nexenta™

NexentaStor™
The Leading Platform for Software Defined Storage

SOFTWARE DEFINED STORAGE

Overview

NexentaStor is a full featured NAS/SAN software platform that can be installed on standard commercial hardware with capabilities that meet and exceed the capabilities of legacy storage systems. NexentaStor is the leading hardware-independent OpenStorage solution, and has been implemented by thousands of enterprises. Its revolutionary ZFS-based architecture delivers a set of features that make it the unsurpassed choice for enterprises looking for cloud storage options, either for public or internal use.

By separating the storage hardware from the software that manages it, software-defined storage enables enterprises to make storage hardware purchase decisions independent from concerns about over/under-utilization or interoperability of storage resources. The key benefits of software-defined storage over traditional storage are *increased flexibility*, *automated management*, and *cost efficiency*.

Delivering a Better Storage Environment

Nexenta delivers on a promise of providing software with SMARTS – ever higher levels of Security, Manageability, Availability, Reliability, lower TCO, and Scaleability. Some of the key attributes of NexentaStor are:

Unified Storage
NexentaStor concurrently supports block (FC, iSCSI) and file (NFS, CIFS, SMB) access protocols across active/active controllers delivering a complete suite of data services: unlimited snapshots, clones, thin provisioning, inline deduplication, compression, and replication across all HDD, all SSD and Hybrid configurations.

Built on the ZFS File System
ZFS is a unique filesystem that provides simple administration, end-to-end data integrity, and immense scalability. Extended to 128-bit, the ZFS file system has the ability to handle virtually unlimited size of files. It also provides self-healing by using 256-bit checksums end-to-end to validate the stored data.

ZFS offers software RAID, either single or dual parity, through its RAID-Z and mirroring schemes which are not vulnerable to some of the issues that plague other types of RAIDs.

Highlights

- Unified Storage for block (FC, iSCSI) and file (NFS, CIFS, SMB) with built-in replication across SSD/HDD/Hybrid configurations

- Scalable to hundreds of TBs of Storage and optimized I/O performance with 512GB memory cache per head

- Active/Active cluster configuration and High Availability with no single point of failure

- Highly scalable ZFS-based file system with its superior data protection and Copy-on-Write ensuring highest levels of reliability and data integrity

vmware READY   openstack CLOUD SOFTWARE   CITRIX ready   DELL Technology Partner

High Availability

NexentaStor offers a proven Active/Active High Availability solution with transparent failover for NAS and SAN. Failover times are minimized to less than a minute.

Fault Management Architecture

NexentaStor offers an improved Fault Management Architecture that allows IO to continue in the face of hardware that has not yet failed but is not performing well with intermittent disk problems. Nexenta works with hardware vendors to comprehend their firmware specifications and embed intelligence to detect and handle drive issues thus minimizing their impact and keep IO flowing.

Resource Management at Scale

NexentaStor is designed for large-scale growth with unlimited snapshots and copy-on-write clones. It also optimizes I/O performance with the ability to use 512GB memory cache per head. The total storage capacity of each cluster is designed to scale up to a petabyte or higher.

Replication

Auto-sync is the NexentaStor periodic asynchronous data replication service that can provides remote data copy services for backup, disaster recovery, and archiving. Auto-sync improves management and control through compression and deduplication of transferred data and delivers recovery point objectives (RPOs) as low as a few seconds.

Automated Deployment

In the interest of making it easy to create, configure, and manage storage pools, NexentaStor has a wizard in the GUI that enables an administrator to select preferred characteristics of the storage pool (e.g., number of cache devices and width of a RAID set) which then automatically determines an optimal pool layout and applies it. This can save significant time deploying large systems/environments.

Hardware Compatibility

NexentaStor has been certified with a wide range of hardware platforms and components from vendors such as Dell, Cisco, HP, SuperMicro and Intel. Nexenta has developed a list of fully-certified, end-to-end reference architectures available through its partners. Please refer to nexenta.com for the latest information on certifications of these solution stacks.

EDITIONS AVAILABLE			
Feature	**Community**	**Trial**	**Enterprise**
Capacity	18 TB	–	License-based up to 1PB
Time limit	Perpetual	45 days	Perpetual
HA Cluster	N/A	Plug-in	Plug-in
Replication	N/A	Included	Included
Install Options	Bare Metal	Bare Metal or ESXi	Bare Meta or ESXi
Support	Community	SE, Partner	Silver, Gold, Platinum