

Storage & Networking Adapter Compatibility Guide

For Oracle Linux with the Unbreakable Enterprise Kernel

This document provides guidance to help you determine compatibility of popular storage and networking adapters with Oracle Linux with the Unbreakable Enterprise Kernel (UEK), and with Oracle Virtualization environments.

STORAGE AND NETWORKING ADAPTER SUPPORT IN UEK

Oracle Linux (x86_64) and Oracle VM include support for common storage and networking adapters used in large enterprises and data centers. Oracle supports device drivers provided in-distribution with UEK, commonly known as inbox drivers. Device driver packages from other sources are not supported by Oracle.

The devices herein are jointly supported by Oracle and the manufacturers of the devices. This is not a comprehensive list of all supported adapters. At the discretion of Oracle Support, Oracle may provide customer assistance with adapters not listed in this document. However, Oracle cannot guarantee resolution to issues with adapters that are not tested and supported by the adapter manufacturer or reseller.

Resources

- Oracle Linux
oracle.com/linux
- Oracle VM
oracle.com/virtualization
- Hardware Compatibility (HCL)
linux.oracle.com/hardware-certifications
- ISV Catalog
oracle.com/linux/isvcatalog

Storage and networking adapters included by your system provider, often as components configured in a system purchase, are outside the scope of this document. For information about operating system compatibility of devices branded by and marketed by your system provider, consult with that system provider. Oracle supports storage and networking adapters that have been qualified with Oracle Linux by system providers participating in the Oracle Linux Hardware Certification Program (HCL).

This document includes information for Oracle Linux (x86_64) with UEK Release 4 and later. The minimum UEK version indicates the earliest supported version of the major UEK release specified. Subsequent updates and errata to the major UEK release are also supported. Adapter firmware is outside the scope of this document, and should be maintained in accordance with the manufacturer's recommendation.

Always refer to [My Oracle Support \(MOS\)](#) content for any known issues related to an adapter.

The information in this document is subject to change without notice, and Oracle shall not be liable for technical or editorial errors or omissions. Nothing herein should be construed as constituting any warranty.

Table 1 - UEK Version Key

Major Version	Update/errata Version
UEK Release 4	4.1.12-x.y.z, where x.y.z represent updates and errata to UEK R4
UEK Release 5	4.14.35-x.y.z, where x.y.z represent updates and errata to UEK R5

Table 2 - Storage & Networking Adapters Compatible with UEK

UEK Release 5

Section 1: Storage		
Brand	Adapter	Minimum UEK Version
Broadcom Limited	Emulex® LightPulse® LPe12000 8Gb Fibre Channel Adapter Model(s) LPe12000, LPe12002, LPe12004, LPe1250	4.14.35-1818
Broadcom Limited	Emulex® LightPulse® LPe16000 Fibre Channel Adapter (Gen5) Model(s) LPe16002, LPe16000B, LPe16002B, LPe16004	4.14.35-1818
Broadcom Limited	Emulex® LightPulse® LPe31000/32000 Fibre Channel Adapter (Gen6) Model(s) LPe32000-M2, LPe32002-M2, LPe32004-M2	4.14.35-1818
Broadcom Limited	Emulex® LightPulse® LPe36000 Gen7 Fibre Channel Adapter (Gen7) Model(s) LPe35000-M2, LPe35002-M2	4.14.35-1818

