

Contrail Networking NIC Support Matrix Releases 21xx

Name of NIC		Contrail Networking Release	21.4	21.3
		DPDK Release	19.11.0	19.11.0
Intel	E810	Kernel vRouter	x	x
		DPDK vRouter	OK	x
		SRIOV - vRouter bypass w/ vRouter coexist.	x	x
Intel	82599, X510, X710, XXV710, XL710	Kernel vRouter	OK	OK
		DPDK vRouter	OK	OK
		SRIOV - vRouter bypass w/ vRouter coexist.	OK	OK
Broadcom	BCM57414-25G	Kernel vRouter	OK	OK
		DPDK vRouter	?	?
		SRIOV - vRouter bypass w/ vRouter coexist.	?	?
Mellanox	Connect X4	Kernel vRouter	OK	OK
		DPDK vRouter	OK	OK
		SRIOV - vRouter bypass	OK	OK
	Connect X5	Kernel vRouter	OK	OK
		DPDK vRouter	OK	OK
		SRIOV - vRouter bypass	OK	OK
		SmartNIC - DPDK vRouter accel. (ASAP)	x	x
		SmartNIC - VirtIO + vRouter offload.	x	x
		SmartNIC - SR-IOV + kernel vRouter offload.	x	x
		SmartNIC - SR-IOV + DPDK vRouter offload	x	x
	Agilio CX 2x10GE, 2x25GE, 1x40GE, 2x40GE	Kernel vRouter (coreNIC)	OK	OK
		DPDK vRouter (coreNIC)	x	x
		SRIOV - vRouter bypass (CoreNIC)	x	x
		SmartNIC - VirtIO VM with vRouter offload	OK	OK
		SmartNIC - SR-IOV + kernel vRouter offload	OK	OK
LCM		x	x	
VF Kernel Driver		x	x	
SmartNIC - Control Plane + Data Plane offload		x	x	
Netronome	Agilio FX 2x10GE	Kernel vRouter (coreNIC)	OK	OK
		DPDK vRouter (coreNIC)	x	x
		SRIOV - vRouter bypass (CoreNIC)	x	x
		SmartNIC - VirtIO VM with vRouter offload	OK	OK
		SmartNIC - SR-IOV + kernel vRouter offload	OK	OK
		SmartNIC - Control Plane + Data Plane offload	x	x

Legend	
?	Not Tested
x	Not Supported

Note: NICs on blade servers might not work as designed sometimes with Contrail Networking's overlay model that assumes an IP fabric underlay. Additional proprietary switching materially changing packets might cause problems for Contrail

Conrail Networking NIC Support Matrix Releases 20xx and 19xx

Name of NIC		Conrail Networking Release	2011 & 2011L	2008	2005	2003	1912	1911	1910	1909	1908	
		DPDK Release	19.11.0	19.11.0	18.05.1	18.05.1	18.05.1	18.05.1	18.05.1	18.05.1	18.05.1	
Intel	E810	Kernel vRouter	x	x	x	x	x	x	x	x	x	
		DPDK vRouter	OK (R2011.L5 & later)	x	x	x	x	x	x	x	x	
		SRIOV - vRouter bypass w/ vRouter coexist.	x	x	x	x	x	x	x	x	x	
		Kernel vRouter	OK	OK	OK	OK	OK	OK	OK	OK	OK	
Intel	82599, X510, X710, XXV710, XL710	DPDK vRouter	OK	OK	OK	OK	OK	OK	OK	OK	OK	
		SRIOV - vRouter bypass w/ vRouter coexist.	OK	OK	OK	OK	OK	OK	OK	OK	OK	
		Kernel vRouter	OK	OK	OK	OK	OK	OK	OK	OK	OK	
		DPDK vRouter	?	?	?	?	?	?	?	?	?	
Broadcom	BCM57414-25G	SRIOV - vRouter bypass w/ vRouter coexist.	?	?	?	?	?	?	?	?	?	
		Kernel vRouter	OK	OK	OK	OK	OK	OK	OK	OK	OK	
		DPDK vRouter	OK	OK	OK	OK	OK	OK	OK	OK	OK	
Mellanox	Connect X4	Kernel vRouter	OK	OK	OK	OK	x	x	OK	OK	OK	
		DPDK vRouter	OK	OK	OK	OK	x	x	OK	OK	OK	
		SRIOV - vRouter bypass	OK	OK	OK	OK	OK	OK	OK	OK	OK	
	Connect X5	Kernel vRouter	OK	OK	OK	OK	OK	OK	OK	OK	OK	
		DPDK vRouter	OK	OK	OK	OK	x	x	OK	OK	OK	
		SRIOV - vRouter bypass	OK	OK	OK	OK	x	x	OK	OK	OK	
		SmartNIC - DPDK vRouter accel. (ASAP)	x	x	x	x	x	x	x	x	x	
		SmartNIC - VirtIO + vRouter offload.	x	x	x	x	x	x	x	x	x	
		SmartNIC - SR-IOV + kernel vRouter offload.	x	x	x	x	x	x	x	x	x	
		SmartNIC - SR-IOV + DPDK vRouter offload	x	x	x	x	x	x	x	x	x	
	Agilio CX 2x10GE, 2x25GE, 1x40GE, 2x40GE	Kernel vRouter (coreNIC)	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
		DPDK vRouter (coreNIC)	x	x	x	x	x	x	x	x	x	
		SRIOV - vRouter bypass (CoreNIC)	x	x	x	x	x	x	x	x	x	
		SmartNIC - VirtIO VM with vRouter offload	OK	OK	OK	OK	OK	OK	OK	OK	OK	
		SmartNIC - SR-IOV + kernel vRouter offload	OK	OK	OK	OK	OK	OK	OK	OK	OK	
		LCM	x	x	x	x	x	x	x	x	x	
Netronome	Agilio FX 2x10GE	VF Kernel Driver	x	x	x	x	x	x	x	x	x	
		SmartNIC - Control Plane + Data Plane offload	x	x	x	x	x	x	x	x	x	
		Kernel vRouter (coreNIC)	OK	OK	OK	OK	OK	OK	OK	OK	OK	
		DPDK vRouter (coreNIC)	x	x	x	x	x	x	x	x	x	
		SRIOV - vRouter bypass (CoreNIC)	x	x	x	x	x	x	x	x	x	
	Agilio FX 2x10GE	SmartNIC - VirtIO VM with vRouter offload	OK	OK	OK	OK	OK	OK	OK	OK	OK	
		SmartNIC - SR-IOV + kernel vRouter offload	OK	OK	OK	OK	OK	OK	OK	OK	OK	
		SmartNIC - Control Plane + Data Plane offload	x	x	x	x	x	x	x	x	x	
		Kernel vRouter (coreNIC)	OK	OK	OK	OK	OK	OK	OK	OK	OK	
		DPDK vRouter (coreNIC)	x	x	x	x	x	x	x	x	x	

