

# Drivers for VMware Release Notes

**Versions:** ESX/ESXi 4.1 drivers  
FC and FCoE: 8.2.1.105.34  
NIC: 4.0.306.0  
iSCSI: 4.0.317.0

**System:** ESX 4.1

**Date:** September 2011

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## Purpose and Contact Information

These release notes describe the new features, resolved known issues and current known issues associated with this version of the drivers for VMware release.

For the latest product documentation, go to [www.Emulex.com](http://www.Emulex.com). If you have questions or require additional information, contact an authorized Emulex technical support representative at [tech.support@emulex.com](mailto:tech.support@emulex.com), 800-854-7112 (US/Canada toll free), +1 714-885-3402 (US/International), or +44 1189-772929 (Europe, Middle East, and Africa).

## New Features

1. Supports Emulex OneConnect™ OCe11102-xT 10GBASE-T UCNAs.

## Resolved Issues

1. In-band (FC) system management is functional with this release.

## Known Issues

1. **If the DOS Ghost Cloning application is used to clone an operating system installation, the utility hangs during the cloning process.**

### Workaround

Use another cloning application to clone the operating system installation.

2. **The adapter model name and description do not match the vendor brand name field.**

The VMware vSphere client only displays adapter family model names with a single port. For example, it displays the OneConnect OCe10102 UCNA as the OneConnect OCe10100 10GbE, FCoE UCNA. This issue is seen with the native tool `lpsci` as well. The vSphere client gets the adapter model name and description from xml package files installed with the operating system or with an out-of-box kit rather than from the adapter's VPD data. Other native tools such as work in a similar manner.

### Workaround

To see the correct model name and description, read the driver's `prodfs` node with this command:

```
cat /proc/scsi/lpfc820/<Instance_Number>
```

or use the Emulex OneCommand™ Manager application.

### 3. Storage I/O with VMotion fails because of lost vmkernel 10GB network.

Rarely, while running I/O intensive applications on a Windows 2003, 32 bit VM, CPU usage can spike to 100% and Ethernet performance can be slow. This is due to the TCP/IP offload-enabled network adapter consuming a great deal of nonpaged pool memory and requesting large blocks of contiguous memory.

#### Workaround

Disabling the TCP Checksum Offload (IPv4) feature, improves system and network performance because the large amounts of memory are no longer in use.

To Disable TCP Checksum Offload from your Windows Desktop:

- 1) Click on **Start > Control Panel > Network Connections > Local Area Connection.**
- 2) Click **Properties.**
- 3) Click **Configure** (next to vmxnet3 Ethernet Adapter).
- 4) Click **Advanced.**
- 5) Disable **TCP Checksum Offload (IPv4).**

### 4. Possible issues with boot from SAN support on the LPe12000 family of adapters.

Boot from SAN can experience issues on the LPe12000 family of adapters. Problems include not finding the boot LUN or not successfully booting from the boot LUN.

#### Workaround

Boot from SAN support on the LPe12000 series adapters requires the Emulex 2.02a2 BIOS or later. Emulex recommends version 2.00a4 as the minimum firmware revision.

### 5. Restriction in assigning Data Center Bridging (DCB) priorities to priority groups.

Although there are eight priority groups to which priorities can be assigned, you are able to assign priorities and bandwidths to only two of the priority groups. To one priority group you must assign the FCoE or iSCSI priority and to the other priority group you must assign the other seven (NIC) priorities.

**Note:** If you are using a DCBX enabled switch to configure the priority groups, configure it for only two priority groups to work correctly with the OneConnect adapter.

#### Workaround

None.

### 6. The offline-bundle name of the package changed in ESX 4.1.

Thus, ISO install scripts that were written specifically for ESX 4.0 may fail in ESX 4.1.

#### Workaround

Revise any ESX 4.0-specific ISO install scripts to work in ESX 4.1.

## Technical Tips

### 1. Safe method of changing firmware in flash memory.

For operations such as firmware download, Emulex recommends the server be brought into ESX maintenance mode prior to flashing the firmware.

## 2. Installing drivers and directly mounting the ISO image.

The VMware documentation recommends creating a CD from each driver ISO image and using the CD to access the offline bundle to be installed on the system. For more information on the driver installation process for VMware ESX, refer to the ESX 4 Patch Management Guide available on the VMware website: <http://www.vmware.com>

Instead of creating a CD, you can use the following process to directly mount the ISO image:

```
[root@testmachine ~]# mkdir /tmp/mountpoint
[root@testmachine ~]# mount -r -o loop /path/to/driver.iso /tmp/mountpoint
```

Once the ISO image is mounted, you can access the offline bundle in the `/tmp/mountpoint/offline-bundle/` directory. Since the offline bundle file name varies depending on the package that is to be installed, this example uses the name 'offline-bundle' - replace this file name with the name of the offline bundle to be installed

## 3. Installing an offline bundle locally on VMware ESX with the `esxupdate` command

Install an offline bundle on a VMware ESX server locally using the `esxupdate` command.

```
[root@testmachine ~]# esxupdate --maintenance update
--bundle=<offline-bundle.zip>
```

Where `<offline-bundle.zip>` is the file name of the offline bundle to be installed.

## 4. Installing an offline bundle on VMware ESX and ESXi with the vSphere Command Line Interface.

Install an offline bundle on a VMware ESX or ESXi server remotely using the `vihostupdate` command.

1. Enter maintenance mode if the offline bundle is installing the FCoE, NIC, or iSCSI driver. (Maintenance mode is not required to install the Emulex CIM provider.) Maintenance mode can be specified using vSphere Client, vCenter Server, or by using the "hostops.pl" tool available in the vSphere Command Line Interface as in the following example on a RHEL 5.1 host:

```
[root@testmachine ~]# /usr/lib/vmware-cli/apps/host/hostops.pl --server
test.machine.address --target_host test.machine.address --operation
enter_maintenance
```

2. Install the offline bundle as in the following example:

```
[root@testmachine ~]# vihostupdate --server test.machine.address
--install --bundle=<offline-bundle.zip>
```

Where `<offline-bundle.zip>` is the file name of the offline bundle to be installed.

3. Reboot the system unless the "Upgrade Procedure" section specifies to not reboot the system.
4. Exit maintenance mode using vSphere Client, vCenter Server, or use the "hostops.pl" tool as in the following example:

```
[root@testmachine ~]# /usr/lib/vmware-cli/apps/host/hostops.pl --server
test.machine.address --target_host test.machine.address --operation
exit_maintenance
```

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