AssuredSAN™

3920 and 3930 Data Protection Solutions

BENEFITS

AssuredSAN™

Assured Data Protection
AssuredSnap™ - 1000 snapshots
AssuredCopy™ - 512 volume copies
AssuredRemote™ - remote replication

Scalable Performance
Dual RAID controller
Data rates up to 8Gb/sec. FC , 1Gb iSCSI
up to 7 expansion units per system
support for SAS, SATA, solid state drives
max 144 drives - 3920, 96 - 3930

Built in Redundancy
RAID 0, 1, 3, 5, 6, 10, 50
Redundant, hot swap components
Built-in schedule capability

Green Features
EcoStor™ Economically and environmentally
sound technologies
- SimulCache™ - Low latency cache mirroring
- Battery-free cache backup
        - DC power option
        - Drive-spin-down
RoHS-6 and WEEE compliant

Rugged Chassis
NEBS Level 3 Compliant
MIL STD 810F Compliant (Storage Requirements)
European Telco Compliant

EASY REMOTE REPLICATION
iSCSI and 8Gb Fibre Channel - in One System

The AssuredSAN™ 3920/3930 deliver both 8Gb Fibre Channel and 1Gb iSCSI in one hybrid array which allows maximum flexibility in configuring storage. Combining both 8Gb Fibre Channel and 1Gb iSCSI host interfaces within the same unit, these systems enable businesses to leverage both iSCSI and 8Gb Fibre Channel storage and perform both file and block level storage, easily adapting as needs change with a single unified storage system.

AssuredRemote™ - Easy Remote Replication for SMB's

Equipped with AssuredRemote™ remote replication software, these systems provide the easiest array-to-array remote replication solution on the market today, enabling disaster recovery protection and business continuity with support for up to 1000 snapshots per storage array. By providing centralized, array-level replication, AssuredRemote offloads backup operations from critical application servers, and aids IT managers in complying with regulations such as the HIPAA and Sarbanes-Oxley acts.

With two AssuredSAN arrays and AssuredRemote replication software you can easily implement an affordable disaster recovery or centralized backup solution. Just four easy steps!

Out of the Box Support for 6Gb SAS - Maximum Throughput

The AssuredSAN 3000 Series is the first RAID solution to feature out-of-the-box support for 6Gb SAS drives. Leveraging 6Gb SAS-enabled midplane together with 6Gb SAS drives, AssuredSAN systems can achieve improved system throughput that allows for faster access to business data.

The doubling of system bandwidth makes the AssuredSAN 3000 Series ideal for performance-intensive applications such as server virtualization, server backup and video streaming.

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Environmentally Responsible
Utilizing Dot Hill's patented EcoStor™ technology, these systems have completely eliminated cache batteries, using instead super capacitors and flash memory to provide infinite cache backup during a power loss, while being environmentally friendly.

The AssuredSAN 3000 Series also features energy saving drive-spin-down. With the addition of drive spin-down, mixed drive type support and dual protocol interfaces, users can now combine both high performance primary volumes and secondary storage with different performance and energy usage profiles in the same physical unit.

Enhanced Performance
The storage systems leverage patented SimulCache™ technology that instantly and simultaneously mirrors cache between RAID controllers, leading to significant performance improvements over traditional implementations.

AssuredCopy™ and AssuredSnap™
The AssuredSAN data protection and disaster recovery solution comes fully licensed with both AssuredSnap™ and AssuredCopy™ data protection software. With up to 1000 snapshots capability, AsssuredSANs offer necessary protection for business critical applications such as email, databases, and file sharing.

AssuredSnap instantly takes volume snapshots, creating point-in-time backups that can be used to instantly restore your data after a system failure. In addition, you get AssuredCopy, which protects against disk failures.

Storage Made Easy
AssuredSAN arrays are easy to configure and manage with RAIDar 2.0, our intuitive web based interface which provides storage setup and monitoring without the need for host based software. RAIDar 2.0 saves time with configuration and installation wizards, and schedulers for snapshots and replication.

