# Nexenta looks to expand TAM with scale-out object storage play, IPO on horizon

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As the idea of the 'software defined datacenter' begins to take hold in the industry at large, one company in particular – Nexenta – has arguably embraced the notion of software-defined storage (SDS) more fully than any other. To say that Nexenta lives and breathes SDS would be an understatement, and it's not hard to see why. With a software-only approach that has its roots firmly in the open source community, Nexenta says its momentum over the last year in particular highlights that the industry is at the beginning of a real transformation in the way organizations build and scale their storage infrastructures. Moreover, with a decade's worth of experience and momentum under its belt, Nexenta also maintains that it's the only SDS specialist that is 'walking the walk' in terms of real-world traction. With about 6,000 customers, the company believes it's on the tipping point, and it is raising a final round of funding before an anticipated IPO in the next 18-24 months. As part of this ambitious plan, the company is working on a couple of major new products for release this year that are intended to expand its appeal and total addressable market.

## The 451 Take

It was clear when Tarkan Maner took over the CEO reins that Nexenta needed to rediscover its mojo to recapture the company's initial momentum. There's no doubting that Nexenta was a pioneer in storage; the issue was that its total value proposition wasn't compelling enough to create a company of any significant scale – hence, the plan to make over Nexenta into a more strategic storage concern, spanning a broad spectrum of workloads under a common point of control. Of course, the company still has a lot of work ahead of it to execute against this strategy, and that will take time. But with an ambitious, motivated management team and rising interest in all things 'software defined,' Nexenta is in the right place at the right time, with the right message.

**Context**

We last looked at Nexenta in depth in late 2013, shortly after the arrival of Maner. Since then, under the charismatic Maner's leadership, Nexenta has refocused its messaging 100% on SDS. Indeed, the company notes that despite the fact that many other vendors – established and emerging – have also embraced the term in their marketing, it is one of very few pure-play storage software companies to have any meaningful customer traction.

Nexenta's customer base has increased by about 1,000 in the last year to roughly 6,000. The company also says that revenue in 2014 doubled from 2013, that it had its best ever Q3 and Q4, and that sales in January exceeded those in all of Q4. About one-third of Nexenta's customers are in the hosting and cloud provider segment, with many of those using its software in conjunction with open source cloud platforms OpenStack and CloudStack. Nexenta works with a wide range of channel partners and hardware partners to deliver its software to customers, and it notes particular traction of late with Dell and Supermicro. The company says that it has driven about $300m in revenue for itself and its ecosystem of partners since inception. Headcount at Nexenta stands at about 250, up from about 200 a year ago.

**Products**

Thus far, Nexenta's chief product focus has been NexentaStor, a storage software stack built on the open source ZFS that offers unified file and block storage. It's designed for random I/O workloads, so it is suitable for use with mainstream enterprise applications, virtualized applications and high-performance file repositories for streaming applications. Nexenta operates a typical open source business model, offering a free community edition – which it says has been downloaded more than 30,000 times in the last year – and a paid-for enterprise edition that includes support and related services.

While Nexenta continues to invest to build out the functionality in NexentaStor – flash-based optimizations and all-flash reference architecture are on its roadmap – the company is also working to expand its total addressable market with multiple new products. It released the first of these – NexentaConnect – last year. Built on NexentaStor and aimed initially at boosting I/O for both persistent and non-persistent VDI applications – VMware Horizon and, currently in beta, Citrix XenDesktop – NexentaConnect now also supports VMware's VirtualSAN hyper-converged software offering. The value here is to add file services – NFS and SMB – on top of VSAN, turning it from a SAN-only product into a unified NAS and SAN offering. The software also uses ZFS compression to

reduce capacity requirements for file storage. Nexenta says its partnership with VMware is particularly strong here. This offering is proving popular in smaller remote office/branch office environments where organizations want to integrate block and file storage into a single converged system.

