SIMPLE AND SCALABLE STORAGE
From Boston, Nexenta & Supermicro

Today's Speakers

Presenter: Bjarne Poulsen
Director of Business Development, Boston

Presenter: Amos Ankrah
Pre-Sales Solution Engineer, Nexenta

Presenter: Don Lopes
Vice President, Marketing, Nexenta

Partnering to bring you a simplified SDS appliance

SIMPLE SCALABLE, HIGH-AVAILABILITY STORAGE FOR SEAMLESS "OUT-OF-THE-BOX DEPLOYMENTS

- Leverage hardware and software innovation from industry leaders

- Enterprise feature set for your essential applications and workloads

- Easy to purchase and support - all through Boston

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Addressing Key Enterprise Storage Challenges

No Compromise

- Flexible & agile solution
- All-Flash & Hybrid Options
- Industry leading TCO

Enterprise Feature Set

- Unified block & file services
- In-line data reduction
- High performance replication

Delivering Simplicity & Scale

- Intuitive UI & advanced Analytics
- VMware, Hyper-V Integration
- SDS appliance w/ scalable options

High Availability

Data Integrity

Fully Integrated Solutions

Highly Agile & Flexible

Application-specific Optimizations

Highly Scalable & Manageable

Simple to Deploy, Highly-Available Servers

Fully Redundant Hot-Swap Design

- Redundant Hot-swap nodes
- Redundant Hot-swap fans and power supplies

Unified File and Block Connectivity

- Unified File (NFS and SMB) and Block (FC and iSCSI) services
- Full suite of enterprise data services
- Inline data reduction

3-Year Service Included

- 3-Year Next Business Day Onsite*
- Full suite of enterprise data services
- Optional Service upgrades available for 4-hour response and up to 5 years of coverage*

All-Flash

Hybrid & All-Disk

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Hardware Architecture

Affordable

The Total Solution for Nexenta lets users select an application optimized base deployment and scale as their needs grow

Reliable

Fully redundant Hot-swap/HA storage nodes offering transparent failover

Base

2x slots for user selectable networking
- Ethernet 10G SFP+
- Fibre Channel
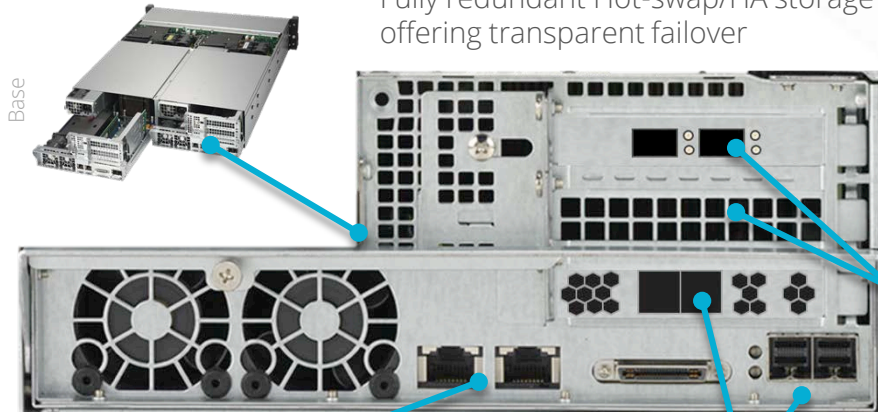
Base

Expansion

Built-in 10GBase-T Networking
With IPMI link between nodes for easy remote manageability

4x 12G/sec SAS3 expansion ports

Expandable

Each SBB Supports up to 2x JBOD expansion chassis

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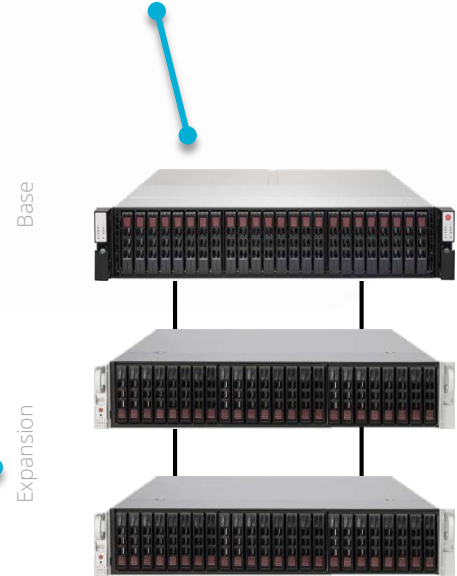
System Expansion

Each model supports predefined capacity configurations. This allows users to deploy fully expanded systems from the start or simply expand by designated increments as their needs grow.

