

Emulex® LPe31000-Series and LPe32000-Series HBA Firmware and Boot Code

**Release 12.4.243.13, 12.4.243.17, 12.4.243.29,
and 12.4.243.32**

Purpose and Contact Information

These release notes describe the new features, resolved issues, known issues, technical tips, and license notices, associated with this firmware and boot code release for Emulex® LPe31000-series and LPe32000-series HBAs.

For the latest product documentation, go to www.broadcom.com. If you have questions or require additional information, contact an authorized Broadcom® Technical Support representative at ecd-tech.support@broadcom.com.

New Features (Release 12.4.243.32)

Support was added for new flash devices.

NOTE: If you downgrade the firmware to a version earlier than 12.4.243.32 on an HBA that has a new flash device, the firmware is not installed and an error message is displayed.

New Features (Release 12.4.243.17)

This release adds support for AMD Epyc 7002-series processors (PCIe 4.0).

Resolved Issues

Firmware (Release 12.4.243.29)

The BB_Credit Recovery feature is now enabled on an HBA that is connected to a Brocade® switch when Dynamic D_Port is enabled on the HBA.

Firmware (Release 12.4.243.17)

Debug code was removed.

x86 BootBIOS (Release 12.4.243.13)

The x86 BootBIOS utility now displays up to 255 LUNs starting from the input LUN.

Known Issues

General

1. Beginning with software release 11.2, FC HBAs and OneConnect® converged network adapters (CNAs) have independent software kits. Before updating earlier drivers and applications to the software in release 12.4.x, refer to the *Emulex Software Kit Migration User Guide* for special instructions and considerations for using the 11.2 and later software kits for FC HBAs and OneConnect CNAs.
2. Boot from SAN is not supported if FC-SP-2 authentication (DHCHAP) is enabled.

Hardware and Drivers

1. On LPe31000-series and LPe32000-series adapters, the system might stop responding when the HBA tries to send commands to the HBA driver. This occurs in a system with a large number of LUNs when the driver lags behind the HBA in processing I/Os.

Workaround

Limit the number of outstanding I/Os each LUN can have by changing the LUN queue depth using the `lpfc_lun_queue_depth` driver parameter. For example:

```
lpfc_lun_queue_depth=6
```

Alternatively, you can limit the number of outstanding I/Os each HBA can have by changing the HBA queue depth using the `lpfc_hba_queue_depth` driver parameter:

```
lpfc_hba_queue_depth=64
```

NOTE: The optimal array configuration is affected by a variety of factors, including the following:

- Number of LUNs configured
 - LUN queue depth setting
 - HBA queue depth setting
 - Response time of the array
 - CPU speed
2. Some LPe31000-series and LPe32000-series adapters were shipped without the shunt that allows you to enable the secure firmware jumper.

Workaround

Refer to Section 2.8, Setting the Secure Firmware Jumper, of the *Emulex LPe31000-Series and LPe32000-Series Adapters Installation Guide* for instructions on setting the jumper.

To obtain a replacement shunt, contact an authorized Broadcom Technical Support representative, as described in [Purpose and Contact Information](#).

3. Locked optics are not supported on Broadcom 16-Gb/s transceivers with serial numbers prior to SN:x@1319xxxxx. The serial number (SN:) is located above the bar code on the Broadcom manufacturer's label that is affixed to the transceiver.

x86 Boot BIOS

1. After logging into the switch, connected adapter ports appear as G-ports until you log into the fabric.

Workaround

None.

2. After scanning targets, the displayed list might be empty (no text) when no boot devices are mapped.

Workaround

Ensure the targets are mapped prior to scanning them.

Firmware

1. If a firmware update requires a system reboot, you cannot perform a firmware dump until the reboot has occurred.

Workaround

None.

2. When D_Port tests are run from the switch, the switch port can get stuck in D_Port mode if the tests are interrupted.

Workaround

Do not stop D_Port tests while they are running. Instead, use the `Portdporttest --exit` command to clear the configuration.

If the switch port is stuck in D_Port mode, reset the ports at both ends of the connection.

3. The link fails to come up on some 16Gb/s arrays that are directly attached to an adapter when forward error correction (FEC) is enabled at the array.

Workaround

Disable FEC using the OneCommand™ Manager application. Refer to the *Emulex OneCommand Manager Application User Guide*, the *Emulex OneCommand Manager Application CLI User Guide* or the *Emulex OneCommand Manager for VMware vCenter User Guide* for information about changing parameters.

Technical Tips

1. D_Port and FA-PWWN cannot be enabled simultaneously.

Workaround

If D_Port is enabled and you want to enable FA-PWWN, you must first disable D_Port. If FA-PWWN is enabled and you want to enable D_Port, you must first disable FA-PWWN.

NOTE: You must disable D_Port using an Emulex application that allows you to do so, such as the OneCommand Manager application.

2. The adapter firmware notifies the Cisco switch that the transceiver optical test is not supported when the reflector loopback capabilities are queried. Cisco HBA Link Diagnostics (Cisco MDS Tests) are not supported when the `Xcvr-optical` parameter is not supported.

Workaround

Replace the adapter's SFP with a supported SFP.

3. The UEFI Boot BIOS utility does not immediately display the adapter's default values after setting them.

Workaround

Reset or reconnect the adapter. The UEFI Boot BIOS utility displays the new values.

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```
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