

Mellanox ConnectX-4/ ConnectX-4 LX Plugin for RedHat OpenStack Platform 9 – version 1-1.1.0

Release Notes

Rev 1.0

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Document Revision History

Table 1: Document Revision History

Revision	Date	Description
1.0	February 1 st , 2017	Initial version of this document.

1 Overview

These are the Release Notes for Mellanox ConnectX-4 and ConnectX-4 LX Plugin for RedHat OpenStack Platform 9.

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 7.2 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
SA basic Scenario	1	1	1
HA 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 9 Rev 1.0 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 QDR, FDR10, FDR and EDR
ConnectX®-4 LX	Ethernet	10, 25, 40 and 50Gb/s

1.3.1 Firmware Versions

Mellanox ConnectX-4 Plugin for RedHat OpenStack Platform 9 Rev 1.0 provides the following firmware for Mellanox NICs:

Table 6: Firmware Versions

NICs	Recommended Firmware Rev.
ConnectX-4	12.17.2020
ConnectX-4 Lx	14.17.2020

1.4 Management and Driver Software

Software	Supported Versions
MLNX_OFED	v4.0.0.1
MLNX-OS	v3.6.2000
Mellanox NEO	v1.7+

2 Key Features

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

- Support ConnectX-4 and ConnectX-4 LX adapters (Ethernet only)
- iSER
- SR-IOV/ParaVirtualization (PV)
- OFED 4
- VXLAN Offloading
- Network Auto Provisioning
- Auto generating the basic network interfaces topology for os-net-config

3 Known Issues

The following are the RHEL-OSP 9 plugin known limitations:

Table 7: RHEL-OSP 9 Plugin Known Limitations

Internal Ref.	Issue
-	<p>Description: <code>deploy.sh</code> example script generates the password files in the <code>deploy</code> directory.</p> <p>Workaround: Use your own deployment command or the generated example from the <code>deploy</code> directory.</p> <p>Keywords: Deploy directory</p>
-	<p>Description: When updating a deployed environment with NEO SDN mechanism driver that manages the active ports, errors might occur in the Neutron server.</p> <p>Workaround: Upgrade the environment with a NEO SDN driver that does not manage the active ports, or disable it during update.</p> <p>Keywords: Upgrade environment with NEO provisioning and active VMS</p>

4 Product Related Documentation

Table 8: Product Related Documentation

Document Title	Document Number
Mellanox ConnectX-4 Redhat Director Plugin User Manual	-
Mellanox ConnectX-4 Redhat Director Plugin Release Notes	-
Redhat Director Documentation	-
NEO auto-provisioning community post	-