

Marvell

Release Notes

Date: 5/14/2020

Contents

1. Product Compatibility	2
1.1. Fibre Channel Supported Products	2
1.2. Ethernet Supported Products	2
2. Supported Operating Systems	3
3. Feature Summary	4
3.1. New HW	4
3.2. New / Enhanced Features Support	4
- Ethernet	4
- Fibre Channel	4
4. Software Revisions	4
4.1. Windows Drivers	4
4.2. Linux Drivers	5
4.3. VMWare Drivers	6
4.4. Citrix Drivers	6
4.5. Family Firmware Versions	7
4.6. Management Apps	8
4.7. Pre-Boot	8
5. Fix Issues:	10
5.1. Ethernet Products	10
5.2. Fibre Channel Products	10
6. Known Issues and Limitations:	10
6.1 Ethernet Products	10
6.2 Fibre Channel Products	11
7. Additional Notes:	11
7.1. Ethernet Products	11
7.2 Fibre Channel Products	12

This Release Notes is applicable for the Fibre Channel and Ethernet adapters from Marvell Inc. QLogic Fibre Channel HBAs and Marvell FastLinQ Ethernet adapters that are compatible for this release are described in the tables shown below.

- QLogic Fibre Channel adapter family:
 - 2500 Series, 2600 Series, 2700 Series
- Marvell FastLinQ Ethernet adapter family:
 - 57800 Series, 41000 Series

1. Product Compatibility

- **Marvell QLogic Fibre Channel Supported Products**
 - QLE2560 Single Port 8GFC to PCIe Gen 3 x8 HBA
 - QLE2562 Dual Port 8GFC to PCIe Gen 3 x8 HBA
 - QME2572 Dual Port 8GFC PCIe Gen 3 x8 Mezz Adapter
 - QME2662 Dual Port 16GFC to PCIe Gen 3 x8 Mezz Adapter
 - QLE2662 Dual Port 16GFC to PCIe Gen 3 x8 Mezz Adapter
 - QLE2660 Single Port FC16GFC to PCIe Gen 3 x8 Adapter
 - QLE2690 Single Port Enhanced 16GFC to PCIe Gen 3 x8 Adapter
 - QLE2692 Dual Port Enhanced 16GFC to PCIe Gen 3 x8 Adapter
 - QLE2740 Single Port 32GFC to PCIe Gen 3 x8 Adapter
 - QLE2742 Dual Port 32GFC to PCIe Gen 3 x8 Adapter
 - QME2692 Dual Port Enhanced 16GFC to PCIe Gen 3 x8 Mezz Adapter
 - QME2742 Dual Port 32GFC to PCIe Gen 3 x8 Mezz Adapter
 - QLogic 1x32Gb QLE2770 FC HBA
 - QLogic 2x32Gb QLE2772 FC HBA
- **Marvell FastLinQ Ethernet Supported Products**
 - QLogic 57810S Dual 10GE PCIe Standup SFP+/DA CNA
 - QLogic 57810S Dual 10GE PCIe Standup Base-T CNA
 - QLogic 57800S Quad Port 2, 1GB x 2, 10Gb rNDC Base-T
 - QLogic 57800S Quad Port 2, 1GB x 2, 10Gb rNDC SFP+/DA
 - QLogic 57810S-K Dual Port 10Gb bNDC KR CNA
 - QLogic 57810S-k Dual Port 10Gb bMezz KR CNA
 - QLogic 57840S-K Quad Port 10Gb bNDC KR CNA
 - QLogic 57840S Quad Port 10GB rNDC SFP+/DA
 - QL41162-DE 10 Gigabit Ethernet

