pavilion data

Industry Vertical Brief

NVME-oF STORAGE FOR HIGH FREQUENCY TRADING

Lowest Latency, Highest Transaction Rates

Features

Key Benefits

- 4U footprint and low power consumption is ideal for co-location near trading exchanges
- Next generation disaggregated NVMe-oF platform disrupts current DAS-based architectures
- Thin provisioning of NVMe volumes for unpredictable data loading and transactions
- Choose any NVMe SSD. Mix NVMe drives from preferred suppliers.
- Use standard Ethernet and NVMe-oF drivers
- Use encryption at rest to secure transactions for compliance and assure algorithms are kept private and off local area networks

Pavilion Benefits

- Up to 920TB in 4U fully shared or partitioned
- 20m IOPS, 120GB/sec read and 90GB/sec wrtie bandwidth @ 40µsec latency
- Create independent storage zones for DevOps, Test and backup
- Use zero-space snapshots and clones minimize network traffic and maximize productivity
- OPENCHOICE Storage lowers procurement costs and future-proofs investment

When time means profits

Shaving milliseconds in transaction times can have a high impact on high frequency trades. Now consider taking that to microseconds. Pavilion Data's NVMe-oF Storage Platform can process up to 20M IOPS at latencies as low as 40 microseconds. Couple this with a 4U footprint for colocation near the exchange and you have a profit-maker designed perfectly for disruption.

With a capacity up to 1PB in that same 4U footprint, we power Artificial Intelligence, Machine Learning and Deep Learning algorithms that can accommodate a vast amount of time series data, along with other sources like foot traffic, taxi and Uber geo-locations, and weather patterns from your specialized data feeds in real time. Leverage Pavilion Data's massive capacity, small footprint and blazing speed to perform pairs trading, delta-neutral strategies, arbitrage, scalping, or any other trype of transaction with latencies unmatched by any other storage array.

As regulatory oversight and compliance rigours are layered on, take instant consistent snapshots of trades, clone these to a separate volume with higher capacity, less expensive NVMe drives and never miss an opportunity again. Use our built-in encryption at rest to assure immutability, protect your intellectual property and maintain compliance.

Traditional scale-out models based on Direct-Attached Storage have reached a point of diminishing returns. NVMe-Over-Fabrics has crossed the chasm and offers the reliability, security and manageability of Storage Area Networks (SAN) that were once the domain of large institutions and bulky IT organizations. With Pavilion, you have all of the advantages of a SAN, with the benefits of an architecture designed for NVMe from the ground up for modern applications and agile organizations.

Look forward – Look to Pavilion

Pavilion Data is redefining high frequency trading. Whether it is a logical evolution of Greenplum Data Lakes to improve storage utilization, shatter backup windows and achieve compliance, or a wholesale replacement of the customer experience with MongoDB, MariaDB, Cassandra or AeroSpike, our NVMe-oF Storage Platform provides unprecedented availability, performance and versatility to future-proof your storage infrastructure as you leapfrog the competition.

