

Adapter Comparison

Adapter	ConnectX-4 Lx	Broadcom 57300
Dell Product Number	406-BBLC	406-BBKV
Dell Pricing	\$364.99	\$599.99
Speed Rates	Dual ports of 25GbE	Dual ports of 25GbE
RDMA	✓	✗
Storage Features	iSER, T10-DIF, Erasure Coding offload, NVMe over Fabric	✗
HPC Features	✓	✗
RoCE Latency	1.4us (round trip)	1.5us (round trip)
Multi-Host and Multi-Host Socket Direct	✓	✗
Virtualization	SR-IOV (up to 256 VFs) VMQ, Multi-Host, NPAR (roadmap)	SR-IOV (up to 128 VFs) Multiqueue, NetQueue, VMQ
Network Tunneling	VXLAN, NVGRE, GRE, GENEVE, MPLS, QinQ, IPinIP	VxLAN, GRE and IPinIP
OVS Offload	✓ (eSwitch and ASAP ²)	✓ (TruFlow)
IPv4 and IPv6 Offloads	✓	✓
TCP/IP Stateless Offload	Checksum, TSO, LSO, LRO, RSS, TSS	Checksum, TSO, LSO, LRO, RSS, TSS
Dell System Compatibility	C6320, FC430, FC630, FC830, R430, R530, R630, R730, R730XD, R930	R430, R530, R630, R730, R730XD, R930

Adapter Performance Comparison

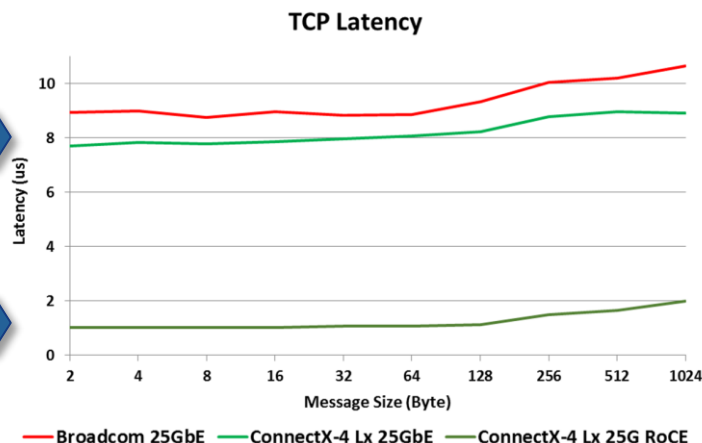
25GbE TCP Latency

Mellanox
ConnectX-4
Advantage

15% Lower TCP Latency

Mellanox
ConnectX-4
Advantage

90% Lower RDMA Latency



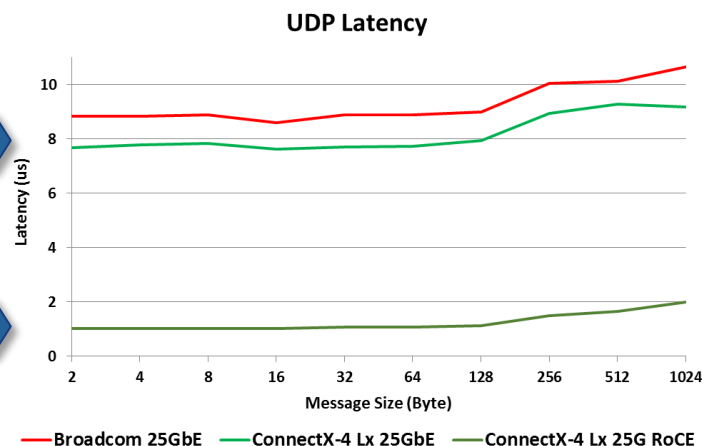
25GbE UDP Latency

Mellanox
ConnectX-4
Advantage

15% Lower UDP Latency

Mellanox
ConnectX-4
Advantage

90% Lower RDMA Latency



Key Differentiators



PERFORMANCE

- Direct data transfer to memory without CPU intervention
- Hardware-based offload and flow steering engines free CPU cycles (RoCE <1%)
- Proven to accelerate: Windows Storage Spaces, Red Hat Ceph and VMware VSAN



VIRTUALIZATION

- Accelerate virtualized networks with VXLAN, GENEVE & NVGRE
- Extend hardware resources to 64 PF, 512 VF w/ SR-IOV & ROCE
- Stateless offloads enable near-native performance for VMs
- Align network services with compute services for multitenant network support



STORAGE

- Achieve full potential of flash with 25/40/50/100GbE support
- Future-proof with 10/40 & easily upgrade to 25/50/100 GbE
- Leverage within scale-out storage to simplify networking
- Alleviate storage network bottlenecks with RDMA, RoCE and NVMe over Fabric support



VALUE & FUTURE PROOF

- Ethernet connectivity leader: 10/25/40/50/100Gb/s
- Open FPGA platform for application customization
- Offload IPsec encryption
- Deliver 2.5X the performance of 10GbE
- Future Proof 10GbE w/ 25/40/50 and 100GbE capability

US: Pat Kelley
Sr. OEM Sales Manager
Email: pat@mellanox.com
Cell: +1 (978) 424-3410

S. Europe: Raphael Chocron
OEM Sales Manager, EMEA
Email: raphaelc@mellanox.com
Cell: +33 6777 23098

US: Denise Cowart
Sr. OEM Sales Manager
Email: denisec@mellanox.com
Cell: +1 (512) 853-0937

N. Europe: Ben Cartwright
OEM Sales Manager, EMEA
Email: benc@Mellanox.com
Cell: +44 7467 950189

Dell Part #s

Dell Part #	Manufacturer #	Mellanox Equivalent	Description
406-BBLC	NV7YN	MCX4121A-ACAT	ConnectX-4 Lx Dual Port 25GbE DA/SFP, Low Profile
406-BBLF	31F28	MCX4111A-ACAT	ConnectX-4 Lx Dual Port 25GbE DA/SFP, Full Height
406-BBLH	CVRRF	MCX4121A-ACAT	ConnectX-4 Lx Dual Port 25GbE DA/SFP rNDC

General Inquiry contact Mellanox Dell sales at: DellSales@mellanox.com; or visit: <http://www.mellanox.com/oem/Dell>



MELLANOX CONFIDENTIAL – cannot be posted online or reproduced without Mellanox consent
www.mellanox.com sales@mellanox.com USA: 408-970-3400 INTL: +972-74-723-7200

2.13.17 v1