- QL41112-DE 10 Gigabit Ethernet
- QL41262-DE 25 Gigabit Ethernet
- QLogic 4x10GE QL41164HMRJ CNA
- QLogic 4x10GE QL41164HMCU CAN
- QLogic 2x25GE QL41262HMCU CNA
- QLogic 2x1GE+2x10GE QL41264HMCU CNA
- QLogic 2x1GE+2x10GE QL41162HMRJ CNA
- QLogic 4x10GE QL41164HxRJ CNA
- QLogic 4x10GE QL41164HFCU CNA
- QLogic 2x25GE QL41262HMKR CNA
- QLogic 2x25GE QL41232HMKR NIC
- QLogic 2x10GE QL41132HxRJ NIC
- QLogic 2x25GE QL41232HxCU NIC
- QLogic 2x25GE QL41232HQCU NIC
- QLogic 2x10GE QL41132HQRJ NIC
- QLogic 2x10GE QL41132HQCU NIC
- QLogic 4x10GE QL41154HQRJ CNA
- QLogic 4x10GE QL41154HQCU CNA

***BCM57711 based adapters are not supported on new OS environments starting from Windows 2016/vSphere 2016 and new Linux distros released after 2016 Q1 timeframe.

2. Supported Operating Systems

3. OS / Version	25xx,26xx,27xx	578xx	QL45xxx	QL41xxx
Server 2012 (and R2)	*	*	*	*
Server 2016	Yes	Yes	*	Yes
Server 2019	Yes	Yes	*	Yes
WinPE 10.1 64bit	Yes	Yes	*	Yes
RHEL 7.6 / 7.6 z-stream	*Yes	*Yes	*	*Yes
RHEL 7.7	Yes	Yes	*	Yes
RHEL 8.0	Yes	Yes	*	Yes
RHEL 8.1	Yes	Yes	*	Yes
SLES 12 SP4	Yes	Yes	*	Yes
SLES 15	Yes	Yes	*	Yes
SLES 15 SP1	Yes	Yes	*	Yes
VMware ESXi 6.5 u3	Yes	Yes	*	Yes
VMware ESXi 6.7 u3	Yes	Yes	*	Yes
XenServer 7.1 "Ely" CU2	Yes + (Use Inbox)	Yes	*	Yes
XenServer 8.0	Yes + (Use Inbox)	Yes	*	Yes
XenServer 8.2	No	No	No	No
CentOS 7.6*	No	*	*	*

* - OS is Supported but Not Tested

*Yes - RH 7.6 is supported but not Tested while 7.6 z-Stream is part of test matrix.

4. Feature Summary

- **New HW**
 - QLogic 1x32Gb QLE2770 FC HBA
 - QLogic 2x32Gb QLE2772 FC HBA
 - QLogic 4x10GE QL41154HQRJ CNA
 - QLogic 4x10GE QL41154HVCU CNA
- **New / Enhanced Features Support**
 - Ethernet:
 - Enable management using MCTP over PCIe (VDM) (QL41xxx Intel platform only)
 - QL45212 support deprecated.
 - ESXi 7.0 support
 - Fibre Channel
 - RHEL 8.1 & 7.7 NVME over FC support.
 - W2K16, W2K19 NVMe over FC support in Tech Preview mode
 - Enable management using MCTP over PCIe (VDM)
 - ESXi 7.0 support

5. Software Revisions

Note: An asterisk (*) following a version number represents a certified driver.

* Third-party trademarks and copyrights are the property of their respective owners.

- **Windows Drivers**

Product	Version	Family
Umbrella Installer	20.60.1.4	578xx
MUP	35.05.00	578xx
Windows NDIS Driver NX2	7.13.155.0*	578xx
Windows QLASP	2.0.3*	578xx
Windows bxDiag	7.12.1.0*	578xx
Windows VBD Driver	7.12.32.0*	578xx
Windows VBD Driver NX2_Ev	7.13.171*	578xx
Windows iSCSI Offload Driver	7.14.16.0*	578xx
Windows FCoE Offload Driver	7.14.21.0*	578xx

iSCSI Crash Dump Driver	7.13.4.0	578xx
FCoE Crash Dump Driver	7.13.6.0	578xx
Windows iSCSI qnxcd ***	7.13.3.0	578xx
Windows FCoE bnxgcd ***	7.13.5.0	578xx
Windows Super Installer	15.00.22	QL41xxx
MUP	35.05.00	QL41xxx
Windows QEVBD	8.42.10.0*	QL41xxx
Windows QEND	8.42.6.0c*	QL41xxx
Windows QXDiag	8.14.0.0*	QL41xxx
Windows QEFCoE	8.42.1.0*	QL41xxx
Windows QEOIS	8.42.2.0*	QL41xxx
Windows QEISCD	8.42.1.0	QL41xxx
Windows QEFCd	8.42.1.0	QL41xxx
Windows QEISCD ***	8.38.1.0	QL41xxx
Windows QEFCd ***	8.34.2.0	QL41xxx

