



## Delivering the Software-Defined Data Center via Open Software-Defined Storage – Webinar, 3/10/15

Participating Companies: IDC, ScaleMatrix, Dell, and Nexenta

### Remaining Webinar Questions and Answers from IDC and Nexenta:

#### 1. What are the five SDS drivers?

- 1) Lower cost, ease of management
- 2) Improved business agility
- 3) Access to broad enterprise storage functionality
- 4) Better accommodation of new technologies
- 5) Easier serviceability

#### 2. What workloads are NOT ideal for Software Defined Storage (SDS) today?

- 1) **Eric Burgener, IDC:** This may not be the right way to ask the question. The rise of SDS, the agility and cost structure that it provides, has been primarily driven by requirements of the third computing platform infrastructure. We discussed this at great length during the Nexenta, Dell, and ScaleMatrix webinar. There may be an extremely limited number of applications that do not fit into SDS. It may be the case that for certain applications with very specific hardware requirements for the application (specialized niche application) – that SDS may not be a perfect fit. That being said, virtually any type of application can be consolidated onto virtual infrastructure and have its needs and requirements met with SDS. With consolidated, mixed workloads running on virtual infrastructure, you can really benefit from the flexibility and lower TCO that SDS provides.

#### 3. If the definition of SDS is “platforms that deliver the full suite of storage services via a software that uses (but is not dependent on) commodity hardware built with off-the-shelf components”, then where do you put hyper-convergence? Lots of hyper-convergence offerings say they are software-defined.

- 1) **Eric Burgener, IDC:** In the SDS platform market, IDC includes block, file, object, and hyper-converged (4 areas). The difference between the block/file/object products and hyper-converged is that the first 3 provide storage services only, independently, whereas hyper-converged provides both compute and storage services from the "nodes".
- 2) **Nexenta:** There are a number of different types of solutions that call themselves SDS. Most hyper-converged solutions do use commodity hardware but you are not able to purchase/decouple the “software” part of it independently, which creates more vendor-lock-in which customers are fed-up with. So you are not able to abstract the

hardware layer from the offering. This limits your ability to leverage economies of scale that you might have with a specific hardware vendor, thereby limiting your ability to reduce cost in your storage environment. We reference these as Software-Based Storage, meaning the software is a key component to the offering, but you are still forced to purchase a static hardware stack.

#### 4. What's a good rule of thumb to evaluate SDS solutions?

- 1) **Nexenta**: Probably the best way to tip your toe in would be to purchase SDS for use at your Tier2+ layers. Home Directories, File Shares, Mail Storage, Test/Dev, Backup/Archive, etc., may be great apps/workloads for SDS. This allows you to evaluate and get comfortable with the idea of SDS. We find that most customers, once they become comfortable with the solution via the right performance, capacity, and overall functionality, they start moving Nexenta up the stack to be used for various apps and workloads.

#### 5. What are some of the barriers you hear to SDS adoption?

- 1) **Eric Burgener, IDC**: Mostly, there is still little awareness about this disruptive model, while there were also initial concerns about the maturity of the platforms to meet enterprise requirements although this is changing rapidly, whether or not the platforms provide the necessary enterprise storage functionality, capacity and performance management to meet enterprise requirements. However, more and more enterprises are choosing SDS to take advantage of many benefits of SDS against the hardware-based legacy systems of the past.
- 2) **Nexenta**: The biggest barrier is Fear, Uncertainty, and Doubt (FUD) from legacy vendors who fear SDS as a headwind to their business models in very fundamental ways. Also, market awareness levels are just growing as data growth is exponential, while SDS is still not a household definition or segment – however, it is clearly growing very fast and creating huge buzz among customers and investors.

#### 6. Why Open Source? What is the value to me?

- 1) **Nexenta**: Open Source-centric R&D and GTM programs allow us to leverage the general population to come up with creative and innovative features and fixes with the help of a large community of passionate developers who are committed to innovation and deployment success. While we employ a large number of developers, by using Open Source core, we can incorporate changes that occur in the community into our product rapidly and effectively. Of course, we maintain a strict Q/A of anything that we use but ultimately this allows us to get new features to market more quickly. In return, when we fix or improve on certain features we contribute back to the community for general use.

