

xSTACK

Key Features

- Up to 220K IOPS
- 1300 MB/sec
- Fully redundant and hot-pluggable design:
 - dual RAID controllers¹
 - power supplies
 - fan modules
 - battery backup modules¹
 - MAC ports
 - SAS JBOD expansion ports¹
- Two 10 GbE SFP+ ports per controller
- Hardware iSCSI offloaded engine
- Green storage designs: auto disk spin-down, advanced cooling mechanism, and 80 PLUS energy-efficient power supplies
- Advanced data protection: RAID 6, RAID 60, writable snapshot, and storage base replication
- Flexible volume management for multiple applications and environments: cloud storage, SQL, Exchange, surveillance, file backup, e-mail, boot from SAN, virtualization (VMWare, Hyper-V, Citrix)
- High connection availability: load balancing and failover
- Can manage up to 60 hard drives with the use of JBOD units connected on SAS expansion ports
- Capacity extendable up to 60 drive bays

¹ DSN-6420 only

2U-12 Bay 10 GbE IP SAN Storage



D-Link's xStack storage systems are designed for small and medium businesses seeking a cost-effective solution. They present a high-availability iSCSI SAN platform that supports services for applications that require high throughput, scalability, and flexible storage planning. Both the DSN-6410 and -6420 storage systems can manage up to 60 hard drives in total - 12 in a RAID storage enclosure and up to 48 connected on JBOD units on the SAS expansion port.

High Availability

The DSN-6410/6420 storage systems are specially designed for high-availability applications. Both DSN-6410/6420 are equipped with redundant components for major functions, such as dual MAC ports, dual power supplies, and dual fan modules. The DSN-6420 is also equipped with dual redundant RAID controllers, dual battery modules, and dual SAS JBOD expansion ports. The DSN-6410 can be upgraded to the same capabilities as the DSN-6420 by adding the DSN-640 RAID controller module to it. With its hot-pluggable modules, the DSN-6410/6420 are capable of providing uninterrupted services. The firmware includes support for RAID 6, RAID 60, read-only or writable snapshots, Windows VSS, and volume configuration restoration. These advanced features help to reduce or eliminate any system downtime. Also, distinct from other systems in their class, you can upgrade the firmware of the DSN-6410/6420 without going offline. The DSN-6420 ensures that firmware images and volume handling are protected by redundant RAID controllers. When one RAID controller is down or disconnected, the other RAID controller takes over its tasks immediately. The volumes and their related services are transferred seamlessly and simultaneously.

Outstanding Performance

The DSN-6410/6420 systems have a maximum of 220,000 Input/Output Operations Per Second (IOPS) - higher than any other storage systems in their class. The total throughput is a maximum of 1300 MB/sec.

Optimum Versatility

The optimized IOPS and throughput enable the DSN-6410/6420 systems to provide runtime-critical online services, such as cloud storage, SQL, Exchange, and high-end surveillance storage. Furthermore, with the iSCSI interface, DSN-6410/6420 storage systems are ideal for virtualization environments such as VMWare, Hyper-V, and Citrix. Users can install up to 32 OSES in the iSCSI system through the Boot-from-SAN feature. Using this feature, the multiple OSES/servers can be managed easily and protected by D-Link's advanced data protection features. A single point of failure will not be able to cause any system downtime.

Green Energy Savings

DSN-6410/6420 storage systems are equipped with D-Link Green power-saving features. A hard drive can be the most power-hungry component in a SAN. When properly configured, the auto disk spin down feature can reduce the power consumption of hard drives to a minimum. DSN-6410/6420 storage systems monitor environmental temperatures to optimize the cooling mechanism. The fan modules respond only when needed. The power supply modules are all 80 PLUS power efficient, providing a more favorable power conversion rate. When combined, these power-saving features help to greatly reduce energy consumption.



2U-12 Bay 10 GbE IP SAN Storage

Technical Specifications

RAID Controller

- DSN-6410: Single controller
- DSN-6420: Dual redundant controllers

No. of Host Channels Per Controller

- 2 x 10 GbE

Expansion Enclosure

- DSN-6020 series

Cache Memory Per Controller

- 4 GB

No. of Hard Drives (SAS and SATA II)

- 12

Max. No. of Hard Drives (SAS and SATA II) That Can Be Managed

- 60

Power Supply

- 2 x 500 W

Fans

- 2

Green

- Auto disk spin-down
- Advanced cooling mechanism
- 80 PLUS energy-efficient power supplies

iSCSI

- Hardware iSCSI off-load engine
- iSCSI jumbo frame
- Header/Data digest
- CHAP authentication
- Supports up to 32 multiple nodes
- Up to 128 sessions per controller

RAID and Volume

- RAID level 0, 1, 0+1, 3, 5, 6, 10, 30, 50, 60, JBOD, N-way mirror
- Up to 1024 logical volumes

¹ DSN-6420 only

- Up to 32 hard drives per volume group
- One logical volume can be shared by as many as 16 hosts
- Global and dedicated hot spare
- Write-through or write-back cache policy
- Online volume expansion
- Instant RAID volume availability
- Auto volume rebuilding
- Online volume migration without system downtime

High Availability

- Dual active RAID controllers¹
- Cache mirroring through high bandwidth channels
- Flexible RAID group ownership management
- Management port seamless take-over
- Online firmware upgrade, no system downtime
- Multi-path and load-balancing support (Microsoft MPIO, MC/S, Trunking, LACP)
- Storage-based Replication

Advanced Data Protection

- Writable snapshot
- Microsoft Windows Volume Shadow Copy Services (VSS)
- Configurable N-way mirror
- Online disk roaming
- Instant volume configuration restoration
- Hot-pluggable battery backup module (BBM)

Management

- Serial console
- SSH telnet
- HTTP Web UI
- Secured Web (HTTPS)
- iSNS
- S.E.S.

Data Security

- VLAN 802.1q, 802.1p support

Notification

- E-mail
- SNMP trap
- Browser pop-up windows
- Syslog
- Windows Messenger

OS Support

- Windows, Linux
- Solaris
- Mac

Virtualization

- VMWare
- Hyper-V
- Citrix

AC Input

- 100-240 V ~ 7 A - 4 A 500 W with PFC (Auto Switching)

DC Output

- 3.3 V - 25 A
- 5 V - 32 A
- 12 V - 40 A

Dimensions

- 2U 19-inch (48.3 cm) rack mount
- 442.8 x 500.6 x 88.0 mm (17.4 x 19.7 x 3.5 inches)

Operating Temperature

- 0 to 40 °C

Relative Humidity

- 5 % to 95 % non-condensing

Certifications

- BSMI
- UL
- C-Tick
- CE
- FCC



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