



AssuredSAN™

3420 and 3430 Data Protection Solutions

BENEFITS



Assured Data Protection

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

Scalable Performance

Dual RAID controller
Data rates up to 10Gb/sec. iSCSI
up to 7 expansion units per system
support for SAS, SATA, solid state drives
max 144 drives - 3420, 96 - 3430

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

INTEGRATED DATA PROTECTION

Dot Hill's AssuredSAN™ Solutions offer an innovative and comprehensive view of storage management — Store, Back up and Restore instantly. The AssuredSAN™ Solutions combine high performance and high capacity storage with the ease of the RAIDar™ management GUI which provides a complete set of features and tools to ensure that storage administration is the easiest job in the datacenter.

Today's solutions should not only store data, but ensure that it can be restored in an instant. That is where the AssuredSAN™ 3420 and 3430 come in – their 10Gb iSCSI hosts can double throughput, providing power to support your most demanding applications, along with optimal levels of data protection.

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!

These next generation iSCSI storage arrays are ideal for small to medium sized organizations that are experiencing growing bandwidth demands, driven by network convergence and I/O port consolidation trends. The AssuredSAN™ 3420 and 3430 SAN storage systems are designed to scale with your networking environment, providing greater data access speed for distributed computing, virtual server, and other demanding applications.

Future Growth

As you plan future storage networking products, these 10Gb iSCSI arrays give you solid options for both today and tomorrow. With AssuredSAN



arrays you immediately gain greater processing power, reduced energy consumption, and data protection features through an intuitive GUI interface.

Key Applications

- Virtualized Storage for virtual server environments
- Business Critical application – email, databases, OLTP
- IP-based video surveillance systems/CCTV/Video ISR
- Video streaming, editing, video-on-demand, high definition imaging
- High performance computing - such as geospatial

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.

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 Configuration, 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 snapshots to step back in time.
- International Localization for Dutch, French, German, Italian, Spanish, Simplified Chinese, Traditional Chinese, Japanese, and Korean including translated online help.

models

Without Software - 3420C, 3430C

The AssuredSAN 3420C and 3430C are hardware only 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-inch drives - 3420C, 3420 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

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

3420C

Packaged product weight 67.5 lbs with drives

Packaged product dimensions Width 25.5", Height 10", Depth 28.5"

3430C

Packaged product weight 85.5 lbs with drives

Packaged product dimensions Width 25.5", Height 10", Depth 28.5"

3420 and 3430 OEM Models

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

With 3.5-inch drives - 3430C, 3430 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



GENERAL

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|-----------------|--|
| Host speed | 10Gb iSCSI |
| IOPS | 264,000 |
| Data protection | AssuredSnap™, AssuredCopy™, AssuredRemote™ |

EXPANSION

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

PROTOCOLS AND STANDARDS

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

HOSTS

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|----------------|---|
| Initiators | 10Gb NIC or 10Gb iSCSI |
| Interface Type | SFP+ |
| External Ports | 2/4 10Gb iSCSI (Single/Dual Controller) |

DRIVE SUPPORT

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|------|----------------|
| 3420 | SAS, SSD |
| 3430 | SAS, SATA, SSD |

RAID

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|------------------------------|--|
| 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

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|---------------------|---|
| 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

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

Bronze Rated - high efficiency

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|-----------------|
| 82% @ 20% load |
| 86% @ 80% load |
| 85% @ 100% load |

TEMPERATURE AND HUMIDITY RANGES

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| 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

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| Sound Power | LWAd=6,75 B |
| Sound Pressure | LpAm - 55dB _A |

SHOCK AND VIBRATION

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| 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

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| 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

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|--------|--|
| 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) |
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Electromagnetic Compatibility

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| <i>Emissions</i> | 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) |
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|------------------|---|
| <i>Harmonics</i> | EN61000-3-2:2006 (EU) |
| <i>Flicker</i> | EN 61000-3-3:1995 +A1:2001+A2:2005 (EU) |
| <i>Immunity</i> | EN 55024:1998 +A1:2001+A2:2003 (EU) EN 300 386 V1.4.1:2008 (EU Telco) GOST R 51318.24-99 (Russia) KN 24 (S. Korea) |

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|---------------|---------------------------------------|
| RoHS and WEEE | RoHS-6/6 Compliance, China RoHS, WEEE |
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| Country Approvals | United States, Canada, European Union (EU), Australia/New Zealand, Japan, China (PRC), Russia, Mexico, South Africa, Germany, South Korea, Taiwan |
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SUPPORT

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|----------------------------|---|
| 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 |