1. Choose base system with media and performance that meets your requirement
   - 1.9 TB SSD
   - 3.8TB SSD
   - Performance-Hybrid model using SSD caching and 2TB rotational media
   - Hybrid model using SSD caching and 4TB rotational media
   - Archive model with All rotational media (8TB drives)

2. Select usable capacity
   - Predefined capacity increments based on media and pool configuration

Performance and High Availability

All Flash	Hybrid	Archive

IOP Performance

Use Cases: High Performance VM, Databases, Analytics, Mail Servers

- Up to 4 10GbE / 16Gbps FC
- Capacity: **15TB to 184TB usable**
- 1.9TB & 3.8TB drive configs
- Up to 2x 24-Bay all Flash Expansion JBODs Supported

Mixed Workload

Use Cases: Virtual Environments, Home Share, Enterprise Block & Files

- Up to 4 10GbE / 16Gbps FC
- Capacity: **20TB to 272TB usable**
- 2 Hybrid configs, options based on workload
- Up to 2x 44-Bay Expansion JBODs Supported

Online Archive

Use Cases: Back-up, Disaster Recovery, Archive

- Up to 4 10GbE / 16Gbps FC
- Capacity:**128TB to 640TB usable**
- High capacity triple parity
- Up to 2x 44-Bay Expansion JBODs Supported

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Full-Featured 5th Generation Storage Software

Small Form Factor Cluster Unified File (NFS, SMB) & Block (FC, iSCSI) Services

- Ships with NexentaStor 5 & NexentaFusion
  - File: NFSv3/ NFSv4/ CIFS/ SMB3
  - Block: iSCSI/ Fibre Channel
- Inline data reduction, unlimited snapshots & clones
- Thin Provisioning
- Storage Quality of Service (QoS)
- Long distance replication (scheduled & continuous async)
- Ecosystem integration including
  - VMware , VAAI, VVOL & vCenter Plugin
  - Hyper-V, OpenStack (Cinder & Manila) & Docker
- Management includes NexentaFusion, Self-Documenting REST APIs, CLI, & SNMP
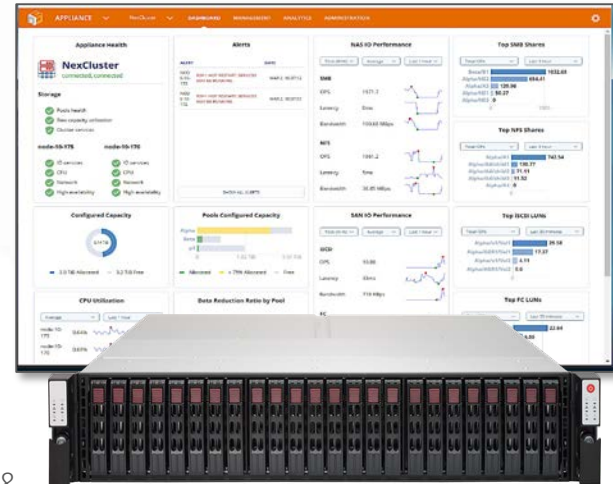
Available in High Performance, Low Latency All-Flash & Scalable Hybrid Configs

# Enterprise Grade Full Featured Storage Solution

Small Form Factor Cluster Unified File (NFS, SMB) & Block (FC, iSCSI) Services

- Ships with NexentaStor 5 & NexentaFusion
    - File: NFSv3/ NFSv4/ CIFS/ SMB3
    - Block: iSCSI/ Fibre Channel
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- Management includes NexentaFusion, Self-Documenting REST APIs, CLI, & SNMP