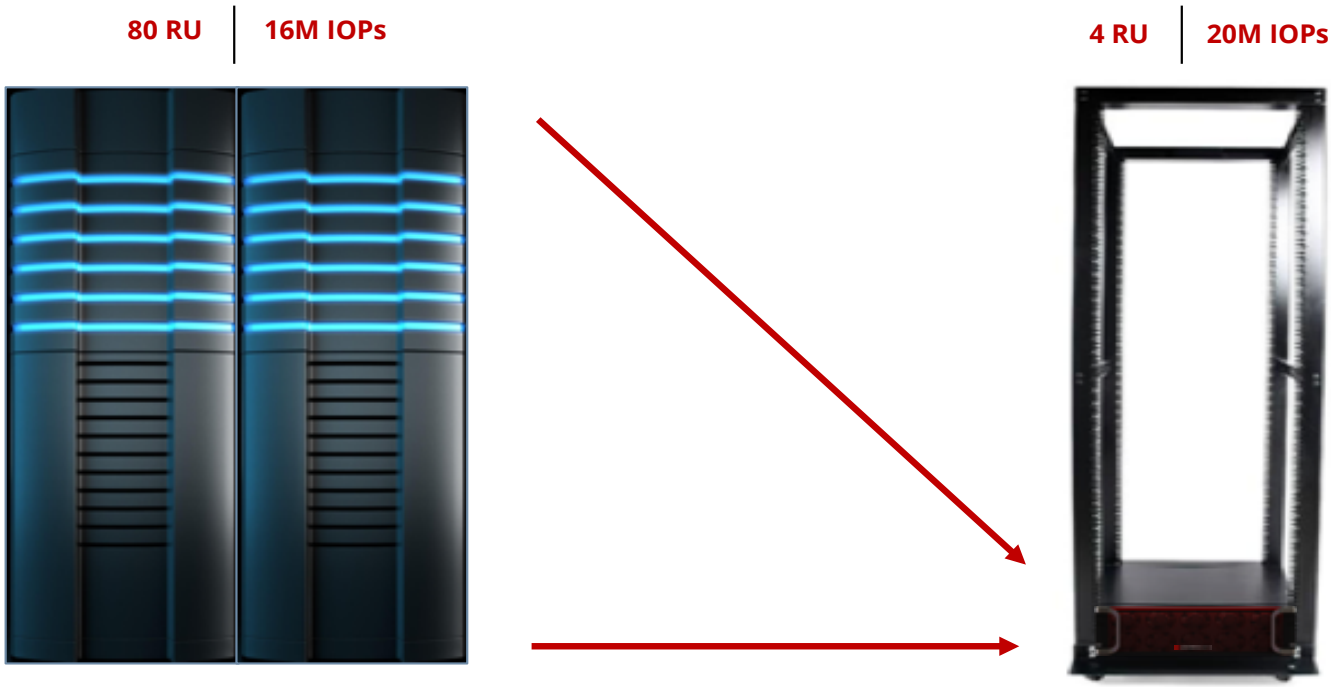
Availability

Of course, you demand no single points of failure, standards-based hardware and protocols as well as redundancy throughout a storage array. Pavilion has you covered. Our platform features a completely fault tolerant design from controllers, power supplies, fans, management controllers, even dual PCIe switching fabrics. Using standard distribution NVMe-oF operating system drivers, multi-pathing to our 20 controllers assures fail-over in the event a network link or storage controller is unavailable.

Performance

Pavilion Data has the industry's lowest latency disaggregated storage array. At 40 microseconds from host, over RDMA-based fabrics and through 20 parallel storage controllers to a RAID-6 volume of OPENCHOICE NVMe SSDs, Pavilion Data's performance is unparalleled. To achieve similar results in just 4 Rack Units (RU) of space, competing alternatives require at least 80 RU, or two full racks and as much as 14TB of DRAM at 10 times the acquisition cost. This radical performance density is an ideal fit for colocation facilities near trading exchanges.

DISAGGREGATED DISRUPTION



Versatility

With up to 20 storage controllers and 40 Ethernet or Infiniband fabric connections fully non-blocking at 100Gb/sec. the Pavilion array can serve as the ideal next wave of NVMe storage deployment for massive rack-scale workloads. Deploy the largest and fastest NVMe drives without concern for application performance impact in the event of a node recovery. Use a combination of read-intensive and high endurance drives for a bottom-of-rack configuration that services multiple workloads across a cluster. With OPENCHOICE future-proofing your storage investment has never been easier.

Alternatively, our platform it is a perfect All-in-One solution for multi-purpose Test and DevOps environments that can seamlessly expand to rack-scale. Use our GUI or API to integrate with management frameworks like Swordfish™ or Redfish™ to create specific numbers of network, controller and SSD volumes with read-intensive drives, define other volumes for write performance, others for endurance, and yet other volumes with high-capacity drives for snapshots, clones and connectivity to standard backup technologies.

With built-in encryption for data at rest, meeting compliance requirements is a fundamental part of the system design.

Hedge funds and HFT are undergoing radical transformation. Pavilion Data offers a storage platform enabling you to become a disruptor using proven technology and trusted storage management techniques.

Learn more today at www.paviliondata.io

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