



Mellanox
TECHNOLOGIES

Connect. Accelerate. Outperform.™

Mellanox Accelerated Storage Solutions

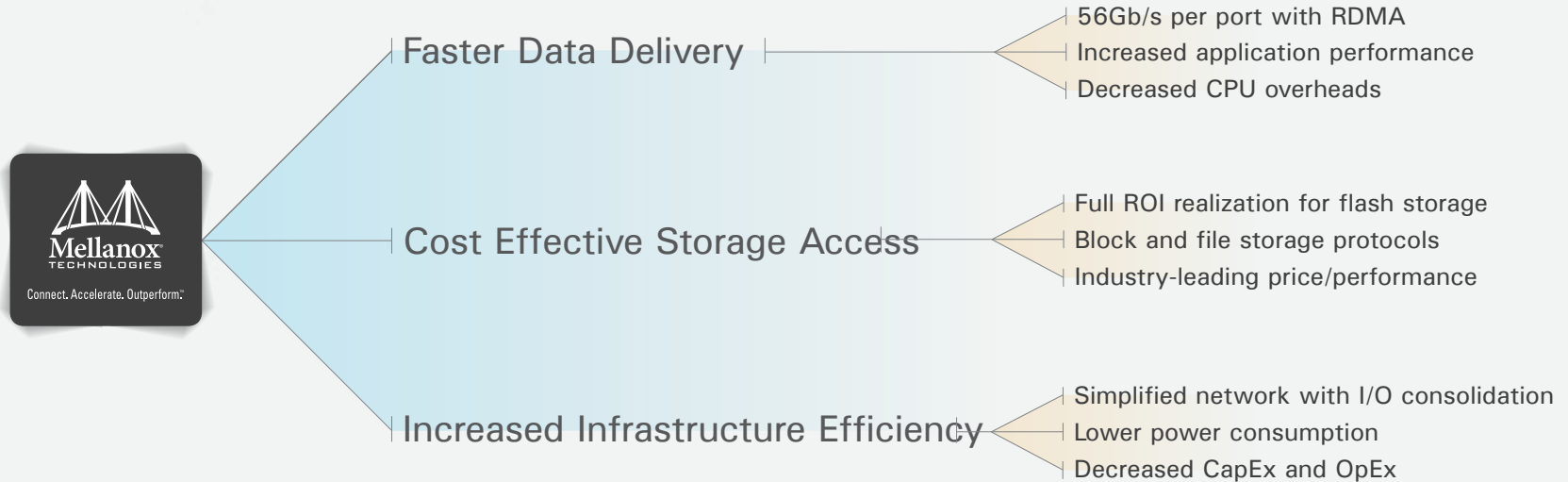
Moving Data Efficiently

In an era of exponential data growth, storage infrastructures are being pushed to the limits of their capacity and data delivery capabilities. With nearly half of all enterprise data residing in central storage arrays (SAN and NAS), the interconnect between compute hosts and storage systems has become critical to overall data center performance and efficiency. Increasing adoption of flash storage technologies has put even more pressure on this connection, as systems with integrated flash can drive enough data to saturate traditional network connections many times over.

All of this has come together to make the interconnect between storage systems and compute hosts the main bottleneck in modern data centers. However, incorporating Remote Direct Memory Access (RDMA) interconnect protocols, such as InfiniBand and Ethernet with RDMA over Converged Ethernet (RoCE), can alleviate this bottleneck. RDMA technologies allow data transfers to bypass intermediate stops through the CPUs and main memories of the systems involved in the transfer. The result is drastically lower data transfer latencies and significantly higher CPU and overall system efficiencies. Additionally, both RDMA interconnect protocols provide the highest interconnect bandwidths available today, with 56Gb/s FDR InfiniBand and 40Gb/s Ethernet with RoCE, allowing flash storage installments to achieve their full performance potential.



Mellanox's Virtual Protocol Interconnect (VPI) switches and adapters allow data centers to run faster and more efficiently than ever before, while giving data center administrators the flexibility to run both InfiniBand and Ethernet with RoCE traffic on the same equipment. The most innovative storage companies are integrating Mellanox equipment into their storage products to deliver data to applications with best-in-class speed and efficiency. Please meet our storage partners.





