



## Sun StorageTek™ 5320 NAS Cluster Appliance

### High-availability Cluster NAS Keeps up with Demanding Business Requirements



#### Highlights

- Active-active architecture enables high performance and high availability to help maintain the greatest levels of productivity
- Enterprise-class features, such as: file system journaling, checkpointing, remote mirroring, antivirus, clustering, and system redundancy help keep businesses running
- Lower-cost options for replication and compliance
- Multiprotocol appliance integrates seamlessly and securely supports data sharing between UNIX® and Windows clients
- iSCSI target support enables block-level data access over an IP-based Ethernet network
- Integrated real-time antivirus scanning feature protects your data from computer viruses
- Simplified, central management makes it possible to manage more storage — reducing the need for costly hardware and software license upgrades
- Available as a Sun System Pack which combines the product with services in one optimized offering

> The Sun StorageTek™ 5320 NAS Cluster Appliance features an active-active cluster failover architecture with no single point of failure that enables high performance and high availability to keep your business running smoothly and your most demanding business applications at peak productivity. The Sun StorageTek 5320 NAS Cluster Appliance delivers the benefits of storage consolidation and centralized backup to Sun StorageTek multiprotocol IT environments, and with support for UNIX®, Linux, and Windows clients, it simplifies file sharing between disparate platforms. The appliance features file system journaling, checkpointing, remote mirroring, remote monitoring, and clustering, combined with a fault-tolerant, Fibre Channel or Serial-ATA back-end RAID array to deliver very high levels of availability and performance. The appliance provides quick deployment, simple manageability, seamless integration, and flexible policy-based services. It is easy to operate and effortless to manage, and it can be set up in about 15 minutes, thanks to its highly intuitive wizard. Designed to grow along with your business, this powerful NAS appliance can easily be scaled to 134 terabytes of raw FC or to 224 terabytes of raw SATA RAID-protected storage.

The optional Sun StorageTek™ Compliance Archiving Software enables the appliance to store and protect regulated and reference information to help reduce legal risk and meet regulatory and business compliance, including SEC 17a-4 requirements. The software includes write-once, read-many (WORM) functionality for file systems that allows the specification of minimum retention periods, and administrative lockdown facilities that ensure that files marked as WORM cannot be inadvertently removed prior to their retention period. To provide for disaster recovery situations over distance, the optional Sun StorageTek™ File Replicator provides remote data mirroring between Sun StorageTek NAS

systems. In the event of a source system failure or disaster, the mirrored file system on the target appliance can be promoted to continue delivering data during the failure.

#### Added value and cost savings with Sun System Packs

The Sun StorageTek 5320 NAS Cluster Appliance is available as a Sun System Pack, which combines the product with services in one optimized offering. Sun System Packs for storage go beyond the traditional warranty and include 24-hour technical support by phone, extended on-site coverage hours, SunVIP™ cross vendor/platform interoperability problem management, and access to

online learning resources to help you accelerate performance from day one. In short, you can get the flexible storage you want and the services you need at a price that's less than purchasing the hardware and services separately — and in some cases less than the storage product warranty.

### Engage the storage experts

Sun StorageTek service professionals help you address storage challenges by delivering integrated services and solutions that optimize and manage storage performance over the life of your data. Sun's recognized, world-class service and customer care give you confidence that your technology investment is protected and that your business will be responsive to change. We can help you pinpoint opportunities to reduce costs, mitigate business risk, and better leverage information assets. Sun's consulting and managed services offer clear and simple choices

## Sun StorageTek™ 5320 NAS Appliance Specifications

Two Sun StorageTek 5320 NAS Appliances with active-active failover; each consisting of:

### Processors and memory

CPU	One 2.6 GHz AMD Opteron™ processor with one MB cache
Memory	Four GB DDR1/400 ECC registered DRAM

### Standard/integrated interfaces

Network	Four standard 10/100/1000BaseT Ethernet ports. Up to three optional dual-port 10/100/1000BaseT Ethernet NICs
SCSI	One optional Ultra 320 SCSI multimode (SE/LVD)
USB	Two USB ports (bottom for USB Connection, top for factory use only)
Expansion bus	Five internal PCI-X 64-bit (three available for expansion)
Fibre Channel	Two standard dual-port two Gb/s FC HBA. One optional for tape backup

### Software/operating system

Operating system	StorageTek™ 5000 NAS OS—Storage-optimized operating system
File system	64-bit journaling file system, checkpoints, online extensible/expandable capacity, NTFS streams support, quotas: user, group, and directory tree, Unicode
File access protocols	CIFS/SMB, NetBIOS, NFS v2 and v3, FTP
Block access protocol	iSCSI target
Directory and name services	ADS (LDAP, Kerberos v5), NT 4.0 multiple master domains (MMM), DNS, WINS, NIS, NIS+, local files
Network services	DHCP, NTP, RDATE, network status monitor
Access control	Windows 2003, 2000, and NT 4.0 access control lists and access tokens, UNIX credentials and permissions, credential mapping, directory tree quotas, user and group quotas, checkpoints, SMB/CIFS shares, UNIX exports, approve lists, trusted host lists, netgroups, cross-platform file locking (limitations), cross-platform authentication