While NexentaConnect is designed to expand the appeal of NexentaStor, the company is also working on a new product entirely. This product – NexentaEdge – is in tech preview now, and is planned for general availability in late March. NexentaEdge is intended to take the company into a different – but complementary – segment to NexentaStor. It has been designed to scale out to hundreds of petabytes (in contrast to the scale-up architecture of ZFS), and will focus on providing object and block interfaces – with file support planned over the longer term. It is aimed primarily at efficiently storing large amounts of unstructured data – think medical images, video/audio, photo libraries and other digital content – but is also intended to be an object storage platform for the next generation of cloud-based and 'big data' applications, be they OpenStack cloud or a Hadoop-based analytics applications. For this reason, Nexenta says that while NexentaEdge is mostly built for high throughput rather than random I/O, it was important to build a product capable of delivering 'good enough' I/O performance, as well as high throughput and efficient capacity scale. From an interface perspective, NexentaEdge will offer an Amazon S3- and OpenStack-compatible API at general availability. HDFS support is also on the roadmap, as is block support (important to support VM boot images), via support for both native iSCSI and the Cinder API.

Nexenta says that because it started from scratch, it has been able to design a number of important next-generation features into NexentaEdge from the beginning. For example, it says it will be the first scale-out object storage software to support in-line, global data de-duplication. It also says it has applied several key aspects of ZFS to NexentaEdge, including 'end to end' data-integrity checks, and support for sophisticated copy-on-write capabilities that it says will enable simple snapshot and cloning operations. Although snaps and clones are typically not features of object storage to data (since most data objects are not updated once initially written), Nexenta believes they will become more useful as organizations start building new applications on an object storage infrastructure.

The final piece in the Nexenta product puzzle will be NexentaFusion. Described as a 'single pane of glass' management, analytics and orchestration suite, the product is slated for delivery by midyear. Fusion started out as a way of simplifying the management process for customers – especially service providers – with a large number of two-node Nexenta deployments, and will initially focus on providing these environments with a single point of monitoring, providing insight into their overall storage utilization and performance. A second version will add support for centralized

storage provisioning and orchestration. However, the ultimate scope for Fusion is more ambitious. Nexenta intends it to become a central point of management across both NexentaStor and NexentaEdge storage services, and potentially include third-party storage as well. Initially at least, both NexentaEdge and NexentaFusion will be closed-source products, although the company is debating internally whether to release one of both to the open source community.

**Competition**

The enterprise storage market is the most competitive it has ever been as a host of emerging players attempt to unseat the entrenched incumbents. From that perspective, Nexenta's competitors can be divided into two camps. In the first camp are the incumbents that currently dominate the enterprise storage landscape, most notably EMC, but also NetApp, HP, IBM, Dell, Hitachi Data Systems and, to an extent, Oracle. Tellingly, most of these players are also embracing the notion of software-defined storage to some extent. Here, Nexenta has a strong argument that the potential savings from a software-defined approach are much about thinking differently about storage, and that incumbents are not incentivized to make this happen, especially when it comes to embracing open source software or considering storage software separately from hardware. This, aligned with its support for OpenStack and CloudStack, lies at the heart of its appeal to service providers, Nexenta says, although it realizes that many organizations like the idea of buying hardware and software at the same time; this is where partnerships with the likes of Dell and Supermicro become increasingly important.

Outside of the major incumbents, Nexenta faces a strong ecosystem of emerging players, many of which are also embracing SDS. Here, Nexenta will have to compete in particular with other hybrid disk and flash players, including Tegile (also based on ZFS) and Nimble Storage. Additionally, many emerging players are also targeting petabyte-scale content storage and the 'next generation' of applications with scale-out object-based storage approaches, some of which are based on open source software. Nexenta will increasingly encounter this group with the release of NexentaEdge, which the company says has been designed as a superior alternative to Ceph. Examples here are Red Hat (with Inktank Ceph) and partner Fujitsu (with the Eternus CD10000), SwiftStack (based on OpenStack SWIFT). These will soon be joined by SUSE, which is also preparing a Ceph distribution. Closed-source specialists include Amplidata, Cleversafe, Cloudian, DataDirect Networks and Scality.

**SWOT Analysis**

| Strengths | Weaknesses |
|---|---|

Nexenta has a sizeable installed base with particularly strong traction in the hosting vertical, and seems to have rediscovered some of its initial energy with a partner-friendly approach.

The new products are not yet generally available and, of course, will be first-gen products when they are launched, so it may take time for revenue to follow.

## Opportunities

Although there's no consistent definition of software-defined storage, interest is building around both this and 'next generation' object storage, which will expand Nexenta's total addressable market.

## Threats

The storage market is arguably at its most competitive point, Nexenta must work hard to carve out a clear and unique voice in this environment.