Available in High Performance, Low Latency All-Flash & Scalable Hybrid Configs

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Ease of Management & Integration
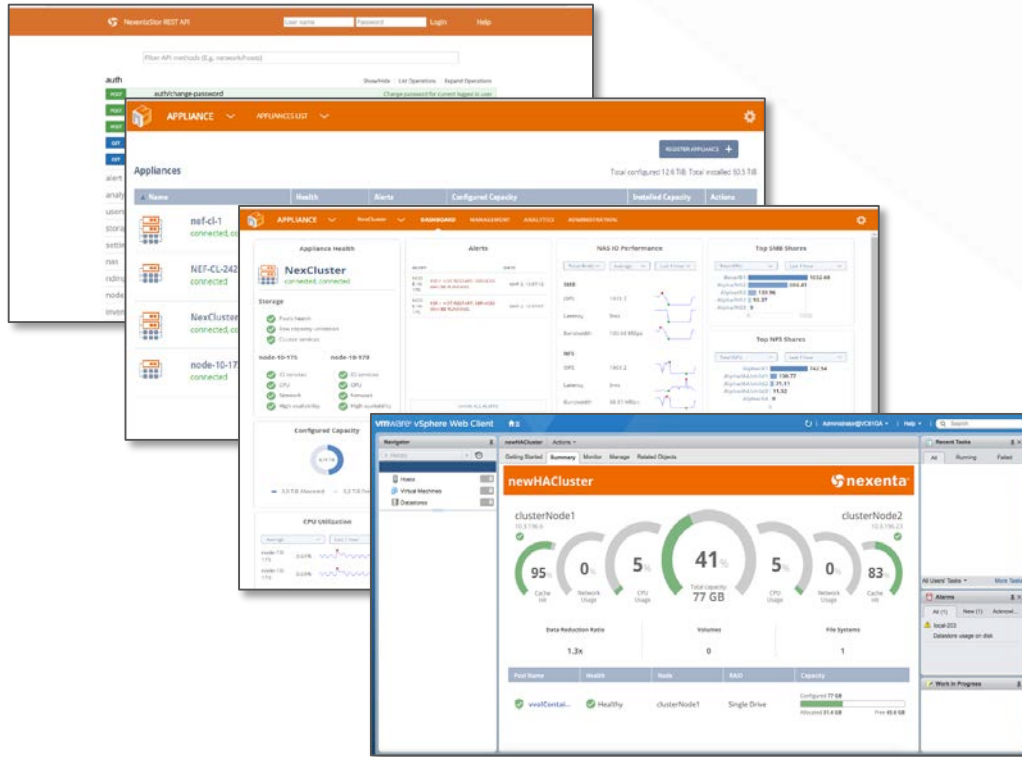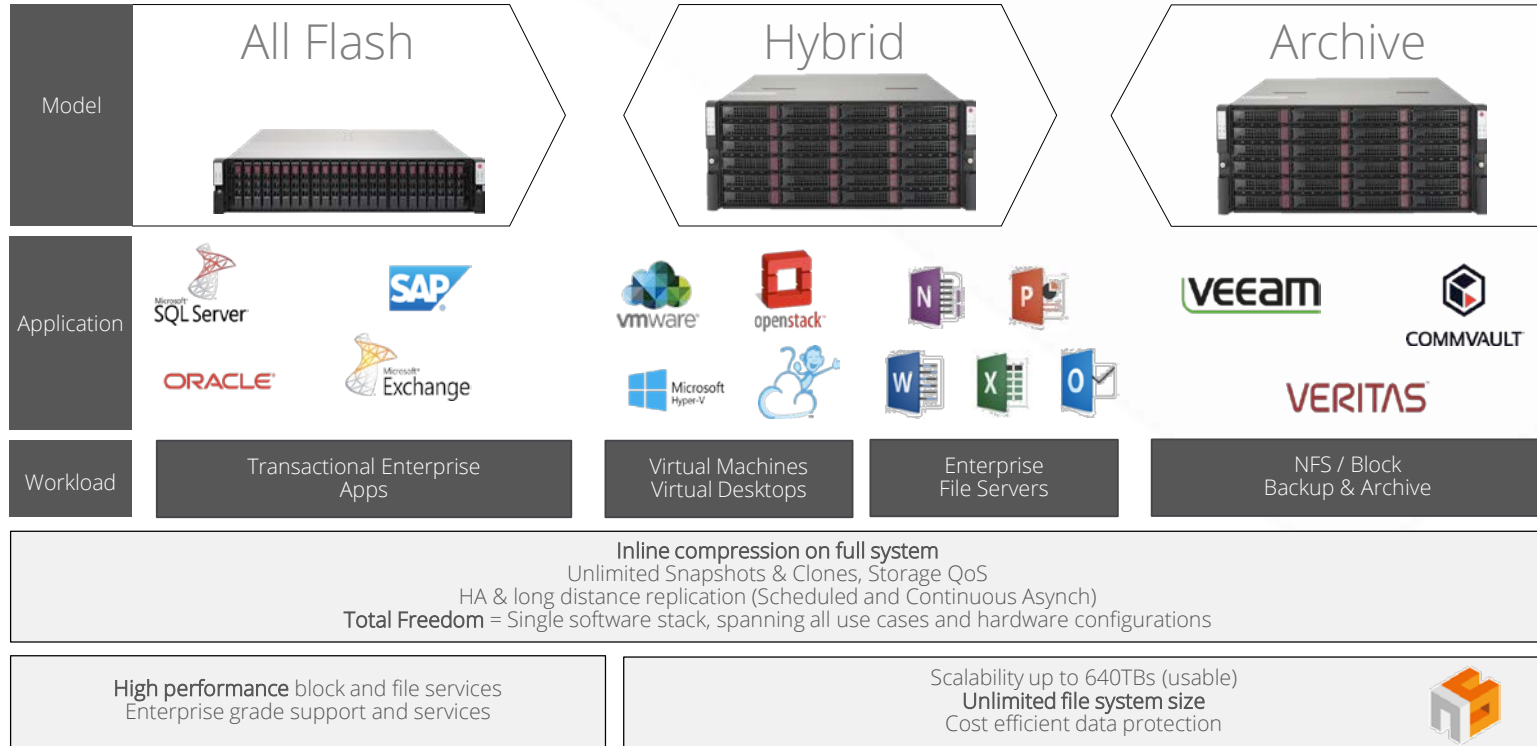