#### 7. Where do you see hyper-convergence playing in the move to SDS?

- 1) **Eric Burgener, IDC**: It is one of the four segments in the SDS-P (Software-Defined Storage Platform) market

- 2) **Nexenta:** There are a number of different types of solutions that call themselves SDS. Most hyper converged solutions do use commodity hardware but you are not able to purchase the “software” part of it independently; even if you could, a large amount of customers want freedom of choice for their compute, network and storage platforms for most of the apps. Also, you are not able to abstract the hardware layer from the offering. This limits your ability to leverage commodities of scale that you might have with a specific hardware vendor, thereby limiting your ability to reduce cost in your storage environment and innovate faster. We reference these as Software Based Storage, meaning the software is a key component to the offering but you are still forced to purchase a static hardware stack. While hyper converged systems may be a ok choice for certain apps and workloads including VDI, large majority of apps and workloads prefer Open Source-driven SDS at lowest TCO and highest level of openness and freedom without hardware vendor-lock-in.

#### 8. Where do all flash and hyper-convergence play in SDS?

- 1) **Eric Burgener, IDC:** Again, as discussed, SDS is an enabling technology for all flash and hyper-converged platforms. Flash is necessary to meet 3<sup>rd</sup> platform computing performance requirements, and can be provisioned either in a hybrid or an all-flash configuration. Both the block/file/object and the hyper-convergence options can offer HDD only, hybrid, or all flash configurations, depending on what the specific vendor supports. SDS, specifically an open SDS solution enables all above options for customers.
- 2) **Nexenta:** Hyper-convergence is a growing component of today’s IT infrastructure for certain apps and workloads. I think for SMB and remote office type of environments, these point products are a good fit. We think for bigger and deeper environments the All-in-One nature of these solutions limits the customers technologically, operationally and in return, most importantly, economically. You have to deal, manage and deploy compute, memory and storage all the time – in a static and converged way limiting flexibility for most of the apps and workloads. If you only need one of those 3 components you lose the ability to choose and flexibly integrate to ever-changing apps and workloads which require compute and storage separately. In very large environments people will still want to control their compute/memory and storage farms independently but with some type of orchestration overarching these farms.

#### 9. Who will lead the market ultimately? Storage only services or hyper-converged?

- 1) **Nexenta:** We think that an Open SDS model is the BIG winner for cheap and deep deployments for the large majority of apps and workloads. Larger environments will still want to be able to manage their storage as a separate entity instead of forcing computer and



memory to go with capacity. We do think there is a good place for hyper-converged in the SMB and remote office environments as a departmental solution.

**10. Is Nexenta certified on Dell 13G Hardware? How does Support work for this?**

- 1) **Nexenta:** Yes we are fully certified on Dell 13G hardware and support is provided via Dell. Dell takes first call on both hardware and software and if needed engages Nexenta for deeper support on SDS. One important thing to note is that Dell will manage the ticket from end to end so there is not handoff or finger pointing for customers for end-to-end management.

**11. How do you align with a SDS solution like VMware Virtual SAN?**

- 1) **Eric Burgener, IDC:** IDC views VMware Virtual SAN as an SDS-P of the hyper-converged type. Nexenta is the other type, supporting block, file and object options in a dedicated storage (not a hyper-converged) solution. We know both companies collaborate for end-to-end customer solutions via block, file and object options.
- 2) **Nexenta:** Nexenta is a great partner to VMware. VMware Virtual SAN is a block-based storage solution that uses object store-type concepts (Replicant Count) to provide VM availability. We have a tight integration into this stack with our NexentaConnect for Virtual SAN product for VMware. Due to the “software only” nature of our product we are able to be installed as a virtual machine within a VMware environment and we are able to provide file-based services for your block-based Virtual SAN storage. We have integration with VMware vCenter and we are also available to compliment EVO:Rail solutions from vendors such as Dell, SuperMicro, and other leading platform vendors.

**12. How do you integrate with OpenStack?**

- 1) **Nexenta:** OpenStack is a key segment for Nexenta, as we have very deep experience in Open Source world starting with hundreds of production deployments around CloudStack and OpenStack since the inception of these types of technologies. Today our market-leading NexentaStor (Block and File-based Scale Up) solution can be used as a Cinder destination for your Openstack environment. We have Cinder drivers and cinder.conf examples available. Our NexentaEge (Object, Block and File-based Scale Out) solution will support Swift and Cinder in Openstack deployments.