



Benefits

- Doubled the amount of VMs
- Reduced data storage footprint by 50%
- Increased storage throughput by 70%
- Reduced storage networking costs more than 60% by moving from Fibre Channel to Ethernet RoCE
- Reduced cost of software licenses by 50%
- Redefined the process of scaling storage

Innovation Leader in Health Care Imaging Brings New Products To Market in Record Time with VMware vSphere 7

A leader in medical systems and services needed a radically different approach to bring new products to market. Leveraging Pavilion's unrivaled performance, ultra-low latency, and affordability with NVMe-oF RoCE, they doubled VM density, cut software and data storage costs in half. By reimagining their storage environment, they left legacy Fibre Channel storage, networks, and HBAs behind.

With a rapidly changing and fragmented health care system, delivering patient-centered care is more important than ever. Collaborative imaging enables health care providers to improve clinical, operational, and financial outcomes while effectively managing and reducing cybersecurity risks.

To design, test, and deliver solutions for scanning, diagnosis, sharing, and intelligent analytics for stroke assessment, heart disease, liver, and lung oncology, they needed a competitive advantage.

The customer had an aging infrastructure based on a Fibre Channel Storage Area Network that housed hundreds of Virtual Machines for DevOps and Manufacturing applications. With data growth greater than 30%, they recognized vSphere 7 with NVMe-oF RoCE as the way forward.

Fibre Channel price/performance lags compared to Ethernet and NVMe-oF. After reviewing Pavilion's HyperParallel Data Platform™, they realized that the cost-saving and performance boost from networking technology was only the beginning. With the universally unmatched performance of the Pavilion HyperParallel Data Platform™, they could easily double the number of Virtual Machines while halving the number of server sockets (and therefore software licenses), reduce data center footprint, support bare-metal applications, and position for future growth.

The Pavilion HyperParallel Data Platform™

To meet their performance needs, they chose the Pavilion HyperParallel Data Platform, which allows them to significantly increase VM density and accelerate bare metal applications to achieve results they did not think possible. They are taking advantage of Pavilion's universally unrivaled high performance of the Pavilion HyperParallel Data Platform with NVMe-oF RoCE for ultra-low latency to reduce costs, boost performance, and scale as they grow.

Uniquely capable of delivering consistent, predictable high performance and ultra-low latency for block, file, and object workloads simultaneously, the Pavilion HyperParallel Data Platform provides industry-leading performance, density, scalability, and flexibility. With over 2 PB of capacity per array and able to deliver up to 120GB/s of throughput, 20M IOPS, and as little as 25µs of latency measured at the host, the Pavilion HyperParallel Data Platform delivers unmatched customer choice and control to scale their operations without limitation.

“Pavilion’s performance, density, flexibility and ease-of-use with vSphere 7 and RoCE let us modernize our infrastructure while reducing our software and networking costs by more than 50%”, said the customer.

Powered by Pavilion HyperOS™

Designed for the most demanding environments, Pavilion HyperOS combines enterprise-class management, security, and data protection features with a highly intuitive GUI to ensure maximum availability and ease of use. An API driven approach ensures that the Pavilion HyperParallel Flash Array integrates easily within the datacenter. Designed from the ground up for NVMe and NVMe-oF, the Pavilion HyperOS enables the Pavilion HyperParallel Flash Array to deliver unmatched storage performance without the cost and complexity of traditional storage arrays.

| Performance | Density | Scalability | Flexibility |
|---|--|--|---|
| | | | |
| <p>Read 120 GB/s 20M IOPS @100 µs</p> <p>Write 90 GB/s 5M IOPS @ 25 µsec</p> <p>Performance from each array</p> | <p>4RU Platform 2.2 PB 72 NVMe SSDs 40 x 100 Gb ports 10 x 200 Gb ports 20 Independent Controllers</p> | <p>Start small, grow big Independent, linear scale of capacity or performance within a system Scale out across an unlimited number of systems NFS Global Namespace S3 NFS Global Namespace</p> | <p>Best-in-Class performance for block, file, and object simultaneously iSCSI, NVMe-oF, NFS, S3 Any combination of data types or protocols Ethernet or InfiniBand</p> |

Results

Given the need for a radical change in data management and storage, the Pavilion HyperParallel Data Platform was the only solution that could deliver unlimited scale, high performance, and unrivaled flexibility while dramatically reducing costs to meet the demand for ultra-low latency and high throughput.

By moving to the Pavilion HyperParallel Data Platform, they doubled their Virtual Machine density, reduced storage footprint and software costs by 50%, reduced network equipment costs by 60%, and increased storage throughput by 70%.

“Pavilion’s performance, density, flexibility and ease-of-use with vSphere 7 and RoCE let us modernize our infrastructure while reducing our software and networking costs by more than 50%”, said the customer.

This reimagining of the data storage infrastructure has accelerated the time to invent and deliver new technologies at a much faster pace for collaborative imaging solutions.