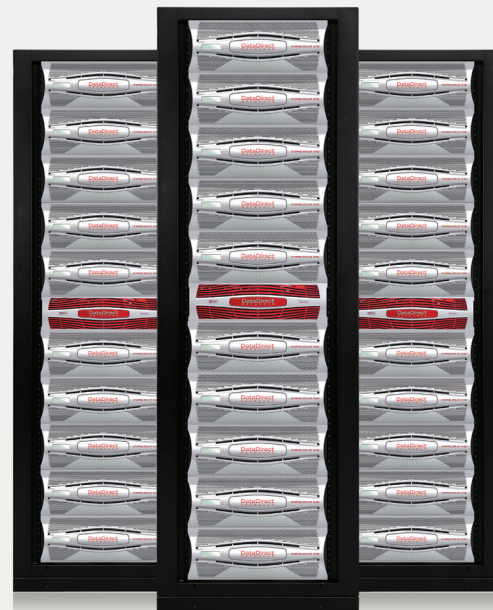
DataDirect Networks SFA12K

The Most Advanced Storage Platform for Big Data

Application: Big Data

System Features:

- 6.72PBs in only two racks
- Sequential read and write performance up to 40 GB/s
- 1.7 Million IOPS to cache
- 1.4M sustained random read IOPS to media
- Mellanox 56Gb/s FDR Infiniband host connectivity
- Windows, Linux and MAC OSX client support
- GRIDScaler, EXAScaler, xStreamScaler and NAS Scaler solutions supported
- Building block for hScaler Hadoop Big Data Appliance



Additional Big Data product offerings: hScaler, SFA10K, SFA7700, WOS Appliance.



The Storage You Need When Time Is Money

Applications: Financial Services and Application Acceleration

System Features:

- Up to 2TB DRAM SSD storage capacity
- 28.5GB/s bandwidth per system
- 11.7 million sustained and random IOPS
- 5 μ s read/write latency
- Mellanox 40Gb/s QDR InfiniBand host connectivity

Kove Xpress Disk (XPD)





Alliance Partner

Extreme IOPS and SubMillisecond Latency for Performance-Critical Workloads

Applications: Database

System Features:

- Up to 19.2TB capacity
- Up to 6GB/s bandwidth per system
- > 300,000 sustained IOPS performance per system
- < 1 millisecond response time
- Mellanox 40Gb/s QDR InfiniBand host connectivity option
- Windows, Linux, VMware ESX, Solaris, HP-UX and Mac OS clients support
- SANtricity enterprise software platform

NetApp EF540 Flash Array



Additional accelerated product offerings: E5400 series, E5500 series, V-series Open Storage Controllers.



Cluster-in-a-Box Network Storage Appliance

Application: Storage

System Features:

- SMB Multi Channel: multiple TCP connections per SMB session
- Reduced Memory Footprint: less pre-allocation of data Structures
- NIC Teaming: mix and match NICs run in physical or virtualized environment
- Large I/O: improved disk efficiency by reducing the number of I/O and seeks
- Directory leasing in SMB 3: it allows clients to cache more information
- RDMA support to provide greater performance scale and reduced CPU utilization using Mellanox NIC and HCA

Quanta MESOS CB220





Xyratex ClusterStor™ 6000

The Ultimate in High-Performance Scale-Out Storage

Applications: HPC and Big Data

System Features:

- Up to 1,691 TB per rack capacity using 4TB SAS HDDs
- Single file system namespace > 93 PB
- Sustained read and write performance up to 42GB/s per rack
- Industry-leading IOPS performance
- Mellanox 56Gb/s FDR InfiniBand and 40GbE host connectivity
- UNIX and Linux client support
- Lustre® 2.1 + Xyratex-supported file system enhancements
- Integrated solution management for system visibility, provisioning, manageability and diagnostics



Lustre is a registered trademark of Xyratex. Additional accelerated product offerings: ClusterStor® 1500.

www.xyratex.com



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