- Easy to set up — Replication, Configuration, and Installation Wizards
- Automated — 'Set and Forget' scheduler for snapshots
- Instant Backup — AssuredSnap instantly takes point in time copies
- Replication — AssuredRemote quickly transmits changes to your remote site
- Instant Restore — No time consuming tape recoveries. Use our snap shots to step back in time.
- International — Localization for Dutch, French, German, Italian, Spanish, Simplified Chinese, Traditional Chinese, Japanese, and Korean including translated online help.

support
Warranty
AssuredSANs come with a three year standard hardware warranty, a 90 day software warranty, and Bronze level support, which provides you with expert 24X7 technical telephone support, access to our SANsolve and the Customer Resource Center with knowledge base articles, product documentation and firmware upgrades.

Gold and Platinum Support Programs
Dot Hill is equipped to provide the extra level of support you may need to meet your service level agreements. Our Gold and Platinum levels of support are designed to offer maximum responsiveness anywhere in the world. These programs include options for same day advance shipment, parts depot access, next business day and 4-hour onsite service. We also offer extended hardware warranties and extended software support packages.

Professional Services
In addition, Dot Hill offers professional services such as installation, remote monitoring, and remote site DR set up, and configuration, designed to make it simple and straightforward to fully deploy AssuredSAN storage solutions.

shipping information
3920C
Packaged product weight 67.5 lbs with drives
Packaged product dimensions Width 25.5", Height 10", Depth 28.5"

3930C
Packaged product weight 85.5 lbs with drives
Packaged product dimensions Width 25.5", Height 10", Depth 28.5"

3920 and 3930 OEM Model
Available for volume OEM customers. An OEM Customization Kit is available which allows OEM customers to create their own branded storage solutions.

models
3920C, 3930C
The AssuredSAN 3920C and 3930C are Channel models that ship with the storage array, drives, rail kit, cables, Installation Guide, and Bronze support. The Try and Buy menu in the RAIDar management interface allows customers to start using data protection or remote replication software at any time.

With 2.5" Drives - 3920C, 3920 OEM Model
Drives per array	up to 24
Max capacity per chassis	24TB

PHYSICAL
Depth (excluding cables)	21.3 Inches / 54.0 cm
Height	3.5 Inches / 8.9 cm
Width	17.6 Inches / 44.7cm
Chassis weight	44 lbs / 20kg

With 3.5" Drives - 3930C, 3930 OEM Model
Drives per array	up to 12
Max capacity per chassis	36TB

PHYSICAL
Depth (excluding cables)	23.7 Inches / 60.2 cm
Height	3.5 Inches / 8.9 cm
Width	17.6 Inches / 44.7 cm
Chassis weight	44lbs. / 20kg

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GENERAL

Host speed	8Gb Fibre Channel, 1Gb iSCSI
IOPs	264,000
Data protection	AssuredSnap™, AssuredCopy™, AssuredRemote™

EXPANSION

Max number of chassis	up to 8 (1 RAID, 7 JBOD)
Expansion units	Dot Hill 3120, 3130

PROTOCOLS AND STANDARDS

SCSI (IETF)	ICMP (RFC 792, 950, 1256)
IP (RFC, 894, 1092)	SCSI-2 and SCSI-3
TCP (RFC 793)	FC ChannelIP (RFC, 894, 1092)

HOSTS

Fibre Channel

Supported Hosts	4 direct connected hosts, 8Gb, 4Gb, 2Gb Fibre Channel. 64 switched
Interface Type	FCP
External Ports	2 per controller/4 maximum

iSCSI

Initiators	All iSCSI compliant initiators
Interface Type	RJ-45
External Ports	2 per controller/4 maximum

DRIVE SUPPORT

3523	SAS, SSD
3533	SAS, SATA, SSD

* For most current drive support information ,
visit http://www.dothill.com/storage-arrays/drive-options/

RAID

Levels Supported	0, 1, 3, 5, 6, 10 and 50
RAID Type	Hardware
Cache Memory	2GB per controller
Cache Backup	Battery-free protection w/super capacitors
Virtual disks per System	32
Volumes per virtual disk	256
Volumes per System	256
Mirrored Cache	Yes - SimulCache™
Super Capacitor Cache Backup	Yes
Cache Backup to Flash	Yes - Non-volatile

