DATASHEET: NexGen N5 Hybrid Flash Array

Flash storage is addressing the latency inherent with disk drives, enabling you to virtualize more, and reduce application response times. But, it's an inescapable fact that the $/GB of flash is much higher than disk drives. So why do the majority of storage vendors indiscriminately accelerate all data, regardless of its value to your business? All-flash arrays waste money by storing non-critical data in flash, and hybrid arrays can't control whether mission-critical or non-critical data accesses flash, leading to unpredictable performance.

At NexGen Storage, we understand that not all data is created equal. We've designed the NexGen N5 Hybrid Flash Array around value-driven data management, which enables you to align the cost of storing and managing your data with its value. The NexGen N5 is available in four performance and capacity configurations, each integrated with PCIe flash for more performance and capacity than any other hybrid array. Our Quality of Service (QoS) lets you manage performance, allowing you to control what data is stored in flash, and affordably tailoring application performance to match your business priorities.

PCIe Architecture

PCIe integration for efficient and affordable performance and scale

- Superior to SSD - PCIe flash means higher performance, capacity and longevity
- Maximize disk capacity - no drive bays are wasted holding SSD
- Scaling flash onto the PCIe bus means capacity without SATA/SAS compromise
- Lowest latency available by scaling flash to the server as read cache

Dynamic Prioritization

Nonstop, granular performance management

- Policy-based prioritization that aligns individual workloads with business value
- Performance monitoring for real-time intelligence for business agility
- Enforce service levels to prioritize workloads amongst one another
- Intelligent caching for efficient flash utilization with Prioritized Active Cache

Policy-Based Simplicity

Policy-driven management and integrated data protection

- Five robust policies manage all application performance
- Policy changes take effect immediately
- Data protection with scheduled snapshot and replication
- Performance policy modification scheduler
- Proactive support

NexGen Hybrid Flash Arrays

MODEL	N5-200	N5-300	N5-500	N5-1000
Part Numbers	XN50-2032-11E	XN50-2664-11E	XN50-5264-11E	XN50-9964-11E
PCIe Flash Capacity	2.0 TB (base) 7.2 TB (max)	2.6 TB (base) 7.8 TB (max)	5.2 TB (base) 10.4 TB (max)	10.4 TB (base) 15.6 TB (max)
Disk Capacity	32 TB Raw (base) / 22 TB Usable 128 TB Raw (max) / 88 TB Usable	64 TB Raw (base) / 44 TB Usable 256 TB Raw (max) / 176 TB Usable		
Performance Rating	150,000 IOPS * 2.0 GB/sec T-put **	200,000 IOPS * 2.4 GB/sec T-put **	225,000 IOPS * 2.7 GB/sec T-put **	250,000 IOPS * 3.0 GB/sec T-put **
Feature Set	N5 Operating Environment: • Storage Quality of Service (QoS) • Performance Service Levels • Dynamic Data Path		• Data Reduction • Snapshots and Replication • Prioritized Active Cache	
VMware Integration	VAAI | vCenter Server Plug-in | Virtual Volumes Partner Ecosystem			
Storage Processors	Dual Active/Active Storage Processors			
Scalability	Performance Pack: 5.2TB PCIe Flash	Performance Pack: 5.2TB PCIe Flash expansion		
	Capacity Pack: 32TB disk shelf	Capacity Packs: 32TB, 48TB, 64TB disk shelf expansions		
CPU	4x 6-core Intel Xeon E5645 2.4GHz (2x CPU per Storage Processor), 24x Physical Cores / 48 Cores with Hyper-threading			
RAM	96 GB	192 GB		
RAID	RAID 6, hot-swap disk drives			
Network Interfaces	Data: (4) 1/10GbE SFP+ or (4) 1/10GBaseT RJ45, iSCSI Management: (4) 1GbE RJ45, http, https			
Hardware Availability	Redundant storage processors Redundant fans Redundant, hot swap power supplies		Redundant network connections RAID-6, hot swap disks Dual port SAS drives	
Flash Reliability	Adaptive Flashback			
Power	100 - 140V, 50 - 60Hz, 8 - 11.5 Amp; 180 - 240V, 50 - 60Hz, 5.5 - 8 Amp Max Power Operation: 1320W / 4500 BTU/hr; Typical Power Operation: 654W / 2230 BTU/hr			
Environmental	Operating Temp: 10' to 35' C, (50' to 95' F), Operating Relative Humidity: 8% to 90% non-condensing, Non-Operating Temp: -40' to 70' C, (-40' to 158' F), Non-Operating Relative Humidity: 5% to 95% non-condensing			
Physical	Height: 5.2" (3 EAI rack units), Width: 17.2", Depth: 25.5" Weight: 75 lbs. (without drives), 100 lbs. (with drives)			

N5 Hybrid Flash Array Scalability Options

Item	N5-200 PERFORMANCE PACK	N5-300/500/1000 PERFORMANCE PACK
Part Number	XN50-PP52-SSP	XN50-PP53-SSP
Flash Capacity	5.2 TB (2x 2.6TB PCIe Flash)	5.2 TB (2x 2.6TB PCIe Flash)
RAM Upgrade	192GB	None Required
Interface	PCIe	PCIe

Item	CAPACITY PACK 32TB	CAPACITY PACK 48TB	CAPACITY PACK 64TB
Part Number	XN50-CP32-HD6	XN50-CP48-HD6	XN50-CP64-HD6
Raw Disk Capacity	32 TB	48 TB	64 TB
RAID	RAID 6, hot-swap disk drives		
Interfaces	2x 6Gb/s SAS		
Hardware Availability	Redundant fans, power supplies, and SAS connections, Dual port SAS drives		
Power	100 - 140V, 50 - 60Hz, 8 - 11.5 Amp, 180 - 240V, 50 - 60Hz, 5.5 - 8 Amp		
Environmental	Operating Temp: 10' to 35' C, (50' to 95' F), Operating Relative Humidity: 8% to 90% non-condensing, Non-Operating Temp: -40' to 70' C, (-40' to 158' F), Non-Operating Relative Humidity: 5% to 95% non-condensing		
Physical	Height: 5.2" (3 EAI rack units), Width: 17.2", Depth: 25.5" Weight: 75 lbs (without drives), 100 lbs (with drives)		

Support Offerings	
	• Software/Firmware updates (Major/Minor/Service Packs/Patches) • Hardware parts replacement • Performance and Capacity expansion packs covered by N5 support contract • Proactive phone-home monitoring via Internet • Direct access to NexGen Support Engineers available via phone and email
	• 7 day x 24 hour phone support with onsite parts • 7 day x 24 hour phone support with next business day parts • 5 day x 9 hour phone support with onsite parts • 5 day x 9 hour phone support with next business day parts

* Based on 4K Random Reads; ** Based on 256 Sequential Reads