

REPORT REPRINT

Nexenta extends SDS into the cloud while enhancing its management platform

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The company has expanded its portfolio of SDS products to reach further into the cloud while continuing to capitalize on next-generation workloads like containerized applications.

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Adoption of software-defined storage is increasing gradually, but in our Voice of the Enterprise: Storage, Budgets and Outlook 2017 survey, 69% of respondents are not currently leveraging SDS. However, in the same survey, 22% of respondents using SDS indicate that open source storage software is one of their reasons for choosing to use SDS software on commodity x86 hardware. Nexenta capitalizes on this desire for simplicity in management of storage systems while leveraging open-source-based SDS software in conjunction with x86 commodity hardware for an increased level of cost-effectiveness.

THE 451 TAKE

The main challenge for Nexenta is overcoming enterprise concerns about SDS that inhibit its adoption as an alternative to traditional storage arrays. However, Nexenta has a strong partner ecosystem, and that helps cover the hardware part of the storage equation, which is important since customers still favor purchasing appliances over software-only. Additionally, the partner certifications for reference architectures work to counter potential fears around interoperability and reliability of SDS-based platforms. Products like NexentaFusion also aim to address the challenge presented by slow provisioning processes by offering easier management and a degree of automation to the process. NexentaCloud stands to benefit from the increasing frequency with which hybrid-cloud models are being favored by enterprises, including use cases like Cloud NAS, which we believe will become increasingly popular because it is a means to support legacy or existing applications. As container usage works its way further past test/dev and into production environments, the need for persistent storage to accompany containers will also increase.

CONTEXT

SDS pioneer Nexenta Systems was founded in 2008 and is headquartered in San Jose. The company has pulled in approximately \$135m in funding to date, and its latest round was \$20m from SoftBank. With the latest investment with SoftBank, Nexenta not only gets funding, but also an inside track to working with other SoftBank companies. Currently, Nexenta has 2,000PB in production and 6,000 customers (half of them enterprise customers and the other half accounting for the open source customers), with average deal size ranging from \$50,000-100,000. Nexenta currently has 300 partners and 50 patents. The company has a headcount of 160.

STRATEGY

Concerns around SDS usage center on maintenance, reliability and interoperability, cited as the top reasons for not using SDS on commodity x86 hardware by 45.6%, 30% and 27% of respondents, respectively. Part of the way Nexenta is able to alleviate these concerns is by maintaining an extensive roster of partners, including the likes of Cisco, Dell EMC, Ericsson, Fujitsu, HPE, Lenovo, SanDisk and Supermicro. Although software-only approaches can be seen as advantageous, the reality is that many customers still prefer to purchase appliances, and Nexenta's OEM partnerships facilitate its customers being able to do so. With regard to the release of its NexentaCloud product, this broadens the focus for the company so that it can accommodate the public cloud portion of customers' storage needs as they implement hybrid cloud initiatives.

For organizations that are already using SDS, the top reasons are simplifying management of heterogeneous storage systems (43%), lower acquisition costs compared with storage appliances (38.8%) and scalability (38%). The primary values of SDS over traditional storage arrays are agility, consistent performance, scalability and the ability to leverage commodity hardware. To attack the issue of high costs associated with traditional storage, Nexenta has also invested heavily in improving the management capabilities of its portfolio with the development of NexentaFusion, to allow customers to handle large repositories of data without forcing them to acquire costly specialists.

PRODUCTS

Nexenta's portfolio has a number SDS products, such as its NexentaStor storage platform, which provides open-source-based block and file storage that caters to enterprise applications such as Microsoft Exchange and SQL Server, or Oracle applications. It can be applied to disk, hybrid and all-flash systems, and NexentaStor has certifications from partners, such as Supermicro, Lenovo and Dell, for reference architectures accompanying their hardware; it can also be purchased as a preconfigured appliance from OEM partners. The software itself is licensed either as an Enterprise Edition based on total capacity in terabytes or as a free Community Edition.

NexentaEdge is a scale-out block, file and object storage system, with the object component leveraging Open-Stack Swift or AWS S3. It is usually deployed in configurations ranging from 100TB to 100PB. In-line dedupe and compression is done at the cluster level, and the platform also provides erasure-coding capabilities. NexentaEdge can also be used to provide persistent storage for containers via integrations for Docker and Kubernetes.

The REST API-driven NexentaFusion works in conjunction with NexentaStor or NexentaEdge to provide analytic and management capabilities for storage assets across block, file and object storage services. It supplies information through a singular dashboard that shows the status of appliances and provides the ability to set up rules-based provisioning. The tool can provide multi-year historical performance and utilization metrics, which appeals to organizations building out cloud infrastructures. The vendor recently unveiled a new offering known as NexentaCloud, which incorporates public cloud storage for hybrid cloud deployments. Functionally, NexentaCloud is similar to NexentaStor, simply running in AWS's cloud, allowing replication between cloud and on-premises environments.

COMPETITION

SDS is an offering from major storage vendors, such as Dell EMC (ScaleIO, as well as vSAN via VMware), HPE (StoreVirtual), IBM (Spectrum) and NetApp (ONTAP). Red Hat also offers open-source-based SDS via its Ceph and Gluster storage products. Startups and midsize players in this space include Elastifile, FalconStor, Hedvig, INFINIDAT, Quobyte, Qumulo, Scality, Virtuozzo, WekaIO and Zadara Storage. Against this competition, NexentaEdge is leveraged in large-scale environments and emerging use cases, such as container storage and providing storage for cloud-native apps; NexentaStor goes up against more traditional storage arrays and SDS offerings. Some of the aforementioned SDS companies, along with some additional startups, also cater to the persistent storage needs of containers. This space includes companies such as Asigra, Diamanti, Elastifile, Hedvig, MayaData (formerly Cloud-Byte), MapR, Portworx and Virtuozzo.

Nexenta will also encounter competition from object storage vendors, although the dynamic here is more complex, given that NexentaCloud works in conjunction with the largest object storage play, AWS S3. However, part of what Nexenta is bringing to the table is simplicity when it comes to managing the range of potentially disparate storage environments, thanks to the single dashboard approach of NexentaFusion.

SWOT ANALYSIS

STRENGTHS

The company has developed its SDS portfolio with both scale-up and scale-out capabilities to cater to the various components of the hybrid-cloud landscape. It has also built out its partner ecosystem and its partner certifications, and appliance deals can help reduce customer concerns on support and reliability.

WEAKNESSES

A challenge to any open-source-based product is ensuring that the commercialized product is delivering enough value to pull customers onboard, and SDS is no exception.

OPPORTUNITIES

Container storage may be a relatively small market now, but as container utilization increases and moves beyond just test/dev use cases, so will the opportunity in this space. Persistent storage for cloud-native applications presents a similar prospect in the future, where its NexentaCloud offering could gain traction.

THREATS

The main threat facing SDS vendors is simply the slow take-up of enterprise SDS usage as a result of concerns about maintenance, reliability and interoperability.