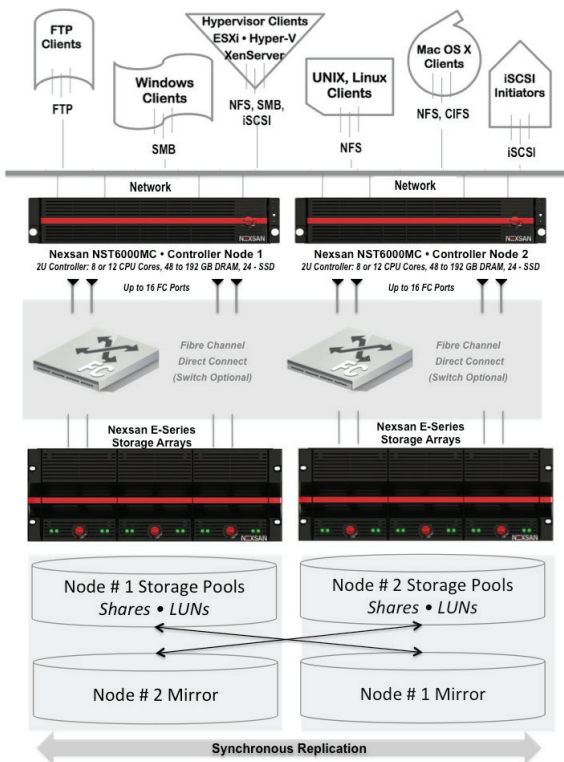


NST6000MC™ METRO STORAGE CLUSTER

Performance, Scalability
High Availability
and Disaster Recovery

NST6000MC Metro Storage Cluster over Fibre Channel
Direct Switch Connection. (Switch Optional)



NEXSAN NST6000MC CONTROLLER NODE™

UNIFIED HYBRID STORAGE WORKHORSE

The Nexsan NST6000MC storage cluster is an integrated high availability and business continuance solution that extends data replication and failover capability from within a data center to sites on campus or to sites located up to 10 kilometers away. It's a data center workhorse that is able to host the majority of applications and support demanding SAN (iSCSI) and NAS (CIFS/NFS) storage workloads simultaneously. The NST6000MC is a hybrid storage system that leverages the power of solid-state to accelerate the read performance of underlying SAS or SATA spinning drives housed within ultra-dense and highly reliable Nexsan E-Series back-end storage arrays. The net result is a lower cost-per-I/O and a lower total cost of ownership.

NST6000MC OVERVIEW

The Nexsan NST6000MC metro storage cluster consists of two Active / Active NST6000MC Controller Nodes configured with Fibre Channel-attached Nexsan E-Series storage arrays.

The two NST6000MC controller nodes can be physically separated by up to 10 kilometers and each NST6000MC controller node can have one or more Nexsan E-Series storage arrays and expansion units allocated to it over Fibre Channel.

The NST6000MC metro storage cluster provides synchronous mirroring along with the ability to perform a complete site failover. With synchronous mirroring, each controller node, or site in the cluster configuration has a complete copy of the data.

HIGHLIGHTS

- **Cluster** using direct connections or switched connections to distances of up to 10 km
- **Active/Active controllers** providing HA failover from one NST6000MC node to another
- **Synchronous mirroring** delivers continuous up-to-date copies of data to different sites
- **Client support:** Linux, OS X, Unix, Windows, ESXi, Hyper-V, XenServer
- **Storage Services:** CIFS, SMBv1, NFSv3, NFSv4, iSCSI target, FTP
- **Nexsan FASTier™:** flexible caching technology using DRAM and solid-state drives
- **Nexsan E-Series™:** ultra-reliable, energy-efficient, high performance, FC RAID storage
- **Supports SAS and/or SATA** hard disk drives; **SLC** and/or **eMLC** solid-state drives
- **Nexsan NestOS:** NST6000MC's in-depth storage operating system with no license fees
- **Nexsan E-Centre™:** NST6000MC's primary interface to manage the metro storage cluster



NST6000MC BY THE NUMBERS CLUSTER CAPACITIES

Data listed in the table refers to a two-node NST6000 metro storage cluster configuration. Storage capacities are mirrored.

