

# Release Notes

**Date:** March 2009  
**Product:** Driver for Linux  
**Version:** 8.2.8.14

This document describes the new features, resolved known issues and current known issues associated with this driver build release. For the latest product documentation, go to [www.Emulex.com](http://www.Emulex.com). If you have any questions or require additional information, contact an authorized Emulex Corporation technical support representative.

## New Features Driver for Linux 8.2.8.14

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1. **Supports the LP21000 and LP21002 FCoE adapters.** (10 Gb/s capable)
2. **Supports the LPe1250, LPe1252, LPe12000 and LPe12002 adapters.** (2, 4 and 8 Gb/s capable)
3. **Supports the latest HBAnyware utility version 4.1 as part of the master kit.** Refer to the HBAnyware Utility User Manual for more information.
4. **Supports SuSE Linux Enterprise Server 11.** (Intel x86, Intel Itanium2, Intel EM64T, AMD64, and PowerPC 64-bit architectures)
5. **Adds interfaces via the sysfs file system to update speed and topology parameters without requiring link bounce.**
6. **Supports Power Management Suspend/Resume operations.**
7. **Supports MSI-X interrupt handling.**

## Resolved Issues in Driver for Linux 8.2.8.14

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**There are no resolved issues in this driver version.**

## Known Issues in Driver for Linux 8.2.8.14

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1. **PCI Hot Plug may cause applications to malfunction**  
Performing a PCI Hot Plug may cause the HBAnyware utilities or third party applications that use the Emulex libraries (i.e. HBAAPI) to behave unpredictably or malfunction.

**Workaround:**

1. Stop all applications that are accessing LPFC's HBAAPI interface (HBAnyware utilities or third party applications) before performing PCI Hot Plug of an LPFC HBA. Use the following command to stop the HBAnyware application:

```
#/usr/sbin/hbanyware/stop_hbanyware
```

2. Perform the PCI Hot Plug of the HBA.
3. Restart the application.

2. **Deleting virtual ports or performing a PCI Hot Unplug may result in SCSI errors**

When you delete a virtual port via the sysfs interface or perform a PCI Hot Unplug of an Emulex HBA, the kernel may report one of the following errors:

kernel: Synchronizing SCSI cache for disk kernel: FAILED

or

SCSI error: return code = 0x00010000.

**Workaround:** These messages do not indicate a functional failure and can be ignored.

3. **LILO is not Supported**

The LILO Boot Loader on i386 and x86\_64 architectures is not supported for this driver stream. If the LILO boot loader is used, after the LPFC driver package is installed and upon reboot, an incorrect initial ramdisk is used. The system may not boot correctly.

**Workaround:** Use the GRUB boot loader. This is the default boot loader for most of the Linux distributions.

4. **Issue with the LPFC module order in the INITRD\_MODULES list.**

On the SLES10 SP1 system, if another SCSI driver such as aic79xx, is loaded right after the LPFC driver through the initrd image, an interruption might occur in the SCSI mid-layer discovery process on the LUNs connected to LPFC's Fibre Channel. This interruption can prevent the release of the SCSI discovery reference count and the LPFC driver cannot unload.

**Workaround:** Do not add SCSI drivers right after the LPFC module in the INITRD\_MODULES list.

5. **The LPFC driver may not finish discovery when two initiator ports are swapped.**

This causes all devices accessible through one or both of these initiator ports to time out and all I/O to fail.

**Workaround:** Do one of the following:

- When swapping cables replace each cable, one at a time, and allow for discovery to complete before replacing the next cable. To determine if discovery is complete read the "state" sysfs parameter.
- When swapping cables, allow devloss timeout to fire before replacing the cables. (This fails all outstanding I/O.)

6. **Deleted virtual ports may appear to be mounted, but are inaccessible.**

While Emulex provides management utilities to enable you to delete virtual ports, the LPFC driver cannot detect whether devices accessed through a virtual port are in use. You can delete a virtual port even when devices accessible through the virtual port are mounted or when I/O is outstanding to the device. If file systems are mounted on a virtual port and that virtual port is deleted, the file systems still appear to be mounted but are not be accessible.

**Workaround:** Before deleting virtual ports, prepare the system affected by unmounting all the devices accessible through the virtual ports, and verifying that there is no outstanding I/O.

7. **4 Gb/s HBAs in virtualized environments that use Direct I/O or SFPT do not Initialize.** Default driver configuration fails to initialize 4 Gb/s HBAs in virtualized environments that use Direct I/O or SFPT(Storage Fixed Pass through) .This may result in a system hang or uninitialized LPFC HBA in Intel VT-d and AMD-V IOMMU systems.

**Workaround:** Load the LPFC driver with the following driver parameters set:

```
lpfc_hostmem_hgp=1  
lpfc_sli_mode=2
```

For example: # modprobe lpfc lpfc\_hostmem=1 lpfc\_sli\_mode=2

**Note:** A side effect of this workaround is that virtual ports are no longer be supported by the LPFC driver when lpfc\_sli\_mode is set to 2.

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