).

Note: You can use enhanced VMXNET adapters with other versions of the Microsoft Windows 2003 operating system, but a workaround is required to enable the option in the VMware Infrastructure (VI) Client or vSphere Client. If Enhanced VMXNET is not offered as an option, see Enabling enhanced vmxnet adapters for Microsoft Windows Server 2003 (1007195).

- 32-bit version of Microsoft Windows XP Professional
- 32- and 64-bit versions of Red Hat Enterprise Linux 5.0
- 32- and 64-bit versions of SUSE Linux Enterprise Server 10
- 64-bit versions of Red Hat Enterprise Linux 4.0
- 64-bit versions of Ubuntu Linux

In ESX 3.5 Update 4 or higher, these guest operating systems are also supported:

- Microsoft Windows Server 2003, Standard Edition (32-bit)
- Microsoft Windows Server 2003, Standard Edition (64-bit)
- Microsoft Windows Server 2003, Web Edition
- Microsoft Windows Small Business Server 2003

Note: Jumbo frames are not supported in the Solaris Guest OS for VMXNET 2.

VMXNET 3:
The VMXNET 3 adapter is the next generation of a paravirtualized NIC designed for performance, and is not related to VMXNET or VMXNET 2. It offers all the features available in VMXNET 2, and adds several new features like multiqueue support (also known as Receive Side Scaling in Windows), IPv6 offloads, and MSI/MSI-X interrupt delivery. For information about the performance of VMXNET 3, see Performance Evaluation of VMXNET3 Virtual Network Device. Because operating system vendors do not provide built-in drivers for this card, you must install VMware Tools to have a driver for the VMXNET 3 network adapter available.

VMXNET 3 is supported only for virtual machines version 7 and later, with a limited set of guest operating

systems:

- 32- and 64-bit versions of Microsoft Windows 7, 8, XP, 2003, 2003 R2, 2008, 2008 R2, Server 2012 and Server 2012 R2
- 32- and 64-bit versions of Red Hat Enterprise Linux 5.0 and later
- 32- and 64-bit versions of SUSE Linux Enterprise Server 10 and later
- 32- and 64-bit versions of Asianux 3 and later
- 32- and 64-bit versions of Debian 4
- 32- and 64-bit versions of Debian 5
- 32- and 64-bit versions of Debian 6
- 32- and 64-bit versions of Ubuntu 7.04 and later
- 32- and 64-bit versions of Sun Solaris 10 and later
- 32- and 64-bit versions of Oracle Linux 4.9 and later

Notes:

In ESXi/ESX 4.1 and earlier releases, jumbo frames are not supported in the Solaris Guest OS for VMXNET 2 and VMXNET 3. The feature is supported starting with ESXi 5.0 for VMXNET 3 only. For more information, see Enabling Jumbo Frames on the Solaris guest operating system (2012445).

Fault Tolerance is not supported on a virtual machine configured with a VMXNET 3 vNIC in vSphere 4.0, but is fully supported on vSphere 4.1.

Windows Server 2012 is supported with e1000, e1000e, and VMXNET 3 on ESXi 5.0 Update 1 or higher.