Broadcom Limited	Emulex® LightPulse® LPe31000/32000 Fibre Channel Adapter (Gen6) Model(s) LPe31000-M6, LPe31002-M6, LPe31004-M6 Note: Issues have been seen with this card on older servers.	4.14.35-1818
Broadcom Limited	Emulex® OneConnect OCe10000 10GbE Network Adapters Model(s) OCe10102-IX, OCe10102-IM2	4.14.35-1818
Broadcom Limited	Emulex® OneConnect OCe11000 10GbE Network Adapters Model(s) OCe11102-IT, OCe11102-IX, OCe11102-IM2	4.14.35-1818
Marvell	Marvell® FastLinQ 41000 Series 10/25/40/50GbE CNA Model(s) QL41262/41162	4.14.35-1818
Marvell	Marvell® FastLinQ 45000 Series 10/25/40/50GbE CNA Model(s) QL454xx	4.14.35-1818
Marvell	Marvell® FastLinQ 8200 Series 10GbE CNA Model(s) QLE8240/8242	4.14.35-1818
Marvell	Marvell® FastLinQ 8300 Series 10GbE Adapters Model(s) QLE8360/8362	4.14.35-1818
Marvell	Marvell® FastLinQ 8400 Series 10GbE CNA Model(s) QLE8440, QLE8442 (Ethernet Multi-function)	4.14.35-1818
Marvell	Marvell® QLogic® 2500 Series Fibre Channel Adapter Model(s) QLE2560, QLE2562, QLE2564, QLE2564L	4.14.35-1818
Marvell	Marvell® QLogic® 2600 Series 16G Fibre Channel Adapter Model(s) QLE2670, QLE2672	4.14.35-1818
Marvell	Marvell® QLogic® 2600 Series 16G Fibre Channel Adapter Model(s) QLE2694, QLE2694L	4.14.35-1818
Marvell	Marvell® QLogic® 2600 Series 16G Fibre Channel Adapter Model(s) QLE2690, QLE2692	4.14.35-1818
Marvell	Marvell® QLogic® 2700 Series 32G Fibre Channel Adapter Model(s) QLE2740, QLE2742	4.14.35-1818
Marvell	Marvell® QLogic® 2700 Series 32G Fibre Channel Adapter Model(s) QLE2764	4.14.35-1818

Section 2: Ethernet Networking

Brand	Adapter	Minimum UEK Version
Broadcom Limited	NetXtreme® E-Series Dual-Port 10/25GbE PCIe Adapter Model(s) P225p BCM957414A4142CC Note: No support for RDMA functions.	4.14.35-1818

Broadcom Limited	NetXtreme® E-Series Dual-Port 10BASE-T PCIe Adapter Model(s) P210tep BCM957416A4160C Note: No support for RDMA functions.	4.14.35-1818
Broadcom Limited	NetXtreme® E-Series Dual-Port 10GbE PCIe Adapter Model(s) P210p PBCM957412A4120AC Note: No support for RDMA functions.	4.14.35-1818
Broadcom Limited	Emulex® OneConnect OCe10000 10GbE Network Adapters Model(s) OCe10102-NX, OCe10102-NM Note: No support for RDMA.2	4.14.35-1818
Broadcom Limited	Emulex® OneConnect OCe11000 10GbE Network Adapters Model(s) OCe11102-NM, OCe11102-NX, OCe11102-NT, OCe11101-NM, OCe11101-NX Note: No support for RDMA.2	4.14.35-1818
Broadcom Limited	Emulex® OneConnect OCe14000 10/40GbE Ethernet Network Adapters Model(s) OCe14101-NX, OCe14101-NM, OCe14102-NX, OCe14102-NM, OCe14104-NX, OCe14104-NM, OCe14401-NX Note: No support for RDMA functions.2	4.14.35-1818
Marvell	Marvell® FastLinQ 8200 Series 10GbE CNA Model(s) QLE8240/8242	4.14.35-1818
Marvell	Marvell® FastLinQ 8300 Series 10GbE Adapters Model(s) QLE8360/8362	4.14.35-1818
Marvell	Marvell® FastLinQ 3400 Series 10GbE Ethernet Adapters Model(s) QLE3442, QLE3440	4.14.35-1818
Marvell	Marvell® FastLinQ 45000 Series 10/25/40/50GbE CNA Model(s) QL452xx 25GbE	4.14.35-1818
Marvell	Marvell® FastLinQ 45000 Series 10/25/40/50GbE CNA Model(s) QL454xx 40GbE	4.14.35-1818
Marvell	Marvell® FastLinQ 45000 Series 10/25/40/50GbE CNA Model(s) QL456xx 100GbE	4.14.35-1818
Marvell	Marvell® FastLinQ 8400 Series 10GbE CNA Model(s) 10GbE: QLE8440, QLE8442	4.14.35-1818
Marvell	Marvell® FastLinQ 8400 Series 10GbE CNA Model(s) 1GbE: QLE8440, QLE8442	4.14.35-1818
Marvell	Marvell® FastLinQ 41000 Series 10/25/40/50GbE CNA Model(s) QL41212 (25GbE) Note: No RDMA support.	4.14.35-1818
Marvell	Marvell® FastLinQ 41000 Series 10/25/40/50GbE CNA Model(s) QL41262/41162 Note: No RDMA support.	4.14.35-1818
Mellanox	ConnectX-3 EN 10GbE Model(s) MCX311A-XCAT, MCX312A-XCBT	4.14.35-1818

