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# **Mellanox NATIVE ESX Driver for VMware vSphere 6.0 Release Notes**

Rev 3.2.0

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# Release Update History

**Table 1 - Release Update History**

Release	Date	Description
Rev 3.2.0	October 06, 2015	Added <a href="#">Section 2.1, “Important Notes”</a> , on page 7
	September, 2015	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-3.2.0.7-10EM-600.0.0.2768847.zip - Hypervisor bundle for ESXi 2015 bundle contains the following kernel modules:
  - nmlx4\_core (ConnectX family low-level PCI driver)
  - nmlx4\_en (Mellanox Technologies Ethernet driver)
- nmlx\_en\_mgmtInterface.tar.gz - management interface tarball

## 1.2 Supported HCAs Firmware Versions

MLNX-NATIVE-ESX Rev 3.2.0 supports the following Mellanox Ethernet HCA:

**Table 2 - Supported HCAs Firmware Versions**

HCAs	Recommended Firmware Rev.
ConnectX-3 Pro	2.34.5000
ConnectX-3	2.34.5000

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](http://www.mellanox.com/page/vmware_matrix)  
or
- <http://www.mellanox.com/supportdownloader/>

## 2 Changes and New Features in Rev 3.2.0

*Table 3 - Changes and New Features in Rev 3.2.0*

Category	Description
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.

### 2.1 Important Notes

In order to install the driver, you must remove the Inbox driver RDMA module. Run:

```
#> esxcli software vib remove -n nmlx4-rdma
```

### 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.	When the port is DOWN, the management interface <code>port_type</code> field ( <code>nmlx_en_MgmtIFPortType</code> ) 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
2.	When the port is UP, the management interface <code>port_type</code> field ( <code>nmlx_en_MgmtIFPortType</code> ) indicates which one of all possible supported types is currently connected.	N/A
3.	Management interface <code>port_type</code> field ( <code>nmlx_en_MgmtIFPortType</code> ) reports SFP-to-RJ45 cable as FIBER.	N/A
4.	Management interface <code>auto_negotiation</code> field ( <code>nmlx_en_MgmtIFAutoNegMode</code> ) is equivalent to <code>"esxcli network nic get -n vmnix"</code> field <code>"Pause Autonegotiate"</code>	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.	Management interface	Management interface port type field (nm1x-en_MgmtIFPortType) reported incorrect value.	3.1.0	3.2.0

## 5 Change Log History

**Table 6 - Change Log History**

Release	Category	Description
3.1.0	Management interface	Added Management Interface support
3.0.0	Hardware Performance	<ul style="list-style-type: none"><li>• 1G</li><li>• 10G</li><li>• 40G</li></ul>
	Hardware Offload	<ul style="list-style-type: none"><li>• Large Send Offload (TCP Segmentation Offload)</li><li>• WoL (only on supported hardware)</li><li>• RSS Queues</li></ul>
	Hardware Capabilities	<ul style="list-style-type: none"><li>• Multiple Tx/Rx rings</li><li>• NetQueue support</li><li>• Fixed Pass-Through</li><li>• Single/Dual port</li><li>• MSI-X</li></ul>