

Upgrading the QLogic HBA Firmware from a VMware ESXi Server

v1.0

Implementation Guide

This guide shows how to upgrade the QLogic HBA firmware using a VMware ESXi server.

Hitachi Vantara

December 2024

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Preface

About this document

This document shows how to upgrade the QLogic HBA firmware with ESXi operating systems. To use this document, you must have a basic understanding of VMware ESXi systems and ESXCLI commands.

Revision History

Revision	Changes	Date
v1.0	Initial Release	December 2024

Accessing product downloads

Product software, drivers, and firmware downloads are available on Hitachi Vantara Support Connect: <https://support.hitachivantara.com/>.

Log in and select Product Downloads to access the most current downloads, including updates that may have been made after the release of the product.

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Introduction

Purpose

This document provides instructions for updating the QLogic HBA firmware from ESXi operating systems.

Hardware Requirements

The following lists the hardware used for this setup:

- Host system: HPE ProLiant DL380 Gen10 Server
- Host HBA: QLogic QLE2742SR Dual Port 16Gb Fiber Channel Adapter

Software Requirements

The following lists the hardware used for this setup:

- OS install media: ESXi 8.0 GA
- Marvell ESXCLI VMware Plug-in: MRVL-QLogic-FC-Esxcli-Plugin_1.6.1-1OEM.800.1.0.20613240_23869580.zip
- Flashfile: ql268x_img10.04.03_b1_9.15.00.zip


Marvell ESXCLI VMware Plugin and Flashfile

Marvell ESXCLI VMware Plugin

The Marvell ESXCLI VMware Plug-in comes as a vSphere installation bundle (VIB) file. The VIB file contains the set of files and binaries required to install the provider on VMware ESX/ESXi. The offline-bundle.zip file contains the VIB and the required metadata to install the plug-in on VMware ESX/ESXi.

Download the Marvell ESXCLI VMware Plug-in for ESXi 8.0 from the Marvell website:

<https://www.marvell.com/support/downloads.html>


06/10/24	ESX CLI Plug-in for VMware v8.0 ESX CLI Plug-in for VMware v8.0	Fibre Channel Adapters	VMware ESXi	Management Tools	1.6.1-1	
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Marvell Flashfile

The Marvell Flash Image Package contains files that provide the required version for Series Adapters.

Download the Marvell Flash upgrade kit supporting ESXi 8.0 from the Marvell website:

<https://www.marvell.com/support/downloads.html>

06/10/24	Flash upgrade Kit for QLE269x, QLE274x, QLE276x This package contains multi boot package with FC-NVMe support and scripts to install the files on the QLE2690, 2692, 2694, 2694L, 2740, 2742, 2764 Fibre Channel adapter.(Install Latest Driver and QCC_CLI before updating the flash)	Fibre Channel Adapters	VMware ESXi, Linux for ARM, Ubuntu, Oracle Linux, Citrix XenServer, Windows Server 2019 (x64), Windows Server 2022 (x64), Linux SUSE SLES (64-bit), Linux Red Hat (64-bit)	Boot Code	10.04 .03	
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Upgrading the QLogic HBA Firmware

Upgrading the QLogic HBA firmware involves the following high-level steps:

- Installing the Marvell ESXCLI VMware Plug-in
- Updating the flash on a Marvell Adapter

Installing the Marvell ESXCLI VMware Plug-in

To install the Marvell ESXCLI VMware Plug-in, complete the following steps:

1. Copy the plugin to a temporary location on the ESXi server.

```
[root@localhost:/tmp] ls
MRVL-QLogic-FC-Esxcli-Plugin_1.6.1-1OEM.800.1.0.20613240_23869580.zip
```

2. Install the plugin by running the following command:

```
esxcli software vib install -d <Plug-in location>
```

```
[root@localhost:/tmp] esxcli software vib install -d /tmp/MRVL-QLogic-FC-Esxcli-Plugin_1.6.1-1OEM.800.1.0.20613240_23869580.zip
Installation Result
  Message: The update completed successfully, but the system needs to be rebooted for the changes to be effective.
  Reboot Required: true
  VIBs Installed: QLG_bootbank_mrvlfcsexcliplugin_1.6.1-1OEM.800.1.0.20613240
  VIBs Removed:
  VIBs Skipped:
[root@localhost:/tmp]
```

```
[root@localhost:/tmp] reboot
```

3. Restart the server.

Updating the Flashfile on a Marvell Adapter

To update the flashfile on a Marvell adapter, complete the following steps:

1. To list all supported Fibre Channel Adapters, issue the following command on the host:

```
esxcli qlfc qcc adapter list
```

```
[root@localhost:~] esxcli qlfc qcc adapter list
Adapters
-----
Adapter_QLE2742_RFD1828A54293
[root@localhost:~]
```

2. Copy the flashfile to a temporary location on the ESXi server.

```
[root@localhost:/tmp/firmware] ls
ql268x_img10.04.03_b1_9.15.00.zip
```

3. Unzip the flashfile.

```
[root@localhost:/tmp/firmware] unzip ql268x_img10.04.03_b1_9.15.00.zip
Archive: ql268x_img10.04.03_b1_9.15.00.zip
  inflating: bk100403.bin
  inflating: bk100403.upd.pldm.v1_00_00
  inflating: bk100403.upd.pldm.v1_01_00
  inflating: EFlashX64.efi
   creating: FC BIOS/
  inflating: FC BIOS/BIOS_Readme.txt
  inflating: FC BIOS/ReleaseNotes.txt
   creating: FC EFI/
  inflating: FC EFI/EflashReadMe.txt
  inflating: FC EFI/EflashReleaseNotes.txt
  inflating: FC EFI/Readme.txt
  inflating: FC EFI/ReleaseNotes.txt
   creating: FC FCode/
  inflating: FC FCode/Readme.txt
  inflating: FC FCode/ReleaseNotes.txt
  inflating: MakePldmPackage.exe
  inflating: ql27xx.drv
  inflating: Read1st.txt
  inflating: update.nsh
[root@localhost:/tmp/firmware]
```

4. Update the firmware of the adapter. Reboot if required.

```
esxcli qlfc qcc adapter update -i <adapter name> -f <path of .bin
file after extraction> -m MBI
```

```
[root@localhost:/tmp/firmware] esxcli qlfc qcc adapter update -i Adapter_QLE2742_RFD1828A54293 -f /tmp/firmware/bk100403.bin -m MBI
Message: Success
Reboot Required: true
[root@localhost:/tmp/firmware]
[root@localhost:/tmp/firmware] reboot
```

5. To verify the firmware version, issue the following command:

```
/usr/lib/vmware/vmkmgmt_keyval/vmkmgmt_keyval -l -i vmhba2/qlogic
```

```
[root@localhost:~] /usr/lib/vmware/vmkmgmt_keyval/vmkmgmt_keyval -l -i vmhba2/qlogic
Listing keys:
Name: ADAPTER
Type: string
value:
QLogic 32Gb 2-port FC to PCIe Gen3 x8 Adapter for QLE2742:
    FC Firmware Version: 9.15.00 (d0d5), Driver version 5.2.46.0

SCSI Host Device Name: vmhba2 (physical)

FC Host Information:
WWNN: 2000f4e9d454892e
WWPN: 2100f4e9d454892e
Port ID: 050000 NPortHandle: 0

BIOS version 3.68
FCODE version 4.11
EFI version 7.32
Flash FW version 9.15.00
Multiboot Version 10.04.03
```


Summary

Upgrading the QLogic HBA firmware is more useful when the server already hosting ESXi needs an HBA firmware upgrade.

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