Mellanox	ConnectX-3 EN 40/56GbE Model(s) MCX313A-BCBT, MCX314A-BCBT	4.14.35-1818
Mellanox	ConnectX-3 Pro EN 10GbE Model(s) MCX311A-XCCT, MCX312B-XCCT, MCX312C-XCCT	4.14.35-1818
Mellanox	ConnectX-3 Pro EN 40/56GbE Model(s) MCX313A-BCCT, MCX314A-BCCT	4.14.35-1818
Mellanox	ConnectX-5 EN 25GbE Model(s) MCX512A-ACAT, MCX511F-ACAT, MCX512F-ACAT	4.14.35-1818
Mellanox	ConnectX-5 EN 40/50/100GbE Model(s) MCX515A-CCAT, MCX516A-CCAT	4.14.35-1818
Mellanox	ConnectX-5 EN 50GbE Model(s) MCX515A-GCAT, MCX516A-GCAT	4.14.35-1818
Mellanox	ConnectX-5 Ex EN 40/50/100GbE Model(s) MCX516A-CDAT	4.14.35-1818
Mellanox	ConnectX-5 Ex EN 40GbE Model(s) MCX516A-BDAT	4.14.35-1818
Mellanox	ConnectX-3 Pro VPI FDR IB and 40/56GbE Model(s) MCX353A-FCCT, MCX354A-FCCT Note: Ethernet mode only.	4.14.35-1818
Mellanox	ConnectX-3 VPI FDR IB and 40/56GbE Model(s) MCX353A-FCBT, MCX354A-FCBT Note: Ethernet mode only.	4.14.35-1818
Mellanox	ConnectX-3 VPI QDR IB and 10GbE Model(s) MCX353A-QCBT, MCX354A-QCBT Note: Ethernet mode only.	4.14.35-1818
Mellanox	ConnectX-5 Ex VPI FDR/EDR IB and 40/50/100GbE Model(s) MCX556A-EDAT Note: Ethernet mode only.	4.14.35-1818
Mellanox	ConnectX-5 VPI FDR/EDR IB and 40/50/100GbE Model(s) MCX555A-ECAT, MCX556A-ECAT Note: Ethernet mode only.	4.14.35-1818

Section 3: SAS/RAID

Brand	Adapter	Minimum UEK Version
Broadcom Limited	MegaRAID® 9200 Series RAID Adapters Model(s) 9266-4i, 9266-8i, 9270-8i, 9271-4i, 9271-8i	4.14.35-1818