Self-documenting REST API

Intuitive Multi-System
User Interface

Customizable Analytics
Dashboards

Familiar VMware
Integration

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Targeting Broad Set of Enterprise & Cloud Workloads

	All Flash	Hybrid	Archive
Model			
Application	Microsoft SQL Server, SAP, ORACLE, Microsoft Exchange	vmware, openstack, N, P, Microsoft Hyper-V, W, X, O	Veeam, COMMVAULT, VERITAS

Workload	Transactional Enterprise Apps	Virtual Machines Virtual Desktops	Enterprise File Servers	NFS / Block Backup & Archive

Inline compression on full system
Unlimited Snapshots & Clones, Storage QoS
HA & long distance replication (Scheduled and Continuous Asynch)
Total Freedom = Single software stack, spanning all use cases and hardware configurations

High performance block and file services
Enterprise grade support and services

Scalability up to 640TBs (usable)
Unlimited file system size
Cost efficient data protection

Preloaded w. Basic Configuration for Simple On-Site Install

Total Solution for Nexenta – Included Services

3-Year On-Site Next Business Day Service

Standard Business Hours, Next Business Day (9am to 5pm) Response
Service is available 8 hours per day within standard business hours, Monday to Friday, excluding local holidays. A Supermicro authorized representative will arrive at the customer's site to begin hardware maintenance service the next day after the service request has been received and defective parts have been determined and shipped

Remote High-Availability Installation

Includes setup and testing of one cluster between two Nexenta nodes. Also includes auto-scrub and auto- snap functions, as well as HA Cluster health check verification, complete Systems Integration Guide documentation.

