Mellanox and OpenDrives Deliver Optimized Storage for M&E

OpenDrives develops Network-Attached-Storage (NAS) solutions that are performance-built to provide maximum throughput and IOPS for media & entertainment customers. Designed to accommodate the increasingly demanding bandwidth requirements of 4K, 6K and 8K uncompressed DPX and EXR workflows, OpenDrives delivers unmatched speed & performance, efficiency and data management tools.

OPTIMZING PERFORMANCE, DATA STORAGE EFFICIENCIES AND COST REDUCTIONS

Each OpenDrives product has been purpose-built by media professionals to optimize storage for your broadcast, content creation, editing, visual effects and digital distribution storage needs:

- Apex — OpenDrives Apex all-flash SSD-based product offers maximum throughput and IOPS performance for super high-speed, concurrent sequential read/write use cases, and unmatched throughput for 4K and 6K uncompressed workflows.

- Summit — OpenDrives Summit delivers superior caching and SSD acceleration specifically designed to optimize media workflows. A single storage system that eliminates complexity — you'll never have to divide large projects among multiple volumes or move files between systems just to make room.

- Ridgeview — OpenDrives Ridgeview provides large-scale high-density data storage in a single storage device while also delivering speed and performance. Ridgeview is designed to store large file content repositories and infrastructures. Ridgeview offers production-level throughput and IOPS at scale for a sub-$300 per terabyte (TB) price point.

The OpenDrives storage solution offers:

- A single storage system that eliminates complexity — You'll never have to divide large projects among multiple volumes or move files between systems just to make room.

- Multiple petabytes (PB) of file-agnostic storage — Use just one platform for every file format and every workflow, from editing to broadcast to initial media creation, to data management and production, to content delivery and archive management.

- Performance at any scale — Support ingest and editing stations, and graphics, render images for high-resolution, create composite images, or run color correction jobs on thousands of Prores, DPX or EXR files.

- Accelerate data access with up to 3.6GB of aggregate throughput and 400,000 file operations per second.

- Productivity — Add capacity without full-time IT resources, use the OpenDrives expansion nodes to scale seamlessly and without interruption with no downtime, and keep creative teams working with highly resilient content storage.

- Savings — Buy only what you need, when you need it. With a lower cost per TB and higher utilization rates you can maximize your return on investment (ROI) with storage utilization rates in excess of 85%.

OPENDRIVES PRODUCTS

- Apex - Extreme Performance Storage
  - All SAS SSDs
  - 28TB to multiple PB
  - 18GB aggregate throughput
- Summit — High Performance Storage
  - Hybrid HDDs / NVMe SSDs
  - 72TB to multiple PB
  - 9GB aggregate throughput with media accelerator
- Ridgeview — High Density Storage
  - All HDDs
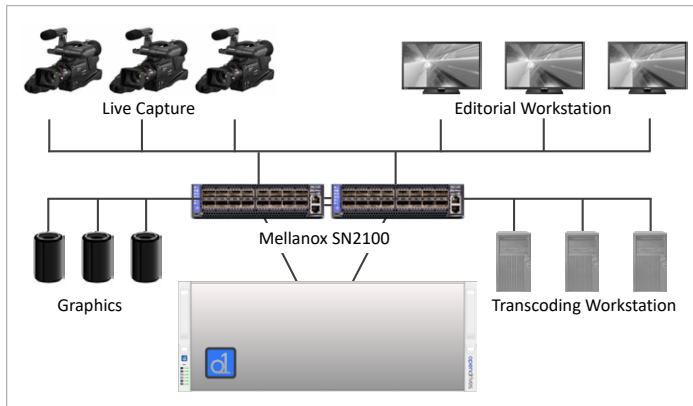 - 144TB to multiple PB
  - Up to 5GB aggregate throughput

"The performance, ease of use and the partnership with the Mellanox team has helped us deliver a competitive storage solution while maximizing throughput and increasing efficiency."

Chad Knowles, CEO
OpenDrives

MELLANOX ETHERNET STORAGE FABRIC

Mellanox Ethernet Storage Fabric™ provides simple, flexible, and high-performance networking to OpenDrives Storage. With high density, power efficiency and low latency, Spectrum™ non-blocking 10/25/40/50/100GbE Ethernet switches provide an unmatched performance advantage while lowering operating expenses. Based on Mellanox's Spectrum silicon and enterprise-class design, Spectrum switches feature industry leading 300ns port-to-port latency and a dynamically shared buffer for the most predictable, consistent, high performance, to unlock the full power of OpenDrives Storage.

Mellanox Spectrum SN2100 delivers a fully redundant, highly dense, low latency and energy efficient networking infrastructure at a competitive price. SN2100 is a 1RU, half width form factor switch, which provides 16 QSFP interfaces that can operate at speeds of 10/25/40/50/100GbE. Each QSFP interface can be used with a passive breakout cable to create four discrete SFP+ interfaces as 10/25GbE ports, creating a maximum of 64 10/25GbE ports, thus delivering high port density. Two SN2100 switches can be installed side-by-side in a 1RU space, to provide high availability for TOR switching. The SN2100 consumes less than 94W of power.

OPENDRIVES SOLUTION OVERVIEW

OpenDrives solutions provide purpose-built network-attached storage (NAS) for high throughput data. These storage systems offer zero-downtime expansion and optimal efficiency resulting in market leading benchmarks for both throughput and IOPS, at a highly cost-effective price point. By optimizing the storage file system and hardware configuration, OpenDrives delivers maximum performance and efficiency. By eliminating the need for traditional RAID configurations and writing data to variable block sizes, the storage system delivers 85%-90% usability for greater storage efficiency.

The OpenDrives NAS solution delivers the industry's best balance of high performance, storage efficiency, and ease-of-use while dramatically reducing cost. With the OpenDrives operating system (Atlas), every storage system is optimized to provide maximum throughput, which means you can eliminate silos of storage and reduce complexity since you no longer need to support multiple volumes and file systems. OpenDrives utilizes Virtual Devices (VDEV) to balance your data each time you expand the system. OpenDrives strips the data across all VDEVs to balance performance and provide industry-leading data protection.

CONCLUSION

Mellanox and OpenDrives have teamed up to deliver a high performance, purpose built Network-Attached-Storage solution designed to meet the bandwidth intensive requirements of 4K and 6K uncompressed workloads. OpenDrives offers a simplified storage system with unmatched performance, seamless expansion capabilities and significant savings. Mellanox Spectrum switches offer the best 10/25/40/50/100G Ethernet Storage Fabric, with very low latency, low power consumption and high port density.

About Mellanox

Mellanox Technologies is a leading supplier of end-to-end Ethernet and InfiniBand intelligent interconnect solutions and services for servers, storage, and hyper-converged infrastructure. Mellanox offers a choice of high performance solutions: network and multi-core processors, network adapters, switches, cables, software and silicon, that accelerate application runtime and maximize business results for a wide range of markets including high performance computing, enterprise data centers, Web 2.0, cloud, storage, network security, telecom and financial services. More information is available at www.mellanox.com.

About OpenDrives

OpenDrives provides performance-built NAS data storage solutions for media and entertainment, corporate video, healthcare imaging and more. Founded by media and entertainment visionaries, OpenDrives is disrupting the data storage technology space with its performance-driven systems that feature a proprietary operating system providing speed, scalability, and resilience for high-resolution video and imaging workflows. For more information, visit www.opendrives.com.

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