Broadcom Limited	MegaRAID® 9300 Series RAID Adapters Model(s) 9365-28i, 9361-24i, 9361-16i, 9361-8i, 9361-4i, 9380-8e, 9380-8i8e, 9380-4i4e	4.14.35-1818
Broadcom Limited	SAS 9200 Series Host Bust Adapter (HBA) Family Model(s) 9207-8i, 9207-8e, 9207-4i4e	4.14.35-1818
Broadcom Limited	SAS 9300 Series Host Bust Adapter (HBA) Family Model(s) 9300-16e, 9300-16i, 9300-8e, 9300-8i, 9300-4i4e, 9300-4i, 9302-16e	4.14.35-1818
Broadcom Limited	SAS 9300 Series Host Bust Adapter (HBA) Family Model(s) 9305-24i, 9305-16i, 9305-16e	4.14.35-1818
Broadcom Limited	SAS 9400 Series Host Bust Adapter (HBA) Family Model(s) 9405W-16i, 9405W-16e, 9400-8i8e, 9400-8i, 9400-8e, 9400-16e, 9400-16i	4.14.35-1818
Broadcom Limited	MegaRAID® 9200 Series RAID Adapters Model(s) 9271-8iCC, 9286-8e, 9286CV-8e, 9286CV-8eCC	4.14.35-1818
Broadcom Limited	MegaRAID® 9400 Series Tri-Mode RAID Adapters Model(s) 9460-8i, 9440-8i, 9480-8i8e, 9460-16i	4.14.35-1818
Microsemi	Adaptec SAS HBA 1000 12Gbps Host Bus Adapter Model(s) HBA 1000-8i, 1000-8e, 1000-8i8e, 1000-16e, 1000-16i	4.14.35-1818
Microsemi	Adaptec SAS HBA 1100 12Gbps Host Bus Adapters Model(s) HBA 1100-16e, 1100-16i, 1100-24i, 1100-4i, 1100-8e, 1100-8i, 1100-8i8e	4.14.35-1818
Microsemi	Adaptec SmartHBA 2100 12Gbps Host Bus Adapters Model(s) SmartHBA 2100-4i4e, 2100-24i, 2100-8i, 2100-8i8e	4.14.35-1818
Microsemi	Adaptec SmartRAID 3100 12Gbps RAID Adapters Model(s) SmartRAID 3101-4i, 3102-8i	4.14.35-1818
Microsemi	Adaptec SmartRAID 3100 12Gbps RAID Adapters Model(s) SmartRAID 3151-4i, 3152-8i	4.14.35-1818
Microsemi	Adaptec SmartRAID 3100 12Gbps RAID Adapters Model(s) SmartRAID 3154-8i16e, 3154-8i8e, 3154-8i, 3154-8e, 3154-24i, 3154-16i	4.14.35-1818
Microsemi	Adaptec SmartRAID 3100 12Gbps RAID Adapters Model(s) SmartRAID 3162-8i, 3162-8e	4.14.35-1818

UEK Release 4

Section 1: Storage

Brand	Adapter	Minimum UEK Version
Broadcom Limited	Emulex® LightPulse® LPe12000 8Gb Fibre Channel Adapter Model(s) LPe12000, LPe12002, LPe12004, LPe1250	4.1.12-94

Broadcom Limited	Emulex® LightPulse® LPe16000 Fibre Channel Adapter (Gen5) Model(s) LPe16002, LPe16000B, LPe16002B, LPe16004	4.1.12-94
Broadcom Limited	Emulex® LightPulse® LPe31000/32000 Fibre Channel Adapter (Gen6) Model(s) LPe32000-M2, LPe32002-M2, LPe32004-M2	4.1.12-94
Broadcom Limited	Emulex® LightPulse® LPe31000/32000 Fibre Channel Adapter (Gen6) Model(s) LPe31000-M6, LPe31002-M6, LPe31004-M6 Note: Issues have been seen with this card on older servers.	4.1.12-94
Broadcom Limited	Emulex® OneConnect OCe10000 10GbE Network Adapters Model(s) OCe10102-IX, OCe10102-IM2	4.1.12-94
Broadcom Limited	Emulex® OneConnect OCe11000 10GbE Network Adapters Model(s) OCe11102-IT, OCe11102-IX, OCe11102-IM2	4.1.12-94
Marvell	Marvell® FastLinQ 45000 Series 10/25/40/50GbE CNA Model(s) QL454xx	4.1.12-61
Marvell	Marvell® FastLinQ 8200 Series 10GbE CNA Model(s) QLE8240/8242	4.1.12-61
Marvell	Marvell® FastLinQ 8300 Series 10GbE Adapters Model(s) QLE8360/8362	4.1.12-61
Marvell	Marvell® FastLinQ 8400 Series 10GbE CNA Model(s) QLE8440, QLE8442 (Ethernet Multi-function)	4.1.12-61
Marvell	Marvell® QLogic® 2500 Series Fibre Channel Adapter Model(s) QLE2560, QLE2562, QLE2564, QLE2564L	4.1.12-32
Marvell	Marvell® QLogic® 2600 Series 16G Fibre Channel Adapter Model(s) QLE2670, QLE2672	4.1.12-94
Marvell	Marvell® QLogic® 2600 Series 16G Fibre Channel Adapter Model(s) QLE2694, QLE2694L	4.1.12-94
Marvell	Marvell® QLogic® 2600 Series 16G Fibre Channel Adapter Model(s) QLE2690, QLE2692	4.1.12-32
Marvell	Marvell® QLogic® 2700 Series 32G Fibre Channel Adapter Model(s) QLE2740, QLE2742	4.1.12-32
Marvell	Marvell® QLogic® 2700 Series 32G Fibre Channel Adapter Model(s) QLE2764	4.1.12-32

