pavilion data

Vertical Brief

NVME-oF STORAGE FOR StorNext

Accelerate media and entertainment projects

Features

Benefits

- Consolidate racks into a single 4U system
- Faster video editing
- Consistent video playback
- Multiple 4K/8K streams
- Optimize the performance of mixed file sizes
- Hyperparallel NVMe architecture accelerates video operations
- Continuous operations with 24/7 proactive support
- Petabyte scalability, high-performance, and low-latency

Save Space, Time and Money

Media and entertainment (M&E) organizations need to produce information and entertainment in a variety of different formats and delivery mediums. Developing and delivering content that reaches audiences whenever and wherever they are has increased in importance and complexity. In today's highly connected, entertainment-driven world, M&E companies need to stay competitive to succeed. Workflows grow in complexity daily and time-to-market windows continue to shrink. The underlying storage that powers video projects dictates how quickly employees can move on to their next project.

M&E projects need high performance and low latency. Traditionally, this was achieved by purchasing a large number of storage arrays and disks (HDDs or SSDs) from multiple vendors. The result was multiple storage silos all having excess capacity for the various media assets.

The last thing an M&E production house wants is to lose content, so the Pavilion Data NVMe Storage Platform is fault-tolerant with built-in high availability and includes zero-footprint snapshots to make instant copies of a project. Move this copy along the production workflow without impacting network traffic generated by post-production workers.

The Pavilion Hyperparallel Flash Array

Pavilion's Array delivers 120 GB/s throughput, 40µs of latency, and 1.1 PB of storage. The hyperparallel architecture unlocks the power of NVMe to enhance the performance of latency-sensitive video workflows all in a compact 4U form factor.

The Pavilion Hyperparallel Flash Array delivers exceptional video ingest, production, transformation, and delivery processes. The storage array dramatically streamlines workflow and improves productivity by creating a shared repository that supports flexible, high-performance streaming, even with high-bit-rate media content.

If a project calls for 4K, 8K, multiple concurrent streams of HD 4444, 4K EXR or hours of uncompressed full aperture video, the Pavilion array harnesses the power of NVMe storage, to consolidate storage pools, reduce copy and render time, and enables multiple editors to work at full productivity.

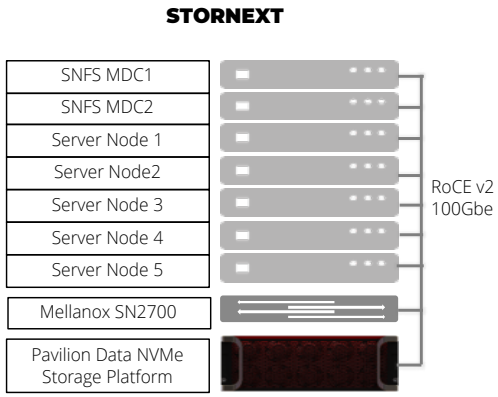
The Pavilion array requires no proprietary software to be installed on a server farm and uses standard Ethernet, InfiniBand, and NVMe-oF drivers, freeing up host resources for processing and eliminating deployment complexity.

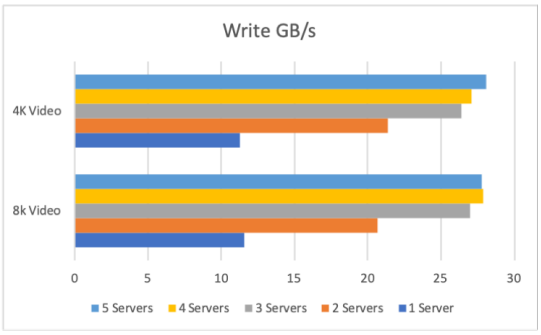
Proven High-Performance Media FPS and Throughput

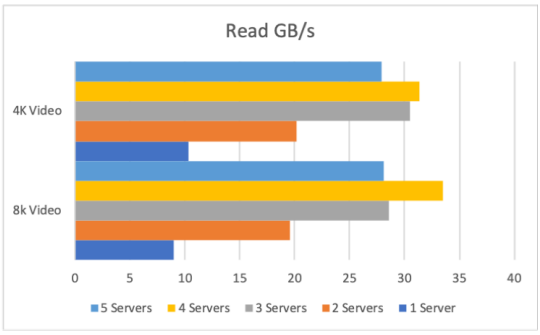
Pavilion tested media frames per second and throughput using StorNext 6.1.0 Build 77524 with two SNFS meta-data controllers in high-availability mode using five server nodes with four 4K/8K streams per server node.

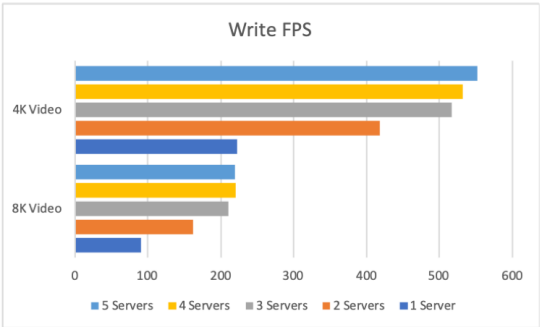
To test performance, the Frametest utility was used, which simulates reads and writes. It was set to generate 10,000 frames at 4K and 8K resolutions. Frametest emulates raw still frames or frames generated by post-processing or 3D rendering software.

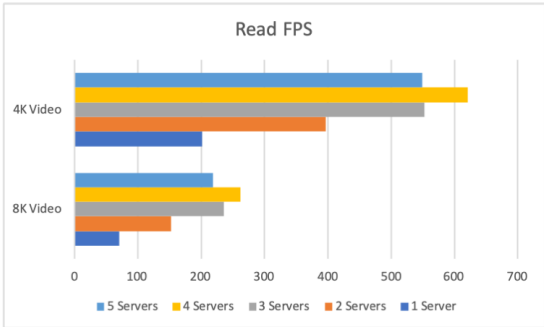
Through these tests, the Pavilion Data NVMe Storage Platform delivered more frames and had higher throughput than any vendor's published results. During read testing, an I/O pattern similar to that of video playback, the Pavilion Data NVMe Storage Platform produced. 549 4K & 219 8K FPS and 27.9 GB/sec. 4K &28.1 GB/sec. 8K throughput with 20 streams. During write testing, an I/O pattern similar to that of video capture or ingestion, the Pavilion Data NVMe Storage Platform produced 532 4K & 220 8K frames per second and 28.1 GB/sec. 4K & 27.9 GB/sec. 8K with 20.











Optimize transcode, versions and delivery

Scale-out multi-threaded transcoding operations. With Pavilion's Hyperparallel Array, transcoding operations can take place in parallel, boosting operations, significantly increasing transcode billable hours per server. Perform translations and closed-caption assets independent of the original uncompressed asset without moving large files across the network and impacting production workers. Stream in compressed and uncompressed resolution directly from media assets inside the same array. With up to 120GB/sec of bandwidth in 4U and an NVMe capacity of 1.1PB, there is plenty of space to edit, translate and stream from the same system.

Transition from legacy fibre channel SANs to standard Ethernet and NVMe-oF and get ultra-high performance with ultra-low latency and assure a consistent, low-cost growth path with a future-proof storage solution as 3D, VFX, and AR/VR requirements expand.

Find Out More

Pavilion is defining the future of disaggregated NVMe-oF. Our system is an ideal part of a complete Media and Entertainment workflow. Our expertise is in simplifying and optimizing NVMe to make the impossible, possible. When storage is business-critical, there's no substitute for the guaranteed performance, functionality, high availability, and OPENCHOICE support of a Pavilion Data NVMe-based enterprise storage array.

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