Katapult + VAST + NVIDIA

VAST, NVIDIA AND KRYSTAL PARTNER TO CREATE "KATAPULT", THE UK'S HOMEGROWN HYPERCLOUD

USE CASE

Expansion from Web Hosting to Public Cloud

REQUIREMENTS

A reliable, scalable, and affordable all-flash infrastructure that allows Katapult to out service and out-innovate the cloud giants

SOLUTION

VAST Data's all-flash storage infrastructure, with NVIDIA®'s high-speed networking, allows Katapult to offer shared storage services with higher performance at a lower price than AWS, Azure & GCP

RESULTS

VAST's affordable, high-performance storage with NVIDIA networking allows Katapult to provide superior performance, at a lower price while still making enough profit to reinvest into development

CHALLENGE

In 2002, frustrated by poor service and bad business practices, Simon Blackler launched Krystal Hosting to deliver a refreshing alternative to the large, faceless hosting corporations that dominate the market. Over the past 18 years, their honest, reliable, and personal approach to business has won them a loyal customer following and a reputation for excellence. Krystal has big ambitions and is now taking their unique approach to business to the Public Cloud providers with their new service, Katapult.

"Katapult is 'Master-Crafted Virtual Infrastructure'," says Simon; "we've cherry-picked the very best components, lovingly stitched them together, then made billing simple to understand." To compete with the faceless Public Cloud giants, the team realised they'd need to be able to out-innovate some of the wealthiest organisations on earth, no small task.

Katapult's no-compromise mantra demanded all-flash performance with linear and near-infinite scalability to support customer growth. Crucially, Katapult would need a file storage solution that could beat the cost per TB of the incumbent cloud providers who enjoy massive economies of scale.

SOLUTION

VAST's Universal Storage, based on the revolutionary DASE (Disaggregated, Shared Everything) architecture, was the only storage solution that could satisfy Katapult's exacting requirements for performance, scale, cost, and manageability. When asked about VAST's importance to Katapult, CEO Simon Blacker said, "VAST is the only way we can compete with AWS' Elastic File System. It's our sling in this David vs. Goliath match up."
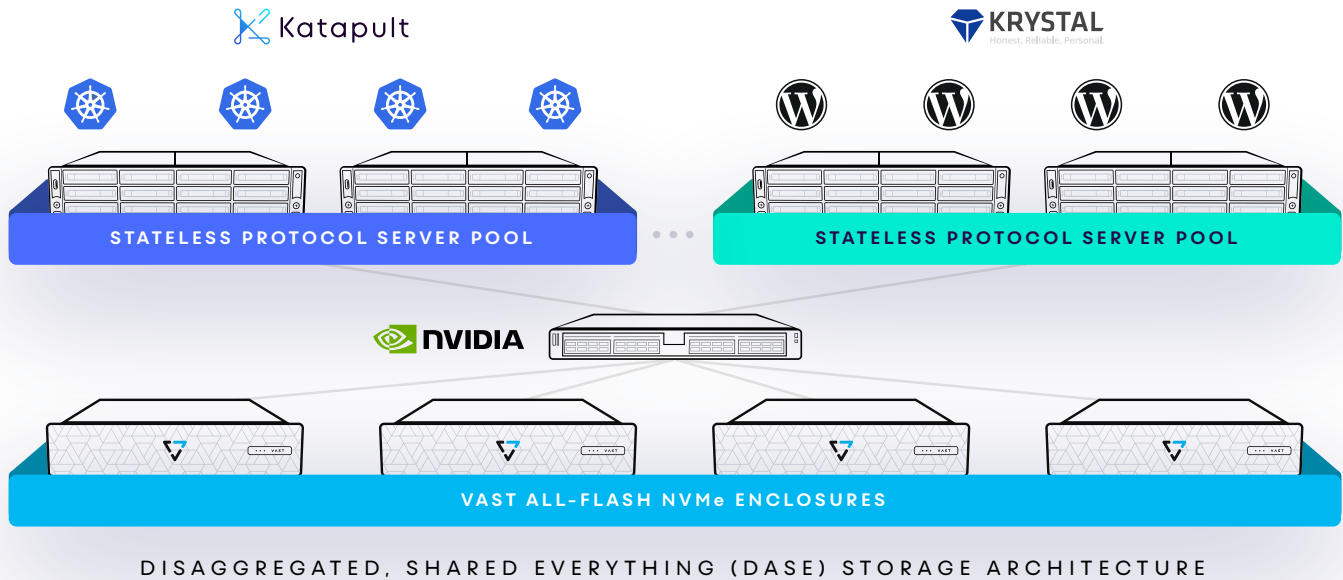
Where current cloud file services offer limited performance, especially for small file systems, Katapult Files, based on the all-flash VAST platform with the fully automated, non-blocking NVIDIA networking, provides consistently high performance at an even lower price. That

low price is the result of VAST's global management of QLC flash, similarity-based data reduction, and locally decodable erasure coding which combines to allow Katapult to sell this premium service for less than the other hyperscalers charge for disk storage.

As Alex Easter, Katapult's CTO so succinctly put it, "Storage should be simple and VAST is incredibly simple." VAST provides a single namespace for many tenants' shared files via NFS and persistent volumes for containers using VAST's Kubernetes CSI plugin. All managed via a modern web GUI and integrated into the Katapult's provisioning and monitoring orchestration using a REST API.

Katapult ... **KRYSTAL**
Honest, Reliable, Personal.

STATELESS PROTOCOL SERVER POOL ... STATELESS PROTOCOL SERVER POOL

NVIDIA

VAST ALL-FLASH NVMe ENCLOSURES

DISAGGREGATED, SHARED EVERYTHING (DASE) STORAGE ARCHITECTURE

RESULTS

The combination of VAST's revolutionary flash economics and NVIDIA's fast and automated networking enables Katapult to affordably build an all-flash, high speed, low latency cloud platform that helps differentiate them from the competition.

VAST's DASE architecture also provides a single storage cluster that scales performance and capacity independently, and provides dedicated QoS for both Krystal and Katapult clients. Deduplication works across the cluster, providing significant space savings.

"Storage is at the heart of any cloud platform. Nearly 30,000 clients trust us to look after their data, and we take that responsibility very seriously. Cutting corners on your storage layer could keep you up at night, but with VAST, I sleep soundly, knowing that our data is in exceptional hands."
– Simon Blackler, CEO Krystal/Katapult

KATAPULT LEVERAGES VAST DATA AND NVIDIA TO DELIVER INDUSTRY-LEADING BENEFITS:

- **All-Flash Performance**
  Cloud giant file services limit performance/TB. VAST and NVIDIA power Katapult's premium Katapult Files service.

- **Disk Competitive Economics**
  VAST redefines flash economics with QLC flash, locally decodable erasure coding, and similarity reduction. This provides Katapult with profitably when offering flash for less than AWS charges for disk.

- **Simple Operations**
  VAST's API first development model, combined with NVIDIA network automation, ensures cloud provisioning and orchestration systems can fully manage Universal Storage.

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.