Product	Version	Family
Windows Super Installer (64 bit)	15.00.22	25xx,26xx,27xx
MUP	35.05.00	
Windows FC (Win2012/2012 R2)	9.3.3.20*	25xx,26xx,27xx
Windows FC (Win 2016/2019)	9.3.3.20*	25xx,26xx,27xx

- Linux Drivers

Product	Version	Family
Linux NX2 package	7.14.63.1-1	578xx
Linux Driver NX2	2.2.5x	578xx
Linux Driver NX2_Ev	1.715.0	578xx
Linux iSCSI Driver NX2	2.11.23.0	578xx
Linux Driver CNIC	2.5.20y	578xx
Linux FCoE Driver NX2	2.12.10	578xx
Linux uIP Driver	2.11.5.11	QL41xxx
Linux Open iSCSI	2.0-873.113	QL41xxx
Linux RPM Package	8.42.10.1-1	QL41xxx
Linux qed	8.42.10.0	QL41xxx
Linux qede	8.42.10.0	QL41xxx
Linux qedr	8.42.10.0	QL41xxx
Linux qedf	8.42.10.1	QL41xxx
Linux qedi	8.42.10.0	QL41xxx

Product	Version	Family
Linux FC	10.01.00.54.xx.yy-k	10.01.00.53.xx.yy-k

- VMWare Drivers

Product	Version	Family
VMware ESX 6.5 Native Driver Package	1.0.119*	578xx
NIC Driver	1.1.6.0*	578xx
QCNIC Driver	1.0.51.0*	578xx
FCoE Driver	1.1.6.0*	578xx
iSCSI Driver	1.1.2.0*	578xx
VMware ESX 6.7 Driver Package	2.0.119*	578xx
NIC Driver	1.1.6.0*	578xx
QCNIC Driver	1.0.51.0*	578xx
FCoE Driver	1.1.6.0*	578xx
iSCSI Driver	1.1.2.0*	578xx
VMWare ESX 6.5 Drivers	3.0.202*	QL41xxx
L2	3.11.16.0*	QL41xxx
RoCE Driver	3.11.16.0*	QL41xxx
FCoE Driver	1.3.42.2*	QL41xxx
iSCSI Driver	1.15.14.0*	QL41xxx
VMWare ESX 6.7 Drives	4.0.201*	QL41xxx
L2	3.11.16.0*	QL41xxx
RoCE Driver	3.11.16.0*	QL41xxx
FCoE Driver	1.3.42.2*	QL41xxx
iSCSI Driver	2.10.19.0*	QL41xxx
VMWare ESX 7.0 Drivers	5.0.189*	QL41xxx
L2	3.40.9.0*	QL41xxx
RoCE Driver	3.40.9.1*	QL41xxx
FCoE Driver	2.2.4.0*	QL41xxx
iSCSI Driver	2.19.5.0*	QL41xxx

Product	Version	Family
VMware ESX 6.0/6.5 FC	2.1.96.0*	25xx,26xx,27xx
VMware ESX 6.7 FC	3.1.31.0*	25xx,26xx,27xx
VMware ESX 7.0 FC	4.1.9.0*	25xx,26xx,27xx

- Citrix Drivers

Product	Version	Family
XS 7.1	7.14.63	578xx
XS 8.0	7.14.63	578xx
XS 7.1	8.42.10.1	QL41xxx

XS 8.0	8.42.10.1	QL41xxx
--------	-----------	---------

Product	Version	Family
XS 8.0 FC	10.01.00.54.xx.yy-k	25xx,26xx,27xx
XS 7.1	8.08.00.08.xx.xx-k	25xx,26xx,27xx