	2 x NST6330MC	2 x NST6530MC	2 x NST6730MC
Max Cluster Form Factor	26 U per Site; 52 U in Cluster	38 U per Site; 76 U in Cluster	50 U per Site; 100 U in Cluster
Standard Maximum FASTier Read Cache Cluster Capacity	4.0 TB 8.8 TB	8.8 TB 18.4 TB	18.4 TB 18.4 TB
Max SSD SAS Cluster Capacity	48	48	48
Max SATA Cluster Capacity	2,880 TB	4,320 TB	5,760 TB
Max SAS Cluster Capacity	432 TB	648 TB	864 TB
Total Front-End I/O: 1GbE	4 to 20	4 to 20	4 to 20
Total Front-End I/O: 10GbE	4 to 12	4 to 12	4 to 12
Total Back-End I/O: 8GbFC	8 to 16	8 to 32	8 to 32
NestOS	Included	Included	Included
E-Centre GUI	Included	Included	Included
Command-Line Interface	Included	Included	Included
Back-End Storage Arrays	4 Arrays 16 Engines	6 Arrays 24 Engines	8 Arrays 32 Engines
Back-End Storage Expansion	8 Expansion Units	12 Expansion Units	16 Expansion Units

NST6000MC TECHNICAL SPECS CONTROLLER NODE CAPACITIES

Data listed in the table refers to a single NST6000MC controller node.

NST6000 MC Controller Nodes:	NST6330MC	NST6530MC	NST6730MC
Controller Form Factor	1 controller in 2U chassis	1 controller in 2U chassis	1 controller in 2U chassis
Intel CPU Type # of Cores	Xeon Processor MP 8 cores	Xeon Processor MP 12 cores	Xeon Processor MP 16 cores
Controller Node Memory Standard Maximum	48 GB 96 GB	96 GB 192 GB	192 GB 192 GB
RAID Levels	RAID 5, RAID 6	RAID 5, RAID 6	RAID 5, RAID 6
Max FASTier Read Cache Devices	Up to 24 Devices	Up to 24 Devices	Up to 24 Devices
FASTier Read Cache Types	200,400GB eMLC 100,200GB SLC	200,400GB eMLC 100,200GB SLC	200,400GB eMLC 100,200GB SLC
Standard Maximum FASTier Read Cache Capacity	2.0 TB 4.4 TB	4.4 TB 9.2 TB	9.2 TB 9.2 TB
Max SSD SAS Drives Capacity	24	24	24
Max 7.2K SATA Drives Capacity	360 Drives 1,440 TB	540 Drives 2,160 TB	720 Drives 2,880 TB
Max 15K SAS Drives Capacity	360 Drives 216 TB	540 Drives 324 TB	720 Drives 432 TB
Max E-Series RAID Arrays Engines	2 Arrays 8 Engines	3 Arrays 12 Engines	4 Arrays 16 Engines
Max E-Series Expansion Units	4 Units	6 Units	8 Units
Max Cluster Node Form Factor	26 U per Site	38 U per Site	50 U per Site

NEXSAN E-SERIES

Highest Density SAN Storage System

NST6000MC's Back-End Storage

The Nexsan E-Series™ is an advanced SAN storage system for organizations needing an extremely dense and highly reliable back-end storage solution. Nexsan's expertise in capacity-optimized storage has led to industry-leading efficiencies at the lowest possible cost-per-terabyte for range of applications whether dedicated, virtual or cloud. The E-Series delivers industry-leading density and power efficiency for the smallest storage footprint with up to 3X the capacity in the same space as a typical array while consuming up to 85% less power and cooling when idle. A fault tolerant and highly reliable architecture ensures enterprise-class data protection. With dual raid engines per controller, the E-Series delivers blazing wire-speed throughput, high IOPS, and array-based snapshots and replication. The active/active dual controller configuration provides twice the I/O ports and increases system performance.

