Features

- Handles Over 80,000 I/Os Per Second
- Battery Protected Cache Memory: 256MB Standard (Upgradeable to 1GB)
- System Memory: 256MB Standard (Upgradeable to 512MB)
- 5 Hot-Swap SATA Hard Drive Bays
- 5TB Capacity with 1TB Hard Drives (Supports higher capacity drives as they are introduced)
- SATA-II Support
- 200 Watt Power Supply
- Compact Cube Chassis Fits Anywhere

RAID Support

- 0, 1, 1+0, and 5

High Performance iSCSI Interface

- Four 1GbE Ports

Storage Network Management

- IP SAN Device Manager (IDM)
- Remote Monitoring and Configuration
- CHAP Authentication Helps Halt Intruders
- SSL Security to Management Console

D-Link 4x1GbE iSCSI SAN Array with 5 SATA Bays

The D-Link® DSN-1100-10 4x1GbE iSCSI SAN Array provides a smaller, more value-oriented solution for entry-level and SMB customers. The heart of the DSN-1100 is based on the same powerful System-on-a-Chip (SoC) design found in larger arrays such as the DSN-3000 Series of products, but housed in a smaller chassis. Utilizing a 10Gbit iSCSI SoC solution that can handle over 80,000 I/Os per second, the DSN-1100 is capable of supporting 5TBs of raw capacity using 1TB hard drives (and even higher capacity hard drives as they are introduced). The DSN-1100 can easily be implemented as nearline storage or as a supplement to your primary backup and recovery device. This evolutionary advancement in performance is a testament to the tightly integrated storage architecture and is a sharp contrast to the discrete implementation of competing products.

iSCSI for IP Networks

SAN has been traditionally reserved for Fibre Channel networks until the recent introduction of iSCSI extended this powerful yet simple centralized backend storage system to IP networks. By utilizing existing Ethernet technology, the cost associated with separate host bus adapters and the per-Gigabyte cost for storage is significantly reduced. iSCSI SANs can leverage the Ethernet infrastructure and standards that are already familiar to your IT staff.

Four 1GbE Interfaces

The DSN-1100 implements four 1GbE ports that support IEEE 802.3ad Link Aggregation Groups (LAG) for full offload capability. This allows all four ports to be grouped together for up to 425MB/s bandwidth, increasing throughput and redundancy.

System-on-a-Chip (SoC) Implementation

By utilizing a SoC design, the DSN-1100 combines both networking and storage functions into a single specialized Application Specific Integrated Circuit (ASIC). The SoC solution combines 10Gbps iSCSI, TCP & IP offload, embedded processors, and storage virtualization firmware onto a single chip. The tight integration of these functions eliminates interoperability, timing, and support issues found in competitive products that offer "discrete implementation" wherein all the various components are chosen separately and then assembled. The DSN-1100 outperforms these discrete implementations and does so at a lower price point, while delivering mission-critical data quickly with state-of-the-art reliability.

RAID for Efficiency

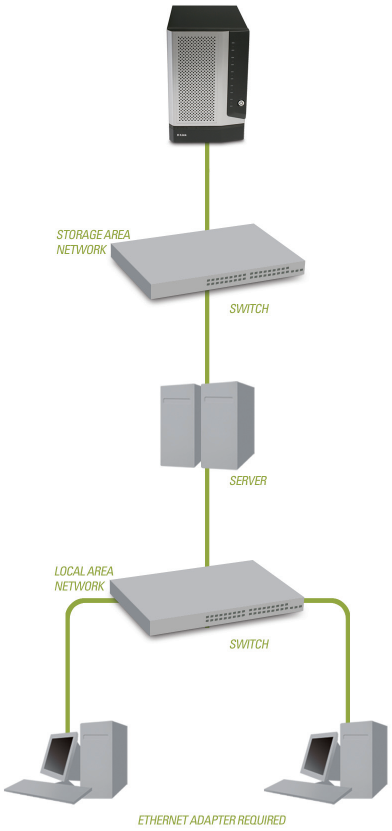
The DSN-1100 features five hot swappable Serial ATA (SATA) disk drive bays supporting 5TB raw capacity using 1TB hard drives (and even higher capacity hard drives as they are introduced) in RAID level 0, 1, 1+0 and 5 configurations. You can quickly deploy a SAN using inexpensive SATA disk drives and, depending on your growing storage needs, you can simply add more drives as you go.

Embedded Centralized Storage Management

The embedded, user-friendly IP-SAN Device Manager (IDM) provides comprehensive network storage management.

Advanced Management Features

The DSN-1100 provides additional advanced features for efficient management of network storage and optimal performance.



D-Link 4x1GbE iSCSI SAN Array with 5 SATA Bays

For the fastest RAID performance offered in the industry, the D-Link adaptive cache management provides write coalescing and multi-stream read-ahead on a volume basis, optimizing cache utilization and performance in an application-dependent manner. Volatile cache data protection is afforded via an on-board battery that is designed to back up to 1GB of cached memory for at least 72 hours.

VLAN Zoning supports IEEE 802.1q VLAN tagging to segregate traffic into isolated zones for secure access and jumbo frames, improving network throughput and reducing CPU overhead.

Volume Virtualization utilizes the concept of storage Extents. Extents are the fundamental building blocks used to enable features such as RAID, online capacity expansion and volume migration. Drives of dissimilar size can be used to create volumes. Growth can occur without volume migration or reconstruction. Single drives can contain multiple and divergent RAID technologies.

