

Elastic Bare-Metal Clouds with Composable Solutions

from DriveScale and Seagate

Introduction

Companies are creating more data than ever before and putting that data to work to drive their business. The dynamic nature of data-intensive applications with today's fixed, static resources in servers with local drives creates costly overprovisioning and operational complexity. To seamlessly manage scale and control costs, composable infrastructure enables simplified, efficient IT operation and accelerated application and service delivery.

For applications such as machine learning and NoSQL databases commonly deployed on premises, bare-metal cloud infrastructure is required with the same level of adaptability and elasticity as the public cloud with better cost-efficiency. Additionally, IT needs a simple and seamless way to add the latest storage technology, accelerators and new processors. The DriveScale Composable Platform enables this flexibility with elastic, adaptable infrastructure by orchestrating the instances of compute and instances of storage that are needed for each workload. As an end-to-end, automated solution, IT admins simply identify the resources needed and the clusters are created automatically – just like in the cloud.

Together, the DriveScale Composable Platform and the Seagate® Exos™ AP 5U84 storage application platform uniquely deliver a high scale, high performance, flexible solution.

“Seagate’s leadership in hard drive innovations has enabled us to create a complete portfolio of capacity and performance-optimized platforms for software defined data center infrastructure including composable infrastructure”, said Ken Claffery, VP Enterprise Data Solutions at Seagate. “Together with DriveScale, we deliver an innovative solution for modern, cloud scale applications.”

DriveScale Composable Platform

The DriveScale Composable Platform enables elastic compute and storage resources in any data center over a standard Ethernet network with local drive performance, high data availability and secure compute node to storage connections. DriveScale provides persistent, high performance storage for Kubernetes as well as fully automated cluster creation.

With DriveScale, overprovisioning is eliminated, and resource lifecycles are decoupled saving significant infrastructure costs.

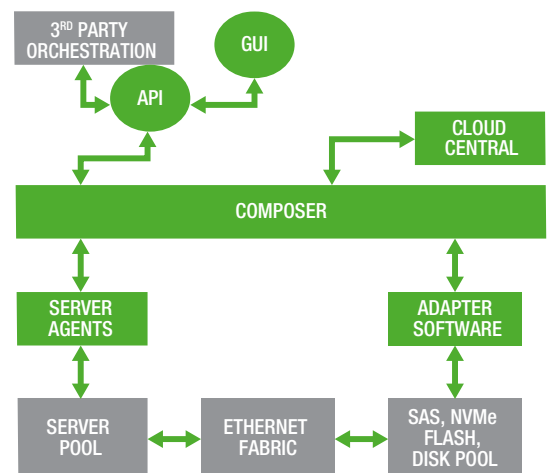


Figure 1: DriveScale Composable Platform



Elastic Bare-Metal Clouds with Composable Solutions from DriveScale and Seagate

Seagate® Exos™ Systems

The Seagate® Exos systems product line provides high capacity and industry leading efficiency in modular 2U, 4U and 5U form factors. The Exos AP 5U84 supports 84 3.5" SAS disk drives in a 5U rack-mount form factor storing up to 1.3PB of data while the optional dual redundant Intel Xeon server controllers with optional 100Gb/s Ethernet ports runs the DriveScale Composable software with zero additional rack footprint reducing data center costs and complexity.



Figure 2: Seagate® Exos™ AP 5U84

DriveScale and Seagate Strategic Alignment

Seagate and DriveScale have joined together to enable the fast and easy deployment of applications on Kubernetes or bare-metal. Customers can quickly deploy the 84-drive Seagate Exos storage application platform, which attach directly to the Ethernet network, and increase rack density, lower data center footprint and enable the scale and performance required by machine learning, cloud-native container applications and advanced analytics applications.

DriveScale composes disaggregated system resources – compute nodes, networking, and storage – into high scale clusters. DriveScale seamlessly orchestrates compute resources with Seagate devices. These hardware resource clusters are dynamic and can be continuously adapted to meet the requirements of each individual workload.

Together, Seagate and DriveScale provide the industry leading solution for Composable Infrastructure and composable Ethernet-attached storage.

Conclusion

DriveScale and Seagate give users the power to deploy applications on elastic bare-metal infrastructure with high performance and high scale at a fraction of the cost of legacy deployments and public cloud. The benefits include:

- Cloud-like infrastructure on premises for bare metal and Kubernetes bare metal applications
- Add, remove or replaces resources on the fly for truly elastic infrastructure
- Fully automated cluster setup and deployment encompassing compute node, network fabric and storage

For more information about the DriveScale Composable Platform, please visit <https://drivescale.com/composable-platform/>. To request a demo please visit <https://drivescale.com/request-a-demo/>.

For more information about Seagate, please visit www.seagate.com/enterprise-storage/systems/exos/

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ABOUT DRIVESCALE

DriveScale instantly turns any data center into an elastic bare-metal cloud with on-demand instances of compute, GPU and storage, including native NVMe over Fabrics, to deliver the exact resources a workload needs, and to expand, reduce or replace resources on the fly. With DriveScale, high-performance Kubernetes clusters deploy in seconds for machine learning, advanced analytics and cloud-native applications at a fraction of the cost of the public cloud.

ABOUT SEAGATE

Seagate crafts the datasphere, helping to maximize humanity's potential by innovating world-class precision-engineered data management solutions with a focus on sustainable partnerships.