



Mellanox NATIVE ESX Driver for VMware vSphere 6.0 Release Notes

Rev 3.15.5.5

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Release Update History

Table 1 - Release Update History

| Release | Date | Description |
|--------------|--------------|---|
| Rev 3.15.5.5 | May 05, 2016 | 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-3-3.15.5.5-10EM-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)
 - nmlx4_rdma (Mellanox Technologies RDMA driver)
- nmlx_en_mgmtInterface.tar.gz - management interface tarball

1.2 Supported HCAs Firmware Versions

MLNX-NATIVE-ESX Rev 3.15.5.5 supports the following Mellanox Ethernet HCA:

Table 2 - Supported HCAs Firmware Versions

| HCAs | Recommended Firmware Rev. |
|----------------|---------------------------|
| ConnectX-3 Pro | 2.35.5100 |
| ConnectX-3 | 2.35.5100 |

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
- or
- <http://www.mellanox.com/supportdownloader/>

2 Changes and New Features in Rev 3.15.5.5

Table 3 - Changes and New Features in Rev 3.15.5.5

| Category | Description |
|----------------------|-----------------------------------|
| Management Interface | Updated Management Interface APIs |

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_MgmtIFAu-toNegMode</code>) is equivalent to <code>"esxcli network nic get -n vmnicX"</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. | Ethernet | Fixed an issue which prevented VLAN tag Priority Code Point (PCP) in RX and TX from working properly. | 3.2.0 | 3.15.2.0 |
| 2. | Installation | Fixed a PSOD case during installation when the RDMA module was not removed. | 3.2.0 | 3.15.2.0 |
| 3. | Management interface | Management interface port_type field (nmlx-_en_MgmtIFPortType) reported incorrect value. | 3.1.0 | 3.2.0 |

5 Change Log History

Table 6 - Change Log History

| Release | Category | Description |
|----------|-----------------------|---|
| 3.15.2.0 | Bug fixes | See Section 4, “Bug Fixes History”, on page 9 |
| 3.2.0 | 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. |
| 3.1.0 | Management interface | Added Management Interface support |
| 3.0.0 | Hardware Performance | <ul style="list-style-type: none"> • 1G • 10G • 40G |
| | 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 |