- Family Firmware Versions

Product	Version	Family
QLogic 57810S Dual 10GE PCIe Standup SFP+/DA CNA	15.05.12	578xx
QLogic 57810S Dual 10GE PCIe Standup Base-T CNA	15.05.12	578xx
QLogic 57800S Quad Port 2, 1GB x 2, 10Gb rNDC Base-T	15.05.12	578xx
QLogic 57800S Quad Port 2, 1GB x 2, 10Gb rNDC SFP+/DA	15.05.12	578xx
QLogic 57810S-K Dual Port 10Gb bNDC KR CNA	15.05.12	578xx
QLogic 57810S-k Dual Port 10Gb bMezz KR CNA	15.05.12	578xx
QLogic 57840S-K Quad Port 10Gb bNDC KR CNA	15.05.12	578xx
QLogic 57840S Quad Port 10GB rNDC SFP+/DA	15.05.12	578xx
QL41162-DE 10 Gigabit Ethernet	15.05.18	QL41162
QL41112-DE 10 Gigabit Ethernet	15.05.18	QL41112
QL41262-DE 25 Gigabit Ethernet	15.05.18	QL41262
QLogic 4x10GE QL41164HMCU CNA	15.05.18	QL41164
QLogic 4x10GE QL41164HMRJ CNA	15.05.18	QL41164
QLogic 2x25GE QL41262HMCU CNA	15.05.18	QL41262
QLogic 2x1GE+2x10GE QL41264HMCU CNA	15.05.18	QL41264
QLogic 2x1GE+2x10GE QL41162HMRJ CNA	15.05.18	QL41262
QLogic 4x10GE QL41164HxRJ CNA	15.05.18	QL41164
QLogic 4x10GE QL41164HFCU CNA	15.05.18	QL41164
QLogic 2x25GE QL41262HMKR CNA	15.05.18	QL41262
QLogic 2x25GE QL41232HMKR NIC	15.05.18	QL41232
QLogic 2x10GE QL41132HxRJ NIC	15.05.18	QL41132
QLogic 2x25GE QL41232HxCU NIC	15.05.18	QL41132
QLogic 2x25GE QL41232HVCU OCP 3.0 NIC	15.05.18	QL41132
QLogic_2x10GT QL41132HQRJ OCP 3.0 NIC	15.05.18	QL41132
QLogic 2x10GE QL41132HVCU OCP 3.0 NIC	15.05.18	QL41132
QLogic 4x10GE QL41154HQRJ CNA	15.05.18	QL41154
QLogic 4x10GE QL41154HVCU CNA	15.05.18	QL41154

Product	Version	Family
QLE2560 FC8 Single Channel HBA	09.01.05	25xx
QLE2560 FC8 Single Channel HBA	09.01.05	25xx
FC8 Embedded Mezz Card QME2572	09.01.05	25xx

QME2662 Dual Port FC16 HBA Mezzanine	15.05.14	26xx
QLE2660 Single Port FC16 HBA	15.05.14	26xx
QLE2662 Dual Port FC16 HBA	15.05.14	26xx
QLE2690 Single Port 16Gb FC to PCIe Gen3 x8 Adapter	15.05.14	26xx
QLE2692 Dual Port 16Gb FC to PCIe Gen3 x8 Adapter	15.05.14	26xx
QLE2740 Single Port 32Gb FC to PCIe Gen3 x8 Adapter	15.05.13	27xx
QLE2742 Dual Port 32Gb FC to PCIe Gen3 x8 Adapter	15.05.13	27xx
QLogic 2x16Gb QME2692 FC HBA	15.05.14	26xx
QLogic 2x32Gb QME2742 FC HBA	15.05.13	27xx
QLogic 1x32Gb QLE2770 FC HBA	15.05.13	27xx
QLogic 2x32Gb QLE2772 FC HBA	15.05.13	27xx

