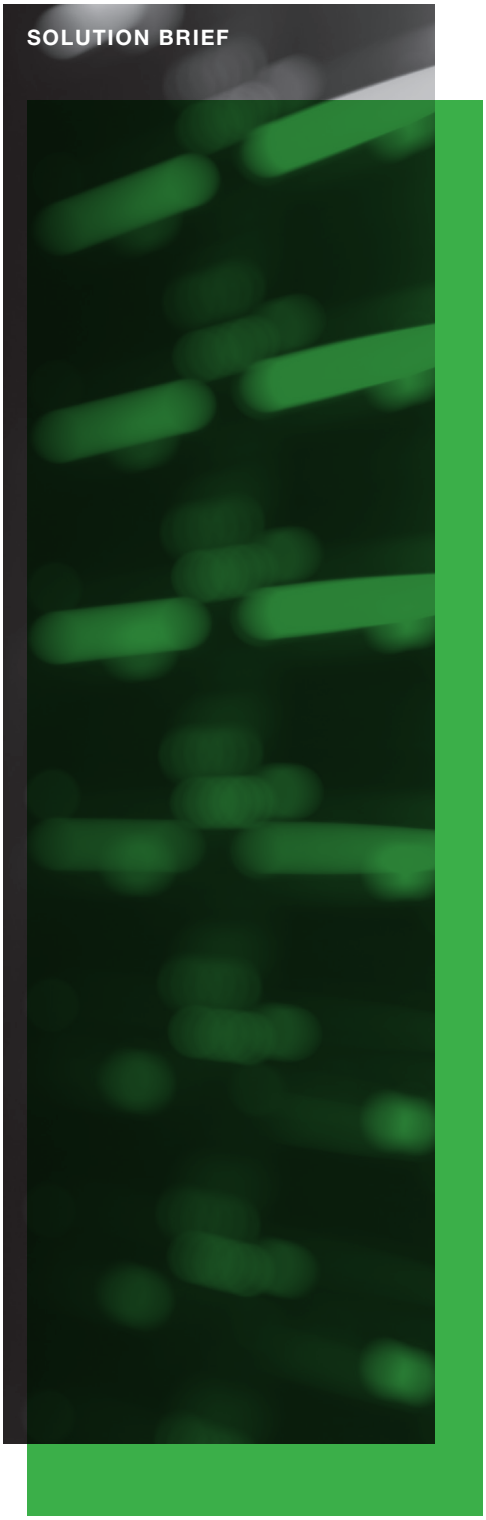
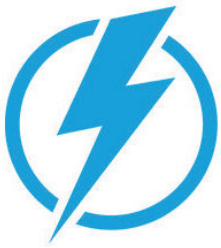
SOLUTION BRIEF



Flexibility and Performance for All-Flash Storage

The DriveScale Composable Platform

Data-driven companies are increasingly using flash storage for performance-hungry workloads that require low latency and high I/O such as analytics, predictive modeling, streaming, machine learning and large-volume transaction processing. There are many advantages to flash storage most notably high I/O in a small footprint – a single 2RU all-flash array can replace one or two racks of HDDs. With the ability to carve flash drives into slices that can be attached to individual compute nodes, flash utilization can be increased dramatically. In addition, the reduced energy requirements and highly reliable drives make flash an ideal data center solution.



With the addition of new high-performance networking solutions including NVMe over Fabrics (NVMeOF), there is no longer a performance reason to have storage isolated inside server nodes. The disaggregation of compute from drives creates the opportunity to orchestrate – or recreate – the server and storage platform in a completely new way.

DriveScale offers a unique approach to all-flash servers. DriveScale enables users to create the exact server and storage configuration needed for the workload by clustering compute nodes or GPU nodes with Ethernet-connected NVMe flash systems over a 100G Ethernet fabric. With DriveScale, instead of managing storage systems separately, you can orchestrate and manage multi-vendor all-flash eBODS (Ethernet Box of Drives) and CPU nodes or GPU nodes to create flexible and adaptable server and flash infrastructure from a single software platform.

DriveScale Delivers Programmable, Adaptable Server Infrastructure with All-Flash Storage

The DriveScale Composable Platform is the only server infrastructure that scales and adapts compute and storage resources to the needs of applications on the fly. DriveScale composes compute nodes and GPU nodes with 100G connected NVMe flash in the optimal ratio of compute to storage to fit the workload. With DriveScale, users can deploy server and storage infrastructure in minutes not months, maximize resource utilization and eliminate wasted spend with independent compute and storage upgrades.

DriveScale provides NVMeOF using RoCEv2 to enable a high performance, low-latency Ethernet-based solution which accelerates random file I/O

DriveScale

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operations and minimizes bottlenecks common with data-intensive workload. Applications can be deployed on bare metal or by using Kubernetes and containers. DriveScale provides persistent storage volumes for Kubernetes so that containers can be instantiated, moved or re-instantiated, while the storage remains available.

With DriveScale, you choose your preferred vendors for diskless CPU-centric nodes, GPU-centric nodes and Ethernet-attached flash drives, and easily compose them into heterogeneous compute and storage configurations. DriveScale carves flash drives into slices as small as 1GB and mounts the flash slices to a small or very large number of compute nodes. You can add or remove compute or storage resources as needed or replace failed compute or storage in seconds from the DriveScale platform.

Why DriveScale for All-Flash Storage

The DriveScale Composable Platform enables IT to create server infrastructure from a software application combining the flexibility and agility of cloud with the performance and latency of bare metal while lowering the cost of deploying flash.

The DriveScale platform for data-intensive applications and NVMe flash provides:

- The ability to carve flash and mount slices to servers on the fly increasing utilization
- Automated provisioning of compute nodes and flash storage shortening time to deploy
- Optimized compute and storage utilization eliminating overprovisioning
- Instant recovery from component failures from an easy-to-use software interface

By optimizing resource utilization using DriveScale, companies can deploy flash infrastructure at a lower cost than alternatives while ensuring they have the flexibility to quickly scale up or down compute and storage resources as needed.

Composable Infrastructure

Composable Infrastructure is next-generation server infrastructure that provides the ability to flexibly create, adapt, deploy and later redeploy servers using pools of disaggregated, heterogeneous compute, storage and network fabric. According to IDC, the composable infrastructure market is estimated to grow from $752 million in 2018 to $4.7 billion in 2023.