NST6000MC TECHNICAL SPECS

CONTROLLER NODE CONNECTIVITY

Data listed in the table refers to a single NST6000MC controller node

NST6000 MC Controller Nodes:	NST6330MC	NST6530MC	NST6730MC
Host Connectivity			
Embedded 1GbE I/O	4-port 1GbE 1 is management. 1 is reserved.	4-port 1GbE 1 is management. 1 is reserved.	4-port 1GbE 1 is management. 1 is reserved.
PCIe Slots for GbE	2	2	2
Standard 10 GbE (PCIe) I/O	2-port 10GbE	2-port 10GbE	2-port 10GbE
Optional 1GbE Adapter Card	2-port or 4-port 1GbE	2-port or 4-port 1GbE	2-port or 4-port 1GbE
Optional 10GbE Adapter Card	2-port 10GbE	2-port 10GbE	2-port 10GbE
1GbE I/O Ports	2 to 10	2 to 10	2 to 10
10GbE I/O Ports	2 to 6	2 to 6	2 to 6
Storage Connectivity			
PCIe Slots for Fibre Channel	2 to 4	2 to 4	2 to 4
8 Gb/s Fibre Channel Card	2-port 8 Gb/s FC	2-port or 4-port 8 Gb/S FC	2-port or 4-port 8 Gb/S FC
8 Gb/s Fibre Channel I/O Ports	4 to 8	4 to 16	4 to 16

NST6000MC TECHNICAL SPECS CONTROLLER NODE STORAGE SERVICES

Data listed in the table refers to a single NST6000MC controller node.

NST6000 MC Controller Nodes:	NST6330MC	NST6530MC	NST6730MC
Client Support	Linux, OS X, Unix, Windows ESXi, Hyper-V, XenServer		
Storage Services	CIFS, SMBv1, NFSv3, NFSv4, iSCSI target, FTP		
Maximum Single File Size	16 TB	16 TB	16 TB
Max NFS Shares	512	512	512
Max CIFS Shares	512	512	512
Max Snapshots Per Share	2,048	2,048	2,048
Maximum LUN Size	16 TB	16 TB	16 TB
Max LUNs	1,024	1,024	1,024
Max Snapshots per LUN	2,048	2,048	2,048

NEXSAN NestOS, NST6000MC'S STORAGE OPERATING SYSTEM

NestOs is included with no up-front licensing fee and/or per-feature licensing

- Protocols: Simultaneous support of iSCSI and NAS (CIFS, NFS) out-of-the box
- Performance: Nexsan FASTier™ caching technology. vStorage API for Array Integration.
- High Availability: Synchronous Mirroring. Automatic Failover. Multi-Path I/O.
- Data Protection: Snapshot Utility. NMDPv4 Support.
- Management: E-Centre web-based GUI for sub-15 minute set-up and simple operation.
- Integration: AD and LDAP integration to simplify management of identities and rights.

NST6000MC TECHNICAL SPECS CLUSTER NODE ADDITIONAL SPECIFICATIONS

Data listed in the table refers to a single NST6000MC controller node

NST6000 MC Controller Nodes:	NST6330MC	NST6530MC	NST6730MC
Operating Temperature	10-35C, 50-95F	10-35C, 50-95F	10-35C, 50-95F
Operating Humidity	20-95% (non-condensing)	20-95% (non-condensing)	20-95% (non-condensing)
U of Rack Space	2U	2U	2U
Height	3.5in, 8.76cm	3.5in, 8.76cm	3.5in, 8.76cm
Width	17.2in, 43.8cm	17.2in, 43.8cm	17.2in, 43.8cm
Depth	27.87in, 70.78cm	27.87in, 70.78cm	27.87in, 70.78cm
Weight	>40lbs, >18.1Kg	>40lbs, >18.1Kg	>40lbs, >18.1kg
# hot swappable power supplies	2	2	2
Maximum Power/Controller Node	< 430 W	< 430 W	< 430 W
Voltage, Frequency	Voltage (110): 90-132V; Frequency 47-63 Hz Voltage (220): 180-246V; Frequency 47-63 Hz	Voltage (110): 90-132V; Frequency 47-63 Hz Voltage (220): 180-246V; Frequency 47-63 Hz	Voltage (110): 90-132V; Frequency 47-63 Hz Voltage (220): 180-246V; Frequency 47-63 Hz
Heat Dissipation	1467 btu/hr	1467 btu/hr	1467 btu/hr

ABOUT IMATION

Imation is a global data storage and information security company. Imation's Nexsan portfolio features solid-state optimized unified hybrid storage systems, secure automated archive solutions and high-density enterprise storage arrays. Nexsan solutions deliver high performance for mission-critical IT applications such as virtualization, cloud, databases, and collaboration; and energy efficient, high-density storage for backup and archiving. For more information, visit www.imation.com/nexsan.