RAID Support for RAID Levels 0, 1, 1+0 and 5 (striped sets, mirrored sets, striped mirrored sets, and parity sets) allows for different storage options.

Online Capacity Expansion and RAID Level Migration are performed online with minimal impact on users. For example, a mirror volume of two drives can easily be converted to a parity volume of three or more drives while users continue to access this storage.

Micro Rebuilds provide protection against unresponsive SATA commands by forcing a response within a preset time limit.

An iSCSI array can prove to be a valuable tool to supplement your network storage foundation. Whether providing a low-cost block-based solution for data backup and recovery, replacement of Direct-Attached Storage (DAS) drives, or providing a cost-effective entry-level nearline storage solution, the DSN-1100 can meet all of your immediate needs.

Technical Specifications

Features

Drive Bays	5
Drive Interface Support	SATA-II Support
System Memory	256MB to 512MB (256MB standard)
Cache Memory	256MB to 1GB (256MB standard)
Battery Backup for Cache	Standard (approximately 72 hours on full charge)
Bandwidth	Up to 425MB/s
Storage Capacity	5TB capacity with 1TB hard drives (support for higher capacity drives as they are introduced)
Supported NICs, iSCSI Accelerators and iSCSI HBAs Please see support.dlink.com for latest support information	Intel® Pro 1000MT & XT [1GbE]
	Alacritech® SES2104ET (drivers: SNP 9.1.0.1092 & 7.3.1.0)
	Alacritech SES2102ET (drivers: SNP 9.1.0.1092 & 7.3.1.0)
	QLogic® 4010C, 4052C, & 4062C

D-Link 4x1GbE iSCSI SAN Array with 5 SATA Bays

Operating Systems Supported Please see support.dlink.com for latest support information	Windows Vista® 32-bit & x64 (Ultimate & Enterprise) with Built-in iSCSI initiator
	Windows Server® 2003 32-bit & x64 SP1 (Standard & Enterprise) with v2.07 iSCSI initiator
	Windows Server 2003 R2 32-bit & x64 (Standard & Enterprise) with v2.07 iSCSI initiator
	Windows® XP Pro 32-bit & x64 with v2.07 iSCSI initiator
	Windows 2000 Advanced Server with v1.6 & v2.01 iSCSI initiator
	Red Hat® 7.3
	Red Hat Enterprise AS update 5
	SuSE Enterprise Server 10.2 32-bit (x86)
	SuSE® Professional 9.3 32-bit & x64
	Mac OS® X (10.4 & 10.5)

iSCSI Network Interface

iSCSI Network Interface	Four 1GbE Copper Ports
Host Interface	iSCSI Draft 20 compliant initiator
Connections	1,024 hosts
CHAP Authentication	Yes
Access Control of Management	Yes
iSCSI/TCP/IP Full HW Offload	Yes
Jumbo Frames Support	Yes
Link Aggregation Group Support	Yes – Up to four LAGs (IEEE802.3ad Link Aggregation Group)
VLAN Support	Up to four 1-to-1 mapping between IP subnet and VLAN. Multiple VLANs per physical port with VLAN tag. All physical ports in LAG belong to same VLAN (IEEE802.1Q Tag)

Volume & RAID Support

RAID Controller	Single- Integrated in ASIC
RAID Support	RAID Levels 0, 1, 1+0 and 5
Volumes	1,024 Virtual Volumes (256 accessible per initiator)
Target Nodes	1,024
Online Capacity Expansion	Yes
Hot Swappable Drives	Yes
Instant Volume Access	Yes
Free Space Defragmentation	Yes
Auto-Detection Failed Drive	Yes
Auto-Rebuild Spare Drive	Yes
RAID Level Migration	Yes
Drive Roaming in Power Off (configured drives are not bay-specific)	Yes
Micro Rebuilds	Yes

D-Link 4x1GbE iSCSI SAN Array with 5 SATA Bays

Storage Management	
Embedded IP-based Management GUI	Create, manage, expand and monitor storage pool, volumes, and RAID
	Event manager to view and persist events
Firmware Field Upgradeable	Yes
Power	
Supply Type	1U 200 Watt
Input Voltage	100-240 VAC
Input Frequency	50-60Hz
Input Current	4A
Power Factor Correction	95%@110V, Full load
Power Consumption	112 Watts (full configuration)
Thermal	815 BTU/hour (full configuration)
Environmental	
Operating Temperature	32° to 104°F (0° to 40°C)
Storage Temperature	-4° to 158°F (-20° to 70°C)
Operating Humidity	20% ~ 90% (Non-condensing)
Storage Humidity	10% ~ 95% (Non-condensing)
Physical (approximate)	
Form Factor	Tower
Dimesnsions (D x W x H)	10.7in x 6.6in x 10.2in (273mm x 167mm x 259mm)
Weight with No Drives Installed	8.8 lbs (4.0 kg)
International Approvals	
Emissions	CE Class A, FCC Class A, C-Tick Class A, VCCI Class A
Safety	CSA 60950-1, UL60950-1, IEC 60950-1, EN 60950-1

All references to speed are for comparison purposes only. Product specifications, size and shape are subject to change without notice, and actual product appearance may differ from that depicted. See inside package for warranty details.

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