Emulex® Drivers for VMware ESXi

Release	ESXi 6.7	14.0.516.0
	ESXi 7.0	14.0.543.0

Purpose and Contact Information

These release notes describe the new features, resolved issues, known issues, and technical tips associated with these Emulex® drivers for VMware releases.

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

- This is the last revision that supports the ESXi 6.7 operating system. Support for this operating system will be deprecated in future revision 14.0 releases.
- Added `lpfc` driver enhance port statistics counter to count more than 4.3TB data.

NOTE: The `esxcli elxfc` plug-in (also called the esxcli diagnostic tool) is frozen at the release 12.6 level. No new functionality will be added to the plug-in.

Resolved Issues

1. The issue of the adapter model name and description not matching the vendor brand name field is resolved.

   The VMware vSphere client shows only the adapter family model names with a single port.

   For example:
   - The LPe32002 adapter is shown as the `Emulex LightPulse LPe31000/LPe32000 PCIe Fibre Channel Adapter`.
   - The LPe31002 adapter is shown as the `Emulex LightPulse LPe31000/LPe32000 PCIe Fibre Channel Adapter`.
   - The LPe36002 adapter is shown as the `Emulex LPe35000/36000 Fibre Channel Adapter`.
   - The LPe35002 adapter is shown as the `Emulex LPe35000/36000 Fibre Channel Adapter`.

   This issue occurs with the `lspci` native tool as well. The vSphere client gets the adapter model name and description from the XML package files installed with the operating system or with an out-of-box kit, rather than from the adapter vital product data (VPD). Other native tools work in a similar manner.

Known Issues

1. Some inbox drivers do not support LPe35000-series or LPe36000-series adapters, as described in the following table.

Table 1: Operating System and Support for LPe35000-Series or LPe36000-Series Adapters

Operating System	Support for LPe35000-Series or LPe36000-Series Adapters
ESXi 6.7	No; use the latest IOVP certified driver.
ESXi 7.0	Yes

   Workaround

   Follow the guidelines in Table 1.

2. A delay in processing ELS commands might be observed if the `enable_mds_diags` module parameter is enabled.

    Workaround

    Disable `enable_mds_diags`. This parameter must be enabled only when attempting a Cisco MDS diagnostic test.

3. The `bootparams set` command, in Table 11: esxcli Management Commands, in the *Emulex Drivers for VMware ESXi User Guide*, is missing the following information on NVMe Boot Device Parameters:

    NVMe Boot Device Parameters

    – NamespaceID

       EFI

       {Value [BootDev Value2]}

    – NVMeWWPN

       EFI

       {Value [BootDev Value2]}

    – NVMeWWNN

       EFI

       {Value [BootDev Value2]}

    – SubNQN

       EFI

       {Value [BootDev Value2]}

4. Upgrading from ESXi 6.7 with the latest 6.7 asynchronous `lpfc` driver installed results in ESXi 7.0 retaining the 6.7 driver. Although the ESXi 6.7 driver works in ESXi 7.0, it does not contain the complete ESXi 7.0 feature capability.

    Workaround

    For instructions on updating to the ESXi 7.0 driver, refer to the VMware Knowledge Base article that discusses updating from older versions of the operating system to newer versions.

5. ESXi 6.7 does not support 64Gb/s HBAs.

    Workaround

    None.

6. On ESXi 7.0 hosts, even when NVMe devices are down, the NVMe controller list incorrectly continues to display the NVMe devices.

    Workaround

    Perform the following steps to manually disconnect NVMe devices:

    a. Make a note of the adapter and controller number of the NVMe devices that are down by using the following command:

    ```
    esxcli nvme controller list
    ```

    b. Disconnect the NVMe devices that are down by using the following command:

    ```
    esxcli nvme fabrics disconnect  --adapter=vmhba<number> --controller-number=<controller number>
    ```
    For example:
    ```
    esxcli nvme fabrics disconnect  --adapter=vmhba67 --controller-number=340
    ```
    Where `67` is the adapter number and `340` is the controller number.

7. On the VMware ESXi 7.0 U1 operating system, if you attempt to boot from SAN (BFS) using an LPe36000-series HBA, you cannot update the driver or change driver parameters.

    Workaround

    Update to the VMware ESXi 7.0 U2 operating system.

8. When the VMware Quick Boot feature is enabled, configuration changes to Emulex firmware features, such as trunking and WWN management, do not get activated after a reboot.

    Workaround

    Activate the configuration changes to Emulex firmware features by rebooting the system using the `reboot -f` command.

9. The `localcli nvme info get` and `esxcli nvme info get` commands do not return a hostNQN.

    Workaround

    Provide a unique qualified host name for the ESXi host. Reboot the system for changes to take effect.

Technical Tips

1. When the Virtual Machine Identifier (VMID) feature is used in an ESXi environment with ESXi mobility (vMotion), the VMID strings might not be available from the operating system on the backup server (the server to which vMotion moved) for 10 to 20 minutes. During this time, the VMID strings are not available for registration on the fabric switch.

    Workaround

    After the vMotion action, wait until the operating system settles and the VMID strings are available.

2. ESXi servers can appear to have the same VMID Application ID. The VMID is the combination of the Application ID appended to the end of the N_Port ID, which provides uniqueness within the fabric.

3. To view VMID information on all VMs in a multipathing configuration, set the path policy to `Round Robin`.

4. The server must be in ESXi maintenance mode to safely change the firmware in flash memory.

    For operations, such as firmware download, bring the server into ESXi maintenance mode prior to flashing the firmware.