

Mellanox NATIVE ESX Driver for VMware vSphere 6.5 Release Notes

Rev 3.16.11.10

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Table of Contents

Table of Contents	3
List Of Tables	4
Release Update History	5
Chapter 1 Overview	6
1.1 Content of MLNX-NATIVE-ESX Package	6
1.2 Supported HCAs Firmware Versions	6
Chapter 2 Changes and New Features in Rev 3.16.11.10	7
Chapter 3 Known Issues	8
Chapter 4 Bug Fixes History	9
Chapter 5 Change Log History	10

List Of Tables

Table 1:	Release Update History	5
Table 2:	Supported HCAs Firmware Versions	6
Table 3:	Changes and New Features in Rev 3.16.11.10	7
Table 4:	Known Issues	8
Table 5:	Fixed Bugs List	9
Table 6:	Change Log History	10

Release Update History

Table 1 - Release Update History

Release	Date	Description
Rev 3.16.11.10	February 18, 2019	Initial release of this MLNX-NATIVE-ESX version.

1 Overview

These are the release notes of "Mellanox Native Driver for VMware® vSphere 2015". This document provides instructions on drivers for Mellanox Technologies ConnectX® based adapter cards with VMware ESXi Server environment.

1.1 Content of MLNX-NATIVE-ESX Package

The MLNX-NATIVE-ESX driver package is distributed as an offline bundle (.zip file) and contains:

- MLNX-NATIVE-ESX-ConnectX-3_3.16.11.10-10EM-650.0.0.4598673.zip

Driver bundle for ESXi 6.5 contains the following kernel modules:

- nmlx4_core (ConnectX family low-level PCI driver)
- nmlx4_en (Mellanox Technologies Ethernet driver)
- nmlx4_rdma (Mellanox Technologies RDMA driver)
- nmlx_en_mgmtInterface.tar.gz - management interface tarball

1.2 Supported HCAs Firmware Versions

MLNX-NATIVE-ESX v3.16.11.10 supports the following Mellanox Ethernet HCA:

Table 2 - Supported HCAs Firmware Versions

HCAs	Recommended Firmware Rev.	Additional Firmware Rev.
ConnectX-3 Pro	2.42.5000	2.36.5000
ConnectX-3	2.42.5000	2.36.5000

Please note that older firmware versions were not tested with this release.

For the latest firmware versions, visit:

- http://www.mellanox.com/page/vmware_matrix

2 Changes and New Features in Rev 3.16.11.10

Table 3 - Changes and New Features in Rev 3.16.11.10

Category	Description
Bug Fixes	See Section 4, “Bug Fixes History” , on page 9

3 Known Issues

The following is a list of general limitations and known issues of the various components of this MLNX-NATIVE-ESX release.

Table 4 - Known Issues

#	Description	Workaround
1.	RM#1117422: ConnectX-3 Pro 10G adapter cards wrongly report support for 40G speed when running the "esxcli network nic get" command.	N/A
2.	When the port is DOWN, the management interface port type field (nmlx_en_MgmtIFPortType) indicates one of the port types supported by the device, in the following order: TP, FIBER, DA, NONE. If the cable supports several types, the first type in the list mentioned above will be printed.	N/A
3.	When the port is UP, the management interface port type field (nmlx_en_MgmtIFPortType) indicates which one of all possible supported types is currently connected.	N/A
4.	Management interface port type field (nmlx_en_MgmtIFPortType) reports SFP-to-RJ45 cable as FIBER.	N/A
5.	Management interface auto negotiation field (nmlx_en_MgmtIFAutoNegMode) is equivalent to "esxcli network nic get -n vmnix" field "Pause Autonegotiate"	N/A

4 Bug Fixes History

Table 5 lists the bugs fixed in this release.

Table 5 - Fixed Bugs List

#	Category	Description	Discovered in Release	Fixed in Release
1.	Network Traffic	Resolved an issue that caused the network adapter traffic to stop. For further information, see: https://kb.vmware.com/s/article/60421	3.16.11.6	3.16.11.10
2.	multicast loopback, LACP Bonding	Fixed an internal multicast loopback issue that broke LACP bonding protocol	3.15.5.5	3.16.11.10

5 Change Log History

Table 6 - Change Log History

Release	Category	Description
3.15.5.5	Management Interface	Updated Management Interface APIs
	VXLAN	Added support for VXLAN hardware offload. VXLAN hardware offload enables the traditional offloads to be performed on the encapsulated traffic. With ConnectX®-3 Pro, data center operators can decouple the overlay network layer from the physical NIC performance, thus achieving native performance in the new network architecture.
	Management interface	Added Management Interface support
	Hardware Performance	<ul style="list-style-type: none"> • 1G • 10G • 40G • 56G
	Hardware Offload	<ul style="list-style-type: none"> • Large Send Offload (TCP Segmentation Offload) • WoL (only on supported hardware) • RSS Queues
	Hardware Capabilities	<ul style="list-style-type: none"> • Multiple Tx/Rx rings • NetQueue support • Fixed Pass-Through • Single/Dual port • MSI-X