Media and Entertainment

Digital effects manipulation, 3D rendering, and other staples of today's media production industry rely on rapid processing of enormous amounts of data. When an all-digital, feature-length product can require many months of computer rendering time, there is a strong incentive for IT managers to boost data center performance and speed time-to-market.

To reduce production lags, today's media data centers invest in high-performance cluster technology, combining the power of hundreds or thousands of CPUs in the service of a highly complex rendering task. A critical part of the performance equation is the speed at which terabytes of data can be moved between servers and storage. Mellanox products maximize data center performance and productivity by delivering industry- leading bandwidth and the lowest latency

KEY ADVANTAGES

- The world's fastest interconnect, supporting up to 100Gb/s per adapter
- Latency as low as 600nsec
- Lossless packet transmission
- CPU offloads with the flexibility of RDMA capabilities
- Multi-protocol bridging for unified data center fabrics
- High Speed storage fabric manager
- Workload optimized network fabric manager
- Support for GPUDirect RDMA and GPUDirect ASYNC

Remote Direct Memory Access (RDMA)

The RDMA programing model is widely used in the high-performance computing (HPC) market for efficient data transfer. RDMA stack provides a fast Application Protocol Interface (API) for scale- out system and enables fast data movement between servers and storage without the involvement of server's CPU. RDMA capabilities are available today on both InfiniBand and Ethernet interconnect products.

Virtual Protocol Interconnect (VPI)

VPI enables I/O infrastructure flexibility and future-proofing for data centers and high-performance computing environments.

VPI-enabled products facilitate any standard networking, clustering, storage, and management protocol to seamlessly operate over any converged network, with the same software infrastructure.

VPI provides port auto-sensing of the fabric (InfiniBand or Ethernet) and configures the adapter or switch port in the appropriate mode easing deployments in both rack and blade environments.

The Mellanox Solution

In today's multi-core, multi-processor servers, each server's CPU socket can requires increased I/O performance to avoid processing delays. Mellanox I/O adapters, switches, and gateways deliver up to 100Gb/s of reliable, lossless connectivity with 600nsec of latency to eliminate data movement bottlenecks. Mellanox solutions bring the same high performance and reliability to the world of digital media.

Ordering Part #	Description
MCX455A-ECAT	ConnectX-4 Single-port EDR 100Gb/s Adapter Card with PCIe 3.0 x16
MCX-456A-ECAT	ConnectX-4 Dual-port EDR 100Gb/s Adapter Card with PCIe 3.0 x16
MCX555A-ECAT	Connect-4 Single-port FDR 100Gb/s Adapter Card with PCIe 3.0 x16
MCX556A-ECAT	Connect-4 Dual-port EDR 100Gb/s Adapter Card with PCIe 3.0 x16
MCX556A-EDAT	Connect-4 Dual-port EDR 100Gb/s Adapter Card with PCIe 4.0 x16
SB7800	36 Port Non-Blocking Managed EDR 100Gb/s InfiniBand Smart Switch
SB7890	36 Port Non-Blocking Externally Managed EDR 100Gb/s InfiniBand Smart Switch
SB7780	36 Port Non-Blocking Managed EDR 100Gb/s InfiniBand Router
CS7500	648 Port EDR (28U) 100Gbs/ InfiniBand Director Smart Switch
CS7510	324 Port EDR (16U) 100Gb/s InfiniBand Director Smart Switch
CS7520	216 Port EDR (12U) 100Gb/s InfiniBand Director Smart Switch

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