Section 2: Ethernet Networking

Brand	Adapter	Minimum UEK Version
Broadcom Limited	NetXtreme® E-Series Dual-Port 10/25GbE PCIe Adapter Model(s) P225p BCM957414A4142CC Note: No support for RDMA functions.	4.1.12-124

Broadcom Limited	NetXtreme® E-Series Dual-Port 10BASE-T PCIe Adapter Model(s) P210tep BCM957416A4160C Note: No support for RDMA functions.	4.1.12-124
Broadcom Limited	NetXtreme® E-Series Dual-Port 10GbE PCIe Adapter Model(s) P210p PBCM957412A4120AC Note: No support for RDMA functions.	4.1.12-124
Broadcom Limited	Emulex® OneConnect OCe10000 10GbE Network Adapters Model(s) OCe10102-NX, OCe10102-NM Note: No support for RDMA.2	4.1.12-94
Broadcom Limited	Emulex® OneConnect OCe11000 10GbE Network Adapters Model(s) OCe11102-NM, OCe11102-NX, OCe11102-NT, OCe11101-NM, OCe11101-NX Note: No support for RDMA.2	4.1.12-94
Broadcom Limited	Emulex® OneConnect OCe14000 10/40GbE Ethernet Network Adapters Model(s) OCe14101-NX, OCe14101-NM, OCe14102-NX, OCe14102-NM, OCe14104-NX, OCe14104-NM, OCe14401-NX Note: No support for RDMA functions.2	4.1.12-94
Marvell	Marvell® FastLinQ 8200 Series 10GbE CNA Model(s) QLE8240/8242	4.1.12-61
Marvell	Marvell® FastLinQ 8300 Series 10GbE Adapters Model(s) QLE8360/8362	4.1.12-61
Marvell	Marvell® FastLinQ 3400 Series 10GbE Ethernet Adapters Model(s) QLE3442, QLE3440	4.1.12-61.1.18
Marvell	Marvell® FastLinQ 45000 Series 10/25/40/50GbE CNA Model(s) QL452xx 25GbE	4.1.12-61
Marvell	Marvell® FastLinQ 45000 Series 10/25/40/50GbE CNA Model(s) QL454xx 40GbE	4.1.12-61
Marvell	Marvell® FastLinQ 45000 Series 10/25/40/50GbE CNA Model(s) QL456xx 100GbE	4.1.12-61
Marvell	Marvell® FastLinQ 8400 Series 10GbE CNA Model(s) 10GbE: QLE8440, QLE8442	4.1.12-61
Marvell	Marvell® FastLinQ 8400 Series 10GbE CNA Model(s) 1GbE: QLE8440, QLE8442	4.1.12-61
Marvell	Marvell® FastLinQ 41000 Series 10/25/40/50GbE CNA Model(s) QL41262/41162 Note: No RDMA support.	4.1.12-61
Mellanox	ConnectX-3 EN 10GbE Model(s) MCX311A-XCAT, MCX312A-XCBT	4.1.12-124
Mellanox	ConnectX-3 EN 40/56GbE Model(s) MCX313A-BCBT, MCX314A-BCBT	4.1.12-124

