

SUCCESS STORY

LEADING HEDGE FUND SIMPLIFIES, ACCELERATES AND CONSOLIDATES WITH UNIVERSAL STORAGE

USE CASE

Quantitative trading

REQUIREMENTS

A simple and scalable all-flash solution that can serve the concurrent needs of HPC clusters and desktop users.

SOLUTION

PBs of VAST Data's Universal Storage architecture with NFSoRDMA, QoS, and support for multiple networks.

RESULTS

Uptime challenges are a thing of the past. Applications now benefit from petabytes of affordable, high-performance storage.

CHALLENGE

Experimentation is the hallmark of any quantitative trading strategy. However, when the storage systems that power these strategies become their own PhD-level experiments, hedge funds lose focus on their core mission of generating alpha.

In 2020, VAST Data engaged with a forward-thinking hedge fund that was struggling under the weight of underperforming HPC storage technologies. These systems were a constant source of frustration that did not provide the operational resilience needed for a mission-critical research environment. In addition to the downtime they experienced, multiple storage systems were required to solve different parts of the pipeline, resulting in excess data copies, data migrations, and application bottlenecks.

SOLUTION

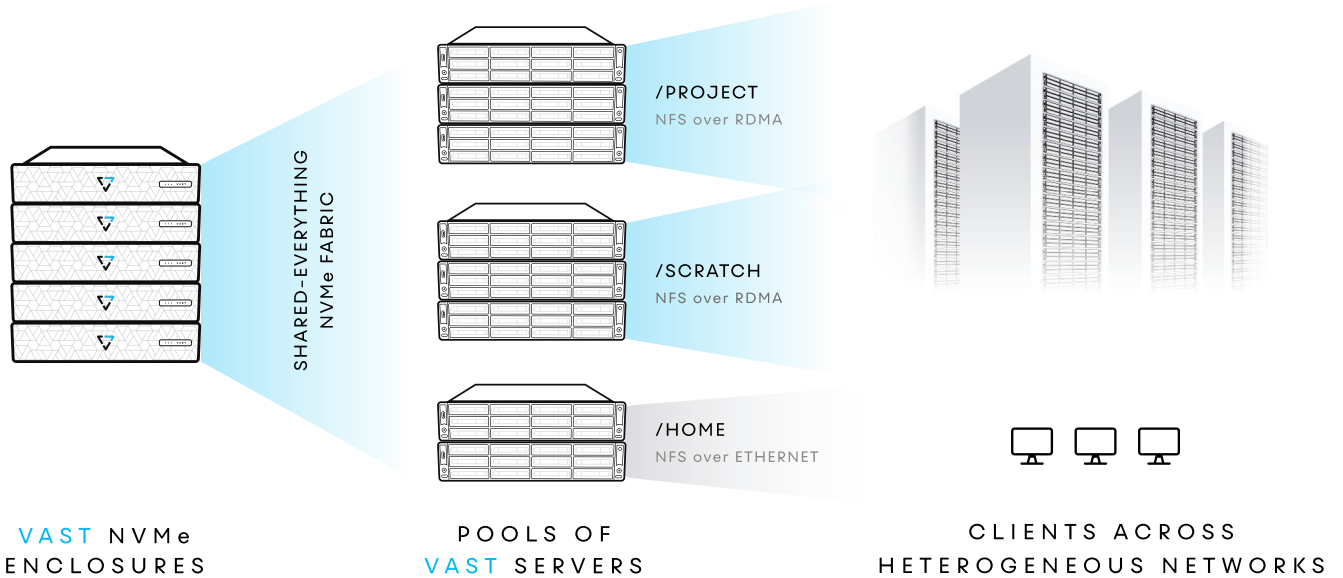
The hedge fund selected VAST Data to get them out of the HPC storage support spin cycle and move them to an all-flash solution that consolidated several storage platforms, as well as future-proofing them against market turbulence and their ever-evolving application needs.

VAST Data's Disaggregated, Shared-Everything (DASE) architecture is a critical enabler for helping this customer transition to a much simpler operational state, while reducing cost and increasing application performance.

The result is an all-flash, scale-out namespace. The compute power of the cluster is divided by application into pools of stateless front-end servers, providing multiple applications access to the global namespace while managing application performance. Applications can run on RDMA-connected compute clusters and across campus networks without needing to move or copy data across the data center. Because it's also a simple and tightly-integrated scale-out NAS appliance, it's easy to manage, and stable.



SYSTEM ARCHITECTURE



RESULTS

VAST Data’s groundbreaking flash economics enabled the hedge fund to eliminate the compromise between price and performance that had kept them tied to spinning media. The combination of statelessness and scalability delivered by VAST’s DASE architecture empowered them to consolidate multiple file systems down into one scalable storage cluster that provides QOS for each application. This new scale-out appliance eliminates the complexity and operational headaches they previously faced with HPC storage technologies, while also still providing the aggregate speed of an all-flash, RDMA-enabled parallel file system that can unleash today’s and tomorrow’s quantitative strategies.

CUSTOMER DEPLOYMENT OVERVIEW

Over 7PB of usable capacity at 2.5:1 data reduction.

DOZENS OF VAST SERVERS:

- For NFSoRDMA and NFS file services
- Servers connect simultaneously to InfiniBand and Ethernet
- VAST server pools provide QOS for specific mount points
- Over 100GB/s of throughput
- Millions of IOPS

One disaggregated, shared-everything cluster interconnected by InfiniBand.

ABOUT VAST

Headquartered in New York City, VAST Data is a storage company bringing an end to complex storage tiering and HDD usage in the enterprise. VAST consolidates applications onto a highly scalable all-flash storage system to meet the performance needs of the most demanding workloads, while also redefining the economics of flash infrastructure to finally make it affordable enough to store all of your data on flash. Since its launch in February 2019, VAST has established itself as the fastest selling storage startup in history. VAST’s Universal Storage now powers several of the world’s leading data centric computing centers.