Legend	
?	Not Tested
x	Not Supported

Note: NICs on blade servers might not work as designed sometimes with Conrail Networking's overlay model that assumes an IP fabric underlay. Additional proprietary switching materially changing packets might cause problems f Networking's overlay.

Conrail Networking NIC Support Matrix Releases 5x

Name of NIC		Conrail Networking Release	5.1	5.0.2	5.0.2	5.0.1	5.0.1	5
		OpenStack	Queens	OSP13	Ocata, Queens	OSP13	Ocata, Queens	Ocata, Pike
		DPDK Release	18.05.1	17.11	17.11	17.11	17.11	17.02
		Linux	18.04/7.6	7.5	18.04	7.5	16.04	16.04
Intel	82599, X510, X710, XXV710, XL710	Kernel vRouter	OK	OK	OK	OK	OK	x
		DPDK vRouter	OK	OK	OK	OK	OK	x
		SRIOV - vRouter bypass w/ vRouter coexist.	OK	OK	OK	OK	OK	x
Broadcom	BCM57414-25G	Kernel vRouter	OK	OK	OK	OK	OK	OK
		DPDK vRouter	?	?	OK	?	OK	OK
		SRIOV - vRouter bypass w/ vRouter coexist.	?	?	?	?	?	?
Mellanox	Connect X4	Kernel vRouter	OK	OK	OK	x	OK	x
		DPDK vRouter	OK	OK	OK	x	OK	x
		SRIOV - vRouter bypass	OK	OK	OK	x	OK	x
	Connect X5	Kernel vRouter	OK	OK	OK	x	OK	x
		DPDK vRouter	OK	OK	OK	x	OK	x
		SRIOV - vRouter bypass	OK	OK	OK	x	OK	x
		SmartNIC - DPDK vRouter accel. (ASAP)	x	x	x	x	x	x
		SmartNIC - VirtIO + vRouter offload.	x	x	x	x	x	x
		SmartNIC - SR-IOV + kernel vRouter offload.	x	x	x	x	x	x
	Agilio CX 2x10GE, 2x25GE, 1x40GE, 2x40GE	SmartNIC - SR-IOV + DPDK vRouter offload.	x	x	x	x	x	x
		Kernel vRouter (coreNIC)	OK	OK	OK	OK	OK	OK
		DPDK vRouter (coreNIC)	x	x	x	x	x	x
		SRIOV - vRouter bypass (CoreNIC)	x	x	x	x	x	x
		SmartNIC - VirtIO VM with vRouter offload.	x	x	x	x	x	x
		SmartNIC - SR-IOV + kernel vRouter offload.	x	x	x	x	x	x
Netronome	Agilio FX 2x10GE	LCM	x	x	x	x	x	x
		VF Kernel Driver	x	upstream	x	upstream	x	x
		SmartNIC - Control Plane + Data Plane offload	x	x	x	x	x	x
		Kernel vRouter (coreNIC)	OK	OK	OK	OK	OK	OK
	DPDK vRouter (coreNIC)	x	x	x	x	x	x	
	SRIOV - vRouter bypass (CoreNIC)	x	x	x	x	x	x	
	SmartNIC - VirtIO VM with vRouter offload.	x	x	x	x	x	x	
SmartNIC - SR-IOV + kernel vRouter offload.	x	x	x	x	x	x		
SmartNIC - Control Plane + Data Plane offload	x	x	x	x	x	x		

Legend	
?	Not Tested
x	Not Supported