- **Management Apps**

Product	Version	Family
Windows QCS	40.0.58.0	578xx
Windows QCScli	40.0.58.0	578xx & QL4xxxx
Windows QLASP	2.0.3*	578xx
CIM for Windows	17.2.12.0	578xx
Windows QLTM	1.0.3	QL41xxx
Windows QLNx remote agent	2.0.1000.179	QL41xxx
Linux QCS	40.0.58.0	QL41xxx
Linux QCScli	40.0.58.0	578xx
SNMP-Basp	8.0.0.0	QL41xxx
SNMP-Extensible-Agent	8.0.0.0	QL41xxx
Firmware Upgrade for Linux	2.10.78	578xx & QL4xxxx
Firmware Upgrade for VMWare	2.10.78	578xx & QL4xxxx
Firmware Upgrade for Windows	2.10.78	578xx & QL4xxxx

Product	Version	Family
QCC GUI	5.5.0.66	25xx,26xx,27xx, QL45xxx & QL41xxx
QCC CLI	2.3.00.38	25xx,26xx,27xx
Linux QLNx remote agent	1.275.1000.179	25xx,26xx,27xx
Online Diagnostics	1.0.1.4	25xx,26xx,27xx
VI-Plugin / CIM Provider	2.0.26	25xx,26xx,27xx, 578xx, QL45xxx & QL41xxx

- **Pre-Boot**

Product	Version	Family
PXE NX2_Ev	7.14.2	578xx

UEFI Driver NX2_Ev	8.1.1*	578xx
CCM	7.14.3	578xx
FCoE Boot	7.15.0	578xx
iSCSI Boot	7.15.0	578xx
Bootcode for 578xx (MFW)	7.14.16	578xx
MBI	15.05.25	QL41xxx
Controller BIOS	8.50.24.0	QL41xxx
EFI	2.1.9.5*	QL41xxx
PXE Driver	2.0.19	QL41xxx
L2B Firmware	08.33.01.00	QL41xxx

Product	Version	Family
MBI for 25xx	09.01.05	25xx
BIOS	3.45	25xx
uEFI	6.17*	25xx
Firmware	8.08.207	25xx
MBI for 266x	03.12.41	266x
BIOS	3.62	266x
uEFI	6.21*	266x
Firmware	8.08.207	266x
Pegtune	5.08.16	266x
MBI for 269x	01.42.44	274x
BIOS	3.62	274x
uEFI	6.30*	274x
Firmware	8.08.231	274x
MPI	1.03.70	274x
MBI for 274x	01.42.43	277x
BIOS	3.62	277x
uEFI	6.30*	277x
Firmware	8.08.231	277x
MPI	1.03.70	277x
MBI for 277x (Mach)	03.01.23	25xx
BIOS	3.65	25xx
uEFI	7.13*	25xx
Firmware A1	9.02.05	25xx
MPI	2.00.05	266x

6. Fixed Issues:

- Ethernet Products

- With Marvell Phoenix BT QL41132HQRJ adapter connected to Dell P8024 switch, sometimes interface can come up in 1G speed. Adapter firmware has been updated to address this problem.
- In a configuration with Dell MX740c blade server and Marvell FastLinQ QL41262HMKR CNA connected to MX9116 FCF switch, FCoE sessions fail to re-establish after IOM reset or reboot of blade server.
- In a Windows cluster environment, when driver DUP is executed, it may fail to install drivers and applications with an error (error 5 - access denied)
- RDMA connections fail on Hyper-V VNICs (NDK Mode-2) in iWARP mode.
- QL41112 FCoE Unable to Connect to EMC VPLEX in ESXi environment
- QL41xxx does not re-establish FCoE session after link between FCF and FSB has been shut down and re-established.
- Do not allow NPAR_EP to be selectable/configurable if ARI is not enabled in system
- QL41262HMKR CNA unable to create Multi-path with PowerPath in iSCSI Offload mode
- With QL41xxx adapters, IDRAC GUI may show NIC status as unknown, Connection IDs as NA and no LLDP advertisements seen on IOM/ToR switch
- QL41xxx FCoE link down during Blade/IOM reset / reseal
- Geneve hardware offload performs poorly in comparison to software offload
- In some very rare conditions, bnx2fc driver version v1.713.70.v60.3 or lower may encounter a situation where driver waits indefinitely for I/O flush to occur after an abort was issued and may cause host to be disconnected from vCenter server.
- When upgrading to ESXi qfle3 driver with FCoE BFS is configured on non-default PFs of an 578xx adapter an intermittent PSOD during system booting up may occur.
- On M-class blades running Windows 2016, with FCoE configured on BCM578xx adapter under heavy workload and live migration operations a BSOD may occur.
- QL41xxx FCoE drivers support a single fabric determined by a unique fabric name. On ESXi, to provide support for hosts which can receive solicitation advertisement from FCFs with multiple different fabric names, a configurable driver module parameter has been added. Setting this would allow host will initiate FLOGI to the 1st FCF that responds.

