



OpenStack VTF vhost Mode Considerations

This appendix details the general considerations for deploying VTF in vhost mode on OpenStack.



Note Only RHEL nodes are currently supported as target vhost nodes.

Requirement	Details
RHEL version	7.3
QEMU	qemu-kvm-rhev-2.6.0-28.el7_3.6.x86_64
libVirt	libvirt-2.0.0-10.el7_3.4.x86_64
Kernel Drivers	uio_pci_generic: version 0.01.0 or vfio_pci: version 0.2
OpenStack	<ul style="list-style-type: none">• Newton• Nova Compute
Target vhost Compute Node RAM / CPU	16Gb / 2 CPU
Hugepage	The installer takes care of this requirement.



- Note**
- If an image is tuned to run on VTF (w mem_page_size) and the same image is used on a server that does not have VTF and huge pages created, it might fail.
 - If you deploy a VM on VTF host w/o mem_page_size large, the VM might come up fine, but may not be able to ping anything.
 - Using an image with mem_page_size set on a OVS host (non-VTF) fails because huge pages are not created.
-
- Requirements to run with Vector Packet Processing (VPP) and DPDK—See VPP and DPDK documentation for details.

- Numa node requirements
- OpenStack Flavor Extra Specs details— See OpenStack Flavors documentation for details.
- NIC Support—The following are supported:
 - Normal NIC-Intel NIAANTIC (x510, IXGBE 82599)
 - Cisco VIC 1457



Note VTS is used with Cisco VIC 1455/1457 on UCS servers. To support Cisco VTC 1457 with VTS, the Cisco VIC must have both UCS and VIC firmware updates. For a proper NIC function, ensure to update the UCS firmware and NIC firmware to the latest UCS HUU version 4.0(2c).

As a result of this software update the:

- UCS CIMC firmware version should be 4.0(2c).
- VIC firmware version should be 5.0(2a).

With the firmware updates the Cisco VIC will function even with VTS 2.6.4 software version that you have.

To update the Firmware on Cisco UCS C-Series Servers, refer the [Upgrading the Firmware on a Cisco UCS C-Series Server Using the HUU](#) topic in the **Cisco Host Upgrade Utility** User Guide.

After the UCS and VIC firmware updates, VIC becomes configurable under UCS's Networking (Adapter Card) menu, and the firmware versions are listed under the **Admin/Firmware Management** menu.

- After updates, VTS can be used with Cisco VIC 1455/1457 on UCS servers.
- Mellanox NIC (MCX4121A-ACAT) ConnectX-4 Lx EN 25GbE dual-port SFP28, PCIe3.0 x8, tall bracket.