MANAGEMENT

Interface Types	10/100 Ethernet, Mini USB
Protocols Supported	SNMP, SSL, SSH, SMTP, SMI-S Provider, HTTP(S)
Management Consoles	WEB GUI, CLI
Management Software	RAIDar 2.0

POWER REQUIREMENTS - AC INPUT

Input Power Requirements	100-240VAC 50/60Hz
Max Input Power	436W max maximum continuous
Heat Dissipation	1488 BTUs/hour

Bronze Rated - high efficiency
82% @ 20% load, 86% @ 80% load, 85% @ 100% load

TEMPERATURE AND HUMIDITY RANGES

Operating Temperature	41°F to 104°F (5°C to 40°C)
Shipping Temperature	-40°F to 158°F (-40°C to 70°C)
	Note: Derate 2°C for every km, up to 3000 meters
Operating Humidity	10% to 90% RH @ 104°F (40°C), non-condensing
Non-Operating Humidity	Up to 93% RH @ 104°F (40°C) non-condensing

DECLARED ACOUSTIC NOISE LEVELS

Sound Power	LWAd=6,75 B
Sound Pressure	LpAm - 55dBA

SHOCK AND VIBRATION

Shock, Operational	5G's for 10 ms
Shock, Non-Operational	15G 11ms, half sine
Vibration, Operational	5Hz to 500Hz, 0.21Grms flat spectrum
Vibration, Non-Operational	3-365-3Hz, 1.22 Grms, z-axis, 0.85 Grms, X&Y axis shaped spectrum

Note: Dot Hill AssuredSAN disk arrays chassis, power supplies, and controllers support NEBS, ETSI, and MIL-STD-810G shock and vibration standards. Hard disk drive selection may alter ability to achieve full compliance with these specifications as HDD's have varying S&V performance characteristics.

HIGH-AVAILABILITY FEATURES

Redundant Hot-Swap Controllers	Yes
Redundant Hot-Swap Disk, Fans, Power	Yes
Dual Power Cords	Yes
Hot Standby Spare	Yes
Automatic Failover	Yes
Multi-Path Support	Yes
Snapshot with AssuredSnap™	Yes
Volume Copy with AssuredCopy™	Yes
Remote Replication with AssuredRemote™	Yes

REGULATORY

Safety	UL 60950-1, 1st edition, 2007-10-31 (USA)
	CAN/CSA-C22.2 No.60950-1-03, 1st Edition, 2006-7 (Canada)
	EN 60950-1:2006 (European Union)
	EC 60950-1:2001 (International)
	EN 60950-1:2001 +A11:2004 (GS Mark,Germany)
	CCC Mark (power supply only, China PRC)

Electromagnetic Compatibility

Emissions	CFR 47 Part 15 Subpart B Class A (U.S.A.)
	ICES-003:2004 Class A (Canada)
	EN 55022:2006 +A1:2007 Class A (EU)
	EN 300 386 V1.4.1:2008 Class A (EU Telco)
	AS/NZS CISPR 22:2009 Class A (Australia, New Zealand)
	VCCI:2009-04 Class A (Japan)
	GOST R 51318.22-99 Class A (Russia)
	KN 22 Class A (S. Korea)
	CNS 13438:2006 Class A (Taiwan)
Harmonics	EN61000-3-2:2006 (EU)
Flicker	EN 61000-3-3:1995 +A1:2001+A2:2005 (EU)
Immunity	EN 55024:1998 +A1:2001+A2:2003 (EU)
	EN 300 386 V1.4.1:2008 (EUTelco)
	GOST R 51318.24-99 (Russia)
	KN 24 (S. Korea)
RoHS and WEEE	RoHS-6/6 Compliance, China RoHS, WEEE
Country Approvals	United States, Canada, European Union (EU), Australia/New Zealand, Japan, China (PRC) , Russia, Mexico, South Africa, Germany, South Korea, Taiwan

SUPPORT

Software Warranty	90 days
Standard Hardware Warranty	3 years
Environmental Monitoring	SNMP, CLI, RAIDar 2.0, SMTP, SMI-S Provider
SMTP	Yes
Remote Diagnostics	Yes
Non-disruptive Updates	Yes