

EMA Vendor to Watch: DriveScale

Corporate Information

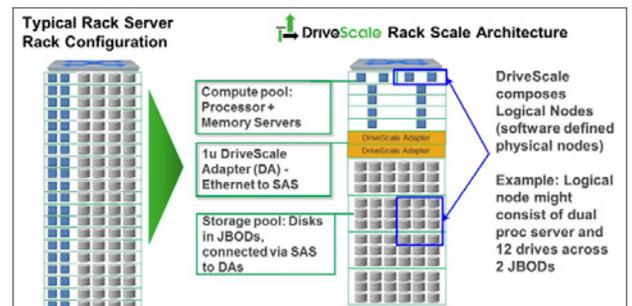
DriveScale's vision is to deliver the agility, shared resources, and elastic consumption advantages of the public cloud on-premise as a private cloud. DriveScale configures the optimal amount of server and storage resources independent of each other by utilizing a flexible configuration model.

Based in Sunnyvale, California, DriveScale is a privately held company incorporated in 2013. The company exited stealth mode in May of 2016, and its product entered general availability and is currently at release 1.1, having integrated lessons learned from initial installations. You can get more information about DriveScale at <https://www.drivescale.com/> and [@DriveScale_inc](#).

Value Proposition

The ability to efficiently and effectively scale out compute and storage is a necessity in meeting the dynamic demands of digital transformations. SAN-based storage was introduced to provide shared access to data from multiple servers. Over time, SAN-based storage became a performance bottleneck for many applications; in particular, with the proliferation of server virtualization. Additionally, the proprietary hardware and software of SAN storage is expensive and is difficult to deploy, manage, and provision. This problem led to a rise in enterprises utilizing commodity servers with direct attached storage to meet scaling requirements. The return to direct attached storage reduces the initial acquisition costs of hardware, but has drawbacks in flexibility. If either more storage or compute is needed, both resources must be added simultaneously, with one or the other resource usually overprovisioned. Also, when choosing to take advantage of a new processing advancement, transitioning to a new server subsequently results in the loss of the storage investment. Finally, native networking across servers in a cluster results in performance degradation if the required data is not local to the requesting server.

DriveScale took a different approach in meeting scaling needs, decoupling storage from the server, and allowing each to scale independently of the other. There is a compute pool that consists of servers with processors and memory. Additionally, there is a separate storage pool, which is comprised of JBODs. DriveScale adapters provide the connectivity between servers and storage. The adapters each contain two 12gb SAS interfaces for the JBODs and two 10gbE ports for the servers. The DriveScale software enables administrators to create logical nodes that consist of the required amount of server resources and the needed amount of storage. The diagram to the right illustrates the difference between a traditional cluster of servers on the left and a DriveScale deployment on the right. With the traditional approach, storage is limited in capacity and captive to each server. As an example, with the DriveScale architecture, one could create a logical node that consists of a dual-processor server and 12 drives across two JBODs, as shown to the right. Virtually any combination is possible. These logical nodes can span multiple DriveScale frames, with the ability to be moved across physical resources as required.



EMA Perspective

DriveScale delivers all of the advantages of clustered commodity servers with the independence and scalability of SAN storage. The amount of resources per node can change depending on business and IT requirements, providing the elastic nature of the public cloud with the security, performance, and control of an on-premise solution. Since storage and servers are independent, storage does not need to be thrown away when upgrading servers. DriveScale also collects and analyzes platform behavior data, providing an intuitive dashboard and detailed information, along with actionable insight into remedies, node adjustments, and configuration changes. For taking a unique approach that increases flexibility, lowers costs, and increases efficiency, EMA wishes to name DriveScale as a Vendor to Watch.

About Vendor to Watch: EMA Vendors to Watch are companies that deliver unique customer value by solving problems that had previously gone unaddressed or provide value in innovative ways. The designation rewards vendors that dare to go off the beaten path and have defined their own market niches.

About EMA: Founded in 1996, Enterprise Management Associates (EMA) is a leading industry analyst firm that provides deep insight across the full spectrum of IT and data management technologies. EMA analysts leverage a unique combination of practical experience, insight into industry best practices, and in-depth knowledge of current and planned vendor solutions to help EMA's clients achieve their goals. Learn more about EMA research, analysis, and consulting services for enterprise IT professionals and IT vendors at www.enterprisemanagement.com or blogs.enterprisemanagement.com. You can also follow EMA on [Twitter](#), [Facebook](#), or [LinkedIn](#).