- Fibre Channel Products

- M630 | UEFI BIOS | QME2662 | Server fails to boot from second LUN when primary LUN is unavailable | IPS PSE-6239

7. Known Issues and Limitations:

- Ethernet Products

- RedHat KVM OpenStack 11 with CETH Storage - Connectivity issues with heavy load using QL41xxx. Enabling promiscuous mode on all NIC ports of the team alleviates the issue and can be a potential workaround.

- Random network drops and PCIe Bus Fatal errors followed by PSOD on QLogic 57810 adapters with qfle3 and bnx2x drivers
- Incorrect available FFV version listed in iDRAC rollback for QLogic 578xx adapters when DUP is Upgrade / Downgraded to FFV 15.00.14. This issue is limited to OS path. FMP path upgrade / downgrade has no functionality impact.
- On ESXi 7.0 host, when QL41xxx FCoE driver (qedf) is present & loaded, and host is connected to an ethernet switch that does not support FCoE messages with "unrecognized opcode" will be observed in vmkernel log files. These messages can be ignored and there is no functional impact. Disabling FCoE driver module will prevent these messages from being logged.
- **Fibre Channel Products**
 - HTML client for ESXi 6.5 u2/ESX6.7 does not display FFV
 - Incorrect interface name reported on QLE277X in Get_partition_Info response
 - Windows FC driver version not available in iDRAC GUI
 - iDRAC rollback shows incorrect Available FFV version when DUP downgrade to FFV 15.00.00 or FFV 14.10.07 from Cities from Windows OS
 - RedHat 8.0 x64 UEFI - 15G Systems with 8G or less RAM and QLE2770 & QLE2772 hangs when driver is loaded.

8. Additional Notes:

- **Ethernet Products**
 - Please follow instructions listed in the below link for Xen Server Boot from SAN
 - <https://support.citrix.com/article/CTX263654>
 - To run DUP user must run as privileged user such as Admin or root depending on OS requirement.
 - Qlogic 578xx Network Adapter May Be Undetected Following Firmware Update. It is strongly recommended to update Network Adapter firmware in sequence and not skip major versions.
 - iSCSI BFS with BaseT adapter can intermittently fail due to link negotiation taking longer than 5sec.
It is common for BaseT adapters to take longer than 5s for ethernet link to be stabilized. Multiple BZ has been opened on this, some references are..
 - <https://access.redhat.com/solutions/3354711>
 - https://bugzilla.redhat.com/show_bug.cgi?id=1205218
 - Workaround: `rd.net.timeout.carrier=<seconds>` - Wait <seconds> until carrier is recognized. Default is 5 seconds.
 - Example: rd.net.timeout.carrier=30
 - Secure firmware update for 578xx with inbox driver for SLES12sp4 / SLES15sp0/sp1 fails due to kernel security feature preventing user space access.
SLES 15: Workaround: append iomem=relaxed to boot param

SLES 15 SP1: Disable Secure Boot before updating the firmware, update the firmware using DUP and enable secure boot. The workaround of setting "iomem=relaxed" is not usable when Secure Boot is enabled.

- **Fibre Channel Products**

- Please follow instructions listed in the below link for Xen Server Boot from SAN
 - <https://support.citrix.com/article/CTX263654>
- To run DUP user must run as privileged user such as Admin or root depending on OS requirement.