### Supported clients

CIFS, FTP	Microsoft Windows NT 4.0/2000/2003/XP Solaris™ 2.6, 7, 8, 9, 10; Solaris x86 9, 10;
NFS, FTP	IBM AIX; HP HP-UX; Red Hat Enterprise Linux; SUSE Linux ES
iSCSI	Solaris™ iSCSI Software Initiator; Microsoft iSCSI Software Initiator
Remote management	SNMP, Remote Syslog
System administration	Web (HTTP-based on Java™ platform) GUI, telnet, Rlogin, Rsh, SSH, console command line interface (CLI)
Mail services	SMTP
System monitoring	Disk subsystem via SCSI enclosure services (SES); fans, power supplies, temperature, voltages via IPMI protocol; UPS; network monitor
Tape backup	NDMP v2 and v3, backup with full Unicode, remote backup configuration support with NDMP
Setup and configuration	Web-based GUI

### Learn More

For additional information on this product, go to:  
[sun.com/storage/5000/](http://sun.com/storage/5000/)

in solutions that address your regulatory concerns, complex storage growth, resource management, and scalability challenges. Covering over 125 countries, more than 2,100 dedicated storage service professionals can help you gain and sustain measurable results with the reliability and flexibility that you require.

RAID manager	Integrated through Web-based GUI
Antivirus engine supported	Symantec AntiVirus for Network Attached Storage and Computer Associates eTrust Antivirus scan engine; (must license separately from their respective vendors)

### NAS head enclosure

Dimensions height:	3.45 in. (8.76 cm); width: 17.52 in. (44.5 cm); depth: 25.2 in. (64 cm)
Weight	52.1 lbs (23.7 kg)
Enclosure	Fits into a standard 19-inch rack
AC power	Voltage range: 90-264 V AC; frequency: 47-63 Hz 4.0 A max. @ 115 V AC; 2.0 A max. @ 230 V AC
Safety regulations	IEC60950, UL/CSA60950, EN60950, CB Report with all national differences
RFI/EMI regulations	Class A, FCC CFR47 Part 15, ICES-003, EN55022, EN300 386 v1.3.2
Immunity regulations	EN55024, EN300 386 v1.3.2
Certifications: safety	Safety: cULus, CE, GOST R, S-Mark (CCC exempt as "Storage" product). EMC: Class A, FCC, VCCI, C-Tick, MIC, BSMI, GOST, (CCC exempt as "Storage" product)
Hazardous substance regulations	Complies with the Restriction of Hazardous Substances (RoHS) directive 2002/95/EC

### Mass storage: StorageTek 5320 Storage (RoHS-compliant)

External disk	RAID Controller Unit (RCU): up to 16 x FC or SATA HDDs Disk Expansion Unit (DEU): up to 16 x FC or SATA HDDs	
Disk drive capacity	300 GB FC, 500 GB SATA	
Maximum expansion units	RCU: four DEU: up to 24 (six per RCU)	
Maximum capacity per enclosure	FC: 4.8TB (raw)/3.6TB (usable, RAID 5 with hot spare) SATA: 8.0TB (raw)/6.0TB (usable, RAID 5 with hot spare)	
Maximum system capacity	FC: 134 TB (raw)/101TB (usable, RAID 5 with hot spare) SATA: 224TB (raw)/169TB (usable, RAID 5 with hot spare)	
<b>Dimensions</b>	<b>REU</b>	<b>DEU</b>
Height	5.1 in. (12.95 cm)	5.1 in. (12.95 cm)
Width	17.6 in. (44.7 cm)	17.6 in. (44.7 cm)
Depth	22.5 in. (57.15 cm)	22.5 in. (57.15 cm)
Maximum weight	88 lbs (40 kg)	85 lbs (38.5 kg)
AC power	Voltage range: 90-264 V AC; frequency: 47-63 Hz 5.8 A max. @ 115 V AC; 2.9 A max. @ 230 V AC	
Hazardous substance regulations	Complies with the Restriction of Hazardous Substances (RoHS) directive 2002/95/EC	
Safety and emissions	EC 60950, EN 60950, UL 60950, FCC Part 15 (47CRF15B), CISPR 22 (EN55022-RF Radiated and Conducted Emissions), IEC 61000-3-2, IEC 61000-3-3	
Immunity	CISPR 24 (EN55024), IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11	

Note: Refer to the product Web page for the latest list of supported iSCSI initiators and antivirus engines.



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