Mellanox	ConnectX-3 Pro EN 10GbE Model(s) MCX311A-XCCT, MCX312B-XCCT, MCX312C-XCCT	4.1.12-124
Mellanox	ConnectX-3 Pro EN 40/56GbE Model(s) MCX313A-BCCT, MCX314A-BCCT	4.1.12-124
Mellanox	ConnectX-3 Pro VPI FDR IB and 40/56GbE Model(s) MCX353A-FCCT, MCX354A-FCCT Note: Ethernet mode only.	4.1.12-124
Mellanox	ConnectX-3 VPI FDR IB and 40/56GbE Model(s) MCX353A-FCBT, MCX354A-FCBT Note: Ethernet mode only.	4.1.12-124
Mellanox	ConnectX-3 VPI QDR IB and 10GbE Model(s) MCX353A-QCBT, MCX354A-QCBT Note: Ethernet mode only.	4.1.12-124

Section 3: SAS/RAID

Brand	Adapter	Minimum UEK Version
Broadcom Limited	MegaRAID® 9200 Series RAID Adapters Model(s) 9266-4i, 9266-8i, 9270-8i, 9271-4i, 9271-8i	4.1.12-112
Broadcom Limited	SAS 9200 Series Host Bust Adapter (HBA) Family Model(s) 9207-8i, 9207-8e, 9207-4i4e	4.1.12-112
Broadcom Limited	SAS 9400 Series Host Bust Adapter (HBA) Family Model(s) 9405W-16i, 9405W-16e, 9400-8i8e, 9400-8i, 9400-8e, 9400-16e, 9400-16i	4.1.12-124
Broadcom Limited	MegaRAID® 9200 Series RAID Adapters Model(s) 9271-8iCC, 9286-8e, 9286CV-8e, 9286CV-8eCC	4.1.12-112
Microsemi	Adaptec SAS HBA 1000 12Gbps Host Bus Adapter Model(s) HBA 1000-8i, 1000-8e, 1000-8i8e, 1000-16e, 1000-16i	4.1.12-37
Microsemi	Adaptec SAS HBA 1100 12Gbps Host Bus Adapters Model(s) HBA 1100-16e, 1100-16i, 1100-24i, 1100-4i, 1100-8e, 1100-8i, 1100-8i8e	4.1.12-103
Microsemi	Adaptec SmartHBA 2100 12Gpbs Host Bus Adapters Model(s) SmartHBA 2100-4i4e, 2100-24i, 2100-8i, 2100-8i8e	4.1.12-103
Microsemi	Adaptec SmartRAID 3100 12Gbps RAID Adapters Model(s) SmartRAID 3101-4i, 3102-8i	4.1.12-103
Microsemi	Adaptec SmartRAID 3100 12Gbps RAID Adapters Model(s) SmartRAID 3151-4i, 3152-8i	4.1.12-103
Microsemi	Adaptec SmartRAID 3100 12Gbps RAID Adapters Model(s) SmartRAID 3154-8i16e, 3154-8i8e, 3154-8i, 3154-8e, 3154-24i, 3154-16i	4.1.12-103

CONNECT WITH US

Call +1.800.ORACLE1 or visit oracle.com.

Outside North America, find your local office at oracle.com/contact.

 blogs.oracle.com/oracle

 facebook.com/oracle

 twitter.com/oracle

Integrated Cloud Applications & Platform Services

Copyright © 2019, Oracle and/or its affiliates. All rights reserved. This document is provided for information purposes only, and the contents hereof are subject to change without notice. This document is not warranted to be error-free, nor subject to any other warranties or conditions, whether expressed orally or implied in law, including implied warranties and conditions of merchantability or fitness for a particular purpose. We specifically disclaim any liability with respect to this document, and no contractual obligations are formed either directly or indirectly by this document. This document may not be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without our prior written permission.

This device has not been authorized as required by the rules of the Federal Communications Commission. This device is not, and may not be, offered for sale or lease, or sold or leased, until authorization is obtained.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group. 0719