Next Business Day Onsite-All service provided 9am to 5pm*	
Duration	3 Year - OSNBD3
Point of Contact	24 Hours x7 days
Web Portal Access	YES
Help Desk / Technical Support via Phone	YES
Case Management Access to Supermicro service management team	YES
Escalation management Access to Supermicro Service management team	YES
Onsite Engineer	Next Business Day
Remote / Online Diagnostic & Support	No, Uplift Available
Nexenta Remote / System Installation & configuration	Included

Appliance, Service, & Support ONLY available in North America, United Kingdom, and Germany

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CAPACITY OPTIONS
From Boston, Nexenta & Supermicro

All-Flash 2010/2020 – Based on 1.92TB SSDs

All-Flash Array: 15TB to 61TB Usable

- Expand using single 2U/24 expansion shelves

File and Block Storage

- Fibre Channel & iSCSI
- NFSv3 / NFSv4 / SMB 3

Each Controller node:

- 4x SAS3/12Gb/s storage expansion ports
- 2x onboard 10GBase-T / RJ45 ports
- 2x available slots for optional FC HBA or 10GbE NICs

Built with 1.92TB SSDs

- Dual-parity device protection
- Effective capacity* from 41TiB to 166TiB

Model: SSG-2028R-NEX2010

Starts half populated with 1.92TB SSD

Base		15TB	30TB
Base & 1 Shelf		46TB	61TB

Usable Capacity Options for SSG-2028R-NEX2010 & SSG-2028R-NEX2020

Rear View

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All-Flash 2030/2040 – Based on 3.84TB SSDs

All-Flash Array: 30TB to 184TB Usable
- Expand using up to 2x 2U/24 expansion shelves

File and Block Storage
- Fibre Channel & iSCSI
- NFSv3 / NFSv4 / SMB 3

Each Controller node:
- 4x SAS3/12Gb/s storage expansion ports
- 2x onboard 10GBase-T / RJ45 ports
- 2x available slots for optional FC HBA or 10GbE NICs

Built with 3.84TB SSDs
- Dual-parity device protection
- Effective capacity* from 82TiB to 502TiB

Rear View

Model: SSG-2028R-NEX2020

Starts half populated with 3.84TB SSD

Base		30TB	61TB
Base & 1 Shelf		92TB	122TB
Base & 2 Shelves		153TB	184TB
Usable Capacity Options for SSG-2028R-NEX2030 & SSG-2028R-NEX2040			

Hybrid Performance 4010 – Based on 2TB HDDs

Hybrid Performance: 20TB to 106TB Usable
- Expands using up to 2x 4U/44 expansion shelves

File and Block Storage
- Fibre Channel & iSCSI
- NFSv3 / NFSv4 / SMB 3

Each Controller node:
- 4x SAS3/12Gb/s storage expansion ports
- 2x onboard 10GBase-T / RJ45 ports
- 2x available slots for optional FC HBA or 10GbE NICs

Built with 2TB HDDs
- Mirrors with 1 to 3 hot-spare devices
- Effective capacity* from 27TiB to 145TiB

Rear View

Model: SSG-6048R-NEX4010

Starts fully populated

Base		20TB
Base & 1 Shelf	40TB	62TB
Base & 2 Shelves	84TB	106TB

Usable Capacity Options for SSG-6048R-NEX4010

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Hybrid Capacity 4020 – Based on 4TB HDDs

Hybrid Capacity: 48TB to 272TB Usable
- Expands using up to 2x 4U/44 expansion shelves

File and Block Storage
- Fibre Channel & iSCSI
- NFSv3 / NFSv4 / SMB 3

Each Controller node:
- 4x SAS3/12Gb/s storage expansion ports
- 2x onboard 10GBase-T / RJ45 ports
- 2x available slots for optional FC HBA or 10GbE NICs

