

Mellanox ConnectX-4, ConnectX-4 Lx and ConnectX-5 Plugin for RedHat OpenStack Platform 11

Release Notes

Rev 2.0

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Table of Contents

Document Revision History	5
1 Overview	6
1.1 System Requirements	6
1.2 Supported Guest Operating Systems.....	6
1.3 Supported Network Adapter Cards.....	7
1.3.1 Firmware Versions	7
1.4 Management and Driver Software.....	7
2 Key Features	8
3 Product Related Documentation	9

List of Tables

Table 1: Document Revision History	5
Table 2: Undercloud Node Requirements.....	6
Table 3: Overcloud Node Requirements	6
Table 4: Supported Guest Operating Systems	6
Table 5: Supported Network Adapter Cards	7
Table 6: Firmware Versions.....	7
Table 7: Product Related Documentation.....	9

Document Revision History

Table 1: Document Revision History

Revision	Date	Description
2.0	August 30 th , 2017	Initial version of this RedHat OSP 11 Plugin document.

1 Overview

These are the Release Notes for Mellanox ConnectX-4, ConnectX-4 Lx and ConnectX-5 Plugin for RedHat OpenStack Platform 11.

1.1 System Requirements

The system requirements are detailed in the following tables:

Table 2: Undercloud Node Requirements

Platform	Type and Version
OS	Red Hat Enterprise Linux 7.3 or later (vanilla)
CPU	An 8-core 64-bit x86 processor with support for the Intel 64 or AMD64 CPU extensions.
Memory	A minimum of 16 GB of RAM.
Disk Space	A minimum of 40 GB of available disk space on the root disk. Make sure to leave at least 10 GB free space before attempting an Overcloud deployment or update. This free space accommodates image conversion and caching during the node provisioning process.
Networking	A minimum of 2 x 1 Gbps Network Interface Cards. However, it is recommended to use a 10 Gbps interface for Provisioning network traffic, especially if provisioning many nodes in your Overcloud environment.

Table 3: Overcloud Node Requirements

	Controller	Compute	Storage
Standalone basic Scenario	1	1	1
High-availability basic scenario	3	1	1

1.2 Supported Guest Operating Systems

The following are the supported Guest OSes:

Table 4: Supported Guest Operating Systems

OS	version
RHEL	7.x
Centos	7.x
Ubuntu	14.04

1.3 Supported Network Adapter Cards

Mellanox ConnectX-4 and ConnectX-4 Lx Plugin for RedHat OpenStack Platform 11 supports the following Mellanox network adapter cards:

Table 5: Supported Network Adapter Cards

NICs	Supported Protocols	Supported Link Speeds
ConnectX®-4	Ethernet	10, 25, 40, 50 and 100 Gb/s
ConnectX®-4 Lx	Ethernet	10, 25, 40 and 50Gb/s
ConnectX®-5	Ethernet	10, 25, 40, 50 and 100 Gb/s

1.3.1 Firmware Versions

Mellanox ConnectX-4 and ConnectX-4 Lx Plugin for RedHat OpenStack Platform 11 provides the following firmware for Mellanox NICs:

Table 6: Firmware Versions

NICs	Recommended Firmware Rev.
ConnectX-4	12.20.1010
ConnectX-4 Lx	14.20.1010
ConnectX-5	16.20.1010

1.4 Management and Driver Software

Software	Supported Versions
MLNX_OFED	v4.1-1.0.2.0

2 Key Features

The Mellanox Redhat Openstack plugin can configure Mellanox ConnectX-4, ConnectX-4 Lx and ConnectX-5 network adapters to accelerate the performance of compute and storage traffic which includes the following main features:

- Support ConnectX-4, ConnectX-4 Lx and ConnectX-5 adapters (Ethernet only)
- iSER
- SR-IOV/ParaVirtualization (PV)
- OFED 4.1-1.0.2.0
- VXLAN Offloading
- OVS-DPDK support.
- CEPH RDMA integration for Cinder service.
- Active-backup Bonding support over network interfaces.
- Auto-generates the basic network interfaces topology for os-net-config

3 Product Related Documentation

Table 7: Product Related Documentation

Document Title	Document Number
Mellanox ConnectX-4, ConnectX-4 Lx and ConnectX-5 Redhat OSP 11 Plugin User Manual	MLNX-15-52350
Mellanox ConnectX-4, ConnectX-4 Lx and ConnectX-5 Lx Redhat OSP 11 Plugin Release Notes	N/A
Redhat OSP 11 Documentation	-