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Mellanox ConnectX-4 NATIVE ESX Driver for VMware vSphere 5.5/6.0 Release Notes

Rev 4.15.3.1008 &
4.5.1.1008

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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-ConnectX-4 Package	6
1.2 Supported HCAs Firmware Versions	6
Chapter 2 Changes and New Features in Rev 4.15.3.1008 & 4.5.1.1008	7
Chapter 3 Known Issues	8

List Of Tables

Table 1:	Release Update History	5
Table 2:	Supported Uplinks to Servers	6
Table 3:	Supported HCAs Firmware Versions	6
Table 4:	Change Log History	7
Table 5:	Known Issues	8

Release Update History

Table 1 - Release Update History

Release	Date	Description
Rev 4.15.3.1008 & 4.5.1.1008	May 2016	Added table Table 2, “Supported Uplinks to Servers,” on page 6
	January 2016	Initial release of this MLNX-NATIVE-ESX-ConnectX-4 version

1 Overview

These are the release notes of Mellanox ConnectX-4 NATIVE ESX Driver for VMware vSphere 5.5/6.0. Mellanox ConnectX-4 NATIVE ESX Driver for VMware vSphere 5.5/6.0 supports the following uplinks to servers

Table 2 - Supported Uplinks to Servers

Version	OS	Uplink Speed
4.5.1.1008	ESX 5.5	10/40GbE
4.15.3.1008	ESX 6.0, ESX 6.0 U1	10/40GbE
	ESX 6.0 U2	10/25/40/50GbE

1.1 Content of MLNX-NATIVE-ESX-ConnectX-4 Package

The MLNX-NATIVE-ESX-ConnectX-4 driver package is distributed as an offline bundle (.zip file) and contains:

- **ESXi 6.0:**
MLNX-NATIVE-ESX-ConnectX-4-4.15.3.1008-10EM-600.0.0.2768847.zip
Hypervisor bundle for ESXi 2015 bundle contains the following kernel modules:
 - nmlx5_core (Mellanox Technologies Ethernet driver)
- **ESXi 5.5**
MLNX-NATIVE-ESX-ConnectX-4-4.5.1.1008-10EM-550.0.0.1391871.zip
Hypervisor bundle for ESXi 2015 bundle contains the following kernel modules:
 - nmlx5_core (Mellanox Technologies Ethernet driver)

1.2 Supported HCAs Firmware Versions

MLNX-NATIVE-ESX-ConnectX-4 Rev 4.15.3.1008 & 4.5.1.1008 supports the following Mellanox Ethernet HCA:

Table 3 - Supported HCAs Firmware Versions

HCAs	Recommended Firmware Rev.
ConnectX-4	12.14.0082
ConnectX-4 Lx	14.14.0082

2 Changes and New Features in Rev 4.15.3.1008 & 4.5.1.1008

Table 4 - Change and New Feature

Category	Description
Virtualization	<ul style="list-style-type: none">• VXLAN Hardware Stateless Offloads for ConnectX@-4: VXLAN hardware offload enables the traditional offloads to be performed on the encapsulated traffic.
	<ul style="list-style-type: none">• SR-IOV (Beta level): Single Root IO Virtualization (SR-IOV) is a technology that allows a physical PCIe device to present itself multiple times through the PCIe bus. Note: SR-IOV is currently supported in ESXi 6.0 only.
	<ul style="list-style-type: none">• NetDump: Enables a host to transmit diagnostic information via the network to a remote netdump service, which stores it on disk. Network-based coredump collection can be configured in addition to or instead of disk-based coredump collection.
	<ul style="list-style-type: none">• NetQueue: NetQueue is a performance technology in VMware ESX that significantly improves performance in 10 Gigabit Ethernet virtualized environments.
Host Management	<ul style="list-style-type: none">• WoL: Allows a network administrator to remotely power on a system or to wake it up from sleep mode
	<ul style="list-style-type: none">• Bad cable reporting: Note: Bad cable reporting is currently supported in ESXi 6.0 only.
	<ul style="list-style-type: none">• Driver version reporting: Note: Driver version reporting is currently supported in ESXi 6.0 only.
Management Interface	<ul style="list-style-type: none">• Management Interface: Note: Management is currently supported in ESXi 6.0 only.

3 Known Issues

The following is a list of general limitations and known issues of the various components of this MLNX-NATIVE-ESX-ConnectX-4 release.

Table 5 - Known Issues

#	Description	Workaround
1.	This driver support Ethernet cards only, VPI cards must be configured as Ethernet only mode when burning the firmware. For further information on firmware burning, please refer to the MFT User Manual. (www.mellanox.com > Products > Software > InfiniBand/VPI Drivers > Firmware Tools)	N/A
2.	Multicast and IPv6 traffic might be unstable over SR-IOV.	N/A
3.	Management Interface shows Port Type Other instead of Port Type.	-
4.	SR-IOV is currently at Beta level.	-
5.	Reboot is required after any SR-IOV configuration change.	-
6.	The maximum number of Virtual Functions currently supported in SR-IOV is 10.	-
7.	Driver specific statistics may appear incomplete (ESX6.0 Limitation).	-
8.	Firmware VF configuration must be N+1 (while N is the required VF number). For example: If your configuration requires 10 VFs, the firmware must be set to support 11 VFs (ESX6.0 Limitation).	-