Built with 4TB HDDs
- Dual-parity device protection with 3 hot-spares
- Effective capacity* from 65TiB to 371TiB

Rear View

Model: SSG-6048R-NEX4020

Starts fully populated

Base		48TB
Base & 1 Shelf	96TB	160TB
Base & 2 Shelves	208TB	272TB

Usable Capacity Options for SSG-6048R-NEX4020

Archive 4030 – Based on 8TB HDDs

Archive Array 128 - 640TB usable
- Expands using up to 2x 4U/44 expansion shelves

File and Block Storage
- Fibre Channel & iSCSI
- NFSv3 / NFSv4 / SMB 3

Each Controller node:
- 4x SAS3/12Gb/s storage expansion ports
- 2x onboard 10GBase-T / RJ45 ports
- 2x available slots for optional FC HBA or 10GbE NICs

Built with 8TB HDDs
- Triple-parity device protection
- Effective capacity* from 140TiB to 698TiB

Rear View

Model: SSG-6048R-NEX4030

Starts fully populated

Base		128TB
Base & 1 Shelf	256TB	384TB
Base & 2 Shelves	512TB	640TB

Usable Capacity Options for SSG-6048R-NEX4030

System Matrix

All-Flash

Hybrid

Archive

Available Models	SSG-2028R-NEX2010 SSG-2028R-NEX2020	SSG-2028R-NEX2030 SSG-2028R-NEX2040	SSG-6048R-NEX4010	SSG-6048R-NEX4020	SSG-6048R-NEX4030
Max BW (100% Read)	8 GB/s	8 GB/s	2 GB/ s	1.8 GB/s	1.4 GB/s
Max 8KB IOPS (Mix R:W)	180,000	180,000	70,000	40,000	25,000
Storage Media	1.9TB SAS SSD	3.8TB SAS SSD	2TB SAS 7k RPM	4TB SAS 7k RPM	8TB SAS 7k RPM
Pool Configuration	All-Flash, Dual Parity		Hybrid, Mirrors 3 Hot Spares	Hybrid, Dual Parity 3 Hot Spares	All-Disk, Triple Parity
Raw Capacity (TB)	23 to 92	46 to 276	42 to 218	84 to 420	176 to 880
Usable Capacity (TB)	15 to 61	30 to 184	20 to 106	48 / 272	128 to 640
Usable Capacity (TiB)	15 to 55	92 to167	18 to 96	44 /247	154 to 582
Effective Capacity (TiB)	41 to166	82 to 502	27 to 145	65 to 371	140 to 698
Expansion Chassis	Up to 2x 2U/24 bay - all flash JBODs supported (72 bays total)		Up to 2x 4U/44-bay JBODs supported (112 bays total)		

System Matrix

All-Flash

Hybrid

Archive

Available Models	SSG-2028R-NEX2010 SSG-2028R-NEX2020	SSG-2028R-NEX2030 SSG-2028R-NEX2040	SSG-6048R-NEX4010	SSG-6048R-NEX4020	SSG-6048R-NEX4030
Max BW (100% Read)	8 GB/s	8 GB/s	2 GB/ s	1.8 GB/s	1.4 GB/s
Max 8KB IOPS (Mix R:W)	180,000	180,000	70,000	40,000	25,000
Storage Media	1.9TB SAS SSD	3.8TB SAS SSD	2TB SAS 7k RPM	4TB SAS 7k RPM	8TB SAS 7k RPM
Pool Configuration	All-Flash, Dual Parity		Hybrid, Mirrors 3 Hot Spares	Hybrid, Dual Parity 3 Hot Spares	All-Disk, Triple Parity
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5% Customer Discount on All Standard Appliances – expires 15th Dec, 2017

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Questions?

"Boston's level of knowledge is excellent and the account team that we work with respond promptly to assist us in meeting our customer requirements."
Longstanding Reseller Partner

"I don't believe that we could have grown our business at the speed we have without the support of Boston Ltd."
End Customer

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Learn more:

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https://www.boston.co.uk/partners/nexenta.aspx

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